



Since 1991

## **SENGUNTHAR ARTS AND SCIENCE COLLEGE**

(Affiliated to Periyar University, Salem and Approved by AICTE, New Delhi)

An ISO 9001:2015 Certified Institution

Recognised under section 2(f) and 12(B) of the UGC Act 1956

Accredited by NAAC

**TIRUCHENGODE – 637 205**



## **CRITERION 1 – CURRICULAR ASPECTS**

### **1.1 Curricular Planning and Implementation**



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**TIRUCHENGODE – 637 205, NAMAKKAL DT., TAMILNADU**



## **CRITERION-1 CURRICULAR ASPECTS**

### **1.1 Curricular Planning and Implementation**

<b>S.NO</b>	<b>TABLE OF CONTENTS</b>	<b>PAGE.NO</b>
<b>1</b>	<b>University Academic Schedule</b>	<b>01</b>
<b>2</b>	<b>College Academic Calendar</b>	<b>03</b>
<b>3</b>	<b>Faculty Subject Allocation</b>	<b>16</b>
<b>4</b>	<b>Faculty Subject Preference</b>	<b>39</b>
<b>5</b>	<b>Master Time Table</b>	<b>45</b>
<b>6</b>	<b>Class Time Table</b>	<b>57</b>
<b>7</b>	<b>Staff Individual Time Table</b>	<b>62</b>
<b>8</b>	<b>Elective Course Selection by Students</b>	<b>66</b>
<b>9</b>	<b>Question Bank</b>	<b>93</b>
<b>10</b>	<b>University Question Paper</b>	<b>114</b>
<b>11</b>	<b>Internal Exam Time Table</b>	<b>130</b>
<b>12</b>	<b>Internal Assessment Question Paper and Answer Sheets</b>	<b>145</b>
<b>13</b>	<b>University Practical and Theory Exam Timetable</b>	<b>151</b>
<b>14</b>	<b>Department Meeting Minutes</b>	<b>173</b>
<b>15</b>	<b>Class Committee Meeting</b>	<b>182</b>
<b>16</b>	<b>Faculty FDP, Seminar, Workshop &amp; Conference</b>	<b>196</b>
<b>17</b>	<b>Internship</b>	<b>208</b>
<b>18</b>	<b>Final Year Projects</b>	<b>244</b>
<b>19</b>	<b>Students Feedback</b>	<b>328</b>





பெரியார் பல்கலைக்கழகம்  
**PERIYAR UNIVERSITY**

SALEM - 636011, TAMIL NADU, INDIA  
NAAC A++ Grade - State University - NIRF Rank 73 - ARIIA Rank 10



முனைவர் S.கதிரவன்

நாள்: 03-09-2022

தேர்வாளையர் (முக.பொ.)

எண்.பெ.ப./தே.அ/CRE-V/2022-2023 கல்வியாண்டு/உத்தேசிக்கப்பட்ட கால அட்டவணை/208/2022  
பெறுதல்

முதல்வர் அவர்கள்

பெரியார் பல்கலைக்கழக இணைவு பெற்ற கலை மற்றும் அறிவியல் கல்லூரிகள்.

ஐயா/அம்மையர்

பொருள்: தேர்வாளையர் அலுவலகம் - இளநிலை மற்றும் முதுநிலை பாடப்பிரிவுகளில் பயிலும் மாணாக்கர்கள் - 2022-2023 ஆம் கல்வியாண்டிற்கான உத்தேசிக்கப்பட்ட கால அட்டவணை அனுப்புதல் - தொடர்பாக.

பார்வை: இவ்வலுவலக குறிப்பாணை நாள்: 01-09-2022.

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பார்வையில் கண்ட குறிப்பாணையின்படி, பெரியார் பல்கலைக்கழக இணைவு பெற்ற கலை மற்றும் அறிவியல் கல்லூரிகளில் இளநிலை மற்றும் முதுநிலை பாடப்பிரிவுகளில் பயிலும் மாணாக்கர்களின் 2022-2023 ஆம் கல்வியாண்டின் டிசம்பர் 2022 மற்றும் மே 2023 பருவத்தேர்வுகள் தொடர்பாக கீழ்க்கண்டவாறு உத்தேசிக்கப்பட்ட கால அட்டவணை தங்கள் கல்லூரியின் மின்னஞ்சல் (E-mail) முகவரிக்கு அனுப்பப்பட்டுள்ளது. எனவே, இதனை உரிய துறை மற்றும் மாணாக்கர்களுக்குத் தெரியப்படுத்துமாறு கேட்டுக்கொள்ளப்படுகிறது.

**டிசம்பர் 2022 பருவத்தேர்வுகள்**

S.No.	Date	Particulars
1.	13-10-2022	Examination Online Application Entry
2.	20-10-2022	Last Date for submission of Online Applications
3.	02-11-2022	Commencement of Practical Examinations
4.	28-11-2022	Last date for Practical Examinations
5.	02-12-2022	Commencement of Theory Examinations
6.	29-12-2022	Last date for Theory Examinations

**மே 2023 பருவத்தேர்வுகள்**

S.No.	Date	Particulars
1.	13-03-2023	Examination Online Application Entry
2.	20-03-2023	Last Date for submission of Online Applications
3.	27-03-2023	Commencement of Practical Examinations
4.	27-04-2023	Last date for Practical Examinations
5.	03-05-2023	Commencement of Theory Examinations
6.	29-05-2023	Last date for Theory Examinations

AD Anitha & ASA

தேர்வாளையர்

Phone: 6385770444 Email - examcoe@gmail.com  
Website: [www.periyaruniversity.ac.in](http://www.periyaruniversity.ac.in)

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NAAC A++ Grade - State University - NIRF Rank 63 - ARIIA Rank 10



முனைவர் S.கதிரவன்  
தேர்வாணையர் (முக.பொ.)

நாள்: 13-01-2023

எண்.பெ.ப./தே.அ/CRE-V/2022-2023 கல்வியாண்டு/உத்தேசிக்கப்பட்ட கால அட்டவணை/217/2023  
பெறுதல்

முதல்வர் அவர்கள்

பெரியார் பல்கலைக்கழக இணைவு பெற்ற கலை மற்றும் அறிவியல் கல்லூரிகள்.

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பார்வை: இவ்வலுவலக குறிப்பாணை நாள்: 13-01-2023.

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பார்வையில் கண்ட குறிப்பாணையின்படி, பெரியார் பல்கலைக்கழக இணைவு பெற்ற கலை மற்றும் அறிவியல் கல்லூரிகளில் இளநிலை மற்றும் முதுநிலை பாடப்பிரிவுகளில் பயிலும் மாணாக்கர்களின் 2022-2023 ஆம் கல்வியாண்டின் மே/ஜூன் 2023 பருவத்தேர்வுகள் தொடர்பாக கீழ்க்கண்டவாறு உத்தேசிக்கப்பட்ட கால அட்டவணை தங்கள் கல்லூரியின் மின்னஞ்சல் (E-mail) முகவரிக்கு அனுப்பப்பட்டுள்ளது. எனவே, இதனை உரிய துறை மற்றும் மாணாக்கர்களுக்குத் தெரியப்படுத்துமாறு கேட்டுக்கொள்ளப்படுகிறது.

மே/ஜூன் 2023 பருவத்தேர்வுகள்

S.No.	Date	Particulars
1.	29-03-2023	Examination Online Application Entry
2.	05-04-2023	Last Date for submission of Online Exam Applications
3.	17-04-2023	Commencement of Practical Examinations
4.	13-05-2023	Last date for Practical Examinations
5.	17-05-2023	Commencement of Theory Examinations
6.	09-06-2023	Last date for Theory Examinations

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*(Signature)*  
தேர்வாணையர்

*(Signature)*  
13/1/23

*(Signature)*  
13/1/2023



# CALENDER FOR THE ACADEMIC YEAR 2022-2023

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CALENDAR 2022-2023

Day & Date	June	Time Table Code	No. Of Working Days
WED - 1			
THU - 2			
FRI -3			
SAT -4	<b>HOLIDAY</b>		
SUN - 5	<b>HOLIDAY</b>		
MON -6			
TUE - 7			
WED -8	College Reopen ( Odd Sem )	I	1
THU -9		II	2
FRI - 10		III	3
SAT -11	<b>HOLIDAY</b>		
SUN - 12	<b>HOLIDAY</b>		
MON - 13		IV	4
TUE - 14	பெள்ள்ணமி கவியரங்கம்	V	5
WED - 15		VI	6

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CALENDAR 2022-2023

Day & Date	June	Time Table Code	No. Of Working Days
THU - 16		I	7
FRI -17		II	8
SAT - 18	<b>HOLIDAY</b>		
SUN - 19	<b>HOLIDAY</b>		
MON - 20		III	9
TUE - 21	International Yoga Day	IV	10
WED - 22		V	11
THU -23		VI	12
FRI - 24		I	13
SAT - 25	<b>HOLIDAY</b>		
SUN - 26	<b>HOLIDAY</b>		
MON - 27		II	14
TUE - 28		III	15
WED - 29		IV	16
THU -30		V	17


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CALENDAR 2022- 2023

Day & Date	JULY	Time Table Code	No. Of Working Days
FRI -1		VI	18
SAT -2	<b>HOLIDAY</b>		
SUN - 3	<b>HOLIDAY</b>		
MON - 4		I	19
TUE - 5		II	20
WED - 6		III	21
THU -7		IV	22
FRI - 8		V	23
SAT -9	<b>HOLIDAY</b>		
SUN - 10	Holiday - BAKRID		
MON - 11	World Population Day 1 <sup>st</sup> Monthly Test	VI	24
TUE - 12	1 <sup>st</sup> Monthly Test	I	25
WED - 13	1 <sup>st</sup> Monthly Test	II	26
THU - 14	1 <sup>st</sup> Monthly Test	III	27
FRI - 15	1 <sup>st</sup> Monthly Test	IV	28

CALENDAR 2022-2023

Day & Date	JULY	Time Table Code	No. Of Working Days
SAT - 16	<b>HOLIDAY</b>		
SUN - 17	<b>HOLIDAY</b>		
MON - 18		V	29
TUE - 19		VI	30
WED - 20		I	31
THU -21		II	32
FRI - 22		III	33
SAT - 23	<b>HOLIDAY</b>		
SUN - 24	<b>HOLIDAY</b>		
MON - 25		IV	34
TUE - 26		V	35
WED - 27		VI	36
THU -28		I	37
FRI - 29		II	38
SAT - 30	<b>HOLIDAY</b>		
Sun - 31	<b>HOLIDAY</b>		

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CALENDAR 2022- 2023

Day & Date	AUGUST	Time Table Code	No. Of Working Days
MON – 1		III	39
TUE – 2		IV	40
WED -3		V	41
THU – 4		VI	42
FRI -5		I	43
SAT -6	HOLIDAY		
SUN - 7	HOLIDAY		
MON - 8		II	44
TUE – 9	Holiday - MOHARAM		
WED –10		III	45
THU -11		IV	46
FRI – 12	பெளர்ணமி கவியரங்கம்	V	47
SAT -13	HOLIDAY		
SUN – 14	HOLIDAY		
Mon- 15	Holiday Independence Day		

CALENDAR 2022- 2023

Day & Date	AUGUST	Time Table Code	No. Of Working Days
TUE – 16		VI	48
WED –17		I	49
THU – 18		II	50
FRI -19	HOLIDAY – Krishna Jayanthi		
SAT – 20	HOLIDAY		
SUN - 21	HOLIDAY		
MON - 22	II Monthly Test	III	51
TUE – 23	II Monthly Test	IV	52
WED – 24	II Monthly Test	V	53
THU -25	II Monthly Test	VI	54
FRI – 26	II Monthly Test	I	55
SAT – 27	HOLIDAY		
SUN - 28	HOLIDAY		
Mon- 29	National Sports Day	II	56
TUE - 30		III	57
WED - 31	Holiday – Vinayakar Chaturthi		


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CALENDAR 2022- 2023

Day & Date	SEPTEMBER	Time Table Code	No. Of Working Days
THU - 1		IV	58
FRI -2		V	59
SAT -3		VI	60
SUN - 4	<b>HOLIDAY</b>		
MON -5	<b>HOLIDAY - Teacher's Day</b>		
TUE - 6		I	61
WED -7		II	62
THU -8		III	63
FRI - 9	பெர்ணமி கவியரங்கம்	IV	64
SAT -10		V	65
SUN - 11	<b>HOLIDAY</b>		
MON - 12	<b>HOLIDAY</b>		
TUE - 13		VI	66
WED - 14		I	67
THU - 15		II	68

CALENDAR 2022- 2023

Day & Date	SEPTEMBER	Time Table Code	No. Of Working Days
FRI -16		III	69
SAT - 17	<b>HOLIDAY</b>		
SUN - 18	<b>HOLIDAY</b>		
MON - 19		IV	70
TUE - 20		V	71
WED - 21		VI	72
THU -22		I	73
FRI - 23		II	74
SAT - 24	<b>HOLIDAY</b>		
SUN - 25	<b>HOLIDAY</b>		
MON - 26	III Monthly Test	III	75
TUE - 27	III Monthly Test	IV	76
WED - 28	III Monthly Test	V	77
THU -29	III Monthly Test	VI	78
FRI - 30	III Monthly Test	I	79


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CALENDAR 2022- 2023

Day & Date	OCTOBER	Time Table Code	No. Of Working Days
SAT -1	<b>HOLIDAY</b>		
SUN - 2	Holiday – Gandhi Jayanthi		
MON - 3		II	80
TUE - 4	Holiday - SARASWATHI POOJA		
WED - 5	Holiday- VIJAYADHASAMI		
THU - 6		III	81
FRI -7		IV	82
SAT -8	<b>HOLIDAY</b>		
SUN - 9	Holiday - Milad-Un-Nabi		
MON - 10		V	83
TUE – 11		VI	84
WED – 12		I	85
THU -13		II	86
FRI – 14		III	87
SAT -15	<b>HOLIDAY</b>		

CALENDAR 2022- 2023

Day & Date	OCTOBER	Time Table Code	No. Of Working Days
SUN – 16	<b>HOLIDAY</b>		
MON – 17	Model Examination	IV	88
TUE – 18	Model Examination	V	89
WED – 19	Model Examination	VI	90
THU – 20	Model Examination	I	91
FRI -21	Model Examination	II	92
SAT – 22	<b>HOLIDAY</b>		
SUN - 23	<b>HOLIDAY</b>		
MON - 24	Holiday - Deepawali		
TUE – 25		III	93
WED – 26		IV	94
THU -27		V	95
FRI – 28		VI	96
SAT – 29	<b>HOLIDAY</b>		
SUN - 30	<b>HOLIDAY</b>		
MON - 31		I	97


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# CALENDAR 2022- 2023

Day & Date	NOVEMBER	Time Table Code	No. Of Working Days
TUE - 1		II	98
WED - 2		III	99
THU -3		IV	100
FRI -4			
SAT -5	HOLIDAY		
SUN - 6	HOLIDAY		
MON - 7			
TUE - 8			
WED - 9	Commencement of University Theory Examination		
THU -10			
FRI - 11			
SAT -12	HOLIDAY		
SUN -13	HOLIDAY		
MON - 14	Children's Day		
TUE - 15			


Day & Date	NOVEMBER	Time Table Code	No. Of Working Days
WED - 16			
THU - 17			
FRI - 18			
SAT - 19	HOLIDAY		
SUN - 20	HOLIDAY		
MON - 21			
TUE - 22			
WED - 23			
THU - 24			
FRI - 25			
SAT - 26	HOLIDAY		
SUN - 27	HOLIDAY		
MON - 28			
TUE - 29			
WED - 30			

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CALENDAR 2022- 2023


Day & Date	DECEMBER	Time Table Code	No. Of Working Days
THU - 1			
FRI -2			
SAT -3	HOLIDAY		
SUN - 4	HOLIDAY		
MON -5			
TUE - 6			
WED -7	College Reopens ( Even Sem)	I	1
THU -8	பெள்ள்ணமி கவியரங்கம்	II	2
FRI - 9		III	3
SAT -10	HOLIDAY		
SUN - 11	HOLIDAY		
MON - 12		IV	4
TUE - 13		V	5
WED - 14		VI	6
THU - 15		I	7

Day & Date	DECEMBER	Time Table Code	No. Of Working Days
FRI -16		II	8
SAT - 17	HOLIDAY		
SUN - 18	HOLIDAY		
MON - 19		III	9
TUE - 20		IV	10
WED - 21		V	11
THU -22	World Mathematics Day	VI	12
FRI - 23	Kisan Divas	I	13
SAT - 24	HOLIDAY		
SUN - 25	Holiday - Christmas		
MON - 26		II	14
TUE - 27		III	15
WED - 28		IV	16
THU -29		V	17
FRI - 30		VI	18
SAT - 31	HOLIDAY		

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Day & Date	JANUARY	Time Table Code	No. Of Working Days
SUN - 1	Holiday - New Year's Day		
MON - 2		I	19
TUE - 3		II	20
WED - 4		III	21
THU - 5		IV	22
FRI -6		V	23
SAT -7	<b>HOLIDAY</b>		
SUN - 8	<b>HOLIDAY</b>		
MON - 9		VI	24
TUE - 10		I	25
WED - 11		II	26
THU -12	National Youth Day	III	27
FRI - 13		IV	28
SAT -14	Holiday – BOGI		
SUN - 15	Holiday – PONGAL		

Day & Date	JANUARY	Time Table Code	No. Of Working Days
MON – 16	Holiday – Ayyan Thiruvalluvar Day		
TUE – 17	Holiday – Uzhavan Day		
WED – 18		V	29
THU – 19		VI	30
FRI -20		I	31
SAT – 21	<b>HOLIDAY</b>		
SUN - 22	<b>HOLIDAY</b>		
MON - 23		II	32
TUE – 24		III	33
WED – 25	National Voter's Day	IV	34
THU -26	Holiday - Republic Day		
FRI – 27		V	35
SAT – 28	<b>HOLIDAY</b>		
SUN – 29	<b>HOLIDAY</b>		
Mon - 30		VI	36
TUE-31		I	37


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CALENDAR 2022- 2023

Day & Date	FEBRUARY	Time Table Code	No. Of Working Days
WED - 1		II	38
THU - 2		III	39
FRI - 3		IV	40
SAT - 4	HOLIDAY		
SUN - 5	HOLIDAY		
MON - 6	I Monthly Test	V	41
TUE - 7	I Monthly Test	VI	42
WED - 8	I Monthly Test	I	43
THU - 9	I Monthly Test	II	44
FRI - 10	I Monthly Test	III	45
SAT - 11	HOLIDAY		
SUN - 12	HOLIDAY		
MON - 13		IV	46
TUE - 14		V	47
WED - 15		VI	48

Day & Date	FEBRUARY	Time Table Code	No. Of Working Days
THU - 16		I	49
FRI - 17		II	50
SAT - 18	HOLIDAY		
SUN - 19	HOLIDAY		
MON - 20		III	51
TUE - 21		IV	52
WED - 22		V	53
THU - 23		VI	54
FRI - 24	Sportive – 2022 - 2023	I	55
SAT - 25	HOLIDAY		
SUN - 26	HOLIDAY		
MON - 27		II	56
TUE - 28	National Science Day	III	57
		IV	58


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CALENDAR 2022- 2023

Day & Date	MARCH	Time Table Code	No. Of Working Days
WED - 1		V	59
THU - 2		VI	60
FRI - 3		I	61
SAT - 4	HOLIDAY		
SUN - 5	HOLIDAY		
MON - 6		II	62
TUE - 7	பெளர்ணமி கவியரங்கம்	III	63
WED - 8	International Women's Day	IV	64
THU - 9		V	65
FRI - 10	Cascade - 2022- 2023	VI	66
SAT - 11	HOLIDAY		
SUN - 12	HOLIDAY		
MON - 13		I	67
TUE - 14		II	68
WED - 15		III	69

CALENDAR 2022- 2023

Day & Date	MARCH	Time Table Code	No. Of Working Days
THU - 16		IV	70
FRI - 17		V	71
SAT - 18	HOLIDAY		
SUN - 19	HOLIDAY		
MON - 20		VI	72
TUE - 21		I	73
WED - 22	HOLIDAY - UGADHI		
THU - 23		II	74
FRI - 24		III	75
SAT - 25	HOLIDAY		
SUN - 26	HOLIDAY		
MON - 27	Model Examination	IV	76
TUE - 28	Model Examination	V	77
WED - 29	Model Examination	VI	78
THU - 30	Model Examination	I	79
FRI - 31	Model Examination	II	80

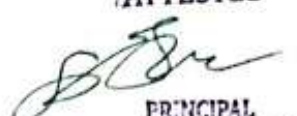
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CALENDAR 2022- 2023

Day & Date	APRIL	Time Table Code	No. Of Working Days
SAT -1	HOLIDAY		
SUN - 2	HOLIDAY		
MON - 3		III	81
TUE - 4		IV	82
WED - 5		V	83
THU - 6		VI	84
FRI -7	- Good Friday		
SAT -8	HOLIDAY		
SUN - 9	HOLIDAY		
MON - 10		I	85
TUE - 11		II	86
WED - 12		III	87
THU -13		IV	88
FRI - 14	Holiday – Tamil New Year		
SAT -15	HOLIDAY		

CALENDAR 2022- 2023

Day & Date	APRIL	Time Table Code	No. Of Working Days
SUN – 16	HOLIDAY		
MON – 17		V	89
TUE – 18		VI	90
WED – 19		I	91
THU – 20		II	92
FRI -21		III	93
SAT – 22	HOLIDAY		
SUN - 23	HOLIDAY		
MON - 24			
TUE – 25			
WED – 26	Commencement of University Theory Examination		
THU -27			
FRI – 28			
SAT – 29	HOLIDAY		
SUN - 30	HOLIDAY		

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Department Work load details for the Odd / Even Semester (20 ~~22~~ - 20 ~~22~~)

Department of computer science

Class	Theory (Hrs/Week)	Practical (Hrs/Week)	Total
I Year	12	04	16
II Year	06	05	11
III Year	22	08	30
Classes to Other Department			
III - B.com 'A'	6	-	6
III - B.com 'B'	6	-	6
III - BBA	5	-	5
III - B.com (CA)	6	-	6
II - B.com (CA)	5	-	5
I - B.com (CA)	4	-	4
II - B.sc (micro)	4	2	6
II - Phy & Chem	2	-	2
II			
Bea	51	17	68
Total	129	36	165

Total number of teaching staff in department : 10

Signature of H.O.D.

Principal

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Department Work load details for the Odd / Even Semester (2022-2023)

Department of Computer Applications

Class	Theory (Hrs/Week)	Practical (Hrs/Week)	Total
I Year	12	4	16
II Year	17	05	22
III Year	22	08	30
Classes to Other Department			
Total	51	17	68

Total number of teaching staff in department : 10

Signature of H.O.D.

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TIRUCHENGODE - 637 205



Individual staff Work load details for the Odd / Even Semester (2022 - 2023)

Date: 03.09.22

Name of the staff : P. Balamurugan

Department : Computer Science

S. No.	Title of the paper	Class	Hours per week
Theory			
1	Fundamentals of computers & communication	II MBA	4
2	Professional English for physical Science - I	I BCA	2
3	E-Commerce technologies	III BCA	3
4			
5			
6			
7			
8			
Practical			
1	Programming in C - I BCA	I BCA	2
2	Programming in C	I CS.	1
3			
Total			12

Staff's Signature

Head of the Department

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Individual staff Work load details for the Odd / Even Semester (2021 - 2022)

Date: 01.9.2022

Name of the staff : S. Balachandar

Department : Computer Science

S. No.	Title of the paper	Class	Hours per week
Theory			
1	Problem solving through c	I - BCA	15
2	Information Technology	III - B.com	6
3	in Business		
4	Fundamentals of computers	II - Micro	3
5			
6			
7			
8			
Practical			
1	Practical I c programming	I - BCA	2
2	Office Automation	II - B.sc (Micro)	2
3			
Total			18

S. Balachandar  
Staff's Signature

S. Balachandar  
Head of the Department

[Signature]  
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Individual staff Work load details for the Odd / Even Semester (20 22 20 23)

Date: 01/09/2023

Name of the staff : Mr. CHINNUSAMY

Department : COMPUTER SCIENCE (UG)

S. No.	Title of the paper	Class	Hours per week
Theory			
1	Problem Solving Through C	I.B.Sc. CS - A	5
2	Computer Network	II B.Sc CS	3
3	Problem Solving Technique	III. B.EA	5
4	Value Education - YOGA	I B.Sc. CS - A	1
5			
6			
7			
8			
Practical			
1	Practical - C programming	I.B.Sc. CS - A	4
2			
3			
Total			18

  
Staff's Signature

  
Head of the Department

  
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Individual staff Work load details for the Odd / Even Semester (2022 - 2023)

Date: 01/9/22

Name of the staff : V. Balasubramanyam

Department : Computer Science

S. No.	Title of the paper	Class	Hours per week
Theory			
1	Relational Database mangement system	II CS	3
2	web Technology	III BCA	5
3	Fundamentals of computer and tally	II B Com (n)	3
4	Professional English for Physical Science - T	I CS A'	2
5			
6			
7			
8			
Practical			
1	Practical-III SQL & PL/SQL	II BSC [CS]	3
2	SBEC practical- Shell programming	IV BSC [CS]	2
3			
Total			18

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Individual staff Work load details for the Odd / Even Semester (2022 - 2023)

Date: 01/09/22

Name of the staff : G. Senthil Kumar

Department : Computer Science

S. No.	Title of the paper	Class	Hours per week
Theory			
1	Programming in Java	III BCA	5
2	Problem solving Techniques	III CS	5
3	Fundamentals of Computer & E-ally	II Blomca	2
4	Yoga	I BCA	1
5			
6			
7			
8			
Practical			
1	Practical-V. Programming	III BCA	5
2	in Java		
3			
Total			18

Staff's Signature

Head of the Department

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Individual staff Work load details for the Odd / Even Semester (2022 - 2023)

Date: 1.9.2022

Name of the staff : A. SHAKESPEAR

Department : COMPUTER SCIENCE

S. No.	Title of the paper	Class	Hours per week
Theory			
1	RELATIONAL DATABASE MANAGEMENT SYSTEM	II BCA	5
2	OPERATING SYSTEM	III B.Sc CS	5
3	MANAGEMENT INFORMATION SYSTEM	III B.B.A	5
4			
5			
6			
7			
8			
Practical			
1	PRACTICAL II SQL AND PLSQL		3
2			
3			
Total			18

A. SHAKESPEAR  
Staff's Signature

[Signature]  
Head of the Department

[Signature]  
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Individual staff Work load details for the Odd / Even Semester (2022 - 2023)

Date: 01.09.2022

Name of the staff : E. PRABAKAR RAT

Department : COMPUTER SCIENCE

S. No.	Title of the paper	Class	Hours per week
Theory			
1	INFORMATION TECHNOLOGY IN BUSINESS	III - B.com 'A'	6
2	OPERATING SYSTEMS	II Bca	6
3	FUNDAMENTALS OF COMPUTERS	II-B-SC (MICRO)	1
4			
5			
6			
7			
8			
Practical			
1	SBEC-PRACTICAL-IMAGIE EDITING TOOL	III Bca	3
2	SBEC-PRACTICAL-SHELL PROGRAMMING	III .B-SC (CS)	1
3			
Total			17

E. Prabar Rat  
Staff's Signature

E. Prabar Rat  
Head of the Department

[Signature]  
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Individual staff Work load details for the Odd / Even Semester (2022 - 2023)

Name of the staff : MS. A. Suganthi

Date: 01-09-22

Department : Computer Science

S. No.	Title of the paper	Class	Hours per week
Theory			
1	GUI Programming	III - B.Sc (CS)	5
2	SBEC: Multiskill Development	III - BCA	2
3	E-Commerce Technologies	III - BCA	2
4	NMEC: Basis of Computer	II - B.Sc (Chem, Phy)	2
5	Profession English for Physical Science - I	I - B.Sc (CS) - B	2
6			
7			
8			
Practical			
1	Practical - V - Programming in VB	III - B.Sc (CS)	5
2			
3			
Total			18

A. Suganthi  
Staff's Signature

R. Senthil  
Head of the Department

R. Senthil  
PRINCIPAL



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Individual staff Work load details for the Odd / Even Semester (2022 - 2023)

Date: \_\_\_\_\_

Name of the staff : S. SIVAKUMAR

Department : COMPUTER SCIENCE

S. No.	Title of the paper	Class	Hours per week
<b>Theory</b>			
1	MULTISKILL DEVELOPMENT	III B.Sc(CS)	2
2	DATA STRUCTURES AND ALGORITHMS	II B.C.A	3
3	PROBLEM SOLVING THROUGH C	I B.Sc(CS)-B'	5
4	BUSINESS APPLICATION SOFTWARE	I B.Com(CA)	4
5	VALUE EDUCATION - YOGA	I B.Sc(CS)-B'	1
6			
7			
8			
<b>Practical</b>			
1	PRACTICAL - C-PROGRAMMING	I B.Sc(CS)-B'	4
2			
3			
<b>Total</b>			<b>19</b>

S. Sivakumar  
Staff's Signature

[Signature]  
Head of the Department

[Signature]  
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Individual staff Work load details for the Odd / Even Semester (2022 - 2023)

Date: 1-9-22

Name of the staff : S. SOUNDARARAJAN

Department : COMPUTER SCIENCE

S. No.	Title of the paper	Class	Hours per week
Theory			
1	COMPUTER NETWORKS	<u>III - B.Sc (CS)</u>	5
2	Data Structures and Algorithm	<u>II - BcA</u>	3
3	Software development with Visual Basic	<u>III - B.Com (CA)</u>	6
4			
5			
6			
7			
8			
Practical			
1	SBEC-I - office Automation	<u>II - B.Sc (CS)</u>	2
2	SBEC -I - office Automation	<u>II - BcA</u>	2
3			
Total			18

  
Staff's Signature

  
Head of the Department

  
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Department Work load details for the Odd / Even Semester (2022 - 2023)

Department of Computer Science

Class	Theory (Hrs/Week)	Practical (Hrs/Week)	Total
I Year A	9	3	12
I Year B	9	3	12
II Year	4	5	9
III Year	22	8	30
Classes to Other Department			
Total	44	19	63

Total number of teaching staff in department : 10

Signature of H.O.D.

Mr. P. BALAMURUGAN M.Sc., M.Phil.,  
Head of the Department,  
Department of Computer Science,  
Sengunthar Arts and Science College,  
TIRUCHENGODE - 637 205.

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Department Work load details for the Odd / Even Semester (20 22 - 20 23 )

Department of Computer Applications

Class	Theory (Hrs/Week)	Practical (Hrs/Week)	Total
I Year	9	3	12
II Year	16	6	22
III Year	22	8	30
Classes to Other Department			
II Bcom 'CA'	5	5	10
I Bcom CA	4	3	7
III BBA	3	3	6
II BBA	5	-	5
II Microbiology	4	3	7
II Biotech Bioche	4	3	7
II phy & che	2	-	2
Total	74	34	108

Total: 171

Total number of teaching staff in department : 10

Signature of H.O.D.

Mr. P. BALAMURUGAN M.Sc. in Phil.,  
Head of the Department,  
Department of Computer Science,  
Sengunthar Arts and Science College  
Tiruchengode - 637 205.

Principal

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Individual staff Work load details for the Odd / Even Semester (2022 - 20 22)

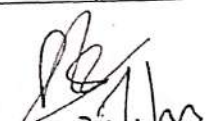
Name of the staff : P. Balamurugan  
 Department : Computer Science

Date:

S. No.	Title of the paper	Class	Hours per week
Theory			
1	Environmental Science	I CS A'	1
2	Environmental Science	I CS B'	1
3	Environmental Science	I BCA	1
4			
5			
6			
7			
8			
Practical			
1	MIS LAB	MIS A	6
2			
3			
Total			9

  
 Staff's Signature

  
 Head of the Department, Phil.,  
 Mr. P. BALAMURUGAN  
 Head of the Department,  
 Department of Computer Science,  
 Sengunthar Arts and Science College  
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Individual staff Work load details for the Odd / Even Semester (2022 - 2023)

Date: 25/1/23

Name of the staff : G. Senthil Kumar

Department : Computer Science

S. No.	Title of the paper	Class	Hours per week
Theory			
1	Computer organizations & architecture	I Bca	4
2	GUI programming	III BCA	5
3	E Commerce	II Bcom CA	2
4			
5			
6			
7			
8			
Practical			
1	Practical VI - programming in VB	III BCA	5
2	Image Editing tool	II CS	2
3			
Total			18

Staff's Signature  
25/1/23

Head of the Department  
Mr. P. BALAMURUGU  
Head of the Department,  
Department of Computer Science,  
Sengunthar Arts and Science College,  
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Individual staff Work load details for the Odd / Even Semester (2022 - 2023)

Date: 25-01-23

Name of the staff : Ms. A. Suganthi

Department : Computer Science

S. No.	Title of the paper	Class	Hours per week
Theory			
1	JAVA Programming	III - B.Sc (CS)	5
2	Software Engineering	II - BCA	6
3	NMEE: II: Basics of Internet	II - B.Sc (Phy, Chem)	2
4			
5			
6			
7			
8			
Practical			
1	Practical-VI: Programming in JAVA	III - B.Sc (CS)	5
2			
3			
Total			18

Staff's Signature  
25/1/23

Head of the Department Phil.  
Mr. P. BALAMURUGAN  
Head of the Department,  
Department of Computer Science,  
Sengunthar Arts and Science College  
Tiruchengode - 637 205.

32

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Individual staff Work load details for the ~~Odd~~ / Even Semester (20 22 - 20 23)

Date: 25.1.2023

Name of the staff : S. SIVAKUMAR

Department : COMPUTER SCIENCE - UG

S. No.	Title of the paper	Class	Hours per week
<b>Theory</b>			
1	Data structure & Algorithms	I B.Sc (CS) - B	4
2	Database Management Systems	I B.Com (CA)	4
3	Computer Graphics	III B.Sc (CS)	5
4			
5			
6			
7			
8			
<b>Practical</b>			
1	Data Structures Using C	I B.Sc (CS) - B	3
2	Computer Practical - I (ms-office)	I B.Com (CA)	3
3			
<b>Total</b>			<b>19</b>

S. Sivakumar  
Staff's Signature

P. Balamurugan 25/1/23  
Head of the Department

[Signature]  
PRINCIPAL

Mr. P. BALAMURUGAN M.Sc., M.Phil.,  
Head of the Department,  
Department of Computer Science,  
Sengunthar Arts and Science College  
TIRUCHENGODE - 637 205.

ATTESTED  
[Signature]  
PRINCIPAL  
SENGUNTHAR ARTS AND SCIENCE COLLEGE  
TIRUCHENGODE - 637 205.



Since 1991

# SENGUNTHAR ARTS AND SCIENCE COLLEGE

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## Individual staff Work load details for the Odd / Even Semester (2022- 2023)

Date: 24/1/2023

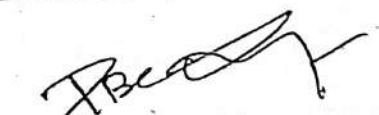
Name of the staff : M. CHENNU SATY

Department : COMPUTER SCIENCE (UG)

S. No.	Title of the paper	Class	Hours per week
Theory			
1	Data Structures & Algorithms	I B.Sc. C-A	4
2	Multimedia	III B.CA	5
3	E-commerce Techniques	II B.Sc. Biochemistry & Biotechnology	4
4			
5			
6			
7			
8			
Practical			
1	Data Structures using C	I B.Sc. C-A	3
2	HTML Programming	II B.Sc. Biochemistry & Biotechnology	3
3			
Total			19



Staff's Signature

  
Head of the Department

  
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Individual staff Work load details for the Odd / Even Semester (2022 - 2023 )

Date: 25.1.23

Name of the staff : E. PRABAKAR RAJ

Department : COMPUTER SCIENCE

S. No.	Title of the paper	Class	Hours per week
Theory			
1	MANAGEMENT INFORMATION SYSTEM	II-B.B.A.	5
2	SHELL PROGRAMMING	III-B.C.A	2
3	SOFTWARE ENGINEERING	III-B.Sc (CS)	2
4	OBJECT-ORIENTED PROGRAMMING CONCEPTS USING C++	I-B.C.A	4
5			
6			
7			
8			
Practical			
1	C++ PROGRAMMING LAB	I-B.C.A	3
2	FUNDAMENTALS OF COMPUTER & TALLY	II-B.Com (CA)	2
3			
Total			18

*E. Prabaraj*  
25.1.23  
Staff's Signature

*P. Balamurugan*  
25.1.23  
Head of the Department  
Mr. P. BALAMURUGAN M.Sc., M.Phil.,  
Head of the Department,  
Department of Computer Science  
Sengunthar Arts and Science College  
TIRUCHENGODE - 637 205.

*P. Prabaraj*  
PRINCIPAL

ATTESTED  
*P. Prabaraj*  
PRINCIPAL  
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Individual staff Work load details for the Odd / Even Semester (2022 - 2023)

Date: 25/01/2023

Name of the staff : BALASUBRAMANIAM V

Department : COMPUTER SCIENCE

S. No.	Title of the paper	Class	Hours per week
Theory			
1	Programming in Java	II CS	4
2	Computer organization and Architecture	I CS	4
3	Core - VIII - Ecommerce	II Bcom (CA)	3
4			
5			
6			
7			
8			
Practical			
1	Java programming		3
2	Computer practical - II Tally		3
3			
Total			17

Staff's Signature

Head of the Department

Mr. P. BALAMURUGAN M.Sc. M.Phil.  
Head of the Department  
Department of Computer Science  
Sengunthar Arts and Science College  
TIRUCHENGODE - 637 205.

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Individual staff Work load details for the Odd / Even Semester (20 22 - 20 23)

Date: 25-1-23

Name of the staff : S. SOUNDARARAJAN

Department : COMPUTER SCIENCE

S. No.	Title of the paper	Class	Hours per week
<b>Theory</b>			
1	COMPUTER NETWORKS	III - B.C.A	5
2	COMPUTER NETWORKS	II - B.C.A	5
3	PHP SCRIPTING LANGUAGE	III - C.S	2
4	<u>Ir</u>		
5			
6			
7			
8			
<b>Practical</b>			
1	IMAGE EDITING TOOL LAB	III - B.Sc (CS)	3
2	IMAGE EDITING TOOL LAB	III - B.C.A	2
3	OFFICE AUTOMATION LAB	II B.Sc [micro]	1
<b>Total</b>			<b>18</b>

S. Soundararajan  
Staff's Signature

R. B. A.  
Head of the Department

S. Soundararajan  
PRINCIPAL

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SENGUNTHAR ARTS AND SCIENCE COLLEGE  
TIRUCHENGODE - 637 205

Individual staff Work load details for the Odd / Even Semester (20 ~~22~~ - 20 ~~23~~)

Date: 27.1.23

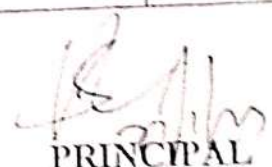
Name of the staff : A. SHAKESPEAR

Department : COMPUTER SCIENCE

S. No.	Title of the paper	Class	Hours per week
<b>Theory</b>			
1	PROGRAMMING IN JAVA	<u>II</u> B.C.A	5
2	SOFTWARE ENGINEERING	<u>III</u> B.Sc CS	3
3	COMPUTER APPLICATIONS IN BUSINESS	<u>III</u> B.B.A	3
4			
5			
6			
7			
8			
<b>Practical</b>			
1	JAVA PROGRAMMING	<u>II</u> B.C.A	3
2	PRACTICAL - COMPUTER APPLICATIONS IN BUSINESS	<u>III</u> B.B.A	3
3			
<b>Total</b>			17

  
 Staff's Signature

  
 Head of the Department

  
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TIRUCHENGODE - 637 205, NAMAKKAL DT., TAMILNADU




## DEPARTMENT OF COMMERCE

### ACADEMIC YEAR 2022 -23 (ODD SEMESTER)

S.NO	SUBJECT CODE	SUBJECT NAME
1	19UCM11	COST ACCOUNTING
2	19UCM12	AUDITING
3	19UCM13	INCOME TAX LAW AND PRACTISE I
4	19UCMPR1	PROJECT WORK
5	21UCM05	BUSINESS LAW
6	21UCM06	CORPORATE ACCOUNTING I
7	21UCM07	BANKING THEORY LAW AND PRACTICE
8	21UCMS01	FINANCIAL MARKET
9	21UCMSP01	MS OFFICE PRACTICAL I
10	21UBAN01	ENTREPRENEURIAL DEVELOPMENT
11	21UCM01	PRINCIPLES OF ACCOUNTANCY
12	21UCM02	BUSINESS COMMUNICATION
13	21UVE01	YOGA
14	20UPEC01	PROFESSIONAL ENGLISH FOR COMMERCE AND MANAGEMENT

ATTESTED

  
PRINCIPAL  
SENGUNTHAR ARTS AND SCIENCE COLLEGE  
TIRUCHENGODE - 637 205.

  
HOD





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Tiruchengode - 637 205, Namakkal dt., Tamilnadu

**DEPARTMENT OF COMMERCE**

**SUBJECT PREFERENCE**

**ACADEMIC YEAR 2022 -23 (ODD SEMESTER)**



S. No	Name of the Faculty	III B.Com (Theory & Practical)				II B.Com (Theory & Practical)						I B.Com (Theory)				FACULTY SIGNATURE
		19UCM11	19UCM12	19UCM13	19UCMPRI	21UCM05	21UCM06	21UCM07	21UCNIS01	21UBAN01	21UCNIS01	21UCM01	21UCM02	20UPEC01	21UVED01	
1	R.U.VIGNESH			✓	✓		✓									R. Vignesh
2	M.NANDHINI	✓			✓	✓	✓				✓	✓				M. Nandhini
3	P.ELAYARAJA		✓		✓	✓			✓				✓			P. Elayaraja
4	S.SOBANA		✓					✓							✓	S. Sobana

*R. Vignesh*  
HOD

**ATTESTED**

*[Signature]*  
**PRINCIPAL**  
SENGUNTHAR ARTS AND SCIENCE COLLEGE  
TIRUCHENGODE - 637 205.



# SENGUNTHAR ARTS AND SCIENCE COLLEGE

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Tiruchengode - 637 205, Namakkal dt., Tamilnadu

DEPARTMENT OF COMMERCE

SKILL MATRIX

ACADEMIC YEAR 2022 -23 (ODD SEMESTER)



S. No	Name of the Faculty	III B.Com (Theory & Practical)				II B.Com (Theory & Practical)						I B.Com (Theory)			
		19UCM11	19UCM12	19UCM13	19UCMP1	21UCM05	21UCM06	21UCM07	21UCMS01	21UBAN01	21UCMS1001	21UCM01	21UCM02	20UPEC01	21UVE01
1	R.U.VIGNESH			4	4		2								
2	M.NANDHINI	2	-	-	-	-	4	-	-	-	4	5	-	-	-
3	P.ELAYARAJA	-	1	-	-	1	-	-	1	-	-	-	1	-	-
4	S.SOBANA		1					1							1



R. Vignesh  
HOD

ATTESTED

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Since 1991

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## DEPARTMENT OF COMMERCE

### ACADEMIC YEAR 2022 -23 (EVEN SEMESTER)

S.NO	SUBJECT CODE	SUBJECT NAME
1	19UCM15	MANAGEMENT ACCOUNTING
2	19UCM16	ENTREPRENEURIAL DEVELOPMENT
3	19UCM17	INCOME TAX LAW AND PRACTISE II
4	19UCME04	FUNDAMENTALS OF INSURANCE
5	19UCMP01	COMMERCE PRACTICAL
6	21UCM08	COMPANY LAW
7	21UCM09	CORPORATE ACCOUNTING II
8	21UCM11	PRINCIPLES OF MARKETING
9	21UCMS02	PROJECT METHODOLOGY
10	21UBAN02	HUMAN RESOURCE MANAGEMENT
11	21UCMSP02	TALLY PRACTICAL II
12	21UCM03	FINANCIAL ACCOUNTING
13	21UCM04	BUSINESS MANAGEMENT
14	21UES01	ENVIRONMENTAL STUDIES
15	20UPEC02	PROFESSIONAL ENGLISH FOR COMMERCE AND MANAGEMENT

R.D. [Signature]  
HOD 23/01/23

ATTESTED

[Signature]  
PRINCIPAL  
SENGUNTHAR ARTS AND SCIENCE COLLEGE  
TIRUCHENGODE - 637 205.



## SENGUNTHAR ARTS AND SCIENCE COLLEGE

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DEPARTMENT OF COMMERCE

SUBJECT PREFERENCE


ACADEMIC YEAR 2022 -23 (EVEN SEMESTER)



S. No	Name of the Faculty	III B.Com (Theory & Practical)					II B.Com (Theory & Practical)					I B.Com (Theory)				FACULTY SIGNATURE
		19UCM15	19UCM16	19UCM17	19UCM18	19UCM19	19UCM20	19UCM21	19UCM22	19UCM23	19UCM24	19UCM25	19UCM26	19UCM27	19UCM28	
1	R.U.VIGNESH			✓			✓									R.U.Vignesh
2	M.NANDHINI	✓	-	-	-	✓	-	-	-	-	-	✓	✓	-	-	M.Nandhini
3	P.ELAYARAJA	-	-	-	✓	✓	✓	-	-	✓	-	-	-	✓	-	P.elayaraja
4	S.SOBANA		✓			✓		✓				✓				S.Sobana
5	M.KAVINKARTHI		✓		✓			✓						✓		M.Kavinkarthi

R.U.Vignesh  
HOD  
23/10/2023

ATTESTED

  
PRINCIPAL  
SENGUNTHAR ARTS AND SCIENCE COLLEGE  
TIRUCHENGODE - 637 205.



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DEPARTMENT OF COMMERCE

## SKILL MATRIX

ACADEMIC YEAR 2022 -23 (EVEN SEMESTER)



S. No	Name of the Faculty	III B.Com (Theory & Practical)					II B.Com (Theory & Practical)					I B.Com (Theory)			
		19UCM15	19UCM16	19UCM17	19UCM18	19UCM19	21UCM15	21UCM16	21UCM17	21UCM18	21UCM19	21UCM20	21UCM21	21UCM22	21UCM23
1	R.U.VIGNESH			5			3								
2	M.NANDHINI	2	-	-	-	5	-	-	-	-	2	-	6	-	-
3	P.ELAYARAJA				2	2	1	-	-	2	-	-	-	1	-
4	S.SOBANA		2			2		3							
5	M.KAVINKARTHI		1					1						1	

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TIRUCHENGODE - 637 205.



**SENGUNTHAR ARTS AND SCIENCE COLLEGE, TIRUCHENGODE.**

**TIMETABLE – 2022-2023 (ODD SEMESTER)**

<b>I - DAY ORDER</b>					
<b>CLASS</b>	<b>I Hour</b>	<b>II Hour</b>	<b>III Hour</b>	<b>IV Hour</b>	<b>V Hour</b>
<b>III B.A. (ENG.) II B.A. (ENG.) I B.A. (ENG.)</b>	MAJOR (KP)	MAJOR (JM)	MAJOR (PD)	MAJOR (MA)	MAJOR (TK)
	ENG. (JME)	MAJOR (MKE)	SBEC (KP)	TAMIL (RST)	MAJOR (MA)
	MAJOR (MKE)	ENG. (X)	MAJOR (MKE)	TAMIL (AST)	MAJOR (JME)
<b>III BCOM – A III BCOM – B II BCOM I BCOM</b>	MAJOR (MNC)	MAJOR (RUV)	ALLIED (EP)	MAJOR (PE)	MAJOR (SS)
	MAJOR (PE)	MAJOR (SS)	MAJOR (MNC)	MAJOR (RUV)	ALLIED (SBC)
	MAJOR (RUV)	NMEC (RRB)	MAJOR (SS)	MAJOR (MNC)	ALLIED (KC)
	TAMIL (UK)	MAJOR (MNC)	ENG. (TK)	MAJOR (SS)	MAJOR (PE)
<b>III B.B.A. II B.B.A. I B.B.A.</b>	MAJOR (SSB)	MAJOR (X)	MATHS (RK)	MAJOR (X)	COMP. (ASC)
	MAJOR (X)	NMEC (PR)	MAJOR (SSB)	ALLIED (SSE)	MAJOR (RRB)
	MAJOR (RRB)	ENG. (X)	MAJOR (X)	TAMIL (AST)	ALLIED (VR)
<b>III BCOM (CA) II BCOM (CA) I BCOM (CA)</b>	MAJOR (RMK)	ALLIED (SSC)	MAJOR (TRM)	ALLIED (SSN)	MAJOR (NMC)
	MAJOR (TRM)	ALLIED (STN)	MAJOR (SM)	MAJOR (TS)	ALLIED (GSK)
	MAJOR (NMC)	TAMIL (RST)	MAJOR (NMC)	ENG. (SRE)	ALLIED (SK)
<b>III B.Sc. (ELEC.) I B.Sc. (ELEC.)</b>	← 8051-MICROCONTROLLED&INTERFACING LAB(AK)→			MAJOR (MN)	MAJOR (PR)
	ALLIED (SSM)	ENG. (KP)	MAJOR (PR)	TAMIL (AST)	ALLIED (SSM)
<b>III B.Sc.(CS) II B.Sc.(CS) I B.Sc.(CS)-A I B.Sc.(CS)-B</b>	MAJOR (SSN)	MAJOR (SSB)	MAJOR (AS)	←---PLACEMENT LAB (AS) ---→	
	ENG. (JME)	MAJOR (VB)	TAMIL (KU)	ALLIED (PR)	NMEC (SSB)
	MAJOR (MC)	ALLIED (VR)	MAJOR (VB)	ENG. (TK)	TAMIL (AST)
	ALLIED (SA)	MAJOR (AS)	ENG. (SRE)	MAJOR (SSC)	TAMIL (KST)
<b>III B.C.A. II B.C.A. I B.C.A.</b>	←----- PLACEMENT LAB (GSK) -----→			MAJOR (VB)	MAJOR (MC)
	←----- M.Sc. LAB (ASC) -----→			ALLIED (PR)	NMEC (SSB)
	ALLIED (SSM)	MAJOR (SBC)	TAMIL (RST)	ENG. (X)	ALLIED (SSM)
<b>III B.Sc.(Maths) II B.Sc.(Maths) I B.Sc.(Maths)</b>	MATHS (KC)	MATHS (SA)	MATHS (SSM)	←----- MBA LAB (STN) -----→	
	ALLIED (VR)	SBEC (MG)	NMEC (AST)	TAMIL (KST)	ENG. (PD)
	MATHS (RK)	ENG. (KP)	ALLIED (MN)	TAMIL (AST)	P.E. (SA)
<b>III B.Sc.(Micro) II B.Sc.(Micro) I B.Sc.(Micro)</b>	MAJOR (PAK)	MAJOR (APV)	MAJOR (TRP)	MAJOR (APV)	MAJOR (PAK)
	ENG. (SRE)	TAMIL (AST)	MAJOR (TN)	ALLIED (SBC)	MAJOR (TN)
	TAMIL (KU)	ENG. (PD)	←-- ALLIED BIOCHEMISTRY LAB (JM & PSK) --→		
<b>III B.Sc.(BT) II B.Sc.(BT) I B.Sc.(BT)</b>	MAJOR (AJ)	MAJOR (ML)	MAJOR (RRW)	MAJOR (KVK)	MAJOR (KV)
	ENG. (SRE)	TAMIL (AST)	ALLIED (GR)	MAJOR (AJ)	MAJOR (KVK)
	ENG. (MA)	TAMIL (UK)	←----- MAJOR LAB (ML) -----→		
<b>III B.Sc.(Physics) II B.Sc.(Physics) I B.Sc.(Physics)</b>	←----- MAJOR LAB (AK) -----→			MAJOR (AK)	MAJOR (SR)
	←----- MAJOR LAB (AK) -----→			TAMIL (KST)	ENG. (PD)
	ALLIED (SSM)	ENG. (KP)	MAJOR (PR)	TAMIL (AST)	ALLIED (SSM)
<b>III B.Sc.(Chemistry) II B.Sc.(Chemistry) I B.Sc.(Chemistry)</b>	←----- ORGANIC AND GRAVIMETRIC LAB -----→				
	ALLIED (MN)	←----- MAJOR LAB -----→		TAMIL (KST)	ENG. (PD)
	ALLIED (SSM)	ENG. (KP)	MAJOR	TAMIL (AST)	ALLIED (SSM)
<b>II B.Sc.(Bioche) I B.Sc.(Bioche)</b>	MAJOR (JM)	SBEC (KK)	ALLIED (GR)	TAMIL (RST)	ENG. (PD)
	ALLIED (CHE)	ENG. (KP)	ALLIED (PSK)	TAMIL (AST)	YOGA (JM)
<b>III B.Sc.(Botany)</b>	MAJOR (DM)	MAJOR (GD)	MAJOR (DM)	MAJOR (DM)	MAJOR (GD)
<b>II B.A. (TAMIL) I B.A. (TAMIL)</b>	SBEC (RST)	MAJOR (KU)	MAJOR (KST)	TAMIL (RST)	ENG. (PD)
	ALLIED (KST)	ENG. (X)	MAJOR (UK)	TAMIL (AST)	MAJOR (KU)

  
 ATTESTED  
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 SENGUNTHAR ARTS AND SCIENCE COLLEGE  
 TIRUCHENGODE - 637 005.

**SENGUNTHAR ARTS AND SCIENCE COLLEGE, TIRUCHENGODE.**

**TIMETABLE – 2022-2023 (ODD SEMESTER)**

II - DAY ORDER					
CLASS	I Hour	II Hour	III Hour	IV Hour	V Hour
III B.A. (ENG.) II B.A. (ENG.) I B.A. (ENG.)	MAJOR (JM)	MAJOR (TK)	MAJOR (MA)	MAJOR (PD)	MAJOR (KP)
	TAMIL (RST)	ENG. (JME)	MAJOR (MKE)	MAJOR (MA)	SBEC (PD)
	ENG. (X)	TAMIL (AST)	MAJOR (KP)	MAJOR (MKE)	MAJOR (JME)
III BCOM – A III BCOM – B II BCOM I BCOM	MAJOR (RUV)	MAJOR (EP)	MAJOR (MNC)	MAJOR (MNC)	MAJOR (PE)
	MAJOR (MNC)	ALLIED (SS)	MAJOR (PE)	MAJOR (RUV)	ALLIED (SBC)
	MAJOR (PE)	ALLIED (KC)	MAJOR (RUV)	MAJOR (SS)	MAJOR (MNC)
	ECO (SSE)	TAMIL (UK)	MAJOR (SS)	ENG. (TK)	MAJOR (RUV)
III B.B.A. II B.B.A. I B.B.A.	COMP. (ASC)	MAJOR (X)	MAJOR (RRB)	MATHS (RK)	MAJOR (SSB)
	MAJOR (RRB)	MAJOR (SSB)	ALLIED (SSE)	MAJOR (X)	SBEC (SSE)
	ENG. (X)	TAMIL (AST)	ALLIED (VR)	MAJOR (RRB)	MAJOR (X)
III BCOM (CA) II BCOM (CA) I BCOM (CA)	MAJOR (TS)	MAJOR (TRM)	MAJOR (SSCA)	MAJOR (RMK)	MAJOR (SM)
	MAJOR (TRM)	ALLIED (VB)	ALLIED (STN)	NMEC (MG)	MAJOR (TS)
	MAJOR (RMK)	MAJOR (NMC)	TAMIL (RST)	MAJOR (MNC)	ENG. (SRE)
III B.Sc. (ELEC.) I B.Sc. (ELEC.)	MAJOR (MN)	MAJOR (PR)	MAJOR (SR)	MAJOR (SR)	MAJOR (PR)
	ENG. (KP)	TAMIL (AST)	←----- MAJOR LAB (MN) -----→		
III B.Sc.(CS) II B.Sc.(CS) I B.Sc.(CS)-A I B.Sc.(CS)-B	MAJOR (SSN)	MAJOR (ASC)	MAJOR (GSK)	MAJOR (AS)	MAJOR (SK)
	TAMIL (KU)	ENG. (JME)	←----- PLACEMENT LAB (VB) -----→		
	ALLIED (VR)	MAJOR (MC)	ENG. (TK)	MAJOR (MC)	TAMIL (AST)
	MAJOR (AS)	MAJOR (SK)	ENG. (SRE)	ALLIED (SA)	TAMIL (KST)
III B.C.A. II B.C.A. I B.C.A.	MAJOR (GSK)	MAJOR (AS)	←----- M.Sc. LAB (EP) -----→		
	OS (EPR)	MAJOR (SSN)	MAJOR (SK)	MAJOR (ASC)	MAJOR (SSN)
	←----- M.Sc. LAB (SBC) ----→		MAJOR (SBC)	TAMIL (RST)	ENG. (X)
III B.Sc.(Maths) II B.Sc.(Maths) I B.Sc.(Maths)	MATHS (SA)	MATHS (RK)	MATHS (KC)	MATHS (SSM)	MATHS (JSM)
	TAMIL (KST)	ENG. (PD)	MATHS (SSM)	MATHS (GR)	ALLIED (VR)
	ENG. (KP)	TAMIL (AST)	MATHS (JSM)	←--- ALLIED PHY. LAB (MN) --→	
III B.Sc.(Micro) II B.Sc.(Micro) I B.Sc.(Micro)	MAJOR (APV)	MAJOR (PAK)	MAJOR (TN)	←----- MAJOR LAB (APV) ----→	
	TAMIL (AST)	ENG. (SRE)	MAJOR (PAK)	ALLIED (SBC)	MAJOR (TN)
	ENG. (PD)	TAMIL (KU)	←----- MAJOR LAB (TRP) -----→		
III B.Sc.(BT) II B.Sc.(BT) I B.Sc.(BT)	MAJOR (AJ)	MAJOR (KVK)	MAJOR (ML)	MAJOR (KV)	MAJOR (ML)
	TAMIL (AST)	ENG. (SRE)	←----- MAJOR LAB (KVK) -----→		
	TAMIL (UK)	ENG. (MA)	←----- ALLIED BIOCHEMISTRY LAB (KK) -----→		
III B.Sc.(Physics) II B.Sc.(Physics) I B.Sc.(Physics)	MAJOR (PR)	MAJOR (MN)	MAJOR (PR)	MAJOR (AK)	MAJOR (SR)
	TAMIL (KST)	ENG. (PD)	MAJOR (AK)	LIBRARY	MAJOR (AK)
	ENG. (KP)	TAMIL (AST)	←----- MAJOR LAB (MN) -----→		
III B.Sc.(Chemistry) II B.Sc.(Chemistry) I B.Sc.(Chemistry)	←----- MAJOR LAB -----→				
	TAMIL (KST)	ENG. (PD)	←----- ALLIED PHY. LAB (MN) -----→		
	ENG. (KP)	TAMIL (AST)	←----- MAJOR LAB -----→		
II B.Sc.(Bioche) I B.Sc.(Bioche)	TAMIL (RST)	ENG. (PD)	NMEC	MAJOR (PSK)	MAJOR (JM)
	ENG. (KP)	TAMIL (AST)	MAJOR (JM)	ALLIED	P.ENG. (PSK)
III B.Sc.(Botany)	MAJOR (DM)	MAJOR (DM)	MAJOR (GD)	MAJOR (DM)	MAJOR (DM)
II B.A. (TAMIL) I B.A. (TAMIL)	TAMIL (RST)	ENG. (PD)	MAJOR (UK)	MAJOR (UK)	SBEC (RST)
	ENG. (X)	TAMIL (AST)	ALLIED (KST)	MAJOR (KU)	MAJOR (UK)

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**SENGUNTHAR ARTS AND SCIENCE COLLEGE, TIRUCHENGODE.**

**TIMETABLE – 2022-2023 (ODD SEMESTER)**

III - DAY ORDER					
CLASS	I Hour	II Hour	III Hour	IV Hour	V Hour
III B.A. (ENG.) II B.A. (ENG.) I B.A. (ENG.)	MAJOR (KP)	MAJOR (PD)	MAJOR (MA)	MAJOR (JMS)	MAJOR (TK)
	MAJOR (MA)	MAJOR (JME)	TAMIL (RST)	MAJOR (MKE)	SBEC (KP)
	TAMIL (AST)	ENG. (X)	MAJOR (MKE)	MAJOR (KP)	MAJOR (JME)
III BCOM – A III BCOM – B II BCOM I BCOM	MAJOR (MNC)	MAJOR (RUV)	MAJOR (PE)	ALLIED (EP)	MAJOR (MNC)
	MAJOR (PE)	MAJOR (SS)	ALLIED (SBC)	MAJOR (RUV)	MAJOR (RUV)
	ALLIED (KC)	MAJOR (MNC)	PRAC. (MNC)	MAJOR (SS)	MAJOR (PE)
	ENG. (TK)	ECO. (SSE)	TAMIL (UK)	MAJOR (MNC)	MAJOR (SS)
III B.B.A. II B.B.A. I B.B.A.	MAJOR (X)	MAJOR (SSB)	COMP. (ASC)	MAHRS (RK)	MAJOR (RRB)
	MAJOR (RRB)	MAJOR (X)	MAJOR (RRB)	ALLIED (SSE)	MAJOR (SSB)
	TAMIL (AST)	ENG. (X)	ALLIED (VR)	MAJOR (SSB)	MAJOR (X)
III BCOM (CA) II BCOM (CA) I BCOM (CA)	ALLIED (SSN)	MAJOR (SSCA)	MAJOR (RMK)	MAJOR (TRM)	MAJOR (TS)
	MAJOR (RMK)	MAJOR (TRM)	ALLIED (VB)	ALLIED (STN)	MAJOR (SM)
	TAMIL (RST)	MAJOR (NMC)	ALLIED (SIVA)	MAJOR (RMK)	ENG. (SRE)
III B.Sc. (ELEC.) I B.Sc. (ELEC.)	MAJOR (SR)	MAJOR (PR)	←----- MAJOR LAB (PR) -----→		
	TAMIL (AST)	ENG. (KP)	SBEC (MN)	MAJOR (AK)	MAJOR (PR)
III B.Sc.(CS) II B.Sc.(CS) I B.Sc.(CS)-A I B.Sc.(CS)-B	MAJOR (ASC)	MAJOR (GSK)	MAJOR (SSN)	MAJOR (AS)	MAJOR (SSN)
	NMEC (SSB)	ENG. (JME)	MAJOR (MC)	TAMIL (KU)	MAJOR (VB)
	←--- PLACEMENT LAB (MC) ---→		ENG. (TK)	ALLIED (VR)	TAMIL (AST)
	←-M.Sc. LAB (SIVAKUMAR) -→		ALLIED (SA)	ENG. (SRE)	TAMIL (KST)
III B.C.A. II B.C.A. I B.C.A.	MAJOR (MC)	MAJOR (VB)	MAJOR (AS)	←-- PLACEMENT LAB (GSK) --→	
	NMEC (SSB)	MAJOR (EP)	←----- ALLIED ELEC. LAB (PR) -----→		
	MAJOR (SBC)	MAJOR (PB)	MAJOR (GSK)	TAMIL (RST)	ENG. (X)
III B.Sc.(Maths) II B.Sc.(Maths) I B.Sc.(Maths)	MATHS (RK)	MATHS (KC)	MATHS (MG)	MATHS (SA)	MATHS (SSM)
	ALLIED (VR)	MATHS (SSM)	TAMIL (KST)	SBEC (MG)	ENG. (PD)
	TAMIL (AST)	ENG. (KP)	MATHS (RK)	MATHS (JSM)	ALLIED (AK)
III B.Sc.(Micro) II B.Sc.(Micro) I B.Sc.(Micro)	MAJOR (TRP)	MAJOR (TN)	←----- MAJOR LAB (APV) -----→		
	MAJOR (TN)	ENG. (SRE)	TAMIL (AST)	←----- ALLIED LAB (SBC) -----→	
	ALLIED (JM)	TAMIL (KU)	MAJOR (TRP)	ENG. (PD)	MAJOR (TN)
III B.Sc.(BT) II B.Sc.(BT) I B.Sc.(BT)	←----- MAJOR LAB (KV) -----→			MAJOR (RRW)	MAJOR (KVK)
	ALLIED (GR)	ENG. (SRE)	TAMIL (AST)	MAJOR (KVK)	MAJOR (KV)
	MAJOR (ML)	ENG. (MA)	ALLIED (KK)	TAMIL (UK)	YOGA (AJ)
III B.Sc.(Physics) II B.Sc.(Physics) I B.Sc.(Physics)	MAJOR (PR)	MAJOR (MN)	←----- MAJOR LAB (PR) -----→		
	MAJOR (MN)	NMEC (AS)	TAMIL (KST)	ALLIED	ENG. (PD)
	TAMIL (AST)	ENG. (KP)	MAJOR (AK)	MAJOR (MN)	MAJOR (MN)
III B.Sc.(Chemistry) II B.Sc.(Chemistry) I B.Sc.(Chemistry)			←----- PHYSICAL CHEMISTRY LAB (X) -----→		
	ALLIED (AK)	NMEC	TAMIL (KST)		ENG. (PD)
	TAMIL (AST)	ENG. (KP)			
II B.Sc.(Bioche) I B.Sc.(Bioche)	ALLIED (GR)	SBEC (KK)	TAMIL (RST)	MAJOR (PSK)	ENG. (PD)
	TAMIL (AST)	ENG. (KP)	MAJOR (PSK)	ALLIED	P.ENG. (KK)
III B.Sc.(Botany)	MAJOR (GD)	MAJOR (GD)	MAJOR (GD)	MAJOR (DM)	MAJOR (DM)
II B.A. (TAMIL) I B.A. (TAMIL)	MAJOR (KU)	MAJOR (UK)	TAMIL (RST)	SBEC (AST)	ENG. (PD)
	TAMIL (AST)	ENG. (X)	MAJOR (KU)	ALLIED (KST)	YOGA (UK)

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**SENGUNTHAR ARTS AND SCIENCE COLLEGE, TIRUCHENGODE.**

**TIMETABLE – 2022-2023 (ODD SEMESTER)**

<b>IV - DAY ORDER</b>					
<b>CLASS</b>	<b>I Hour</b>	<b>II Hour</b>	<b>III Hour</b>	<b>IV Hour</b>	<b>V Hour</b>
<b>III B.A. (ENG.) II B.A. (ENG.) I B.A. (ENG.)</b>	MAJOR (TK)	MAJOR (PD)	MAJOR (JM)	MAJOR (KP)	MAJOR (MA)
	ENG. (JME)	TAMIL (RST)	MAJOR (MA)	SBEC (PD)	MAJOR (MKE)
	MAJOR (MKE)	MAJOR (KP)	ENG. (X)	MAJOR (JME)	TAMIL (AST)
<b>III BCOM – A III BCOM – B II BCOM I BCOM</b>	MAJOR (MNC)	MAJOR (PE)	ALLIED (EP)	MAJOR (RUV)	MAJOR (PE)
	MAJOR (SS)	MAJOR (RUV)	MAJOR (PE)	ALLIED (SBC)	MAJOR (RUV)
	MAJOR (PE)	ALLIED (KC)	MAJOR (MNC)	←- PLACEMENT LAB (MNC) ->	
	ECO (SSE)	ENG. (TK)	MAJOR (SS)	TAMIL (UK)	MAJOR (SS)
<b>III B.B.A. II B.B.A. I B.B.A.</b>	MAJOR (X)	COMP. (ASC)	MAJOR (RRB)	MAJOR (SSB)	MAJOR (SSB)
	MAJOR (RRB)	MAJOR (X)	NMEC (PR)	ALLIED (SSE)	MAJOR (X)
	MAJOR (SSB)	ALLIED (SA)	ENG. (X)	MAJOR (RRB)	TAMIL (AST)
<b>III BCOM (CA) II BCOM (CA) I BCOM (CA)</b>	MAJOR (TRM)	ALLIED (SSN)	MAJOR (RMK)	MAJOR (SM)	MAJOR (NMC)
	ALLIED (STN)	MAJOR (TRM)	NMEC (MG)	MAJOR (TS)	MAJOR (RMK)
	MAJOR (NMC)	YOGA (TS)	ALLIED (SIVA)	TAMIL (RST)	ENG. (SRE)
<b>III B.Sc. (ELEC.) I B.Sc. (ELEC.)</b>	MAJOR (SR)	MAJOR (PR)	MAJOR (SR)	MAJOR (AK)	MAJOR (PR)
	MAJOR (PR)	ALLIED (RK)	ENG. (SRE)	ALLIED (SSM)	TAMIL (AST)
<b>III B.Sc.(CS) II B.Sc.(CS) I B.Sc.(CS)-A I B.Sc.(CS)-B</b>	←----- PLACEMENT LAB (AS) ----->			MAJOR (ASC)	MAJOR (GSK)
	ENG. (JME)	ALLIED (AK)	TAMIL (KU)	←-- ALLIED ELEC. LAB (SR) -->	
	TAMIL (AST)	MAJOR (MC)	ALLIED (GR)	ENG. (TK)	MAJOR (VB)
	TAMIL (KST)	MAJOR (SK)	ENG. (SRE)	ALLIED (SA)	MAJOR (SK)
<b>III B.C.A. II B.C.A. I B.C.A.</b>	MAJOR (MC)	MAJOR (GSK)	MAJOR (VB)	MAJOR (AS)	MAJOR (MC)
	MAJOR (EP)	ALLIED (AK)	MAJOR (ASC)	←----- M.Sc. LAB (SSN) ----->	
	TAMIL (RST)	ALLIED (RK)	MAJOR (SBC)	ALLIED (SSM)	ENG. (X)
<b>III B.Sc.(Maths) II B.Sc.(Maths) I B.Sc.(Maths)</b>	MATHS (RK)	MATHS (SSM)	MATHS (SA)	MATHS (KC)	MATHS (VR)
	ENG. (PD)	TAMIL (KST)	MATHS (JSM)	ALLIED (VR)	NMEC (RST)
	P.E. (SA)	MATHS (JSM)	ENG. (KP)	ALLIED (MN)	TAMIL (AST)
<b>III B.Sc.(Micro) II B.Sc.(Micro) I B.Sc.(Micro)</b>	MAJOR (APV)	MAJOR (PAK)	MAJOR (TN)	MAJOR (TN)	MAJOR (PAK)
	ALLIED (SBC)	ALLIED (EP)	TAMIL (AST)	ENG. (SRE)	MAJOR (TN)
	MAJOR (TRP)	ALLIED (PSK)	MAJOR (TRP)	TAMIL (KU)	ENG. (PD)
<b>III B.Sc.(BT) II B.Sc.(BT) I B.Sc.(BT)</b>	MAJOR (ML)	MAJOR (RRW)	←----- MAJOR LAB (AJ) ----->		
	MAJOR (AJ)	MAJOR (KVK)	TAMIL (AST)	ENG. (SRE)	ALLIED (GR)
	ALLIED (KK)	MAJOR (ML)	ALLIED (PSK)	ENG. (MA)	TAMIL (UK)
<b>III B.Sc.(Physics) II B.Sc.(Physics) I B.Sc.(Physics)</b>	MAJOR (MN)	MAJOR (MN)	MAJOR (AK)	MAJOR (PR)	MAJOR (AK)
	ENG. (PD)	TAMIL (KST)	MAJOR (MN)	ALLIED (CHE)	MAJOR (MN)
	MAJOR (AK)	ALLIED (RK)	ENG. (KR)	ALLIED (SSM)	TAMIL (AST)
<b>III B.Sc.(Chemistry) II B.Sc.(Chemistry) I B.Sc.(Chemistry)</b>	←----- MAJOR LAB ----->				
	ENG. (PD)	TAMIL (KST)	←----- MAJOR LAB (Y) ----->		
		ALLIED (RK)	ENG. (KP)	ALLIED (SSM)	TAMIL (AST)
<b>II B.Sc.(Bioche) I B.Sc.(Bioche)</b>	ENG. (PD)	TAMIL (RST)	←----- CORE PRACTICAL - II (JM) ----->		
	ALLIED	P.ENG (KK)	ENG. (KP)	MAJOR (PSK)	TAMIL (AST)
<b>III B.Sc.(Botany)</b>	MAJOR (GD)	MAJOR (DM)	MAJOR (DM)	MAJOR (GD)	MAJOR (DM)
<b>II B.A. (TAMIL) I B.A. (TAMIL)</b>	ENG. (PD)	TAMIL (RST)	MAJOR (KST)	NMEC (AST)	MAJOR (KU)
	MAJOR (KU)	MAJOR (UK)	ENG. (X)	ALLIED (KST)	TAMIL (AST)

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**SENGUNTHAR ARTS AND SCIENCE COLLEGE, TIRUCHENGODE.**

**TIMETABLE – 2022-2023 (ODD SEMESTER)**

<b>V - DAY ORDER</b>					
<b>CLASS</b>	<b>I Hour</b>	<b>II Hour</b>	<b>III Hour</b>	<b>IV Hour</b>	<b>V Hour</b>
<b>III B.A. (ENG.) II B.A. (ENG.) I B.A. (ENG.)</b>	MAJOR (JME)	MAJOR (MA)	MAJOR (KP)	MAJOR (TK)	MAJOR (PD)
	MAJOR (MKE)	TAMIL (RST)	MAJOR (MA)	NMEC (X)	ENG. (JME)
	ENG. (X)	TAMIL (AST)	MAJOR (JME)	MAJOR (KP)	MAJOR (MKE)
<b>III BCOM – A III BCOM – B II BCOM I BCOM</b>	MAJOR (MNC)	ALLIED (EP)	MAJOR (PE)	MAJOR (RUV)	MAJOR (MNC)
	MAJOR (RUV)	ALLIED (SBC)	MAJOR (MNC)	MAJOR (SS)	MAJOR (PE)
	MAJOR (PE)	MAJOR (SS)	ALLIED (KC)	MAJOR (MNC)	NMEC (RRB)
	MAJOR (SS)	TAMIL (UK)	MAJOR (SS)	MAJOR (PER)	ENG. (TK)
<b>III B.B.A. II B.B.A. I B.B.A.</b>	MAJOR (SSB)	MAJOR (X)	MAJOR (SSB)	MAJOR (RRB)	MATHS (RK)
	MAJOR (X)	MAJOR (RRB)	ALLIED (SSE)	MAJOR (SSB)	MAJOR (X)
	ENG. (X)	TAMIL (AST)	MAJOR (X)	ALLIED (SA)	MAJOR (SSB)
<b>III BCOM (CA) II BCOM (CA) I BCOM (CA)</b>	MAJOR (RMK)	MAJOR (TRM)	ALLIED (SSN)	MAJOR (TS)	MAJOR (SM)
	MAJOR (TS)	ALLIED (STN)	MAJOR (SM)	MAJOR (TRM)	ALLIED (VB)
	MAJOR (NMC)	YOGA (TS)	MAJOR (NMC)	ENG. (SRE)	TAMIL (RST)
<b>III B.Sc. (ELEC.) I B.Sc. (ELEC.)</b>	MAJOR (SR)	MAJOR (AK)	LIBRARY	MAJOR (PR)	MAJOR (SR)
	ENG. (SRE)	TAMIL (AST)	MAJOR (PR)	ALLIED (SSM)	LIBRARY
<b>III B.Sc.(CS) II B.Sc.(CS) I B.Sc.(CS)-A I B.Sc.(CS)-B</b>	MAJOR (ASC)	MAJOR (GSK)	MAJOR (AS)	MAJOR (GSK)	MAJOR (SSN)
	←--- PLACEMENT LAB (EP) --→		MAJOR (MC)	TAMIL (KU)	ENG. (JME)
	ALLIED (VR)	ENG. (TK)	TAMIL (AST)	←--- PLACEMENT LAB (MC) --→	
	ALLIED (SA)	TAMIL (KST)	ENG. (SRE)	←- M.Sc. LAB (SIVAKUMAR) -→	
<b>III B.C.A. II B.C.A. I B.C.A.</b>	MAJOR (MC)	MAJOR (PB)	MAJOR (GSK)	MAJOR (VB)	MAJOR (PB)
	MAJOR (SK)	MAJOR (ASC)	MAJOR (SK)	MAJOR (ASC)	MAJOR (EP)
	MAJOR (PB)	ENG. (X)	TAMIL (RST)	ALLIED (SSM)	MAJOR (SBC)
<b>III B.Sc.(Maths) II B.Sc.(Maths) I B.Sc.(Maths)</b>	MATHS (SSM)	MATHS (JSM)	MATHS (RK)	MATHS (MG)	MATHS (VR)
	MATHS (GR)	ALLIED (VR)	SBEC (MG)	ENG. (PD)	TAMIL (KST)
	ENG. (SRE)	TAMIL (AST)	MATHS (JSM)	MATHS (RK)	ALLIED (AK)
<b>III B.Sc.(Micro) II B.Sc.(Micro) I B.Sc.(Micro)</b>	MAJOR (TRP)	MAJOR (APV)	MAJOR (PAK)	MAJOR (PAK)	MAJOR (APV)
	TAMIL (AST)	ENG. (SRE)	←----- MAJOR LAB TRP/TN -----→		
	MAJOR (TN)	TAMIL (KU)	ENG. (PD)	MAJOR (TRP)	ALLIED (JM)
<b>III B.Sc.(BT) II B.Sc.(BT) I B.Sc.(BT)</b>	MAJOR (AJ)	MAJOR (AJ)	MAJOR (ML)	MAJOR (KVK)	MAJOR (KV)
	TAMIL (AST)	ENG. (SRE)	ALLIED (GR)	MAJOR (ML)	MAJOR (KVK)
	MAJOR (ML)	ALLIED (PSK)	TAMIL (UK)	MAJOR (KV)	ENG. (MA)
<b>III B.Sc.(Physics) II B.Sc.(Physics) I B.Sc.(Physics)</b>	MAJOR (AK)	MAJOR (PR)	MAJOR (MN)	MAJOR (AK)	MAJOR (MN)
	SBEC (PR)	NMEC (AS)	ALLIED (CHE)	ENG. (PD)	TAMIL (KST)
	ENG. (SRE)	TAMIL (AST)	MAJOR (AK)	ALLIED (SSM)	LIBRARY
<b>III B.Sc.(Chemistry) II B.Sc.(Chemistry) I B.Sc.(Chemistry)</b>	←----- MAJOR LAB -----→				
	ALLIED (MN)	NMEC (AS)		ENG. (PD)	TAMIL (KST)
	ENG. (SRE)	TAMIL (AST)	←----- MAJOR LAB (Z) -----→		
<b>II B.Sc.(Bioche) I B.Sc.(Bioche)</b>	SBEC (KK)	TAMIL (RST)	ALLIED (GR)	ENG. (SRE)	NMEC
	ENG. (SRE)	TAMIL (AST)	P.ENG. (PSK)	←-- CORE PRACTICAL (PSK) --→	
<b>III B.Sc.(Botany)</b>	←----- MAJOR LAB (DM) -----→			MAJOR (GD)	MAJOR (DM)
<b>II B.A. (TAMIL) I B.A. (TAMIL)</b>	MAJOR (UK)	TAMIL (RST)	MAJOR (KST)	ENG. (PD)	NMEC (AST)
	ENG. (X)	TAMIL (AST)	MAJOR (KU)	YOGA (KST)	MAJOR (UK)

  
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**SENGUNTHAR ARTS AND SCIENCE COLLEGE, TIRUCHENGODE.**

**TIMETABLE – 2022-2023 (ODD SEMESTER)**

<b>VI - DAY ORDER</b>					
<b>CLASS</b>	<b>I Hour</b>	<b>II Hour</b>	<b>III Hour</b>	<b>IV Hour</b>	<b>V Hour</b>
<b>III B.A. (ENG.) II B.A. (ENG.) I B.A. (ENG.)</b>	MAJOR (PD)	MAJOR (KP)	MAJOR (TK)	MAJOR (MA)	MAJOR (JM)
	TAMIL (RST)	ENG. (JME)	NMEC (X)	ENG. (MKE)	ENG. (MA)
	ENG. (X)	TAMIL (AST)	MAJOR (MKE)	MAJOR (JME)	MAJOR (KP)
<b>III BCOM – A III BCOM – B II BCOM I BCOM</b>	MAJOR (MNC)	MAJOR (PE)	MAJOR (MNC)	ALLIED (EP)	MAJOR (RUV)
	MAJOR (PE)	MAJOR (SS)	ALLIED (SBC)	MAJOR (MNC)	MAJOR (MNC)
	MAJOR (RUV)	MAJOR (RUV)	MAJOR (PE)	ALLIED (KC)	MAJOR (PE)
	MAJOR (SS)	ENG. (TK)	ECO. (SSE)	MAJOR (SS)	TAMIL (UK)
<b>III B.B.A. II B.B.A. I B.B.A.</b>	MATHS (RK)	MAJOR (X)	MAJOR (SSB)	COMP. (ASC)	MAJOR (X)
	ALLIED (SSE)	MAJOR (RRB)	MAJOR (X)	MAJOR (SSB)	SBEC (SSE)
	ENG. (X)	TAMIL (AST)	ALLIED (SA)	MAJOR (RRB)	MAJOR (SSB)
<b>III BCOM (CA) II BCOM (CA) I BCOM (CA)</b>	MAJOR (SSCA)	MAJOR (TS)	MAJOR (RMK)	MAJOR (TRM)	ALLIED (SSN)
	MAJOR (TS)	MAJOR (TRM)	ALLIED (GSK)	ALLIED (STN)	MAJOR (RMK)
	MAJOR (NMC)	MAJOR (RMK)	ENG. (SRE)	TAMIL (RST)	ALLIED (SIVA)
<b>III B.Sc. (ELEC.) I B.Sc. (ELEC.)</b>	MAJOR (PR)	MAJOR (SR)	MAJOR (PR)	MAJOR (AK)	MAJOR (SR)
	ENG. (KP)	TAMIL (AST)	ALLIED (SSM)	YOGA (MN)	MAJOR (PR)
<b>III B.Sc.(CS) II B.Sc.(CS) I B.Sc.(CS)-A I B.Sc.(CS)-B</b>	MAJOR (AS)	MAJOR (ASC)	←----- PLACEMENT LAB (RSK) -----→		
	MAJOR (MC)	ENG. (JME)	MAJOR (VB)	ALLIED (PR)	TAMIL (KU)
	ENG. (TK)	MAJOR (MC)	TAMIL (AST)	ALLIED (VR)	YOGA (MC)
	MAJOR (SK)	YOGA (SK)	TAMIL (KST)	ENG. (SRE)	ALLIED (SA)
<b>III B.C.A. II B.C.A. I B.C.A.</b>	MAJOR (VB)	MAJOR (GSK)	MAJOR (PB)	MAJOR (GSK)	MAJOR (AS)
	MAJOR (ASC)	MAJOR (EP)	MAJOR (SSN)	ALLIED (PR)	OS (EPR)
	ENG. (X)	TAMIL (RST)	ALLIED (SSM)	←----- M.Sc. LAB (PB) -----→	
<b>III B.Sc.(Maths) II B.Sc.(Maths) I B.Sc.(Maths)</b>	MAJOR (VR)	MATHS (SA)	MATHS (JSM)	MATHS (RK)	MATHS (KC)
	MATHS (SSM)	TAMIL (KST)	ENG. (PD)	SBEC (MG)	MATHS (GR)
	ENG. (KP)	TAMIL (AST)	MATHS (RK)	P.E. (SA)	ALLIED (MN)
<b>III B.Sc.(Micro) II B.Sc.(Micro) I B.Sc.(Micro)</b>	MAJOR (TRP)	MAJOR (PAK)	MAJOR (TN)	MAJOR (PAK)	MAJOR (APV)
	MAJOR (TN)	ALLIED (SBC)	MAJOR (TRP)	TAMIL (AST)	ENG. (SRE)
	MAJOR (APV)	ALLIED (JM)	TAMIL (KU)	ALLIED (PSK)	ENG. (PD)
<b>III B.Sc.(BT) II B.Sc.(BT) I B.Sc.(BT)</b>	MAJOR (ML)	MAJOR (AJ)	MAJOR (RRW)	MAJOR (KVK)	MAJOR (AJ)
	MAJOR (KV)	ALLIED (GR)	MAJOR (ML)	TAMIL (AST)	ENG. (SRE)
	ENG. (MA)	MAJOR (KV)	YOGA (AJ)	TAMIL (UK)	ALLIED (KK)
<b>III B.Sc.(Physics) II B.Sc.(Physics) I B.Sc.(Physics)</b>	MAJOR (MN)	MAJOR (AK)	MAJOR (MN)	LIBRARY	MAJOR (AK)
	ALLIED (CHE)	TAMIL (KST)	ENG. (PD)	←---- ALLIED CHE. LAB (X) ---→	
	ENG. (KP)	TAMIL (AST)	ALLIED (SSM)	YOGA (MN)	MAJOR (PR)
<b>III B.Sc.(Chemistry) II B.Sc.(Chemistry) I B.Sc.(Chemistry)</b>	←----- MAJOR LAB -----→				
	ALLIED (AK)	TAMIL (KST)	ENG. (PD)		
	ENG. (KP)	TAMIL (AST)	ALLIED (SSM)		
<b>II B.Sc.(Bioche) I B.Sc.(Bioche)</b>	TAMIL (RST)	ALLIED (GR)	ENG. (PD)	SBEC (KK)	MAJOR (JM)
	ENG. (KP)	TAMIL (AST)	←----- ALLIED CHE. LAB (X) -----→		
<b>III B.Sc.(Botany)</b>	←----- MAJOR LAB (DM) -----→			MAJOR (GD)	MAJOR (DM)
<b>II B.A. (TAMIL) I B.A. (TAMIL)</b>	TAMIL (RST)	MAJOR (KU)	ENG. (PD)	MAJOR (KST)	SBEC (AST)
	ENG. (X)	TAMIL (AST)	MAJOR (UK)	MAJOR (KU)	ALLIED (KST)

**SENGUNTHAR ARTS AND SCIENCE COLLEGE, TIRUCHENGODE.**

**TIMETABLE – 2022-2023 (EVEN SEMESTER)**

I - DAY ORDER					
CLASS	I Hour	II Hour	III Hour	IV Hour	V Hour
III B.A. (ENG.)	MAJOR (KP)	MAJOR (MA)	MAJOR (PD)	ALLIED(JME)	PRACTICAL-X2
II B.A. (ENG.)	ALLIED(MKE)	ENG.(PD)	TAMIL(KST)	SBEC(X2)	MAJOR(TK)
I B.A. (ENG.)	MAJOR(JME)	TAMIL(AST)	ENG.(KP)	ALLIED(MKE)	MAJOR(KP)
III BCOM- A	MAJOR(RUV)	MAJOR(PER)	MAJOR(MNC)	MAJOR(PER)	MAJOR(RUV)
III BCOM - B	MAJOR(MNC)	MAJOR(RUV)	MAJOR(RUV)	MAJOR(SS)	MAJOR(MNC)
II BCOM	MAJOR(SS)	MAJOR(MNC)	NMEC (RRV)	ALLIED(RK)	MAJOR (SS)
I BCOM	ENG. (TK)	LAB (SS)	TAMIL (UK)	MAJOR (MNC)	MAJOR(PER)
III B.B.A.	MAJOR(RRB)	MAJOR(SSB)	LAB (X)	MAJOR(SSB)	COMP (ASC)
II B.B.A.	ALLIED (SSE)	MAJOR(RRB)	MAJOR(SSB)	COMP (EPR)	MAJOR(RRB)
I B.B.A.	MAJOR(SSB)	TAMIL (AST)	ENG. (KP)	ALLIED (SSE)	MAJOR(SSB)
III BCOM (CA)	MAJOR(TRM)	MAJOR(RMK)	MAJOR(TS)	MAJOR(RMK)	MAJOR(NMC)
II BCOM (CA)	MAJOR (SM)	ALLIED (GR)	COMP (VB)	MAJOR (TS)	MAJOR (RMK)
I BCOM (CA)	MAJOR (NMC)	TAMIL (RST)	ENG. (SRE)	MAJOR (SM)	COMP (SSCA)
III B.Sc. (ELEC.)	MAJOR(SR)	MAJOR(AK)	←-----PROJECT(SR) -----→		
I B.Sc. (ELEC.)	ALLIED(SSM)	TAMIL (AST)	ENG.(SRE)	EVS (MN)	MAJOR(AK)
III B.Sc.(CS)	MAJOR(SB)	MAJOR(SSCA)	←-----PLACEMENT COMP. LAB (SSN) -----→		
II B.Sc.(CS)	TAMIL(KU)	ENG.(JME)	ALLIED (SR)	←-----ALLIED LAB(SR) -----→	
I B.Sc.(CS) –A	←-----PLACEMENT COMP. LAB (MC) -----→			TAMIL(AST)	ENG.(X1)
I B.Sc.(CS) –B	MAJOR(SSCA)	MAJOR(VB)	ALLIED(SA)	TAMIL(KST)	ENG.(SRE)
III B.C.A.	MAJOR (SBC)	MAJOR (SSN)	MAJOR (GSK)	MAJOR (MC)	MAJOR (EPR)
II B.C.A.	←-----MAJOR COMP. LAB (AC) -----→			MAJOR (ASC)	MAJOR (AS)
I B.C.A.	ALLIED (SSM)	MAJOR (EPR)	TAMIL (RST)	ENG.(X1)	MAJOR (GSK)
III B.Sc.(Maths)	MAJOR (KC)	MAJOR(STN)	MAJOR(RK)	←-----MAJOR LAB(MG) -----→	
II B.Sc.(Maths)	MAJOR (SA)	ENG. (PD)	TAMIL (KST)	←-----MAJOR LAB(MG) -----→	
III B.Sc.(Micro)	MAJOR (TRP)	MAJOR (PAK)	←-----MAJOR LAB(TRP) -----→		
II B.Sc.(Micro)	MAJOR (TN)	ENG. (SRE)	TAMIL (AST)	MAJOR (SBC)	MAJOR (TRP)
I B.Sc.(Micro)	ENG (X1)	TAMIL (KU)	←-----ALLIED BIO LAB(JAM) -----→		
III B.Sc.(BT)	MAJOR (KV)	MAJOR (AJ)	MAJOR (KVK)	MAJOR (ML)	MAJOR (AJ)
II B.Sc.(BT)	MAJOR (KVK)	ENG. (SRE)	TAMIL (AST)	ALLIED	MAJOR (MC)
I B.Sc.(BT)	MAJOR (ML)	ALLIED(KK)	MAJOR (SSBT)	ENG. (MA)	TAMIL (RST)
III B.Sc.(Physics)	MAJOR (X)	MAJOR (MN)	MAJOR (AK)	MAJOR (X)	MAJOR (SR)
II B.Sc.(Physics)	MAJOR (MM)	ENG. (PD)	TAMIL (KST)	MAJOR (AJ)	ALLIED(GI)
I B.Sc.(Physics)	ALLIED (SSM)	TAMIL (AST)	ENG. (PD)	EVS(MN)	MAJOR (AK)
III B.Sc.(Chemistry)	←-----MAJOR LAB(GI/SRD) -----→				
II B.Sc.(Chemistry)	ALLIED (AK)	ENG. (PD)	TAMIL (KST)	MAJOR (AJ)	MAJOR (CR)
II B.Sc.(Bioche)	SBEC (JM)	ENG. (PD)	TAMIL (KST)	MAJOR (MA)	MAJOR (MC)
I B.Sc.(Bioche)	MAJOR (TSK)	TAMIL (AST)	ENG. (PD)	EVS(JM)	ALLIED(GI)
III B.Sc.(Botany)	TAMIL (DM)	ELECTIVE (GD)	MAJOR (DM)	MAJOR (DM)	SBEC (GD)
I BA,(Tamil)	ALLIED (KST)	TAMIL (AST)	ENG. (KP)	ALLIED (UK)	MAJOR (KU)

  
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**SENGUNTHAR ARTS AND SCIENCE COLLEGE, TIRUCHENGODE.**

**TIMETABLE – 2022-2023 (EVEN SEMESTER)**

II - DAY ORDER					
CLASS	I Hour	II Hour	III Hour	IV Hour	V Hour
III B.A. (ENG.)	ALLIED (JME)	MAJOR (PD)	MAJOR (KP)	ALLIED(MA)	PRACTICAL(X2)
II B.A. (ENG.)	ENG.(PD)	TAMIL(KST)	MAJOR(TK)	ALLIED(MKE)	SBEC-X2
I B.A. (ENG.)	TAMIL(AST)	ENG.(KP)	ALLIED-(MKE)	MAJOR(JME)	MAJOR(KP)
III BCOM –A	MAJOR (RUV)	MAJOR (PER)	MAJOR (SS)	MAJOR (PER)	MAJOR (PER)
III BCOM - B	MAJOR (MNC)	MAJOR (RUV)	MAJOR (RUV)	MAJOR (SS)	MAJOR (SS)
II BCOM	MAJOR (SS)	MAJOR (MNC)	LIB-(RK)	MAJOR (RUV)	MAJOR (MNC)
I BCOM	TAMIL(UK)	MAJOR (PVR)	MAJOR (MNC)	MAJOR (MNC)	ENG.(TK)
III B.B.A.	MAJOR (SSB)	ALLIED (ASL)	MAJOR (RRB)	MAJOR (RRB)	MAJOR (SSB)
II B.B.A.	COMP (EPR)	MAJOR (RRB)	ALLIED (SSE)	MAJOR (SSB)	LIB (X)
I B.B.A.	TAMIL(AST)	ENG.(KP)	MAJOR (SSB)	ALLIED (SSE)	MAJOR (RRB)
III BCOM (CA)	MAJOR (RMK)	MAJOR (TS)	MAJOR (TRM)	MAJOR (NMC)	MAJOR (TS)
II BCOM (CA)	←-----PLACEMENT COMP. LAB (VB) -----→			MAJOR (SM)	ALLIED(GR)
I BCOM (CA)	MAJOR (NMC)	COMP (SSCA)	ENG. (SRE)	TAMIL (RST)	MAJOR (RMK)
III B.Sc. (ELEC.)	MAJOR (SR)	MAJOR (MN)	←-----MAJOR. LAB (MN) -----→		
I B.Sc. (ELEC.)	TAMIL (AST)	ENG.(KP)	←-----MAJOR. LAB (MN) -----→		
III B.Sc.(CS)	MAJOR (ASC)	MAJOR (AS)	MAJOR (SSLR)	MAJOR (SBC)	MAJOR (SSN)
II B.SC.(CS)	ALLIED (GSK)	ENG.(JME)	TAMIL(KU)	PLACEMENT COMP. LAB (GSK)	
I B.Sc.(CS)-A	ALLIED(VR)	MAJOR (SBC)	MAJOR (MC)	ENG.(X1)	TAMIL(AST)
I B.Sc.(CS)-B	MAJOR(SSCA)	ALLIED(SA)		ENG.(SRE)	TAMIL(KST)
III B.C.A.	MAJOR (MC)	MAJOR (GSK)	MAJOR (SSN)	MAJOR (SBC)	MAJOR (MC)
II B.C.A.	ALLIED (AK)	MAJOR (SSN)	MAJOR (AS)	MAJOR (ASL)	MAJOR (AS)
I B.C.A.	ENG.(X1)	TAMIL(RST)	←-----M.SC. LAB (EPR) -----→		
III B.Sc.(Maths)	MAJOR(GR)	MAJOR(KC)	MAJOR(SSM)	MAJOR(RK)	LIB.(MG)
II B.Sc.(Maths)	ENG.(PD)	TAMIL(KST)	MAJOR(SA)	MAJOR(VR)	NMEC(UK)
III B.Sc.(Micro)	MAJOR (TN)	MAJOR (TRP)	MAJOR (APV)	MAJOR (SN)	MAJOR (TRP)
II B.Sc.(Micro)	ENG.(SRE)	TAMIL(AST)	MAJOR (SBC)	MAJOR (TRP)	MAJOR (APV)
I B.Sc.(Micro)	TAMIL(KU)	ENG.(X1)	←----- MAJOR. LAB (TN) -----→		
III B.Sc.(BT)	MAJOR (KV)	MAJOR (ML)	MAJOR (AJ)	MAJOR (KV)	MAJOR (AJ)
II B.Sc.(BT)	ENG.(SRE)	TAMIL(AST)	←----- MAJOR. LAB (KVR) -----→		
I B.Sc.(BT)	TAMIL(RST)	ENG.(X1)	←----- ALLIED LAB (KK) -----→		
III B.Sc.(Physics)	MAJOR (MN)	MAJOR (AK)	←----- MAJOR. LAB (MV) -----→		
II B.Sc.(Physics)	ENG.(PD)	TAMIL(KST)	MAJOR (AK)	←----- ALLIED LAB (AK) -----→	
I B.Sc.(Physics)	TAMIL(AST)	ENG.(KP)	←----- MAJOR. LAB (MN) -----→		
III B.Sc.(Chemistry)	MAJOR (SRD)	MAJOR (GI)	MAJOR (SRD)	MAJOR (CR)	MAJOR (SRD)
II B.Sc.(Chemistry)	ENG.(PD)	TAMIL(KST)	←----- MAJOR. LAB (MN) -----→		
II B.Sc.(Bioche)	ENG.(PD)	TAMIL(KST)	MAJOR (JM)	MAJOR (JM)	NMEC(CR)
I B.Sc.(Bioche)	TAMIL(AST)	ENG.(KP)	←----- ALLIED LAB (SRD) -----→		
III B.Sc.(Botany)	MAJOR (DM)	ELECTIVE (GD)	MAJOR (DM)	SBEC (GD)	SBEC (DM)
I BA.(Tamil)	TAMIL(AST)	ENG.(KP)	ALLIED(UK)	MAJOR (KU)	ALLIED(KST)

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**SENGUNTHAR ARTS AND SCIENCE COLLEGE, TIRUCHENGODE.**

**TIMETABLE – 2022-2023 (EVEN SEMESTER)**

III - DAY ORDER					
CLASS	I Hour	II Hour	III Hour	IV Hour	V Hour
III B.A. (ENG.)	MAJOR (MA)	MAJOR (KP)	ALLIED (JME)	PRAC. (X)	MAJOR (PD)
II B.A. (ENG.)	ENG. (PD)	TAMIL (KST)	ALLIED (MKE)	MAJOR (TK)	SBEC (X)
I B.A. (ENG.)	MAJOR (JME)	ALLIED (MKE)	ENG. (DP)	TAMIL (AS)	MAJOR (KP)
III BCOM – A	MAJOR (RUV)	MAJOR (MNC)	MAJOR (SS)	MAJOR (RUV)	MAJOR (SS)
III BCOM – B	MAJOR (MNC)	LIBRARY	MAJOR (RUV)	MAJOR (MNC)	MAJOR (RUV)
II BCOM	MAJOR (PER)	ALLIED (SA)	MAJOR (PER)	MAJOR (PER)	MAJOR (MNC)
I BCOM	MAJOR (SS)	MAJOR (PER)	ENG.(TK)	TAMIL (UK)	MAJOR (PER)
III B.B.A.	MAJOR(SSB)	MAJOR(RRB)	←----- M.Sc. LAB (ASC) -----→		
II B.B.A.	MAJOR(RRB)	MAJOR(SSB)	COMP. (EPR)	MAJOR(SSB)	ALLIED(SSE)
I B.B.A.	ALLIED(SSE)	MAJOR(X)	ENG. (KP)	TAMIL (AST)	MAJOR(RRB)
III BCOM (CA)	MAJOR(RMK)	MAJOR(TS)	MAJOR(NMC)	MAJOR(RMK)	MAJOR(TRM)
II BCOM (CA)	ALLIED (GR)	MAJOR(SM)	MAJOR(TS)	←-- PLACEMENT LAB (EPR) →	
I BCOM (CA)	MAJOR(SM)	ENG. (SVE)	TAMIL (RST)	MAJOR(NMC)	MAJOR(RMK)
III B.Sc. (ELEC.)	MAJOR(MN)	MAJOR(X)	←----- MAJOR LAB (AK) -----→		
I B.Sc. (ELEC.)	ALLIED (VR)	MAJOR(MN)	ENG. (EP)	TAMIL (AST)	ALLIED (SSM)
III B.Sc.(CS)	←----- PLACEMENT LAB (AS) -----→			MAJOR (SBC)	MAJOR (SSCA)
II B.Sc.(CS)	MAJOR (VB)	ALLIED	TAMIL (KU)	MAJOR (VB)	ENG. (JME)
I B.Sc.(CS)-A	MAJOR (PB)	MAJOR (SBC)	TAMIL (AST)	ENG. (X)	ALLIED (VR)
I B.Sc.(CS)-B	MAJOR (SSCA)	MAJOR (VB)	TAMIL (KST)	ALLIED (RK)	ENG. (SRE)
III B.C.A.	←----- M.Sc. LAB (GSK) -----→			MAJOR (SBC)	MAJOR (MC)
II B.C.A.	MAJOR (SSN)	ALLIED	←----- ALLIED LAB (AK) -----→		
I B.C.A.	MAJOR (EP)	ENG.(X)	ALLIED (SSM)	TAMIL (KST)	ALLIED (SSM)
III B.Sc.(Maths)	MAJOR (SA)	MAJOR (STN)	MAJOR (STN)	MAJOR (KC)	MAJOR (RK)
II B.Sc.(Maths)	MAJOR (PD)	TAMIL (KST)	MAJOR (VR)	MAJOR (SA)	NMEC (UK)
III B.Sc.(Micro)	MAJOR (TN)	MAJOR (PAK)	MAJOR (APV)	←---- MAJOR LAB (PAK) ----→	
II B.Sc.(Micro)	ENG. (SRE)	TAMIL (AST)	←----- (SBC) -----→		
I B.Sc.(Micro)	ENG. (X)	MAJOR(TN)	ALLIED (PSK)	TAMIL (KU)	MAJOR(APV)
III B.Sc.(BT)	MAJOR(ML)	MAJOR(KV)	←----- MAJOR LAB (KV) -----→		
II B.Sc.(BT)	ENG. (SRE)	TAMIL (AST)	MAJOR(KVK)	MAJOR(RRW)	MAJOR(GD)
I B.Sc.(BT)		TAMIL (RST)	ALLIED (PSK)	ALLIED (KK)	ENG. (MA)
III B.Sc.(Physics)	MAJOR(AK)	MAJOR(SR)	←----- MAJOR LAB (AK) -----→		
II B.Sc.(Physics)	ENG. (PD)	TAMIL (KST)	←----- MAJOR LAB (AK) -----→		
I B.Sc.(Physics)	ALLIED (VR)	MAJOR(MN)	ENG. (KP)	TAMIL (AST)	ALLIED (SSM)
III B.Sc.(Chemistry)	MAJOR (SPD)	MAJOR (CR)	MAJOR (SRD)	MAJOR (SRD)	MAJOR (CR)
II B.Sc.(Chemistry)	ENG. (PD)	TAMIL (KST)	←----- MAJOR LAB (CR) -----→		
II B.Sc.(Bioche)	ENG. (PD)	TAMIL (KST)	←----- MAJOR LAB (JM) -----→		
I B.Sc.(Bioche)	MAJOR (KK)	P.E. (PSK)	ENG. (KP)	TAMIL (AST)	ALLIED (GI)
III B.Sc.(Botany)	MAJOR(DM)	MAJOR(GD)	SBEC(DM)	MAJOR(GD)	MAJOR(DM)
I B.A. (TAMIL)	ALLIED (UK)	MAJOR (KU)	ENG.(KP)	TAMIL (AST)	ALLIED (KST)

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**SENGUNTHAR ARTS AND SCIENCE COLLEGE, TIRUCHENGODE.**

**TIMETABLE – 2022-2023 (EVEN SEMESTER)**

<b>IV - DAY ORDER</b>					
<b>CLASS</b>	<b>I Hour</b>	<b>II Hour</b>	<b>III Hour</b>	<b>IV Hour</b>	<b>V Hour</b>
<b>III B.A. (ENG.)</b>	MAJOR (PD)	MAJOR (MA)	ALLIED (JM)	MAJOR (KP)	PRAC. (X)
<b>II B.A. (ENG.)</b>	MAJOR (TK)	ALLIED (MK)	SBEC (X)	TAMIL (KST)	ENG. (PD)
<b>I B.A. (ENG.)</b>	MAJOR (KP)	MAJOR (JME)	ENG. (KP)	ALLIED (MKE)	TAMIL (AST)
<b>III BCOM – A</b>	MAJOR (MNC)	MAJOR (PER)	MAJOR (RUV)	MAJOR (SS)	LIB. (PER)
<b>III BCOM – B</b>	MAJOR (RUV)	MAJOR (MNC)	MAJOR (MNC)	MAJOR (RUV)	MAJOR (RUV)
<b>II BCOM</b>	ALLIED (RK)	MAJOR (SS)	MAJOR (PER)	←----- MBA LAB (MNC) -----→	
<b>I BCOM</b>	MAJOR (SS)	ENG. (TK)	TAMIL (UK)	MAJOR (PER)	MAJOR (SS)
<b>III B.B.A.</b>	MAJOR (RRB)	MAJOR (SSB)	COMP. (ASC)	MAJOR (SSB)	MAJOR (RRB)
<b>II B.B.A.</b>	ALLIED (SSE)	COMP. (EPR)	NMEC (X)	MAJOR (RRB)	MAJOR (SSB)
<b>I B.B.A.</b>	MAJOR (SSB)	MAJOR (RRB)	ENG. (KP)	ALLIED (SSE)	TAMIL (AST)
<b>III BCOM (CA)</b>	MAJOR (TRM)	MAJOR (TS)	MAJOR (NM)	MAJOR (RMK)	MAJOR (SM)
<b>II BCOM (CA)</b>	MAJOR (RMK)	ALLIED (GR)	ALLIED (GSK)	MAJOR (SM)	MAJOR (TS)
<b>I BCOM (CA)</b>	MAJOR (SM)	ENG. (SRE)	TAMIL (RST)	MAJOR (NMC)	MAJOR (SSCA)
<b>III B.Sc. (ELEC.)</b>	MAJOR (X)	MAJOR (SR)	LIBRARY	MAJOR (X)	MAJOR (AK)
<b>I B.Sc. (ELEC.)</b>	MAJOR (X)	ALLIED (SSM)	ENG. (KP)	MAJOR (MN)	TAMIL (AST)
<b>III B.Sc.(CS)</b>	MAJOR (AS)	MAJOR (SSCA)	MAJOR (SSCA)	MAJOR (AS)	MAJOR (SBC)
<b>II B.Sc.(CS)</b>	ENG. (JME)	TAMIL (KU)	←----- PLACEMENT LAB (VB) -----→		
<b>I B.Sc.(CS)-A</b>	ALLIED (VR)	MAJOR (SBC)	TAMIL (AST)	MAJOR (MC)	ENG. (X)
<b>I B.Sc.(CS)-B</b>	ALLIED (SA)	MAJOR (VB)	TAMIL (KST)	ENG. (SRE)	MAJOR (PB)
<b>III B.C.A.</b>	MAJOR (GSK)	MAJOR (SSN)	MAJOR (EP)	MAJOR (GSK)	MAJOR (SBC)
<b>II B.C.A.</b>	MAJOR (ASC)	MAJOR (AS)	MAJOR (SSN)	←----- M.Sc. LAB (SSN) -----→	
<b>I B.C.A.</b>	ENG. (X)	ALLIED (SSM)	TAMIL (RST)	MAJOR (EP)	ALLIED (SSM)
<b>III B.Sc.(Maths)</b>	MAJOR (STN)	MAJOR (PK)	MAJOR (KC)	MAJOR (SSM)	MAJOR (GR)
<b>II B.Sc.(Maths)</b>	MAJOR (GR)	MAJOR (VR)	MAJOR (VR)	TAMIL (KST)	ENG. (PD)
<b>III B.Sc.(Micro)</b>	MAJOR (PAK)	MAJOR (TRP)	←----- MAJOR LAB (APV) -----→		
<b>II B.Sc.(Micro)</b>	MAJOR (SBC)	MAJOR (SN)	MAJOR (TN)	TAMIL (AST)	ENG. (SRE)
<b>I B.Sc.(Micro)</b>	MAJOR (TRP)	ALLIED (JM)	MAJOR (SN)	ENG. (X)	TAMIL (KU)
<b>III B.Sc.(BT)</b>	MAJOR (AJ)	MAJOR (KVK)	MAJOR (AJ)	MAJOR (KV)	MAJOR (AJ)
<b>II B.Sc.(BT)</b>	←----- ALLIED LAB ( ) -----→			TAMIL (AST)	MAJOR (GD)
<b>I B.Sc.(BT)</b>	←----- MAJOR LAB (ML) -----→			TAMIL (RST)	ENG. (MA)
<b>III B.Sc.(Physics)</b>	MAJOR (SR)	MAJOR (AK)	MAJOR (MN)	MAJOR (AK)	MAJOR (MN)
<b>II B.Sc.(Physics)</b>	MAJOR (MN)	ALLIED (GI)	MAJOR (AK)	TAMIL (KST)	ENG. (PD)
<b>I B.Sc.(Physics)</b>	MAJOR (AK)	ALLIED (SSM)	ENG. (KP)	MAJOR (MN)	TAMIL (AST)
<b>III B.Sc.(Chemistry)</b>	←----- MAJOR LAB (CR) -----→			MAJOR (GI)	MAJOR (SRD)
<b>II B.Sc.(Chemistry)</b>	MAJOR (CR)		POLY (SRD)	TAMIL (KST)	ENG. (PD)
<b>II B.Sc.(Bioche)</b>	←----- M.Sc. LAB (MC) -----→			TAMIL (KST)	ENG. (PD)
<b>I B.Sc.(Bioche)</b>	MAJOR (PSK)	ALLIED (GI)	ENG..(KP)	P.E. (KK)	TAMIL (AST)
<b>III B.Sc.(Botany)</b>	←----- MAJOR LAB (DM) -----→			ELEC. (GD)	SBEC (DM)
<b>I B.A. (TAMIL)</b>	MAJOR (KU)	ALLIED (KST)	ENG. (KP)	ALLIED (UK)	TAMIL (AST)

  
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**SENGUNTHAR ARTS AND SCIENCE COLLEGE, TIRUCHENGODE.**

**TIMETABLE – 2022-2023 (EVEN SEMESTER)**

<b>V - DAY ORDER</b>					
<b>CLASS</b>	<b>I Hour</b>	<b>II Hour</b>	<b>III Hour</b>	<b>IV Hour</b>	<b>V Hour</b>
<b>III B.A. (ENG.)</b>	PRAC. (X)	MAJOR (KP)	MAJOR (MA)	MAJOR (PD)	ALLIED (JME)
<b>II B.A. (ENG.)</b>	TAMIL (KST)	MAJOR (TK)	ENG. (PD)	NMEC	ALLIED (MKE)
<b>I B.A. (ENG.)</b>	ALLIED (MKE)	TAMIL (AST)	ENG. (KP)	MAJOR (JME)	MAJOR (KP)
<b>III BCOM – A</b>	MAJOR (SS)	MAJOR (PER)	MAJOR (RUV)	MAJOR (MNC)	MAJOR (RUV)
<b>III BCOM – B</b>	MAJOR (MNC)	MAJOR (MNC)	MAJOR (MNC)	MAJOR (RUV)	MAJOR (MNC)
<b>II BCOM</b>	ALLIED (RK)	MAJOR (RUV)	NMEC (RRB)	MAJOR (SS)	MAJOR (PER)
<b>I BCOM</b>	ENG. (TK)	MAJOR (SS)	TAMIL (UK)	MAJOR (PER)	MAJOR (SS)
<b>III B.B.A.</b>	MAJOR (SSB)	MAJOR (RRB)	MAJOR (SSB)	MAJOR (RRB)	MAJOR (SSB)
<b>II B.B.A.</b>	MAJOR (RRB)	MAJOR (SSB)	ALLIED (SSE)	LIB. (X)	COMP. (EPR)
<b>I B.B.A.</b>	ALLIED (SSE)	TAMIL (AST)	ENG. (KP)	MAJOR (SSB)	MAJOR (RRB)
<b>III BCOM (CA)</b>	MAJOR (RMK)	MAJOR (NMC)	MAJOR (TRM)	MAJOR (RMK)	MAJOR (TS)
<b>II BCOM (CA)</b>	MAJOR (SM)	MAJOR (TS)	ALLIED (GR)	MAJOR (TS)	COMP. (VB)
<b>I BCOM (CA)</b>	TAMIL (RST)	ENG. (SRE)	MAJOR (NMC)	MAJOR (SM)	MAJOR (RMK)
<b>III B.Sc. (ELEC.)</b>	MAJOR (SR)	MAJOR (X)	MAJOR (X)	MAJOR (SR)	MAJOR (X)
<b>I B.Sc. (ELEC.)</b>	MAJOR (X)	TAMIL (AST)	ENG.(KP)	ALLIED (VR)	ALLIED 9SM)
<b>III B.Sc.(CS)</b>	MAJOR (EPR)	MAJOR (ASC)	MAJOR (AS)	□-- PLACEMENT LAB (AS) - □	
<b>II B.Sc.(CS)</b>	ENG. (JME)	MAJOR (VB)	TAMIL (KU)	ALLIED (AK)	NMEC
<b>I B.Sc.(CS)-A</b>	ENG. (X)	ALLIED (VR)	MAJOR (SBC)	TAMIL (AST)	MAJOR (MC)
<b>I B.Sc.(CS)-B</b>	←----- PLACEMENT LAB (SSC) -----→			TAMIL (KST)	ENG. (SRE)
<b>III B.C.A.</b>	MAJOR (SSN)	MAJOR (GSK)	MAJOR (MC)	←----- M.SC. LAB (GSK) -----→	
<b>II B.C.A.</b>	MAJOR (AS)	MAJOR (SSN)	MAJOR (ASC)	ALLIED (AK)	MAJOR(NMEC)
<b>I B.C.A.</b>	MAJOR (GSK)	MAJOR (PB)	ENG. (X)	TAMIL (RST)	ALLIED (SSM)
<b>III B.Sc.(Maths)</b>	MAJOR (MG)	MAJOR (SSM)	MAJOR (SA)	MAJOR (SSM)	MAJOR (RK)
<b>II B.Sc.(Maths)</b>	TAMIL (KST)	MAJOR (GR)	ENG. (PD)	MAJOR (SA)	ALLIED (VR)
<b>III B.Sc.(Micro)</b>	MAJOR (PAK)	MAJOR (TN)	MAJOR (APV)	←----- (PAK) -----→	
<b>II B.Sc.(Micro)</b>	←-- (SBC) -- M.Sc.(C.S.) LAB (SBC) ---- (SSN) --→			ENG. (SRE)	TAMIL (AST)
<b>I B.Sc.(Micro)</b>	ALLIED (PSK)	MAJOR(TRP)	MAJOR(TN)	ENG. (X)	TAMIL (KU)
<b>III B.Sc.(BT)</b>	MAJOR (AJ)	MAJOR (ML)	←----- MAJOR LAB (AJ) -----→		
<b>II B.Sc.(BT)</b>	MAJOR (GD)	ALLIED (MC)	MAJOR (RRW)	ENG. (SRE)	TAMIL (AST)
<b>I B.Sc.(BT)</b>	ALLIED (PSK)	ENG. (MA)	TAMIL (RST)	MAJOR (ML)	MAJOR (ML)
<b>III B.Sc.(Physics)</b>	MAJOR (MN)	MAJOR (AK)	MAJOR (AK)	MAJOR (MN)	MAJOR (MN)
<b>II B.Sc.(Physics)</b>	TAMIL (KST)	MAJOR (MN)	ENG. (PD)	LIB (X)	ALLIED (GI)
<b>I B.Sc.(Physics)</b>	MAJOR (AK)	TAMIL (AST)	ENG. (KP)	ALLIED (VR)	ALLIED (SSM)
<b>III B.Sc.(Chemistry)</b>	MAJOR (CR)	MAJOR (SRD)	MAJOR (GI)	LIB (CR)	MAJOR (SRD)
<b>II B.Sc.(Chemistry)</b>	TAMIL (KST)	MAJOR (CR)	ENG. (PD)	LIB(CR)	MAJOR (CR)
<b>II B.Sc.(Bioche)</b>	TAMIL (KST)	MAJOR (MC)	ENG. (PD)	NMEC (SRD)	MAJOR (JM)
<b>I B.Sc.(Bioche)</b>	ALLIED (GI)	TAMIL (AST)	ENG. (KP)	←----- MAJOR LAB (PSK) ---→	
<b>III B.Sc.(Botany)</b>	MAJOR(DM)	LIB(GD)	SBEC(DM)	MAJOR(DM)	MAJOR(GD)
<b>I B.A. (TAMIL)</b>	MAJOR (KU)	TAMIL (AST)	ENG. (KP)	ALLIED (UK)	ALLIED (KST)

  
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**SENGUNTHAR ARTS AND SCIENCE COLLEGE, TIRUCHENGODE.**

**TIMETABLE – 2022-2023 (EVEN SEMESTER)**

<b>VI - DAY ORDER</b>					
<b>CLASS</b>	<b>I Hour</b>	<b>II Hour</b>	<b>III Hour</b>	<b>IV Hour</b>	<b>V Hour</b>
<b>III B.A. (ENG.)</b>	MAJOR (PD)	MAJOR (KP)	MAJOR (MA)	ALLIED (JME)	PRAC. (X2)
<b>II B.A. (ENG.)</b>	MAJOR (TK)	ALLIED (MKE)	ENG. (PD)	TAMIL (KST)	NMEC
<b>I B.A. (ENG.)</b>	MAJOR (KP)	MAJOR (JME)	ALLIED (MKE)	TAMIL (AST)	ENG. (KD)
<b>III BCOM – A</b>	MAJOR (MNC)	MAJOR (MNC)	MAJOR (RUV)	MAJOR (SS)	MAJOR (MNC)
<b>III BCOM – B</b>	MAJOR (SS)	MAJOR (PER)	MAJOR (MNC)	MAJOR (PER)	MAJOR (PER)S
<b>II BCOM</b>	ALLIED (RK)	MAJOR (RUV)	MAJOR (SS)	MAJOR (MNC)	MAJOR (RUV)
<b>I BCOM</b>	MAJOR (PER)	MAJOR (SS)	MAJOR (PER)	ENG. (TK)	TAMIL (VR)
<b>III B.B.A.</b>	MAJOR (RRB)	MAJOR (SSB)	LIB. (X)	MAJOR (RRB)	MAJOR (ASC)
<b>II B.B.A.</b>	MAJOR (SSE)	MAJOR (RRB)	MAJOR (RRB)	MAJOR (SSB)	NMEC (X)
<b>I B.B.A.</b>	MAJOR (SSB)	LIB. (X)	ALLIED (SSE)	TAMIL (AST)	ENG. (KP)
<b>III BCOM (CA)</b>	MAJOR (TRM)	MAJOR (RMK)	MAJOR (NMC)	MAJOR (TS)	MAJOR (SM)
<b>II BCOM (CA)</b>	MAJOR (SM)	MAJOR (TS)	SBEC (GSK)	ALLIED (GR)	NMEC (VR)
<b>I BCOM (CA)</b>	←----- PLACEMENT LAB (SSC) -----→			TAMIL (RST)	ENG. (SRE)
<b>III B.Sc. (ELEC.)</b>	MAJOR (SR)	LIB.	MAJOR (SR)	MAJOR (MN)	MAJOR (AK)
<b>I B.Sc. (ELEC.)</b>	MAJOR (MN)	MAJOR (X)	MAJOR (X)	TAMIL (AST)	ENG. (KP)
<b>III B.Sc.(CS)</b>	MAJOR (SBC)	MAJOR (AS)	MAJOR (SSN)	MAJOR (ASC)	MAJOR (EP)
<b>II B.Sc.(CS)</b>	MAJOR (VB)	ALLIED	ENG. (JME)	NMEC	TAMIL (KU)
<b>I B.Sc.(CS)-A</b>	TAMIL (AST)	ALLIED (GR)	MAJOR (MC)	ALLIED (VR)	ENG. (X)
<b>I B.Sc.(CS)-B</b>	TAMIL (KST)	ENG. (SRE)	MAJOR (VB)	ALLIED (SA)	MAJOR (SSCA)
<b>III B.C.A.</b>	MAJOR (SBC)	MAJOR (SSN)	←----- M.Sc. LAB (SBC) -----→		
<b>II B.C.A.</b>	MAJOR (ASC)	ALLIED	MAJOR (AS)	NMEC	MAJOR (SSN)
<b>I B.C.A.</b>	MAJOR (GSK)	MAJOR (EP)	TAMIL (RST)	ENG. (X)	MAJOR (GSK)
<b>III B.Sc.(Maths)</b>	MAJOR (SA)	MAJOR (SSM)	MAJOR (KC)	MAJOR (STN)	MAJOR (RK)
<b>II B.Sc.(Maths)</b>	ALLIED (VR)	ALLIED (VR)	ENG. (PD)	TAMIL (KST)	MAJOR (SA)
<b>III B.Sc.(Micro)</b>	MAJOR (APV)	MAJOR (PAK)	MAJOR (TRP)	MAJOR (PAK)	MAJOR (SN)
<b>II B.Sc.(Micro)</b>	MAJOR (TRP)	MAJOR (SBC)	TAMIL (AST)	ENG. (SRE)	MAJOR (TN)
<b>I B.Sc.(Micro)</b>	MAJOR (SN)	ENG. (X)	TAMIL (KU)	ALLIED (JM)	MAJOR (TRP)
<b>III B.Sc.(BT)</b>	MAJOR (AJ)	MAJOR (KV)	MAJOR (AJ)	MAJOR (KVK)	MAJOR (AJ)
<b>II B.Sc.(BT)</b>	MAJOR (KVK)	ALLIED (MC)	TAMIL (AST)	ENG. (SRE)	MAJOR (MC)
<b>I B.Sc.(BT)</b>	ENG. (MA)	MAJOR (AJ)	MAJOR (ML)	ALLIED (KK)	MAJOR (SSBT)
<b>III B.Sc.(Physics)</b>	MAJOR (AK)	LIB. (X)	LIB. (MN)	MAJOR (AK)	MAJOR (MN)
<b>II B.Sc.(Physics)</b>	SBEC (X)	ALLIED (GI)	ENG. (PD)	TAMIL (KST)	NMEC (AS)
<b>I B.Sc.(Physics)</b>	MAJOR (MN)	MAJOR (X)	MAJOR (AK)	TAMIL (AST)	ENG. (KP)
<b>III B.Sc.(Chemistry)</b>	MAJOR (GI)	MAJOR (SRD)	MAJOR (CR)	MAJOR (SRD)	MAJOR (SRD)
<b>II B.Sc.(Chemistry)</b>	MAJOR (CR)		ENG. (DD)	TAMIL (KST)	MAJOR (AS)
<b>II B.Sc.(Bioche)</b>	SBEC (KK)	MAJOR (MC)	ENG. (PD)	TAMIL (KST)	MAJOR (MC)
<b>I B.Sc.(Bioche)</b>	EVS (RSK)	ALLIED (GI)	PE (KK)	TAMIL (AST)	ENG. (KP)
<b>III B.Sc.(Botany)</b>	←----- MAJOR LAB (DM) -----→			ELECTIVE(GD)	SBEC(DM)
<b>I B.A. (TAMIL)</b>	MAJOR (KU)	ALLIED (KST)	ALLIED (UK)	TAMIL (AST)	ENG. (KP)

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## DEPARTMENT OF COMPUTER SCIENCE (UG)

### B.Sc.(Computer Science) CLASS TIMETABLE (2022-2023 ODD SEMESTER)

#### I B.Sc.(C.S.) - A

DAY/ORDER	I	II	III	IV	V
I	C (MC)	MATHS (VR)	PR. ENG. (VB)	ENG. (TK)	TAMIL (AST)
II	MATHS (VR)	C (MC)	ENG. (TK)	C (MC)	TAMIL (AST)
III	←---- Placement lab (MC) ----→		ENG. (TK)	MATHS (VR)	TAMIL (AST)
IV	TAMIL (AST)	C (MC)	MATHS (VR)	ENG. (TK)	PR. ENG. (VB)
V	MATHS (VR)	ENG. (TK)	TAMIL (AST)	←----- Placement lab (MC) -----→	
VI	ENG. (TK)	C (MC)	TAMIL (AST)	MATHS (VR)	YOGA (MC)

#### I B.Sc.(C.S.) - B

DAY/ORDER	I	II	III	IV	V
I	MATHS (SA)	PR. ENG. (AS)	ENG. (SRE)	C (SK)	TAMIL (KST)
II	C (SK)	YOGA (SK)	ENG. (SRE)	MATHS (SA)	TAMIL (KST)
III	←M.Sc. LAB (SIVAKUMAR)→		MATHS (SA)	ENG. (SRE)	TAMIL (KST)
IV	TAMIL (KST)	C (SK)	ENG. (SRE)	MATHS (SA)	C (SK)
V	MATHS (SA)	TAMIL (KST)	ENG. (SRE)	←M.Sc. LAB (SIVAKUMAR)→	
VI	C (SK)	PR. ENG. (AS)	TAMIL (KST)	ENG. (SRE)	MATHS (SA)

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**II B.Sc.(C.S.)**

DAY/ORDER	I	II	III	IV	V
I	ENG. (JME)	RDBMS (VB)	TAMIL (KU)	ALLIED (PR)	NMEC (SSB)
II	TAMIL (KU)	ENG. (JME)	←----- PLACEMENT LAB (VB) -----→		
III	NMEC (SSB)	ENG. (JME)	CN (MC)	TAMIL (KU)	RDBMS (VB)
IV	ENG. (JME)	ALLIED (AK)	TAMIL (KU)	←---- ALLIED LAB (SR) -----→	
V	←-- PLACEMENT LAB (EP) --→		CN (MC)	TAMIL (KU)	ENG. (JME)
VI	CN (MC)	ENG. (JME)	RDBMS (VB)	ALLIED (PR)	TAMIL (KU)

**III B.Sc.(C.S.)**

DAY/ORDER	I	II	III	IV	V
I	MAJOR (SSN)	SIVAKUMAR	MAJOR (AS)	←-- PLACEMENT LAB(AS) --→	
II	MAJOR (SSN)	MAJOR (ASC)	MAJOR (GSK)	MAJOR (AS)	SIVAKUMAR
III	MAJOR (ASC)	MAJOR (GSK)	MAJOR (SSN)	MAJOR (AS)	MAJOR (SSN)
IV	←----- PLACEMENT LAB (AS) -----→			MAJOR (ASC)	MAJOR (GSK)
V	MAJOR (ASC)	MAJOR (GSK)	MAJOR (AS)	MAJOR (GSK)	MAJOR (AS)
VI	MAJOR (SSN)	MAJOR (ASC)	←--- (EPR) - PLACEMENT LAB(VB) --- (VB) ---→		

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**DEPARTMENT OF COMPUTER SCIENCE (UG)**

**B.C.A. CLASS TIMETABLE  
(2022-2023 ODD SEMESTER)**

**I B.C.A.**

DAY/ORDER	I	II	III	IV	V
I	MATHS (SSM)	C (SBC)	TAMIL (RST)	ENG.	MATHS (SSM)
II	←----- M.Sc. Lab (SBC) -----→		C (SBC)	TAMIL (RST)	ENG.
III	P.E. (PB)	C (SBC)	P.E. (PB)	TAMIL (RST)	ENG.
IV	TAMIL (RST)	MATHS (RK)	YOGA (GSK)	MATHS (SSM)	ENG.
V	C (SBC)	ENG.	TAMIL (RST)	MATHS (SSM)	C (SBC)
VI	ENG.	TAMIL (RST)	MATHS (SSM)	←----- M.Sc. Lab (PB) -----→	

**II B.C.A.**

DAY/ORDER	I	II	III	IV	V
I	←----- M.Sc. LAB (ASC) -----→			ALLIED (PR)	NMEC (SSB)
II	OS (EP)	DS (SSN)	DS(SIVAKUMAR)	RDBMS(ASC)	DS (SSN)
III	NMEC(SSB)	OS (EP)	←----- ALLIED LAB -----→		
IV	OS (EP)	ALLIED (AK)	RDBMS (ASC)	←----- M.Sc. Lab (SSN) ---- --→	
V	DS(SIVAKUMAR)	RDBMS(ASC)	DS(SIVAKUMAR)	RDBMS(ASC)	OS (EP)
VI	RDBMS(ASC)	OS (EP)	DS (SSN)	ALLIED (AK)	OS (EP)

**III B.C.A.**

DAY/ORDER	I	II	III	IV	V
I	←----- Placement Lab (GSK) -----→			MAJOR (VB)	MAJOR (MC)
II	MAJOR (GSK)	MAJOR (AS)	←----- M.Sc. LAB (EP) -----→		
III	MAJOR (AS)	MAJOR (VB)	MAJOR (MC)	←- PLACEMENT LAB(GSK) -→	
IV	MAJOR (MC)	MAJOR (GSK)	MAJOR (VB)	MAJOR (AS)	MAJOR (MC)
V	MAJOR (MC)	MAJOR (VB)	MAJOR (PB)	MAJOR (GSK)	MAJOR (PB)
VI	MAJOR (VB)	MAJOR (GSK)	MAJOR (PB)	MAJOR (MC)	MAJOR (AS)

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## DEPARTMENT OF COMPUTER SCIENCE (UG)

### B.Sc.(Computer Science) CLASS TIMETABLE (2022-2023 - EVEN SEMESTER)

#### I B.Sc.(C.S.) - A

DAY/ORDER	I	II	III	IV	V
I	←----- Placement Lab (MC) -----→			TAMIL (AST)	ENG. (X1)
II	ALLIED (VR)	MAJOR (SBC)	MAJOR (MC)	ENG. (X1)	TAMIL (AST)
III	MAJOR (PB)	MAJOR (SBC)	TAMIL (AST)	ENG. (X)	ALLIED (VR)
IV	ALLIED (VR)	MAJOR (SBC)	TAMIL (AST)	MAJOR (MC)	ENG. (X)
V	ENG. (X)	ALLIED (VR)	MAJOR (SBC)	TAMIL (AST)	MAJOR (MC)
VI	TAMIL (AST)	ALLIED (GR)	MAJOR (MC)	ALLIED (VR)	ENG. (X)

#### I B.Sc.(C.S.) - B

DAY/ORDER	I	II	III	IV	V
I	MAJOR (SSCA)	MAJOR (VB)	ALLIED (SA)	TAMIL (KST)	ENG. (SRE)
II	MAJOR (SSCA)	ALLIED (SA)		ENG. (SRE)	TAMIL (KST)
III	MAJOR (SSCA)	MAJOR (VB)	TAMIL (KST)	ALLIED (RK)	ENG. (SRE)
IV	ALLIED (SA)	MAJOR (VB)	TAMIL (KST)	ENG. (SRE)	MAJOR (PB)
V	←----- PLACEMENT LAB (SSC) -----→			TAMIL (KST)	ENG. (SRE)
VI	TAMIL (KST)	ENG. (SRE)	MAJOR (VB)	ALLIED (SA)	MAJOR (SSCA)

#### II B.Sc.(C.S.)

DAY/ORDER	I	II	III	IV	V
I	TAMIL (KU)	ENG. (JME)	ALLIED (SR)	←----- Allied Lab (SR) -----→	
II	ALLIED (GSK)	ENG. (JME)	TAMIL (KU)	←----- Placement Lab (GSK) -----→	
III	MAJOR (VB)	ALLIED ( )	TAMIL (KU)	MAJOR (VB)	ENG. (JME)
IV	ENG. (JME)	TAMIL (KU)	←----- PLACEMENT LAB (VB) -----→		
V	ENG. (JME)	MAJOR (VB)	TAMIL (KU)	ALLIED (AK)	NMEC ( )
VI	MAJOR (VB)	ALLIED ( )	ENG. (JME)	NMEC ( )	TAMIL (KU)

#### III B.Sc.(C.S.)

DAY/ORDER	I	II	III	IV	V
I	MAJOR (SBC)	MAJOR (SSCA)	←----- Placement Lab (SSN) -----→		
II	MAJOR (ASC)	MAJOR (AS)	MAJOR (SSCA)	MAJOR (SBC)	MAJOR (SSN)
III	←----- Placement Lab (AS) -----→			MAJOR (SBC)	MAJOR (SSCA)
IV	MAJOR (AS)	MAJOR (SSCA)	MAJOR (SSCA)	MAJOR (AS)	MAJOR (SBC)
V	MAJOR (EPR)	MAJOR (ASC)	MAJOR (AS)	←-- PLACEMENT LAB (AS) --→	
VI	MAJOR (SBC)	MAJOR (AS)	MAJOR (SSN)	MAJOR (ASC)	MAJOR (EP)

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**DEPARTMENT OF COMPUTER SCIENCE (UG)**

**B.C.A. CLASS TIMETABLE  
(2022-2023- EVEN SEMESTER)**

**I B.C.A.**

DAY/ORDER	I	II	III	IV	V
I	ALLIED (SSM)	MAJOR (EPR)	TAMIL (RST)	ENG. (X1)	MAJOR (GSK)
II	ENG. (X1)	TAMIL (RST)	←----- M.Sc. Lab (EPR) -----→		
III	MAJOR (EP)	ENG.(X)	ALLIED (SSM)	TAMIL (KST)	ALLIED (SSM)
IV	ENG. (X)	ALLIED (SSM)	TAMIL (RST)	MAJOR (EP)	ALLIED (SSM)
V	MAJOR (GSK)	MAJOR (PB)	ENG. (X)	TAMIL (RST)	ALLIED (SSM)
VI	MAJOR (GSK)	MAJOR (EP)	TAMIL (RST)	ENG. (X)	MAJOR (GSK)

**II B.C.A.**

DAY/ORDER	I	II	III	IV	V
I	←----- M.Sc. Lab (ASC) -----→			MAJOR (ASC)	MAJOR (AS)
II	ALLIED (AK)	MAJOR (SSN)	MAJOR (AS)	MAJOR (ASC)	MAJOR (AS)
III	MAJOR (SSN)	ALLIED (	←----- ALLIED LAB (AK) -----→		
IV	MAJOR (ASC)	MAJOR (AS)	MAJOR (SSN)	←----- M.Sc. LAB (SSN) -----→	
V	MAJOR (AS)	MAJOR (SSN)	MAJOR (ASC)	ALLIED (AK)	MAJOR(NMEC)
VI	MAJOR (ASC)	ALLIED (	MAJOR (AS)	NMEC (	MAJOR (SSN)

**III B.C.A.**

DAY/ORDER	I	II	III	IV	V
I	MAJOR (SBC)	MAJOR (SSN)	MAJOR (GSK)	MAJOR (MC)	MAJOR (EPR)
II	MAJOR (MC)	MAJOR (GSK)	MAJOR (SSN)	MAJOR (SBC)	MAJOR (MC)
III	←----- M.Sc. LAB (GSK) -----→			MAJOR (SBC)	MAJOR (MC)
IV	MAJOR (GSK)	MAJOR (SSN)	MAJOR (EP)	MAJOR (GSK)	MAJOR (SBC)
V	MAJOR (SSN)	MAJOR (GSK)	MAJOR (MC)	←----- M.SC. LAB (GSK) -----→	
VI	MAJOR (SBC)	MAJOR (SSN)	←----- M.Sc. LAB (SBC) -----→		

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**DEPARTMENT OF COMPUTER SCIENCE (UG)**

**STAFF INDIVIDUAL TIMETABLE (2022-2023 - ODD SEMESTER)**

**PB**

DAY/ORDER	I	II	III	IV	V
I					
II					
III	I BCA		I BCA		
IV					
V			III BCA	I CS LAB	III BCA
VI			III BCA	←----- I BCA --- M.Sc. LAB ----→	

**SBC**

DAY/ORDER	I	II	III	IV	V
I		I BCA		II MICRO	III B.COM-B
II	←----- I BCA - M.SC. LAB -----→		I BCA		III B.COM-B
III		I BCA	III B.COM-B	←----- II B.Sc.(MICRO) LAB -----→	
IV	II MICRO			III B.COM-B	
V	I BCA	III B.COM-B			I BCA
VI		II MICRO	III B.COM-B		

**EP**

DAY/ORDER	I	II	III	IV	V
I			III B.COM.-A		
II	II BCA	III B.COM.(CA)	←----- M.Sc. LAB - III BCA -----→		
III		II BCA		III B.COM.-A	
IV	II BCA	II MICRO	III B.COM.-A		
V		III B.COM.-A			II BCA
VI		II BCA	III CS PL. LAB	III B.COM.-A	II BCA

**SSN**

DAY/ORDER	I	II	III	IV	V
I	III CS	III B.COM.(CA)		III B.COM.(CA)	
II	II CS	II BCA			II BCA
III	III B.COM.(CA)		III CS		III CS
IV		III B.COM.(CA)		←----- II BCA - M.Sc. LAB -----→	
V	←- II CS - PLACEMENT LAB ->		III B.COM.(CA)		
VI	III CS		II BCA		III B.COM.(CA)

**ASC**

DAY/ORDER	I	II	III	IV	V
I	←----- II BCA M.SC. LAB -----→				III BBA
II	III BBA	III CS		II BCA	
III	III CS		III BBA		
IV		III BBA	II BCA	III CS	
V	III CS	II BCA		II BCA	
VI	II BCA	III CS		III BBA	





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## MC

DAY/ORDER	I	II	III	IV	V
I	I-CS-A				III BCA
II		I-CS-A		I-CS-A	
III	← PLACEMENT LAB - I-CS-A →		II CS		
IV	III BCA	I-CS-A			III BCA
V	III BCA		II CS	← PLACEMENT LAB I-CS-A →	
VI	II CS	I-CS-A		III BCA	I-CS-A(YOGA)

## GSK

DAY/ORDER	I	II	III	IV	V
I	←----- III BCA - PLACEMENT LAB -----→				II BCOM.(CA)
II	III BCA		III CS		
III	III BCA	III CS		← III BCA PLACEMENT LAB →	
IV		III BCA	I BCA (YOGA)		III CS
V		III CS		III BCA	III CS
VI		III BCA	II BCOM.(CA)	III BCA	

## VB

DAY/ORDER	I	II	III	IV	V
I		II CS	I CS-A (P.E.)	III BCA	
II		II BCOM.(CA)	←----- II-CS- PLACEMENT LAB -----→		
III		III BCA	II BCOM.(CA)		II CS
IV			III BCA		I CS-A (P.E.)
V		III BCA		III BCA	II BCOM.(CA)
VI	III BCA		II CS	←----- III CS PL. LAB -----→	

## AS

DAY/ORDER	I	II	III	IV	V
I		I CS - B	III CS	←-PLACEMENT LAB - III CS -→	
II		III BCA		III CS	
III		II PHY/CHE.	III BCA	III CS	
IV	←----- PLACEMENT LAB - III CS -----→			III BCA	
V		II PHY./CHE	III CS		III CS
VI		I CS - B			III BCA

Dr.S.SIVAKUMAR

DAY/ORDER	I	II	III	IV	V
I		III CS		ICS B	I BCOM.(CA)
II	I CS-B	I CS-B (YOGA)	II BCA		III CS
III	←----- I CS-B - M.Sc. LAB -----→		I BCOM.(CA)		
IV		I CS-B	I BCOM.(CA)		I CS-B
V	II BCA		II BCA	←----- I CS-B - M.Sc. LAB -----→	
VI	I CS-B				I BCOM.(CA)



## DEPARTMENT OF COMPUTER SCIENCE (UG)

### STAFF INDIVIDUAL TIMETABLE (2022-2023) EVEN SEMESTER

#### PB

DAY/ORDER	I	II	III	IV	V
I					
II					
III	I CS -A				
IV					I CS -B
V		I BCA			
VI					

#### SBC

DAY/ORDER	I	II	III	IV	V
I	III CS / BCA			II MICRO	
II		I CS -A	II MICRO	III CS / BCA	
III		I CS -A	II MICRO	III CS / BCA	
IV	II MICRO	I CS -A			III CS / BCA
V	←---- M.Sc. Lab -- II Micro ---->		I CS -A		
VI	III CS / BCA		←----- III BCA -- M.Sc. Lab ----->		

#### EP

DAY/ORDER	I	II	III	IV	V
I		I BCA		II BBA	III BCA
II	II BBA		←----- I BCA ---- M.Sc. Lab ----->		
III	I BCA		II BBA	←II B.Com.(CA)Placement Lab →	
IV		II BBA	III BCA	I BCA	
V	III CS				II BBA
VI		I BCA			III CS

#### SSN

DAY/ORDER	I	II	III	IV	V
I		III BCA	←----- III CS ---- PLACEMENT LAB ----->		
II		II BCA	III BCA		III CS
III	II BCA				
IV		III BCA	II BCA	←----- II BCA -- M.Sc. Lab ----->	
V	III BCA	II BCA	II MIC. LAB		
VI		III BCA	III CS		II BCA

#### ASC

DAY/ORDER	I	II	III	IV	V
I	←----- II BCA --- M.Sc. Lab ----->			II BCA	
II	III CS	III BBA		II BCA	
III			←----- III BBA M.Sc. Lab ----->		
IV	II BCA		III BBA		
V		III CS	II BCA		
VI	II BCA			III CS	III BBA



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## MC

DAY/ORDER	I	II	III	IV	V
I	←----- I CS-A Placement Lab -----→			III BCA	II Biotech & II Biochem.
II	III BCA		I CS-A		III BCA
III					III BCA
IV	←----- II Biotech & II Biochem. --- M.Sc. Lab -----→			I CS-A	
V		II Biotech & II Biochem.	III BCA		I CS-A
VI		II Biotech & II Biochem.	I CS-A		II Biotech & II Biochem.

## GSK

DAY/ORDER	I	II	III	IV	V
I			III BCA		I BCA
II		III BCA		←----- II CS -- Placemen Lab --→	
III	←----- III BCA M.Sc. Lab -----→				
IV	III BCA		II B.Com.(CA)	III BCA	
V	I BCA	III BCA		←----- III BCA -- M.Sc. Lab ---→	
VI	I BCA		II B.Com.(CA)		I BCA

## VB

DAY/ORDER	I	II	III	IV	V
I		I CS-B		II B.Com.(CA)	
II	←----- II B.Com.(CA) Placement Lab -----→			II B.Com.(CA)	
III	II CS	I CS-B		II CS	
IV		I CS-B	←----- II CS -- Placement Lab -----→		
V		II CS			II B.Com.(CA)
VI	II CS		I CS-B		

## AS

DAY/ORDER	I	II	III	IV	V
I				II Phy. II chem..	II BCA
II		III CS	II BCA		II BCA
III	←----- III CS --- Placement Lab -----→				
IV	III CS	II BCA		III CS	
V	II BCA		III CS	←--- III CS --- Placement Lab ---→	
VI		III CS	II BCA		II Phy. II chem..

## S.S.C.A

DAY/ORDER	I	II	III	IV	V
I	I CS-B	III CS		I B.Com.(CA)	
II	I CS-B		III CS		I B.Com.(CA)
III	I CS-B			I B.Com.(CA)	III CS
IV		III CS	III CS		I B.Com.(CA)
V	←----- I CS-B --- Placement Lab -----→				
VI	←----- I B.Com.(CA) --- Placement Lab -----→				I CS-B

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## DEPARTMENT OF COMPUTER SCIENCE

### ELECTIVES SELECTION BY STUDENTS

#### ODD SEMESTER 2022-23 (Elective-I)

S.NO	R.NO	NAMES	Discrete Structures	Multimedia	Problem Solving Techniques	Student Signature
1	20BA501	K.S.ABISHEK			✓	K.S. Abishek
2	20BA502	B.KAVINKUMAR	✓			B. Kavinkumar
3	20BA504	G.E.KAVIRAJAN			✓	G.E. Kavirajan
4	20BA505	M.LATHISH			✓	M. Lathish
5	20BA507	A.MEGANATHAN	✓			A. Meganathan
6	20BA508	P.NAVEENKUMAR			✓	P. Naveenkumar
7	20BA509	M.PRASANTH		✓		M. Prasant
8	20BA510	S.RAJKUMAR			✓	S. Rajkumar
9	20BA511	S.SAKTHIVEL		✓		S. Sakthivel
10	20BA512	M.SASIKUMAR			✓	M. Sasikumar
11	20BA513	K.SURYA		✓		K. Surya
12	20BA514	S.SURYA			✓	S. Surya
13	20BA515	A.SURYAPRASAD			✓	A. Surya Prasad
14	20BA516	T.TAMILSELVAN	✓			T. Tamil Selvan
15	20BA517	V.VASANTHKUMAR			✓	V. Vasanth Kumar
16	20BA518	S.VIGNESHVAR	✓			S. Vigneshvar
17	20BA519	K.VINOTHKUMAR			✓	K. Vinod Kumar
18	20BA520	A.VISHVA		✓		A. Vishva
19	20BA521	M.AARTHI			✓	M. Arathi
20	20BA522	M.ABINAYASRI		✓		M. Abinaya Sri
21	20BA523	M.DEEPIKA			✓	M. Deepika
22	20BA524	K.DHIVYA	✓			K. Dhivya
23	20BA525	P.GAYATHRI			✓	P. Gayathri
24	20BA528	B.HARIDHARSHINI			✓	B. Haridharshini

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S.NO	R.NO	NAMES	Discrete Structures	Multimedia	Problem Solving Techniques	Student Signature
25	20BA529	S.HEMALATHA			✓	S. Hemalatha
26	20BA530	T.LAKSHUMAYEE			✓	T. Lakshumayee
27	20BA531	K.MANIMALAR		✓		K. Manimalar
28	20BA532	S.MANIPRIYA	✓			S. Mani Priya
29	20BA534	P.NANDHINI			✓	P. Nandhini
30	20BA535	K.PREETHIKA		✓		K. Preethika
31	20BA536	T.RAMAYEE			✓	T. Ramayee
32	20BA537	V.SABITHA		✓		V. Sabitha
33	20BA538	J.SAKTHIVAISHNAVI			✓	J. Sakthi
34	20BA539	R.SARANYA	✓			R. Saranya
35	20BB501	M.KARTHICK			✓	M. Karthick
36	20BB502	S.NAVEENKUMAR		✓		S. Naveen Kumar
37	20BB503	S.SATHOSHKUMAR			✓	S. Sathosh Kumar
38	20BB504	G.VETRIVEL			✓	G. Vetrivel
39	20BB505	V.ATCHAYA	✓			V. Achaya
40	20BB506	S.GOWSALYA			✓	S. Gowsalya
41	20BB607	M.PRIYADHARSHINI			✓	M. Priyadharshini
42	20BB508	M.VIDHYASREE		✓		M. Vidhyasree

  
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PERIYAR UNIVERSITY

## B.Sc. COMPUTER SCIENCE

### SEMESTER V

#### ELECTIVE I - PAPER I - DISCRETE STRUCTURES

##### UNIT - I

Sets and Propositions: Definition and representation of sets - basic set operations - Venn diagrams - Set Identities - Principle of Inclusion - Exclusion. Propositions: Introduction - Well formed formulas - truth table - Tautology, Contradiction, Contingency - Propositional Equivalences - Logic-Connectives - Predicates and Quantifiers.

##### UNIT - II

Functions and Relations: Definition and examples - One-to-one and onto functions - Permutations. Relations: Definition and examples - Binary Relations - Properties - Equivalence and Partial Ordering - representation of relation in matrix, by Digraph - closure operations on relations

##### UNIT - III

Algebraic Systems: Definition and examples, Semi groups and monoids: Definitions and examples, Subsemigroups and Submonoids- Homomorphism of Semigroups and Monoids, Groups: Definitions and examples.

##### UNIT - IV

Graph Theory: Introduction - Definition and Examples - Edges sequence, walks, paths and circuits - Directed graph- Subgraph and operations on the graph - Isomorphic graphs - Connected - Matrix representation of Graphs.

##### UNIT - V

Trees: Introduction - Properties - Special Classes of Trees-Definition of spanning tree - minimal spanning tree.

##### TEXT BOOK

1. N. Chandrasekaran, M.Umaparvathi, "Discrete Mathematics", PHI Publications, 2010.

##### REFERENCE BOOKS

1. J.P Tremblay, R.Manohar, "Discrete Mathematical Structures with Applications to Computer Science", Tata McGraw-Hill Publishing Company Limited, 2001.
2. Kenneth H Rosen, "Discrete Mathematics and its Applications", 7th Edition, Tata McGraw Hill, 2012.

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## B.Sc. COMPUTER SCIENCE

### B.Sc. COMPUTER SCIENCE

#### SEMESTER V

#### ELECTIVE I - PAPER II - MULTIMEDIA

##### UNIT I

Multimedia Definition Use Of Multimedia Delivering Multimedia Text: About Fonts and Faces Using Text in Multimedia - Computers and Text - Font Editing and Design Tools - Hypermedia and Hypertext

##### UNIT II

Images: Plan Approach - Organize Tools - Configure Computer Workspace - Making Still Images - Color - Image File Formats. Sound: The Power of Sound - Digital Audio - MIDI Audio - MIDI vs. Digital Audio - Multimedia System Sounds - Audio File Formats - Vaughan's Law of Multimedia Minimums - Adding Sound to Multimedia Project.

##### UNIT III

Animation: The Power of Motion - Principles of Animation - Animation by Computer - Making Animations that Work. Video: Using Video - Working with Video and Displays - Digital Video Containers - Obtaining Video Clips - Shooting and Editing Video.

##### UNIT IV

Making Multimedia: The Stage of Multimedia Project - The Intangible Needs - The Hardware Needs - The Software Needs - An Authoring Systems Needs. Multimedia Production Team.

##### UNIT V

Planning and Costing: The Process of Making Multimedia - Scheduling - Estimating - RFPs and Bid Proposals. Designing and Producing - Content and Talent: Acquiring Content - Ownership of Content Created for Project - Acquiring Talent

##### TEXT BOOK

1. Tay Vaughan, "Multimedia: Making It Work", 8th Edition, Osborne McGraw-Hill, 2001.

##### REFERENCE BOOK

1. Ralf Steinmetz & Klara Nahrstedt - "Multimedia: Computing, Communication & Applications", Pearson Education, 2012.

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PERIYAR UNIVERSITY

**B.Sc. COMPUTER SCIENCE**

**SEMESTER V**

**ELECTIVE I - PAPER III - PROBLEM SOLVING TECHNIQUES**

**UNIT- I:**

Problem Solving Introduction - The Problem-solving Aspect - Top-down Design-implementation of Algorithms- Program Verification - The Efficiency of Algorithms.

**UNIT-II:**

Fundamental Algorithms: Exchanging the values of Two Variables - Counting - Summation of a set of Numbers - Factorial Computation-Sine function computation - Generation of the Fibonacci sequence - Reversing the Digits of an Integer - Base Conversion Character to Number Conversion.

**UNIT- III:**

Factoring Methods: Finding the square Root of a number - The Greatest Common Divisor of Two Integers - Generating Prime Numbers - Generation of Pseudo - random Numbers - Raising a Number to a Large Power.

**UNIT - IV:**

Array Techniques: Array Order Reversal-Array Counting or Histogramming - Finding the Maximum Number in a Set Removal of Duplicates from an Ordered Array Partitioning an Array Finding the kth Smallest Element.

**UNIT - V:**

Merging, Sorting and Searching: Two way merge - sorting by selection, insertion, diminishing increment and partitioning -Binary search.

**TEXT BOOK**

1. E.G.Droney, "How to Solve it by Computer", Pearson Education, India, 2011.

**REFERENCE BOOK**

1. Seymour Lipschutz, "Essentials Computer Mathematics", 4th Edition, Schaums outlines series, Tata McGrawHill, 2004.

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## DEPARTMENT OF COMPUTER SCIENCE

### ELECTIVES SELECTION BY STUDENTS

#### EVEN SEMESTER 2022-23 (Elective-II)

S.NO	R.NO	NAMES	Data Mining and Warehousing	Unified Modelling Languages	Web Technologies	Student Signature
1	20BA501	K.S.ABISHEK			✓	K.S. Abhishek
2	20BA502	B.KAVINKUMAR	✓			B. Kavinkumar
3	20BA504	G.E.KAVIRAJAN	✓			G.E. Kavirajan
4	20BA505	M.LATHISH	✓			M. Lathish
5	20BA507	A.MEGANATHAN		✓		A. Meganathan
6	20BA508	P.NAVEENKUMAR	✓			P. Naveenkumar
7	20BA509	M.PRASANTH		✓		M. Prasant
8	20BA510	S.RAJKUMAR	✓			S. Rajkumar
9	20BA511	S.SAKTHIVEL			✓	S. Sakthivel
10	20BA512	M.SASIKUMAR	✓			M. Sasikumar
11	20BA513	K.SURYA			✓	K. Surya
12	20BA514	S.SURYA		✓		S. Surya
13	20BA515	A.SURYAPRASAD	✓			A. Suryaprasad
14	20BA516	T.TAMILSELVAN			✓	T. Tamil Selvan
15	20BA517	V.VASANTHKUMAR	✓			V. Vasanth Kumar
16	20BA518	S.VIGNESHVAR				S. Vigneshvar
17	20BA519	K.VINOTHKUMAR	✓			K. Vinod Kumar
18	20BA520	A.VISHVA		✓		A. Visha
19	20BA521	M.AARTHI				M. Arathi
20	20BA522	M.ABINAYASRI	✓			M. Abinaya Sri
21	20BA523	M.DEEPIKA			✓	M. Deepika
22	20BA524	K.DHIVYA	✓			K. Dhivya
23	20BA525	P.GAYATHRI	✓			P. Gayathri

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S.NO	R.NO	NAMES	Data Mining and Warehousing	Unified Modelling Language	Web Technologies	Student Signature
24	20BA528	B.HARIDHARSHINI	✓			B. Haridharshini
25	20BA529	S.HEMALATHA			✓	S. Hemalatha
26	20BA530	T.LAKSHUMAYEE	✓			T. Lakshumayee
27	20BA531	K.MANIMALAR	✓			K. Manimalar
28	20BA532	S.MANIPRIYA	✓			S. Manipriya
29	20BA534	P.NANDHINI		✓		P. Nandhini
30	20BA535	K.PREETHIKA	✓			K. Preethika
31	20BA536	T.RAMAYEE			✓	T. Ramayee
32	20BA537	V.SABITHA	✓			V. Sabitha
33	20BA538	J.SAKTHIVAISHNAVI			✓	J. Sakthivaishnavi
34	20BA539	R.SARANYA	✓			R. Saranya
35	20BB501	M.KARTHIK		✓		M. Karthik
36	20BB502	S.NAVEENKUMAR	✓			S. Naveenkumar
37	20BB503	S.SATHOSHKUMAR			✓	S. Sathoshkumar
38	20BB504	G.VETRIVEL	✓			G. Vetrivel
39	20BB505	V.ATCHAYA	✓			V. Atchaya
40	20BB506	S.GOWSALYA	✓			S. Gowsalya
41	20BB607	M.PRIYADHARSHINI			✓	M. Priyadharsini
42	20BB508	M.VIDHYASREE	✓			M. Vidhyasree

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## B Sc COMPUTER SCIENCE

### B.Sc. COMPUTER SCIENCE

#### SEMESTER VI

#### ELECTIVE II - PAPER I - DATA MINING AND WAREHOUSING

##### UNIT - I

Introduction: Data mining application - data mining techniques - data mining case studies- the future of data mining - data mining software - Association rules mining: basics- task and a naïve algorithm- Apriori algorithm - improve the efficient of the Apriori algorithm - mining frequent pattern without candidate generation (FP-growth) - performance evaluation of algorithms.

##### UNIT - II

Classification : Introduction - decision tree - over fitting and pruning - DT rules- Naive bayes method-estimation predictive accuracy of classification methods - other evaluation criteria for classification method - classification software.

##### UNIT - III

Cluster analysis: cluster analysis - types of data - computing distances-types of cluster analysis methods - partitioned methods - hierarchical methods - density based methods - dealing with large databases - quality and validity of cluster analysis methods - cluster analysis software.

##### UNIT - IV

Web data mining: Introduction- web terminology and characteristics- locality and hierarchy in the web-web content mining-web usage mining- web structure mining - web mining software - Search engines: Search engines functionality- search engines architecture - ranking of web pages.

##### UNIT - V

Data warehousing: Introduction - Operational data sources- data warehousing - Data warehousing design - Guidelines for data warehousing implementation - Data warehousing metadata - Online analytical processing (OLAP): Introduction - OLAP characteristics of OLAP system - Multidimensional view and data cube - Data cube implementation - Data cube operations OLAP implementation guidelines.

##### TEXTBOOK

1. G.K. Gupta, "Introduction to Data mining with case studies", 2nd Edition, PHI Private limited, New Delhi, 2011.

##### REFERENCE BOOK

1. Arun K Pujari, "Data Mining Techniques", 10th impression, University Press, 2008.

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PERIYAR UNIVERSITY

**B.Sc. COMPUTER SCIENCE**  
**SEMESTER VI**

**ELECTIVE II - PAPER II - UNIFIED MODELING LANGUAGE**

**UNIT - I**

Introduction : Role of Analysis and Design in Software Development - Object Orientation - Overview of various OOAD Methodologies - Goals of UML: Use Case Modeling: Actors and Use Cases - Use Case Relationships - Writing Use Cases Formality - Choosing the System Boundary - Finding Actors - Finding Use Cases - Use of Use Cases for Validation and Verification - Use case Realization.

**UNIT - II**

Static Modelling Using Class Diagrams: Classes and Objects - Attributes and Operations - Visibility of Attributes and Operations - Class Scope Attribute - Mapping Class to Java Code - Attributes with Default Values - Association - Role Names - Qualified Association - Association Class - Ternary Association - Recursive Association - Multiple Association between Two Classes - Aggregation - Generalization - Abstract Class - Subclass Partitioning - Generalization Set - Interfaces - Packages and Grouping of Classes into Packages - Parameterized Classes.

**UNIT - III**

Interaction Diagrams: Introduction to Interaction Diagram - Creating New objects - Combining Fragments - Communication Diagrams.

**UNIT - IV**

Dynamic Modelling Using State and Activity Diagrams: State Machines - Events - States and Transitions - Formal Syntax for Specifying a State Transition - Substates - Modelling Complex Transitions - The History Indicator - The Junction State - The Synch State - The Submachine Reference and the Stub States - Activity Diagrams - Swimlanes - Dynamic Concurrence - Decomposing an Activity - Activity diagrams for Career Guidance Portal. The unified Process of Software Development: The Unified Process of Software Development - Phases of the Unified Software Development Process - Best Practices in the Unified Process - Workflows of the UP.

**UNIT - V**

Architectural Modelling: Subsystem - Broker Architecture for Distributed Systems - Model View Controller Architecture - Component Diagrams - Deployment Diagrams - Case Study: Simulation of Cell Phone - Social Networking Site.

**TEXT BOOK**

1. Mahesh P. Matha, "Object Oriented Analysis and Design Using UML", PHI Learning Private Ltd. New Delhi, 2010.

**REFERENCE BOOK**

1. Jason T. Roff, "UML - A Beginner's Guide", 1st Edition, Tata McGraw - Hill, 2003.

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## **B Sc COMPUTER SCIENCE**

### **B.Sc. COMPUTER SCIENCE SEMESTER VI ELECTIVE II - PAPER III - WEB TECHNOLOGIES**

#### **UNIT-I**

Internet Principles: Introduction to Internet - Client Server Model- Protocol - Internet IP Address- Domain Name - Internet Services - Electronic Mail - World Wide Web - Internet Security - E-Commerce - EDI.

#### **UNIT -II**

Introduction to HTML: HTML Tags - HTML Documents - Headings - Hyperlinks using Anchor Tag-Formatting Characters - Font - Images and Pictures - Listing - Tables in HTML Tags - Frameset Definition - Frame Definition- Nested framesets - HTML Forms - Elements of a form use Tags.

#### **UNIT -III**

JavaScript : Data Types - Variables - Operators - Conditional statements using Javascript - Document Objects - Image Objects using Javascript - Forms and Elements - Event Handling - Browser Object - Submit Event and Data Validation -Parseint() Function - ParseFloat() Function - Recursive Function.

#### **UNIT-IV**

Server Side Script with JSP: Client Responsibilities -Server Responsibilities - Introduction to JSP - JSP Architecture - JSP Servers - JSP Tags - Request Object - Response Object - JSP Page.

#### **UNIT - V**

JSP with JDBC : Creating ODBC Data Source Name - Introduction to JDBC -Telephone Directory with JDBC - Servlet Environment and Role - Protocol Support - HTML Support - Servlet Life Cycle -- HTML to Servlet Communication .

#### **TEXT BOOK**

1. C.Xavier, "Web Technology and Design". 1st Edition. New Age International.2011.

#### **REFERENCE BOOK**

1. H.M.Deitel, P.J.Deitel, "Internet and World Wide Web - How to Program", 3rd Edition. Pearson Publication, 2006.

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## DEPARTMENT OF COMPUTER SCIENCE

### ELECTIVES SELECTION BY STUDENTS

#### EVEN SEMESTER 2022-23 (Elective-III)

S.NO	R.NO	NAMES	Mobile Computing	Computer Graphics	Internetworking with TCP/IP	Student Signature
1	20BA501	K.S.ABISHEK		✓		K.S. abhishek
2	20BA502	B.KAVINKUMAR	✓			B. kavinkumar
3	20BA504	G.E.KAVIRAJAN		✓		G.E. Kavirajan
4	20BA505	M.LATHISH		✓		M. lathish
5	20BA507	A.MEGANATHAN			✓	A. Meganathan
6	20BA508	P.NAVEENKUMAR		✓		P. Naveen Kumar
7	20BA509	M.PRASANTH			✓	M. Prashanth
8	20BA510	S.RAJKUMAR		✓		S. Raj Kumar
9	20BA511	S.SAKTHIVEL	✓			S. Sakthivel
10	20BA512	M.SASIKUMAR		✓		M. Sasithir
11	20BA513	K.SURYA		✓		K. SURYA
12	20BA514	S.SURYA			✓	S. SURYA
13	20BA515	A.SURYAPRASAD		✓		A. Suriya Prasad
14	20BA516	T.TAMILSELVAN	✓			T. Tamil Selvan
15	20BA517	V.VASANTHKUMAR		✓		V. V. Vasanth Kumar
16	20BA518	S.VIGNESHVAR			✓	S. Vigneshvar
17	20BA519	K.VINOTHKUMAR		✓		K. Vinod Kumar
18	20BA520	A.VISHVA		✓		A. Vishva
19	20BA521	M.AARTHI			✓	M. Arathi
20	20BA522	M.ABINAYASRI			✓	M. Abinaya Sri
21	20BA523	M.DEEPIKA		✓		M. Deepika
22	20BA524	K.DHIVYA	✓			K. Divya
23	20BA525	P.GAYATHRI		✓	✓	P. Gayathri

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S.NO	R.NO	NAMES	Mobile Computing	Computer Graphics	Internetworking with TCP/IP	Student Signature
24	20BA528	B.HARIDHARSHINI		✓	✓	B. Haridharshini
25	20BA529	S.HEMALATHA			✓	S. Hemalatha
26	20BA530	T.LAKSHUMAYEE		✓		T. Lakshumayee
27	20BA531	K.MANIMALAR	✓			K. Manimalar
28	20BA532	S.MANIPRIYA		✓		S. Manipriya
29	20BA534	P.NANDHINI			✓	P. Nandhini
30	20BA535	K.PREETHIKA	✓			K. Preethika
31	20BA536	T.RAMAYEE		✓		T. Ramayee
32	20BA537	V.SABITHA		✓		V. Sabitha
33	20BA538	J.SAKTHIVAISHNAVI			✓	J. Sakthivaishnavi
34	20BA539	R.SARANYA			✓	R. Saranya
35	20BB501	M.KARTHICK			✓	M. Karthick
36	20BB502	S.NAVEENKUMAR		✓		S. Naveenkumar
37	20BB503	S.SATHOSHKUMAR		✓		S. SathosHKumar
38	20BB504	G.VETRIVEL		✓		G. Vetrivel
39	20BB505	V.ATCHAYA	✓			V. Atchaya
40	20BB506	S.GOWSALYA		✓		S. Gowsalya
41	20BB607	M.PRIYADHARSHINI			✓	M. Priyadharshini
42	20BB508	M.VIDHYASREE		✓		M. Vidhyasree

  
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## B.Sc. COMPUTER SCIENCE

### SEMESTER VI

#### ELECTIVE III - PAPER I - MOBILE COMPUTING

##### UNIT - I

Introduction: Applications - A Simplified Reference Model. Wireless Transmission: Frequencies for radio transmission - Signals - Antennas - Signal Propagation - Multiplexing - Modulation - Spread Spectrum - Cellular System.

##### UNIT - II

Medium Access Control: Motivation for a Specialized MAC- Hidden and exposed terminals - Near and far terminals - SDMA - FDMA - TDMA - Fixed TDM - Classical Aloha - Slotted Aloha - Carrier Sense Multiple Access - Demand assigned Multiple Access - PRMA Packet Reservation Multiple Access - Reservation TDMA - Multiple Access with Collision Avoidance - Polling - Inhibit Sense Multiple Access. CDMA - Spread Aloha multiple access. Comparison of S T F CDMA.

##### UNIT - III

Telecommunication Systems: GSM - Mobile Services - System Architecture - Radio Interface - Protocols - Localization and Calling - Handover - Security. UMTS and IMT 2000: UMTS releases and standardization - UMTS System Architecture - UMTS Radio Interface -UTRAN - UMTS Handover.

##### UNIT - IV

Satellite System: History - Applications - Basics - Routing- Localization - Handover. Wireless LAN: IEEE 802.11- System Architecture - Protocol Architecture - Physical Layer - Medium Access Control Layer. Bluetooth: User scenarios - Architecture - Radio Layer - Baseband Layer - Link Manager Protocol.

##### UNIT - V

Mobile Network Layer: Mobile IP - Goals, Assumption, and Requirements - Entities and Terminology - IP Packet delivery - Agent discovery - Registration. Dynamic Host Configuration Protocol - Mobile Transport Layer: Traditional TCP - Congestion Control - Slow Start - Fast Retransmit.

##### TEXT BOOK

1. Jochen Schiller, "Mobile Communications", 2nd Edition, eighth impression, Pearson Education, 2011.

##### REFERENCE BOOKS

1. William Stallings, "Wireless Communication and Networks", 2nd Edition, Pearson Education, 2005.
2. Theodore Rappaport, "Wireless Communications: Principles and Practice", Prentice Hall Communications, 1996.

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**B Sc COMPUTER SCIENCE**

**B.Sc. COMPUTER SCIENCE  
SEMESTER VI  
ELECTIVE III - PAPER II - COMPUTER GRAPHICS**

**UNIT - I**

Overview of graphics Systems: Video Display Device - Refresh Cathode-Ray tubes Raster - Scan Displays Random - Scan Displays - Color CRT Monitors -Direct view Storage tubes Flat - Panel Displays Three - Dimensional Viewing Devices. Stereoscopic and Virtual - Reality Systems.

**UNIT - II**

Raster - Scan Systems Video Controller - Random - Scan Systems Video Controller - Random-Scan Systems - Input device - Keyboard Mouse - Trackball and Space ball Joysticks - Data Glove - Digitizers-Image Scanners - Touch Panels - Light pens. Voice Systems - Hard-Copy Devices - Line Drawing Algorithms DDA Algorithms - Circle generating Algorithm Properties of Ellipses.

**UNIT - III**

Two Dimensional Geometric Transformation: Basic Transformations - Translation - Rotation - Scaling - Matrix Representations and Homogeneous Coordinates - Other Transformations Reflections Two Dimensional Viewing - Windows to view point coordinate Transformations - Clipping Operations - Point Clipping - Line Clipping - Curve Clipping - Text Clipping - Exterior Clipping.

**UNIT - IV**

Three Dimensional Concepts: Three Dimensional Display method - Parallel projection - Depth cueing visible line and surface - Three Dimensional Geometric and modeling Transformations: Translation - Rotation - Scaling - Composite Transformations Three Dimensional Viewing: Viewing pipeline - Viewing Coordinates - Projections - Parallel Projections - Perspective Projections.

**UNIT - V**

Visible Surface Detection Methods - Classification Visible Surface Detection Algorithms - Back Face Detection - Depth - Buffer Method - A-Buffer Method - Scan line method - Depth sorting method - BSP tree method - Area Subdivision Method.

**TEXT BOOK:**

1. Donald Hearn & M Pauline Baker. "Computer Graphics" 2nd Edition, 1996

**REFERENCE BOOK:**

1. John F. Hughes, Andrew Van Dam, Morgan McGuire, David F. Sklar, James D. Foley, Steven K. Fierer, Kurt Akeley. "Computer Graphics: Principles and Practice" 3rd Edition, Pearson Education, 2014.

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PERIYAR UNIVERSITY

## B.Sc. COMPUTER SCIENCE

### SEMESTER VI

#### ELECTIVE III - PAPER III - INTERNET WORKING WITH TCP / IP

##### UNIT- I

Introduction and overview - Network Technologies - Internetworking concepts and architectural model - Classful Internet address

##### UNIT II

Mapping Internet Address to Physical Addresses - Internet Protocol - Connectionless Datagram Delivery (IPv4) -Forwarding IP Datagrams -Error and Control Message (ICMP).

##### UNIT- III

User Datagram Protocol (UDP) - Reliable Stream Transport Service (TCP) - Routing Architecture - Cores, Peers and Algorithms.

##### UNIT- IV

Internet Multicasting - Mobile IP - Private Network: Interconnection.

##### UNIT- V

The Domain Name System (DNS) - Electronic Mail - Voice and Video Over IP - Network Management - Ipv6

##### TEXT BOOK

1. Douglas E.Comer, "Internetworking with TCP IP Principles, Protocols and Architecture", Vol 1 & 2, 5thEdition, PHI, 2006.

##### REFERENCE BOOKS

1. Beltrouz A.Forouzan, "TCP IP protocol suite", 4th Edition, Tata McGraw Hill, 2003.
2. W.Richard Stevens "TCP IP illustrated" Volume 2, Pearson Education, 2003.

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**DEPARTMENT OF COMPUTER SCIENCE**

**ELECTIVES SELECTION BY STUDENTS**

**ODD SEMESTER 2022-23 (Elective-I)**

S.NO	R.NO	NAMES	E-COMMERCE TECHNOLOGIES	SYSTEM SOFTWARE	COMPUTER GRAPHICS	Student Signature
1	20B1501	ABIRAJ.M	✓			M. Adh
2	20B1502	MANOJ.S	✓			S. Manoj
3	20B1503	PONKATHIRAVAN.S		✓		S. Pon
4	20B1504	PRAVEEN.K	✓			K. Praveen
5	20B1507	SANTHAK.M			✓	M. Santhak
6	20B1508	SANTHOSH.S	✓			S. Santhosh
7	20B1509	SASIKUMAR.B				S. Sasikumar
8	20B1510	DHARANI.G	✓			M. Dhara
9	20B1511	HARISHNA.K	✓			K. Harishna
10	20B1512	MENAGADEVLA		✓		A. Menagadevi
11	20B1513	NITHYA.K	✓			K. Nithya
12	20B1514	NIVETHA.P		✓		P. Nivetha
13	20B1515	PREETHIGA.K.V	✓			V. K. Preethiga
14	20B1516	SHRUTHIKA.S			✓	S. Shruthika
15	20B1517	SYLAJA.A	✓			A. Sylaja

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**BACHELOR OF COMPUTER APPLICATION (B.C.A.)**

**SEMESTER V**

**ELECTIVE I - PAPER I - E-COMMERCE TECHNOLOGIES**

**UNIT I**

History of E-commerce and Indian Business Context: E-Commerce – Emergence of the Internet – Emergence of the WWW – Advantages of E-Commerce – Transition to E-Commerce in India – The Internet and India – E-transition Challenges for Indian Corporate. Business Models for E-commerce: Business Model – E-business Models Based on the Relationship of Transaction Parties – E-business Models Based on the Relationship of Transaction Types.

**UNIT II**

Enabling Technologies of the World Wide Web: World Wide Web – Internet Client-Server Applications – Networks and Internets – Software Agents – Internet Standards and Specifications – ISP, e-Marketing: Traditional Marketing – Identifying Web Presence Goals – Online Marketing – E-advertising – E-branding.

**UNIT III**

E-Security: Information system Security – Security on the Internet – E-business Risk Management Issues – Information Security Environment in India. Legal and Ethical Issues: Cyberstalking – Privacy is at Risk in the Internet Age – Phishing – Application Fraud – Skimming – Copyright – Internet Gambling – Threats to Children.

**UNIT IV**

e-Payment Systems: Main Concerns in Internet Banking – Digital Payment Requirements – Digital Token-based e-payment Systems – Classification of New Payment Systems – Properties of Electronic Cash – Cheque Payment Systems on the Internet – Risk and e-Payment Systems – Designing e-payment Systems – Digital Signature – Online Financial Services in India – Online Stock Trading.

**UNIT V**

Information systems for Mobile Commerce: What is Mobile Commerce? – Wireless Applications – Cellular Network – Wireless Spectrum – Technologies for Mobile Commerce – Wireless Technologies – Different Generations in Wireless Communication – Security Issues Pertaining to Cellular Technology. Portals for E-Business: Portals – Human Resource Management – Various HRIS Modules.

**TEXT BOOK**

1. P.T. Joseph, S.J., "E-Commerce - An Indian Perspective", 4<sup>th</sup> Edition, PHI 2012.

**REFERENCE BOOK**

1. David Whiteley, "E-Commerce Strategy, Technologies and Applications", Tata Mc-Graw-Hill, 2001

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BCA

**BACHELOR OF COMPUTER APPLICATION (B.C.A.)**

**SEMESTER V**

**ELECTIVE I - PAPER II - SYSTEM SOFTWARE**

**Unit-I**

System software and machine architecture – The Simplified Instructional Computer (SIC) - Machine architecture - Data and instruction formats - addressing modes - instruction sets - I O and programming.

**Unit-II**

Basic assembler functions - A simple SIC assembler – Assembler algorithm and data structures - Machine dependent assembler features - Instruction formats and addressing modes – Program relocation - Machine independent assembler features - Literals – Symbol-defining statements – Expressions - One pass assemblers and Multi pass assemblers .

**Unit-III**

Basic loader functions - Design of an Absolute Loader – A Simple Bootstrap Loader - Machine dependent loader features - Relocation – Program Linking – Algorithm and Data Structures for Linking Loader - Machine-independent loader features - Automatic Library Search – Loader Options - Loader design options - Linkage Editors – Dynamic Linking – Bootstrap Loaders .

**Unit-IV**

Basic macro processor functions - Macro Definition and Expansion – Macro Processor Algorithm and data structures - Machine-independent macro processor features - Concatenation of Macro Parameters – Generation of Unique Labels – Conditional Macro Expansion – Keyword Macro Parameters-Macro within Macro

**Unit-V**

Text editors - Overview of the Editing Process - User Interface – Editor Structure. - Interactive debugging systems - Debugging functions and capabilities – Relationship with other parts of the system – User-Interface Criteria.

**TEXT BOOK**

1. Leland L. Beck, "System Software – An Introduction to Systems Programming", Pearson Education Asia, 2005.

**REFERENCE BOOKS**

1. D. M. Dhamdhere, "Systems Programming and Operating Systems", Second Revised Edition, TataMcGraw-Hill, 1999.
2. John J. Donovan "Systems Programming", Tata McGraw-Hill Edition, 1972.

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**PERIYAR UNIVERSITY**

**BACHELOR OF COMPUTER APPLICATION (B.C.A.)**

**SEMESTER V**

**ELECTIVE I - PAPER III - COMPUTER GRAPHICS**

**UNIT – I**

Overview of graphics Systems: Video Display Device – Refresh Cathode-Ray tubes Raster – Scan Displays Random – Scan Displays – Color CRT Monitors –Direct view Storage tubes Flat – Panel Displays Three – Dimensional Viewing Devices. Stereoscopic and Virtual – Reality Systems.

**UNIT – II**

Raster – Scan Systems Video Controller – Random – Scan Systems Video Controller – Random-Scan Systems – Input device – Keyboard Mouse – Trackball and Space ball . Joysticks – Data Glove – Digitizers- Image Scanners – Touch Panels – Light pens. Voice Systems – Hard-Copy Devices – Line Drawing Algorithms DDA Algorithms – Circle generating Algorithm Properties of Ellipses.

**UNIT – III**

Two Dimensional Geometric Transformation: Basic Transformations - Translation – Rotation – Scaling – Matrix Representations and Homogeneous Coordinates – Other Transformations Reflections Two Dimensional Viewing : Windows to view point coordinate Transformations – Clipping Operations – Point Clipping – Line Clipping – Curve Clipping – Text Clipping – Exterior Clipping

**UNIT – IV**

Three Dimensional Concepts: Three Dimensional Display method – Parallel projection – Depth cueing visible line and surface – Three Dimensional Geometric and modeling Transformations: Translation – Rotation – Scaling – Composite Transformations. Three Dimensional Viewing Viewing pipeline Viewing Coordinates – Projections – Parallel Projections – Perspective Projections.

**UNIT – V**

Visible Surface Detection Methods : Classification Visible Surface Detection Algorithms – Back Face Detection – Depth – Buffer Method – A-Buffer Method – Scan line method – Depth sorting method – BSP tree method – Area Subdivision Method.

**TEXT BOOK:**

1. Donald Hearn & M Pauline Baker, "Computer Graphics", 2<sup>nd</sup> Edition, 1996

**REFERENCE BOOK:**

1. John f. Hughes, Andries Van Dam, Morgan McGuire, David F. Sklar, James D. Foley, Steven K. Feiner, Kurt Akeley, "Computer Graphics Principles and Practice" 3<sup>rd</sup> Edition, Pearson Education 2014.

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DEPARTMENT OF COMPUTER SCIENCE

ELECTIVES SELECTION BY STUDENTS

EVEN SEMESTER 2022-23 (Elective-II)

S.NO	R.NO	NAMES	SOFTWARE TESTING	PARALLEL PROCESSING	MULTIMEDIA	Student Signature
1	20B1501	ABIRAJ.M			✓	M. Abiraj
2	20B1502	MANOJ.S		✓		S. Manoj
3	20B1503	PONKATHIRAVAN.S	✓			S. Ponkathiravan
4	20B1504	PRAVEEN.K			✓	K. Praveen
5	20B1507	SANTHAK.M		✓		M. Santhak
6	20B1508	SANTHOSH.S			✓	S. Santhosh
7	20B1509	SASIKUMAR.B				B. Sasikumar
8	20B1510	DHARANI.G	✓			G. Dhara
9	20B1511	HARISHNA.K			✓	K. Harishna
10	20B1512	MENAGADEVI.A		✓		A. Menagadevi
11	20B1513	NITHYA.K			✓	K. Nithya
12	20B1514	NIVETHA.P			✓	P. Nivetha
13	20B1515	PREETHIGA.K.V			✓	V. Preethiga
14	20B1516	SHRUTHIKA.S	✓		✓	S. Shruthika
15	20B1517	SYLAJA.A				A. Sylaja

  
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**BACHELOR OF COMPUTER APPLICATION (B.C.A.)**  
**SEMESTER VI**

**ELECTIVE II - PAPER I - SOFTWARE TESTING**

**UNIT-I**

Building a Software Testing Strategy – Software Testing Design Techniques – Software Testing Tools and Selection of Test Automation Products – Software Testing Lifecycle and Software Testing Process.

**UNIT-II**

Testing Effort Estimation and Test Planning – Software Test Effort Estimation Technique – Pre-Development Testing: Requirements and Design Phase – Best Practices in Program Phase: Unit, System and Integration Testing.

**UNIT-III**

A Case Study on Acceptance Testing, Implementing an Effective Test Management Process – Building an Effective Test Organization – Performance Issues and Optimization Techniques

**UNIT-IV**

Choosing a Load Testing Strategy – Dodging the Bullets – Validating Mission-Critical Server Software for Reliability – Probing the Blind Spot – Testing in Today's Business and Usability.

**UNIT-V**

Testing of web-based Application – Testing of Embedded Software System used in Aerospace Applications – Testing Applications for Security – Testing Metrics, Best Practices and Benchmarks

**TEXT BOOK**

1. Renu Rajani and Pradeep Oak, "Software Testing: Effective Methods, Tools and Techniques" Tata McGraw-Hill, 2007.

**REFERENCE BOOKS**

1. M.C. Limaye, "Software Testing Principles Techniques and Tools", McGraw-Hill Education India Pvt. Ltd - New Delhi, 2009
2. Enk P.W.M. Veenendaal and Graham Bath, "Improving the Test Process", Rocky Nook, 2013

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**SEMESTER VI**

**ELECTIVE II - PAPER II - PARALLEL PROCESSING**

**UNIT - I**

Parallel Computer Models: The State of Computing - Computer development milestones-Elements of modern computers-Evolution of computer architecture- System attributes to performance. Multiprocessors and Multicomputer: shared-memory and multiprocessors-Distributed-memory multicomputer- A Taxonomy of MIMD computers, Multi-vector and SIMD Computers, Vector super computers-SIMD super computers, PRAM and VLSI Models, Parallel Random-access machines-VLSI complexity model, Architectural Development Tracks: Multiple-processor tracks-Multi-vector and SIMD tracks

**UNIT - II**

Program and Network Properties: Conditions of Parallelism - Data and resource dependences-Hardware and software parallelism-The role of compilers, Program Partitioning and Scheduling: Grain sizes and latency-Grain packing and scheduling-Static multiprocessor scheduling- Program Flow Mechanisms: Control flow versus data flow-Demand-driven mechanisms- System Interconnect Architectures: Network properties and routing- Static connection networks- Dynamic connection networks.

**UNIT - III**

Principles Of Scalable Performance: Performance Metrics and Measures - Parallelism profile in programs-Harmonic mean performance-Efficiency, utilization, and quality-Standard performance measures, Parallel Processing Applications: Massive parallelism for grand challenges-Application models of parallel computers, Speedup Performance Laws: Amdahl's law for a fixed workload, Scalability Analysis and Approaches: Scalability metrics and goals-Evolution of scalable computers

**UNIT - IV**

Processors and Memory Hierarchy: Advanced Processor Technology - Design space of processors - Instruction set architectures, Superscalar and Vector Processors: Superscalar processor, Memory Hierarchy Technology: Hierarchical memory technology Virtual Memory Technology: Virtual memory models- TLB, paging and segmentation.

**UNIT - V**

Pipelining: Linear Pipeline Processors - Asynchronous and synchronous models-Clocking and timing control-speedup, efficiency and throughput, Nonlinear Pipeline Processors: Reservation and latency analysis-Collision-Free scheduling-Pipeline schedule optimization, Instruction Pipeline Design: Instruction execution phases-Mechanisms for instruction pipelining-Dynamic instruction scheduling- Branch handling techniques, Arithmetic Pipeline Design: Computer arithmetic principles- Static arithmetic pipelines-Multifunctional arithmetic pipelines.

43

**TEXT BOOK**

1. Kai Hwang, "Advanced Computer Architecture", TMGH, India, 2008.

**REFERENCE BOOK**

1. Behrooz Parhami, "Introduction to Parallel Processing - Algorithms and Architecture", Plenum series, 2002

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### SEMESTER VI

#### ELECTIVE II - PAPER III - MULTIMEDIA

##### UNIT I

Multimedia Definition - Use Of Multimedia - Delivering Multimedia - Text: About Fonts and Faces - Using Text in Multimedia - Computers and Text - Font Editing and Design Tools - Hypermedia and Hypertext.

##### UNIT II

Images: Plan Approach - Organize Tools - Configure Computer Workspace - Making Still Images - Color - Image File Formats. Sound: The Power of Sound - Digital Audio - MIDI Audio - MIDI vs. Digital Audio - Multimedia System Sounds - Audio File Formats - Vaughan's Law of Multimedia Minimums - Adding Sound to Multimedia Project.

##### UNIT III

Animation: The Power of Motion - Principles of Animation - Animation by Computer - Making Animations that Work. Video: Using Video - Working with Video and Displays - Digital Video Containers - Obtaining Video Clips - Shooting and Editing Video.

##### UNIT IV

Making Multimedia: The Stage of Multimedia Project - The Intangible Needs - The Hardware Needs - The Software Needs - An Authoring Systems Needs. Multimedia Production Team.

##### UNIT V

Planning and Costing: The Process of Making Multimedia - Scheduling - Estimating - RFPs and Bid Proposals. Designing and Producing - Content and Talent: Acquiring Content - Ownership of Content Created for Project - Acquiring Talent

##### TEXT BOOK

1. Tay Vaughan, "Multimedia: Making It Work", 8<sup>th</sup> Edition, Osborne McGraw-Hill, 2001.

##### REFERENCE BOOK

1. Ralf Steuzmetz & Klara Nahrvedt - "Multimedia Computing, Communication & Applications", Pearson Education, 2012

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**DEPARTMENT OF COMPUTER SCIENCE**

**ELECTIVES SELECTION BY STUDENTS**

**EVEN SEMESTER 2022-23 (Elective-III)**

S.NO	R.NO	NAMES	DATA MINING AND WAREHOUSING	IMAGE PROCESSING	MOBILE COMPUTING	Student Signature
1	20B1501	ABIRAJ.M	✓			M. Abiraj
2	20B1502	MANOJ.S			✓	S. Manoj
3	20B1503	PONKATHIRAVAN.S		✓		S. Ponkathiravan
4	20B1504	PRAVEEN.K		✓		K. Praveen
5	20B1507	SANTHAK.M	✓			M. Santhak
6	20B1508	SANTHOSH.S	✓			S. Santhosh
7	20B1509	SASIKUMAR.B	✓			S. Sasikumar
8	20B1510	DHARANI.G	✓			G. Dhara
9	20B1511	HARISHNA.K		✓		K. Harishna
10	20B1512	MENAGADEVI.A	✓			A. Menagadevi
11	20B1513	NITHYA.K		✓		K. Nithya
12	20B1514	NIVETHA.P			✓	Nivetha.p
13	20B1515	PREETHIGA.K.V	✓			K.V. Preethiga
14	20B1516	SHRUTHIKA.S		✓		S. Shruthika
15	20B1517	SYLAJA.A			✓	A. Sylaja

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### SEMESTER VI

#### ELECTIVE III - PAPER I - DATA MINING AND WAREHOUSING

##### UNIT - I

Introduction: Data mining application – data mining techniques – data mining case studies- the future of data mining – data mining software - Association rules mining: basics- task and a naïve algorithm- Apriori algorithm improve the efficient of the Apriori algorithm mining frequent pattern without candidate generation (FP-growth) – performance evaluation of algorithms.

##### UNIT - II

Classification : Introduction – decision tree – over fitting and pruning - DT rules- Naive bayes method-estimation predictive accuracy of classification methods - other evaluation criteria for classification method – classification software.

##### UNIT - III

Cluster analysis: cluster analysis – types of data – computing distances-types of cluster analysis methods - partitioned methods – hierarchical methods – density based methods – dealing with large databases – quality and validity of cluster analysis methods - cluster analysis software.

##### UNIT - IV

Web data mining: Introduction- web terminology and characteristics- locality and hierarchy in the web-web content mining-web usage mining- web structure mining – web mining software - Search engines: Search engines functionality- search engines architecture – ranking of web pages.

##### UNIT - V

Data warehousing: Introduction – Operational data sources- data warehousing - Data warehousing design – Guidelines for data warehousing implementation - Data warehousing metadata - Online analytical processing (OLAP): Introduction – OLAP characteristics of OLAP system – Multidimensional view and data cube - Data cube implementation - Data cube operations OLAP implementation guidelines.

##### TEXTBOOK

1. G.K. Gupta. "Introduction to Data mining with case studies", 2<sup>nd</sup> Edition, PHI Private limited, New Delhi, 2011.

##### REFERENCE BOOK

1. Arun K Pujari. "Data Mining Techniques", 10<sup>th</sup> impression, University Press, 2008.

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## BACHELOR OF COMPUTER APPLICATION (B.C.A.)

### SEMESTER VI

#### ELECTIVE III - PAPER II - IMAGE PROCESSING

##### UNIT - I

Digital Image: Introduction: Motivation and Perspective - Scenes and Images - Applications - Components of Images Processing System. Mathematical Preliminaries: Introduction - Vector Algebra - Linear Operations - Fourier Transform - Discrete Cosine and Sine Transform - Singular Value Decomposition - Probability and Statistics - Fuzzy Sets and Properties - Mathematical Morphology

##### UNIT - II

Visual Preliminaries - Digitization: Introduction - Sampling - Quantization - Visual Detail in the Digital Image - Digital Image - Elements of digital Geometry.

##### UNIT - III

Image Enhancement: Introduction - Contrast Intensification - Smoothing - Image Averaging - Mean Filter - Low-pass Filtering - Image Sharpening.

##### UNIT - IV

Segmentation: Introduction - Region Extraction - Pixel-based Approach - Multi-Level Thresholding - Local Thresholding - Region-based Approach.

##### UNIT - V

Feature Extraction: Introduction - Representation - Topological Attributes - Geometrical Attributes - Some Other Properties.

##### TEXT BOOK

1. B Chanda, D Dutta Majumder, "Digital Image processing and analysis," 2<sup>nd</sup> Ed., PHI, 2011.

##### REFERENCE BOOKS

1. Gonzalez.R.C & Woods, R.E., "Digital Image Processing," 3<sup>rd</sup> Edition, Pearson Education, 2009.
2. Maria Petrou and Costas petrou, "Image Processing: The Fundamentals", 2<sup>nd</sup> Edition, Wiley, 2010.
3. Anil Jain K. Fundamentals of Digital image Processing. Prentice Hall of India, 1989.
4. S.Jayaraman, S Esakkirajan, and T.Veerakumar, "Digital Image Processing". TMH, 2009.

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## BACHELOR OF COMPUTER APPLICATION (B.C.A.)

### SEMESTER VI

### ELECTIVE III - PAPER III - MOBILE COMPUTING

#### UNIT - I

Introduction: Applications - A Simplified Reference Model. Wireless Transmission: Frequencies for radio transmission - Signals - Antennas - Signal Propagation - Multiplexing - Modulation - Spread Spectrum - Cellular System.

#### UNIT - II

Medium Access Control: Motivation for a Specialized MAC: Hidden and exposed terminals - Near and far terminals - SDMA - FDMA - TDMA: Fixed TDM - Classical Aloha. Reservation TDMA - Multiple Access with Collision Avoidance - Polling - Inhibit Sense Multiple Access. CDMA: Spread Aloha multiple access.

#### UNIT - III

Telecommunication Systems: GSM: Mobile Services - System Architecture - Radio Interface - Protocols - Localization and Calling Handover Security. UMTS and IMT 2000: UMTS releases and standardization - UMTS System Architecture - UMTS Radio Interface - UTRAN - UMTS Handover.

#### UNIT - IV

Satellite System: History - Applications - Basics - Routing - Localization - Handover. Wireless LAN: IEEE 802.11: System Architecture - Protocol Architecture - Physical Layer - Medium Access Control Layer. Bluetooth: User scenarios - Architecture - Radio Layer - Baseband Layer - Link Manager Protocol.

#### UNIT - V

Mobile Network Layer: Mobile IP. Goals, Assumption, and Requirements - Entities and Terminology - IP Packet delivery - Agent discovery - Registration. Dynamic Host Configuration Protocol Mobile Transport Layer: Traditional TCP - Congestion Control - Slow Start - Fast Retransmit.

#### TEXT BOOK

1. Jochen Schiller, "Mobile Communications", 2<sup>nd</sup> Edition, eighth impression, Pearson Education, 2011.

#### REFERENCE BOOKS

1. William Stallings, "Wireless Communication and Networks", 2<sup>nd</sup> Edition, Pearson Education, 2005.
2. Theodore Rappaport, "Wireless Communications: Principles and Practice", Prentice Hall Communications, 1996



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**COMPUTER ORGANIZATION AND ARCHITECTURE**  
**I-BCA/I B.Sc (CS)**

**Paper code: 21UCA03/21UCS03**

**Section-A**

**Prepared By: G.Senthil Kumar**

**Regulation : 2022 Onwards**

**Answer all the Questions**

1. The ALU makes use of \_\_\_\_\_ to store the intermediate results.  
a) Accumulators b) Registers c) Heap d) Stack
2. The circuit used to store one bit of data is known as  
a) Register b) Encoder c) Decoder d) Flip Flop
3. A Three input NOR Gate gives logic high output only when  
a) One input is high b) one input is low c) two input are low d) all input are high
4. A Flip flop is a binary cell capable of storing information of  
a) One bit b) Byte c) Zero bit d) Eight bit
5. The memory unit that communicates directly with the CPU is called the  
a) Main memory b) secondary memory c) Shared memory d) auxiliary memory
6. A Combinational logic circuit which sends data coming from a single source to two or more separate Destination is  
a) Decoder b) Encoder c) Multiplexer d) Demultiplexer
7. Which of the following register keeps track of the instructions stored in the program stored in memory?  
a) Accumulator b) Address Register c) Program Counter d) Index Register
8. The Program Counter is also called as  
a) Instruction Pointer b) Data Counter c) Memory pointer d) None of the above

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9. Which of the following logical operations is represented by the + sign in Boolean algebra?

- a) inversion b) AND c) OR d) complementation

10. The output of an AND gate with three inputs, A, B, and C, is HIGH when\_\_\_\_\_.

- a) A = 1, B = 1, C = 0 b) A = 0, B = 0, C = 0 c) A = 1, B = 1, C = 1 d) A = 1, B = 0, C = 1

11. The interface between an analog signal and a digital processor is

- a) D/A converter b) A/D converter c) Modulator d) Demodulator

12. Telegraph signals are examples of

- a) Digital signals b) Analog signals c) Impulse signals d) Pulse train

13. The time required for  $V_o$  to make the transition from its high level to its low level is defined as

- a) fall time  $t_f$  b) rise time  $t_r$  c) both a and b d) none of the above.

14. The buffer is capable of delivering additional current to a load, it is often called a

- a) switch b) Inverter c) buffer amplifier d) none of the above

15. \_\_\_\_\_are the applications of flip flop

- a) Registers b) Counters c) storage devices d) all of the above

16. A register is defined as \_\_\_\_\_

- a) The group of latches for storing one bit of information  
b) The group of latches for storing n-bit of information  
c) The group of flip-flops suitable for storing one bit of information  
d) The group of flip-flops suitable for storing binary information

17. The binary equivalent of the decimal number 10 is \_\_\_\_\_

- a) 0010 b) 10 c) 1010 d) 010

18. Computer uses which number system to store data and perform calculations

- a) Binary b) octal c) decimal d) Hexadecimal

19. The value of radix in binary number system is \_\_\_\_\_

- a) 2 b) 8 c) 10 d) 1

20. Convert the binary equivalent 10101 to its decimal equivalent.

- a) 21 b) 12 c) 22 d) 31

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### **Section-B**

#### **Answer any Two Questions**

11. Write a note on Register with diagram
12. Discuss on Program Counter with example.
13. Write a note on Basic Gates with neat diagram.
14. Discuss on Analog versus Digital signals.
15. Explain with neat diagram for Digital waveforms.
16. Convert the binary number  $(100101)_2$  to decimal number.

### **Section-C**

#### **Answer any Three Questions**

14. Explain in detail about Digital Computers.
  15. Explain in detail about universal Logic gates.
  16. Explain about Multiplexer and Demultiplexer with neat diagram.
  17. Explain in detail about ALU with neat diagram.
- Explain about Digital logic with neat diagram.
18. Convert the following decimal number to binary number.

- i.  $(32)_{10} = ( )_2$
- ii.  $(64)_{10} = ( )_2$
- iii.  $(128)_{10} = ( )_2$
- iv.  $(256)_{10} = ( )_2$

19. Convert following

- i.  $(6BC)_{16} = ( )_2$
- ii.  $(6B)_{16} = ( )_{10}$
- iii.  $(950)_{10} = ( )_{16}$
- iv.  $(642)_8 = ( )_{16}$

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**CLASS: II BCA**

**Regulation : 2022 Onwards**

**SUBJECT: Data structures and algorithms (21UCA05)**

**PREPARED BY : Dr. S.Sivakumar**

**Part-A**

**ANSWER ALL THE QUESTIONS**

1. An\_\_\_\_\_is written in simple language  
a) Algorithm                      b) data                      c) information                      d)none
2. \_\_\_\_\_is pictorial representation of algorithm  
a) Algorithm                      b) flow chart                      c) information                      d)none
3. \_\_\_\_\_ basic steps are present in problem solving  
a) 5                      b) 7                      c) 6                      d)10
4. \_\_\_\_\_design is be techniques of breaking down a large program into various sub tasks  
a) Bottom up                      b) top down                      c) both a&b                      d)none
5. \_\_\_\_\_of a program denotes the amount of memory in computer  
a) Time                      b) space                      c)frequent                      d)all
6. Which of the following data structure process by one by one?  
b) Algorithm                      b) liner                      c) non liner                      d) data
7. Collection of same data type is called\_\_\_\_\_  
a) Array                      b) stack                      c) linked list                      d) tree
8. Which of the following is an infix expression?  
a)  $(a+b)*(c+d)$                       b)  $ab+c*$                       c)  $+ab$                       d)  $abc+*$
9. Which of the following is non liner data structure?  
a) String                      b) tree                      c) stack                      d) array
10. Stack is called\_\_\_\_\_  
a)LIFO                      b)FIFO                      c)LILO                      d)none of these

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11. is a way of organizing data in a computer  
 (A) Data structure (B) Data (C) None (D) Both A & B
12. ----- the last node points to the header node  
 a. Circular Linked list (B) Singly Linked list  
 (C) Doubly Linked List (D) All the above
13. is a scheduling algorithm for time sharing systems  
 (A) Round Robin Scheduling (B) FCFS  
 (C) CPU Scheduling (D) All the above
14. ----- is a ordered collection of homogeneous data elements  
 a. Queue (B) Stack (C) Dequeue (D) Enqueue
15. How many ways to represent a queue in memory.  
 (A) 1 (B) 2 (C) 3 (D) 4
16. Time complexity of merge sort is----  
 a.  $O(\log n)$  (B)  $O(n \log n)$  (C)  $O(n)$  (D) None
17. is a step by step instructions to excute data  
 a. Data (B) Algorithm (C) Process (D) None of the above
18. The connecting link between any two nodes is called ----  
 a. Edge (B) Root node (C) Parent (D) Child
19. The total no of edges from leaf node to a particular node in longest path is called  
 a. Depth (B) Height (C) Width (D) Level
20. Time complexity of  $o(\log n)$  is---  
 (c) Bubble sort (B) Quick sort (C) Merge sort (D) None
21. Queue operation is used in -----  
 a. FIFO (B) LIFO (C) Both a & b (D) None of the above
22. Time complexity of Quick sort is----  
 a.  $O(\log n)$  (B)  $O(n \log n)$  (C)  $O(n)$  (D) None
23. The total no of edges from leaf node to a particular node in longest path is called---  
 a. Depth (B) Height (C) Width (D) Level
24. The node which has at least one child called-----  
 a. Depth (B) Height (C) Width (D) Level
25. ----- is a non liner data structure which organizes data in hierarchical Structure.  
 (A) Graph (B) Trees (C) Arrays (D) Linked List

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## Part-B

### Answer any 2 Questions

11. Describe in detail about efficiency of algorithm
12. How to evaluate an arithmetic expression? Explain
13. Design an algorithm for finding factorial of a given number.
14. Write short note on procedures of problem solving..
15. Explain about Singly Linked list?
16. Demonstrate about trees terminologies.
17. Explain about Priority Queue?
18. Define sorting? Explain about insertion sort.

## Part-C

### Answer any three Questions

19. Explain the concepts of top down approach and bottom up approach. Find the difference between them
20. Explain about use and design of algorithm?
21. Discuss about fundamental & derived data types.
22. Briefly explain about the design, implementation and verifications of algorithm
23. Define queue? How to represent the queue.
24. . Explain the stack operation with an example.
25. Discuss about Linked list with example.
- 26.. Describe in detail about array in data structure
27. Explain about Heap tree and binary tree?
- 28.. Evaluate infix expression to postfix  
1)  $(A + B) * (C + D)$       2)  $A+B*C+(D*E)$  3)  $((A + B) * (C + E))$  4)  $((A+B*(C+D)*F)*E)$
29. Discuss about expression, threaded and Decision tree.
30. Discuss about merge sort and quick sort with example.

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## DEPARTMENT OF COMPUTER SCIENCE

### QUESTIONS BANK

**SUBJECT NAME:** JAVA PROGRAMMING

**REGULATIONS:** 2022 Onwards

**CLASS** : II CS

**PAPER CODE** : 21UCS06

**PREPARED BY** : V.Balasubramaniam

#### Section-A

1. What is the extension of java code files?  
a) .js b) .txt c) .class d) .java
2. What is the extension of compiled java classes?  
a) .txt b) .js c) .class d) .java
3. Which component is used to compile, debug and execute the java programs?  
a) JRE b) JIT c) JDK d) JVM
4. Which of these are selection statements in Java?  
a) if() b) for() c) continue d) break
5. Which of the following is used with the switch statement?  
a) Continue b) Exit c) break d) do
6. Which of these keywords can be used to prevent Method overriding in Java?  
a) final b) protected c) static d) constant
7. Which keyword is used for accessing the features of a package?  
a) Package b) import c) extends d) export
8. Which of these class object can be used to form a dynamic array?  
a) ArrayList b) Map c) Vector d) ArrayList & vector
9. Which of these is a wrapper for data type int?  
a) Integer b) Long c) Byte d) Double

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10. How many threads can be executed at a time?
- a) Only one thread b) Multiple threads c) Only main (main() method) thread
- d) Two threads
11. which of these methods can be used to output a string in an applet?
- a) display() b) print() c) drawString() d) transient()
12. Which of the following is an immediate subclass of the Panel class?
- a) Applet class b) Window class c) Frame class d) Dialog class
13. The graphics class its contains\_\_\_\_\_
- a) java.util b) java.lang c) java.applet d) java.awt
14. . Which of these class contains the methods used to write in a file?
- a) FileStream b) FileInputStream c) BufferedOutputStream d) FileBufferStream
15. Which package contains the Random class?
- a) java.util package b) java.lang package c) java.awt package d) java.io package

### **Section-B**

16. Explain about Command Line arguments in java.
17. Describe the structure of a typical Java program
18. Discuss on Simple if Statement
19. Explain features of Java.
20. Write a note on Vectors.
21. Discuss on switch statement with example.
22. Explain the Concepts of Vectors and its methods.
23. Explain the various types of Exception.
24. Explain the types of Errors.
25. Explain the various drawing methods of Graphics class.

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### **Section-C**

26. Explain the Features of Java
27. Explain the Operators in Java
28. Discuss on decision making statements with example.
29. Explain in detail about Methods Overloading.
30. Explain in detail about Interfaces with example program.
31. Write a Java Program for Package creation.
32. Explain the Life Cycle of a Thread with example program.
33. Explain the Life Cycle of an Applet.
34. Explain about Drawing Polygons with Example Program.
35. Explain in detail about Input Stream Classes.

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**DEPARTMENT OF COMPUTER SCIENCE**

**QUESTIONS BANK**

**SUBJECT NAME:** GUI PROGRAMMING

**REGULATIONS:** 2019-2020

**CLASS** : III BCA/III CS

**PAPER CODE** : 19UCA12/19UCS06

**PREPARED BY** : A.Suganthi

**SECTION-A**

- 1) Visual Basic is a tool that allows you to develop application in.....
  - a. Real time b. Graphical User Interface c. Menu Driven d. None Of These
- 2) In..... window we can write code
  - a. Immediate window b. Locals window c. Code editor window d. None of these
- 3) We can preserve the value of a local variable by making the variable.....
  - a. Private b. Public c. Static d. Implicit
- 4) is a control related event
  - a. Keydown b. Load c. Terminate d. GotFocus
- 5) Allows us to control the flow of our program's execution based on certain condition.
  - a. Looping b. Array c. Property d. Control structure
- 6) RTF stands for.....
  - a. Rich Text Format b. Rich Title Format c. Row Text Format d. Rich Text Function
- 7) The window in which the individual documents are displayed is called.... window
  - a. Main b. Child c. Parent d. All of the above
- 8) is the process of finding and removing errors

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a. Check b. Debugging c. Quick watch d. Break

9) Loop repeats a group of statements for each item in a collection of objects or for each element of an array.

a. For loop b. Do Until loop c. For each loop d. Do while loop

10) is a set of sequentially indexed elements having the same type of data.

a. Loop b. Array c. Variables d. Objects

11) What properties are required to be specified for a menu item

a. Name b. Caption c. Both a and b d. None of these

12) A ..... is used to display information entered at design time, by a user at runtime, or assigned within the code

a. LabelBox b. TextBox c. ListBox d. ComboBox

13) is a Microsoft product for windows platform

a. Jet database engine b. ODBC c. OLEDB d. None of these

14) can access data from relational and non relational databases.

a. OLEDB b. Jet database engine c. ODBC d. None of these

15) Connectivity is independent of any DBMS or operating system

a. OLEDB b. ODBC c. DAO d. None of these

### SECTION-B

16. Explain about controls in VB?

17. Finding and Fixing Errors

18. Discuss on Val function.

19. Explain the Parts of Code Window in VB with neat diagram?

20. Explain about Common Dialog Controls?

21. Discuss on Common Dialog Boxes.

22. Discuss in detail about Do/Loop with example.

23. Explain about MsgBox Function.

24. Write about Data Control.

25. Explain the ADO objects in VB?

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## SECTION-C

26. Discuss in detail about Tool Bars in VB?
27. What is a Variable? How will you declare a variable?
28. Explain in detail about Decisions and Conditions?
29. Discuss in detail about Menu Editor window? How will you add the Tool bars and explain it?
30. Explain the features of an MDI form?
31. Explain how the Debugging methods handled in VB?
32. Explain how the database was created in VB with the neat diagram?
33. Discuss in detail about Data Access Objects?
34. Describe how the ADO objects and ADO collections used in VB?
- 35 Explain how to generate the Data Report in VB?

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## DEPARTMENT OF COMPUTER SCIENCE

### QUESTIONS BANK

**SUBJECT NAME:** Multi-Skill Development

**REGULATIONS:** 2019-2020

**CLASS** : III BCA/III CS

**PAPER CODE** : 19UCSS01/19UCAS01

**PREPARED BY** : P.Balamurugan

#### I. ANSWER ALL QUESTIONS

**1x 15=15**

- 1.) Choose an article we ate \_\_\_\_\_ wonderful meal yesterday.  
a) A                      b) An                      c) The                      d) at
- 2.) She was waiting \_\_\_\_\_ the corner  
a) in                      b) at                      c) on                      d) inside
- 3.) Synonym for Justify is \_\_\_\_\_  
a) demonstrate      b) gracious              c) awareness              d) attachment
- 4.) Find which of the following number is divisible by 11 ?  
a) 246542              b) 415624              c) 146532              d) 426513
- 5.) The total age of A and B is 12 years more than the total age of B and C. C is how many years younger than A ?  
a) 12                      b) 13                      c) 14                      d) 15
- 6.) "Excluding stoppages, the speed of a bus Q 54kmph and including stoppages, it is 45kmph for how many minutes does the bus stop per hour ?  
a) 9                      b) 10                      c) 12                      d) 20
- 7.) 53, 53, 40, 40, 27, 27, ?  
a) 12                      b) 14                      c) 27                      d) 53
- 8.) FAG, GAF, HAI, IAH, \_\_\_\_\_  
a) JAK                      b) HAL                      c) HAK                      d) JAI
- 9.) Arun said, "This girl is the wife of the grandson of my mother". Who is Arun to the girl ?  
a) Father                      b) Grandfather              c) Husband                      d) Father in law

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- 10.) One of the most communication skill is \_ \_ \_ \_ \_  
 a) empathic listening                      b) inactive listening  
 c) Objective listening                      d) active listening
- 11.) What is the main objective of interview process ?  
 a) Hire the right candidates                      b) Meet the high labour turnover  
 c) To reduce the cost of recruiting
- 12.) A group discussion must advance \_ \_ \_ \_ \_  
 a) truth                      b) dishonesty                      c) Personal glory                      d) arguments
- 13.) In a group discussion we should be \_ \_ \_ \_ \_  
 a) assertive                      b) dominating                      c) subjective                      d) Ignorant
- 14.) Which of these must be avoided in a group discussion ?  
 a) Speaking facts                      b) Asking questions  
 c) Speaking fast                      d) Speaking with clarity
- 15.) Your resume is a tool with one specific purpose  
 a) To get a job                      b) To win an interview  
 c) To discuss salary                      d) To discuss employment

### **PART-B**

- 16.) Write the one word substitution  
 a) The study of Human mind  
 b) The study of plants  
 c) The supervising person during an examination  
 d) Someone who walks by foot
- 17.) A sum fetched a total simple interest of Rs. 4016. 25 at the rate of 9% in 5 years. What is the sum ?
- 18.) A man walks 2km towards North. Then he turns to East and walks 10kms. After this he turns to North and walks 3km. Again he turns towards East and walks 2km. How far is he from the starting point ?
- 19.) Write short notes on soft skills training.
- 20.) Explain Group Discussion Etiquette.

### **PART-C**

- 21.) a) Write the antonyms  
 i) exterior -  
 ii) push -  
 iii) servant -  
 iv) tolerant -  
 v) sense

**(or)**

- b) Write the suitable prepositions  
 i) He drove \_\_\_\_\_ the bridge.  
 ii) He sat \_\_\_\_\_ the chair.  
 iii) The shops are \_\_\_\_\_ walking distance.  
 iv) He is \_\_\_\_\_ treatment for malaria.

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22) a) A man buys a cycle for Rs.1400 and sell it a loss of 15%. What is the selling price of the cycle ?

**(or)**

b) 4 men and 6 women can complete a work in 8 days, while 3 men and 7 women can complete it in 10 days. In how many days will 10 women complete it ?

23.) a) i) If "BEAT" is written as "YVZG" then MILS is \_\_\_\_\_

ii) If "HEALTH" IS WRITTEN IS "GSKZDG" then NORTH is \_\_\_\_\_

iii) Giant : Dwarf : Genius : ?

iv) pulp : Paper: Hemp : ?

v) If "COMPUTER" is written as "RFUVQNPC" then MEDICINE is \_\_\_\_\_

**(or)**

b)i) If south east becomes north, north-east becomes west and so on. What will west become ?

ii) K is 40m south-west of L. If M is 40m southeast of L, then M is in which direction of K?

24) a) Prepare a professional resume

**(or)**

b) What are the benefits of having good interpersonal skills

25) a) Discuss in detail about movement and gestures to be avoided in group discussion.

**(or)**

b) Discuss on "How to improve group discussion skills".

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**DEPARTMENT OF COMPUTER  
SCIENCE QUESTION BANK**

**SUBJECT NAME:** MULTIMEDIA

**CLASS:** III BCA

**PAPER CODE:** 19UCAE06

**PREPARED BY:** MR. M.Chinnusamy

**REGULATION:** 2019-2020

**SECTION-A**

**ONE MARK**

1. The combination of text, graphics art, sound, animation and video delivered by computer or other electronic devices is called:  
A. Multimedia-  
B. Hyper media  
C. Visual media  
D. None
2. One of the disadvantages of multimedia is  
A. Cost-  
B. Adaptability  
C. Usability  
D. Relativity
3. Elements in Multimedia are  
(A) Vector  
(B) Linear  
(C) Bandwidth  
(A) Graphics-
4. The larger than a similar vector graphic image.  
(A) Clipart  
(B) Bitmap-  
(C) Portable network graphic  
(D) Thumbnail

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5. Slide or negative film strips are placed in a carrier inside the film scanner is called
- (A) Flatbed Scanners
  - (B) Film Scanners-
  - (C) Hand Scanners
  - (D) 3D Scanners
6. \_\_\_\_\_ is the component of light which is separated which it is reflected off an object
- (A) Color-
  - (B) Frequency
  - (C) Hues
  - (D) primary
7. \_\_\_\_\_ is a simulation of movement created by displaying a series of pictures or frames
- (A) Color
  - (B) Zoom
  - (C) Object
  - (D) Animation-
8. \_\_\_\_\_ is commonly used tool for creating animations
- (A) text
  - (B) Flash-
  - (C) Filter
  - (D) Paint
9. The rate at which frames are displayed is measured in \_\_\_\_\_
- (A) FPS-
  - (B) MPEG3
  - (C) RAID
  - (D) RGB
10. The two types of memory are \_\_\_\_\_
- (A) RAM & ROM-
  - (B) CD, CD-R
  - (C) MPEG2
  - (D) DVD
11. The devices used for capturing image and video are \_\_\_\_\_
- (A) Webcam
  - (B) Image scanner
  - (C) Fingerprint scanner
  - (D) All the above-
12. The multi- media authoring software, we can make \_\_\_\_\_
- (A) Interactive web sites
  - (B) Demo disks and guided tours
  - (C) Presentations
  - (D) All the Above-

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13. The Process of Making Multimedia basically consists\_\_\_\_\_
- (A) Delivery-
  - (B) Scheduling
  - (C) Estimating
  - (D) None of the above
14. A few basic structures for multimedia projects will cover most
- (A) Linear navigation
  - (B) Hierarchical navigation
  - (C) Nonlinear navigation
  - (D) All the above
15. \_\_\_\_\_is the expensive and time-consuming tasks in organizing a multimedia project
- (A) Content acquisition-
  - (B) Talent acquisition
  - (C) Pre-existing Content
  - (D) Copyrights

### SECTION-B

#### FIVE MARKS:

1. Explain the uses of multimedia.
2. Explain hyper media and hypertext.
3. How will you capture and edit the images?
4. Write short note on multimedia system sounds.
5. Write a short note on morphing.
6. Explain how video work.
7. Explain about software needs.
8. Write short note on designing and producing, testing.
9. Write a note on estimating cost and effort in multimedia project.
10. How will you obtain right of contest for a project?

### SECTION-C

#### TEN MARKS:

1. Explain about delivering multimedia.
2. Explain: Hypermedia and Hypertext.
3. Explain in detail about digital audio.
4. How do you organize the tools? Explain.
5. Describe in detail about working with digital videos and displays.
6. Elucidate the animation by computer.
7. Explain about multimedia production team.
8. Explain the groups of multimedia elements.
9. Explain about designing a project.
10. Write about the client approvals of cycles.

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**TIRUCHENGODE – 637 205**

## Department of Computer Science

### QUESTION BANK

**SUBJECT NAME:** Problem Solving Techniques

**REGULATION:** 2019-2020

**CLASS:** III-B.C.A / III-B.Sc(CS)

**PAPER CODE:** 19UCA10 / 19UCSE01

**PREPARED BY:** MR.M.CHINNUSAMY

### Section – A

**1 Marks**

#### Answer all the Questions

1. A computer program is a \_\_\_\_\_ that performs a specific task when executed by a computer.  
a) collection of instructions b) collection of algorithms c) collection of tasks d) none of the above
2. Debugging programs means  
a) detecting crimes b) detecting faults c) “detecting errors” d) all of the above
3. The efficiency of algorithms follow  
a) cpu time b) memory c) cpu speed d) cpu time & memory
4. Which is assignment operator in pascal?  
a) == b) := c) = d) ===.
5. What is output of  $11 \div 3$  and  $17 \bmod 2$ ?  
a) 3, 1 b) 4, 2 c) 2, 1 d) 1, 1.
6. What are the values  $\text{ord}('A')$  and  $\text{ord}('c')$ .  
a) 65,98 b) 67,99 c) 65,97 d) 68,99
7. What is gcd of 30 & 18?  
a) 7 b) 6 c) 4 d) 2
8. which expression is linear congruential method  
a)  $x_{n+1} = (ax_n + b) \bmod m$  b)  $x_n = (ax_n + b) \bmod m$  c)  $y = (ax + b) \bmod m$  d) none of above
9. What is output for  $i = 5$  downto 0 do?  
a) 4,3,2,1,0 b) 6,5,4,3,2,1 c) 1,2,3,4,5 d) 5,4,3,2,1,0

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10. Pivot value is selected as \_\_\_\_\_ position for partition array  
a) first b) last c) middle d) all of the above
11. what is array reversal of 1 4 2 7 6 0  
a) 0 6 7 2 4 1 b) 0 1 2 4 6 7 c) 7 6 4 2 1 0 d) 1 2 4 6 7 0
12. which method is used to sort the numbers?  
a) selection b) binary c) linear d) none
13. Binary search is a fast search algorithm with run-time complexity of  
a)  $O(\log 2)$  b)  $O(\log n)$  c)  $n \log O$  d)  $2O \log n$
14. Merge sort can be used \_\_\_\_\_  
a) Merge 2 arrays b) merge 3 arrays c) merge n arrays d) all
15. Partition array contains \_\_\_\_\_  
a) left values  $\leq$  pivot b) right values  $>$  pivot c) both a & b d) none

**Section – B**

**5 Marks**

**Answer any two Questions**

16. Write about the problem-solving aspects.
17. Describe Program Verification
18. Explain character to number conversion.
19. Discuss about sine function computation
20. Write generating prime numbers.
21. Explain finding the square root of a number
22. Briefly explain about finding the maximum number in array.
23. Describe partitioning an array
24. Write binary search algorithm.
25. Discuss about diminishing increment and partitioning

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**Section – C**

**10 Marks**

**Answer all the Questions**

26. Discuss about top-down design in detail and efficiency of algorithm
27. Explain in detail about implementation of Algorithms & Program Verification -
28. Explain in detail about raising a number to a large power.
29. Write in detail about factorial computation & sine function computation
30. Discuss in detail about greatest common divisor of 2 integers
31. Explain in detail about generating prime numbers & pseudo random Numbers -
32. Discuss removal of duplicates from an ordered array
33. Explain in detail about array counting or histogramming
34. Explain any 2 sorting algorithm.
35. Write two way merge sort algorithm.

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(For the candidates admitted from 2021-2022 onwards)

B.Sc. DEGREE EXAMINATION, JUNE 2022

Second Semester

Computer Science

DATA STRUCTURES AND ALGORITHMS

(Common for : Information Science)

Time : Three hours

Maximum : 75 marks

PART A — (15 × 1 = 15 marks)

Answer ALL the questions

1. Which of the following data structure can't store the nonhomogeneous data elements?

- (a) Arrays (b) Stacks  
(c) Records (d) None of the above

2. The term push and pop is related to

- (a) Array (b) Lists  
(c) Stacks (d) Trees

7. If node N is a terminal node in a binary tree then its \_\_\_\_\_

- (a) Right tree is empty  
(b) Left tree is empty  
(c) Both left and right sub trees are empty  
(d) Root node is empty

8. A graph is said to be \_\_\_\_\_ if every node  $u$  in  $G$  is adjacent to every other node  $v$  in  $G$ .

- (a) Absolute (b) Entire  
(c) Inclusive (d) Complete

9. Three standard ways of traversing a binary tree  $T$  with root  $R$

- (a) Prefix, infix, postfix  
(b) Pre-process, in-process, post-process  
(c) Pre-traversal, in-traversal, post-traversal  
(d) Pre-order, in-order, post-order

10. Finding the location of a given item in a collection of items is called \_\_\_\_\_

- (a) Discovering  
(b) Finding  
(c) Searching  
(d) Mining

3. Insertion and Deletion operation in Queue is known as?

- (a) Push and Pop  
(b) Enqueue and Dequeue  
(c) Insert and Delete  
(d) None

4. A linear collection of data elements where the linear node is given in means of pointer is called?

- (a) Linked list  
(b) Node list  
(c) Primitive list  
(d) None of the mentioned

5. Minimum number of fields in each node of a doubly linked list is

- (a) 2 (b) 3  
(c) 4 (d) None of the above

6. Linked list is considered as an example of \_\_\_\_\_ type of memory allocation.

- (a) Dynamic  
(b) Static  
(c) Compile time  
(d) None of the mentioned

2

S.No. 2830

11. Which of the following is an external sorting?

- (a) Insertion Sort (b) Bubble Sort  
(c) Merge Sort (d) Tree Sort

12. The function used to modify the way of sorting the keys of records is called \_\_\_\_\_

- (a) Indexing function  
(b) Hash function  
(c) Addressing function  
(d) All of the above

13. \_\_\_\_\_ sorting algorithm is frequently used when  $n$  is small where  $n$  is total number of elements.

- (a) Heap (b) Insertion  
(c) Bubble (d) Quick

14. Partition and exchange sort is \_\_\_\_\_

- (a) quick sort (b) tree sort  
(c) heap sort (d) bubble sort

15. The time complexity of quicksort is

- (a)  $O(n)$  (b)  $O(\log n)$   
(c)  $O(n^2)$  (d)  $O(n \log n)$

4

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PART B — ( $2 \times 5 = 10$  marks)

Answer any TWO questions out of Five

16. Write a note on Sparse Matrices.
17. Explain about Singly linked list.
18. Discuss on the basic terminologies of binary tree.
19. Give the structure for performing various operations on symbol table.
20. What is internal sorting? List out the internal sorting methods.

PART C — ( $5 \times 10 = 50$  marks)

Answer ALL the questions

21. (a) Illustrate infix to Postfix conversion of arithmetic expression using stack.

Or

- (b) Explain about Circular Queue in detail.

22. (a) Explain in detail about linked stack and queue.

Or

- (b) Elaborate the insertion into doubly linked circular list.

5

S.No. 2830

23. (a) Illustrate the algorithm of Inorder traversal in binary tree.

Or

- (b) Explain the Depth First Search algorithm to traverse a graph.

24. (a) Explain the functioning of magnetic tapes.

Or

- (b) Explain in detail about Hash tables.

25. (a) Explain the algorithm of Quick sort in detail.

Or

- (b) Explain in detail about various file organizations.

6

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(For the candidates admitted from 2019-2020 onwards)

B.C.A/B.Sc. DEGREE EXAMINATION, MAY 2023

Fifth/Sixth Semester

### COMPUTER NETWORKS

(Common for: Computer Science / Information Science)

Time : Three hours

Maximum : 75 marks

#### PART A — (15 × 1 = 15 marks)

Answer ALL the questions

1. WLAN stands for?
  - (a) Wired local area network
  - (b) Wireless local area network
  - (c) Wire lost area network
  - (d) Wireless local ambiguity network
6. Pick out the data link layer design issues
  - (a) Services provided to the network layer
  - (b) Framing
  - (c) Error and flow control
  - (d) All the above
7. The algorithm that manages the tables and makes the routing decision is called as \_\_\_\_\_
  - (a) Routing algorithm
  - (b) Congestion algorithm
  - (c) Hierarchical routing algorithm
  - (d) Multicasting algorithm
8. A packet arrives, looking up outgoing line routing table is known as \_\_\_\_\_
  - (a) Redirecting
  - (b) Diverting
  - (c) Forwarding
  - (d) Backwarding
9. \_\_\_\_\_ smooths out the network traffic on the server side, rather than on client side.
  - (a) Traffic spikes
  - (b) Traffic shaping
  - (c) Data flow
  - (d) Data transmission
10. TCP stands for \_\_\_\_\_
  - (a) Transfer control protocol
  - (b) Transmit control protocol
  - (c) Transfer cable protocol
  - (d) Transmission control protocol

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2. \_\_\_\_\_ layer is concerned with transmitting raw bits over a communication channel.
  - (a) application layer
  - (b) transport layer
  - (c) physical layer
  - (d) Internet layer
3. The \_\_\_\_\_ is example of magnetic media.
  - (a) UTP Cable
  - (b) Recordable DVD's
  - (c) Closed circuit T.V
  - (d) Cable Television
4. Protocols in which the sender sends from one frame and then waits for an acknowledgement before proceeding is called \_\_\_\_\_.
  - (a) stop and wait protocol
  - (b) unrestricted protocol
  - (c) Noisy protocol
  - (d) Slide window protocol
5. The number of bit position in which two code words differ is called as \_\_\_\_\_.
  - (a) Euclidean distance
  - (b) Linear distance
  - (c) Manhattan distance
  - (d) Hamming distance

11. Each socket has a socket number, consisting of the IP address of host is called a \_\_\_\_\_.
    - (a) port
    - (b) HTTP
    - (c) URL
    - (d) protocol
  12. Name the protocol used in world wide web (WWW).
    - (a) HTTP
    - (b) FTP
    - (c) Telenet
    - (d) POP3
  13. The strings inside the tags are called as \_\_\_\_\_.
    - (a) Hyperlinks
    - (b) Directives
    - (c) Hypertext
    - (d) Character
  14. The message to be encrypted, is known as \_\_\_\_\_.
    - (a) plain text
    - (b) cipher text
    - (c) encrypted data
    - (d) decrypted data
- \_\_\_\_\_ Algorithm uses the same key for both encryption and decryption process
- (a) Symmetric
  - (b) Asymmetric
  - (c) DNS
  - (d) Triple DES

PART B — (2 × 5 = 10 marks)

Answer any TWO questions out of five

16. Explain the local area network (LAN).
17. Briefly explain the data link layer design issues.
18. Describe any three techniques for achieving good quality of service.
19. Write short notes on Remote procedure call.
20. Illustrate on Domain name system (DNS).

PART C — (5 × 4 = 20 marks)

Answer ALL questions

21. (a) Discuss about the OSI Reference model with diagram.

Or

- (b) Give an outline on guided transmission media.

22. (a) Explain about the sliding window protocol.

Or

- (b) Write about error detection and correction.

23. (a) Illustrate the shortest path routing algorithm.

Or

- (b) Explain about the congestion control algorithms.

24. (a) Write about TCP server model and TCP segment header.

Or

- (b) Illustrate on the elements of transport protocol.

25. (a) Describe on the electronic mail in brief.

Or

- (b) Illustrate the public key algorithms.

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21UCA03/  
21UCS03/  
21UIS03

(For the candidates admitted from 2021-2022 onwards)

B.C.A./B.Sc. DEGREE EXAMINATION, MAY 2023.

Second Semester

COMPUTER ORGANIZATION AND ARCHITECTURE

(Common for : Computer Science/Information Science)

Time : Three hours

Maximum : 75 marks

PART A — (15 × 1 = 15 marks)

Answer ALL questions.

1. Network of Communication protocol is formed by one master and \_\_\_\_\_ slaves with a unique address.
  - (a) 230
  - (b) 237
  - (c) 247
  - (d) 245
2. The device used to fetch (or bring) instructions and data into a computer system is called
  - (a) ALU
  - (b) Control unit
  - (c) Input device
  - (d) Output device
7. (2FAOC) 16 is equivalent to
  - (a) (195 084)10
  - (b) (0010 1111 1010 0000 1100)2
  - (c) Both (a) and (b)
  - (d) None of these
8. The average time required to reach a storage location in memory and obtain its contents is called the
  - (a) seek time
  - (b) turnaround time
  - (c) access time
  - (d) transfer time
9. Which of the following is not a weighted code?
  - (a) Decimal Number system
  - (b) Excess 3-cod
  - (c) Binary number System
  - (d) None of these
3. Conversion of computer-generated results into human-readable format is the function of
  - (a) CPU
  - (b) RAM
  - (c) Output interface
  - (d) Input interface
4. Which of the following units of measurement are used with the computer system?
  - (a) Bytes
  - (b) Kilobyte
  - (c) Megabyte
  - (d) Gigabyte
  - (e) All of these
5. The hardware in which data is stored permanently for a computer system is
  - (a) Registers
  - (b) Bus
  - (c) Secondary memory
  - (d) Main Memory
6. The CPU chip used in the computer system is made up of
  - (a) Gold
  - (b) Copper
  - (c) Silicon
  - (d) Silver
10. Which of the following is lowest in memory hierarchy?
  - (a) Cache memory
  - (b) Secondary memory
  - (c) Registers
  - (d) RAM
11. In signed-magnitude binary division, if the dividend is (11100)2 and divisor is (10011)2 then the result is
  - (a) (00100)2
  - (b) (10100)2
  - (c) (11001)2
  - (d) (01100)2
12. Virtual memory consists of
  - (a) Static RAM
  - (b) Dynamic RAM
  - (c) Magnetic memory
  - (d) None of these
13. In a program using subroutine call instruction, it is necessary
  - (a) Initialize program counter
  - (b) Clear the accumulator
  - (c) Reset the microprocessor
  - (d) Clear the instruction register

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14. The 2's complement form (Use 6 bit word) of the number 1010 is

- (a) 111100 (b) 110110  
(c) 110111 (d) 1011

15. What is the content of Stack pointer (SP)?

- (a) Address of the current instruction  
(b) Address of the next instruction  
(c) Address of the top element of the stack  
(d) Size of the stack.

PART B — (2 × 5 = 10 marks)

Answer any TWO questions out of Five.

16. Describe the digital operation.

17. Differentiate decoder and encoder.

18. (a) Find 2's complement of binary number 10101110.

(b) Find 2's complement of binary number 10001.001.

19. Draw the RS flip flops and explain.

20. Differentiate the EPROM and EEPROM.

5

S.No. 2230

PART C — (5 × 10 = 50 marks)

Answer ALL questions.

21. (a) Elucidate the Basic gates with truth table.

Or

(b) Using Boolean identities, reduce the given Boolean expression:

$$F(X, Y, Z) = X'Y + YZ' + YZ + XY'Z'$$

22. (a) Write notes on 1 to 16 De-multiplexer with diagram.

Or

(b) Write short notes on Karnaugh map with example.

23. (a) Give an account on 1's and 2's complement with neat example.

Or

(b) Convert (242)<sub>10</sub> into hexadecimal. Convert (121)<sub>8</sub> into hexadecimal.

24. (a) Discuss about the Flip flops and its types.

Or

(b) Elaborate the Arithmetic Logic unit.

6

S.No. 2230

25. (a) Explain the types of memory.

Or

(b) Explain in detail about Serial-In Serial-Out and Parallel-In Parallel-Out.

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(For the candidates admitted from 2019-2020 onwards)

B.C.A./B.Sc. DEGREE EXAMINATION, MAY 2023.

Fifth/Sixth Semester

Elective – COMPUTER GRAPHICS

(Common for: Computer Science/Information Science)

Time : Three hours

Maximum : 75 marks

PART A — (15 × 1 = 15 marks)

Answer ALL questions.

- GUI stands for
  - Graphics uniform interaction
  - Graphical user interaction
  - Graphical user interface
  - None of the above
- Which one of the following is the primarily used output device?
  - Video monitor
  - Scanner
  - Speaker
  - Printer

- Which of these is a technique used for the production of colour displays with some random CRT scan monitors?
  - Gas-Discharge
  - Direct View Storage
  - Shadow Mask
  - Beam Penetration

- Which of these is NOT a component of the Memory tube display?
  - Liquid Crystal
  - Ground
  - Collector
  - Flooding gun

- Select the byte for 16\*16 array of black and white pixels?
  - 64 bytes
  - 128 bytes
  - 32 bytes
  - 96 bytes

- The display controller change 0s and 1s into?
  - TV monitor
  - Electronics signal
  - Video signal
  - None of these

- Types Of Computer Graphics Are
  - Scalar And Raster
  - Vector And Raster
  - Vector And Scalar
  - None Of These

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- In the images, redundancy stems from:
  - pixel quantization
  - image size
  - pixel de-correlation
  - pixel correlation
- The three primary colours define which of these colour models?
  - CMY and HSV
  - RGB and HSV
  - RGB and CMY
  - HSV and HLS
- Display card are
  - VGA
  - EGA
  - Both (a) and (b)
  - None of above
- The additive colour models use the concept of
  - Printing ink
  - Light to display colour
  - Printing line
  - None of these
- The Cohen-Sutherland algorithm divides the region into how many spaces?
  - 9
  - 8
  - 7
  - 6

- Pixel Can Be Arranged In A Regular
  - One Dimensional Grid
  - Two Dimensional Grid
  - Three Dimensional Grid
  - None Of These
- Each Pixel Has \_\_\_\_\_ basic Colour Components.
  - Two Or Three
  - One Or Two
  - Three Or Four
  - None Of These
- Vector Graphics Is Composed Of
  - Paths
  - Pixels
  - Palette
  - None Of These

PART B — (2 × 5 = 10 marks)

Answer any TWO questions out of Five.

- Compare LCD and LED Systems.
- Narrate the concept of Random scan systems.
- Outline the concept of Two-Dimensional viewing pipeline.
- Derive 3D rotation matrix with respect to z-axis.
- Discuss about the area subdivision method.



PART C — (5 × 10 = 50 marks)

Answer ALL questions.

21. (a) Relate Raster Scan and Random Scan Displays.

Or

- (b) Explain Colour CRT Monitors with neat diagram.

22. (a) Construct DDA Algorithm for generating straight line.

Or

- (b) Discuss about Image Scanners with details.

23. (a) Interpret how composite transformations are performed in 2D.

Or

- (b) Explicate in detail Line clipping algorithms.

24. (a) Illustrate various types of projections with examples.

Or

- (b) Explain briefly about three-dimensional display methods.

25. (a) Elaborate the depth buffer method in details.

Or

- (b) Discuss about the BSP tree method with details.

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S.No. 2057

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S.No. 2057

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TIRUCHENAI-637 105.

(For the candidates admitted from 2019-2020 onwards)

B.C.A. / B.Sc. DEGREE EXAMINATION,  
DECEMBER 2022.

Fourth Semester

RELATIONAL DATABASE MANAGEMENT  
SYSTEMS

(Common for: B.Sc. Computer Science / IS)

Time : Three hours

Maximum : 75 marks

PART A — (13 × 1 = 13 marks)

Answer ALL questions.

1. An entity is represented by set of \_\_\_\_\_.  
(a) Attributes (b) Relationship  
(c) Model (d) None of these
2. DBMS stands for  
(a) Data Base Managerial System  
(b) Directory Management System  
(c) DataBase Management System  
(d) Directory Managerial System
9. Which of the following constraint can be enforced one per table?  
(a) Primary key (b) Not null  
(c) Foreign key (d) None
10. The redundancy is reduced in a database table by using the \_\_\_\_\_ form.  
(a) Abnormal (b) Normal  
(c) Special (d) None
11. Which of the following is not a type of normal form?  
(a) 1NF (b) 2NF  
(c) 3NF (d) 1ONF
12. When a relation is in 2NF and there is \_\_\_\_\_ it is in 3NF.  
(a) Transition Dependency  
(b) No Transition Dependency  
(c) Relational Dependency  
(d) No relational Dependency

3. In a relational model, relations are termed as  
(a) Tables (b) Attributes  
(c) Tuples (d) Rows
4. Which command is used to create a new table in SQL?  
(a) Build table (b) Create table  
(c) Format table (d) None of these.
5. We can apply the aggregate to a group of sets of tuples using \_\_\_\_\_ clause  
(a) grouping (b) group by  
(c) group set (d) group in
6. Using the \_\_\_\_\_ clause retains only one copy of identical tuples  
(a) Distinct (b) is not null  
(c) no repeat (d) from
7. Which of the following is not an integrity function?  
(a) not null (b) Unique  
(c) identical (d) check
8. \_\_\_\_\_ is a predicate that we expect the database to always satisfy  
(a) Assertion (b) Reason  
(c) Mandate (d) Verify
13. A transaction that is inserting a new tuple into the database is given on  
(a) Shared Lock (b) Mutual Lock  
(c) Exclusive Lock (d) No lock

14. The two modes of locking a data item are termed as 'shared' and  
(a) Composite (b) Compatible  
(c) Exclusive (d) Linear
15. Two-Phase Locking does not ensure freedom from  
(a) Obtain Locks (b) Release Locks  
(c) New Lock (d) deadlock

PART B — (2 × 5 = 10 marks)

Answer any TWO questions.

16. What is the purpose of database systems?
17. Write a short note on null values.
18. Explain about constraints in SQL.
19. What are the pitfalls of relational databases design?
20. Write a short note on transaction concepts.

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PART C — (5 × 10 = 50 marks)

Answer ALL questions.

21. (a) Explain about applications of database systems.

Or

- (b) Explain about structure of relational databases.

22. (a) Illustrate set operations in SQL.

Or

- (b) Elaborate aggregate functions in SQL.

23. (a) Illustrate triggers in SQL.

Or

- (b) Write about authorization in SQL.

24. (a) Illustrate first and second normal forms in detail.

Or

- (b) Explain about Boyce-code normal form.

25. (a) Explain briefly about Serializability.

Or

- (b) Explain about two-phase locking protocol in detail.

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S.No. 2227

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S.No. 2227

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(For the candidates admitted from 2019-2020 onwards)

B.C.A./B.Sc. DEGREE EXAMINATION,  
DECEMBER 2022.

Fifth/Sixth Semester

GUI PROGRAMMING

(Common for B.Sc. Computer Science /IS)

Time : Three hours

Maximum : 75 marks

PART A — (15 × 1 = 15 marks)

Answer ALL questions.

- The window in which the individual documents are displayed is called \_\_\_\_\_ window.  
(a) Main (b) Child  
(c) Parent (d) Root
- \_\_\_\_\_ is the process of finding and removing errors.  
(a) Checking (b) Compiling  
(c) Debugging (d) Quick watch
- \_\_\_\_\_ is property is used to hide the content in textbox with some symbols.  
(a) Name (b) Caption  
(c) Hidden (d) Password char
- Which window displays a list of all forms and modules making up your application.  
(a) Project window  
(b) Properties window  
(c) Form layout window  
(d) All of the above
- In \_\_\_\_\_ window we can write code.  
(a) Immediate window  
(b) Local window  
(c) Code editor window  
(d) None of these
- In visual basic \_\_\_\_\_ is the extension to represent project file.  
(a) .frm (b) .vbp  
(c) .cls (d) .vb

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- \_\_\_\_\_ loop repeats a group of statements for each item in a collection of objects or for each element of an array.  
(a) While loop (b) Do Until loop  
(c) Do while loop (d) For each loop
- MDI stands for \_\_\_\_\_.  
(a) Multiple Document Interface.  
(b) Multiple Design Interface.  
(c) Manipulated Document Interface.  
(d) Menu Design Interface.
- \_\_\_\_\_ do not return a value.  
(a) Sub procedure  
(b) Function procedure  
(c) Property procedures  
(d) All of these
- The \_\_\_\_\_ property is used in VB for maximum form at run time.  
(a) Caption  
(b) Window resize  
(c) Window status  
(d) None of these
- In GUI \_\_\_\_\_ is a means of selecting one of several options.  
(a) Option button  
(b) Scroll bar  
(c) List box  
(d) Combo box
- \_\_\_\_\_ Property designates the text appearing in the form's title bar.  
(a) Text (b) Name  
(c) Caption (d) None of these
- \_\_\_\_\_ method is used to delete items from a list box.  
(a) Remove (b) Clear  
(c) Remove item (d) Delete
- To load graphics on a control at runtime, we have to use the function  
(a) LoadImage (b) LoadPicture  
(c) LoadGraphic (d) None of these
- Which of the following is not the property of a TextBox?  
(a) List count (b) Multi line  
(c) Scroll bar (d) Maximum length

PART B — ( $2 \times 5 = 10$  marks)

Answer any TWO questions.

16. Briefly explain how to find and fix errors in VB.
17. Discuss in detail about Multiple if statement in VB.
18. Explain in detail about adding forms to project.
19. Briefly explain do while statement with sample program.
20. Define Data Control, explain in detail with database connectivity

PART C — ( $5 \times 10 = 50$  marks)

Answer ALL questions.

21. (a) Discuss in detail about visual basic controls with sample coding for any tools.

Or

- (b) Briefly Explain the object-oriented programming concept.

22. (a) Write a Visual Basic program to perform calculator operations.

Or

- (b) Discuss in detail about option button in VB with simple program.

23. (a) Briefly explain Menu Editor in VB with example.

Or

- (b) What is Sub procedure? Write the declaration syntax and simple example for sub procedure.

24. (a) Briefly explain listbox and its properties in VB.

Or

- (b) Explain in detail about Menu Editor in VB.

25. (a) Explain in detail about Active X objects in VB.

Or

- (b) Discuss in detail about combo boxes and its properties.

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21UCA06/21UCS04

21UIS04

(For the candidates admitted from 2021-2022 onwards)

B.C.A/B.Sc. DEGREE EXAMINATION,  
DECEMBER 2022

Third Semester

RELATIONAL DATABASE MANAGEMENT  
SYSTEMS

(Common for B.Sc. (CS)/B.Sc. (IS))

Time : Three hours

Maximum : 75 marks


PART A — (15 × 1 = 15 marks)

Answer ALL questions.

Choose the correct answer.

- Which of the following is not a type of database?
  - Hierarchical
  - Network
  - Distributed
  - Decentralization
- The function that an entity plays in a relationship is called that entity is \_\_\_\_\_.
  - Participation
  - Position
  - Role
  - Instance
- 2NF relations are those that are in 1 NF with all the attribute types dependent on the \_\_\_\_\_ key.
  - Primary
  - Foreign
  - Composite
  - Alternate
- The Database Administrator who authorizes all the new users, modifies the database and takes grants privilege is \_\_\_\_\_.
  - Super user
  - Administration
  - Operator of operating system
  - All the mentioned
- PL/SQL is a
  - Block structured Language
  - Block structured Language
  - Banner structured Language
  - Build structured Language
- A value is assigned to a constant in PL/SQL at the time of \_\_\_\_\_.
  - Initialization
  - Declaration
  - Valuation
  - Numeralization

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- The entity relationship set is represented in E-R diagram as \_\_\_\_\_.
  - Double diamonds
  - Undivided rectangle
  - Dashed lines
  - Diamond
- Which of the following is not a type of Relational Operation?
  - select operation
  - set difference
  - set update
  - Cartesian product
- Projection operation is denoted by \_\_\_\_\_.
  - P
  - R
  - O
  - $\pi$
- Which of the following is not a valid SQL type?
  - Float
  - Numeric
  - Decimal
  - Character
- Redundancy is reduced in a database table by using the \_\_\_\_\_ form.
  - Abnormal
  - Normal
  - Special
  - None
- Which of the following is NOT a type of PL/SQL literal?
  - Numeric
  - String
  - Boolean
  - Check
- A \_\_\_\_\_ is a special kind of stored procedure that executes in response to the certain action on the take like insertion, deletion or updation of data.
  - Procedure
  - Triggers
  - Functions
  - None of the mentioned
- SQL views are also known as \_\_\_\_\_.
  - Simple tables
  - Virtual tables
  - Complex tables
  - Actual tables
- What are the different in triggers?
  - Define, Create
  - Drop, Comment
  - Insert, update, Delete
  - All of the mentioned



PART B — ( $2 \times 5 = 10$  marks)

Answer any TWO questions.

16. Give the role of Database users and Administrators.
17. Bring out the modification of the Database.
18. Point out the importance of Data Encryption.
19. Categorize exceptions with suitable example.
20. Distinguish between Records and Tables.

PART C — ( $5 \times 10 = 50$  marks)

Answer ALL questions.

All questions carry equal marks.

21. (a) Elucidate Database Architecture in detail.

Or

- (b) Explicate Database Languages in detail.

22. (a) Describe set operations with example.

Or

- (b) Elucidate Relational calculus in detail.

23. (a) Explain the pitfalls in Relational Database design.

Or

- (b) Illuminate Boyce Codd Normal form in detail.

24. (a) Narrate the concept of cursors in PL/SQL.

Or

- (b) Explain transaction control statements with example.

25. (a) Elucidate procedures in PL/SQL.

Or

- (b) Expound Triggers with example.

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(For the candidates admitted from 2019-2020 onwards)

B.C.A./B.Sc. DEGREE EXAMINATION,  
DECEMBER 2022.

Fifth/Sixth Semester

JAVA PROGRAMMING

(Common for: B.Sc. Computer Science/IS)

Time : Three hours

Maximum : 75 marks

PART A — (15 × 1 = 15 marks)

Answer ALL questions.

Choose the best answer:

1. Who invented Java Programming?
  - (a) Guido van Rossum
  - (b) James Gosling
  - (c) Dennis Ritchie
  - (d) Bjarne Stroustrup
2. Which component is used to compile, debug and execute the Java programs?
  - (a) JRE
  - (b) JIT
  - (c) JDK
  - (d) JVM
3. What is the extension of java code files?
  - (a) .js
  - (b) .txt
  - (c) .class
  - (d) .java
4. Which of the following is not a valid jump statement?
  - (a) return
  - (b) continue
  - (c) break
  - (d) goto
5. Which of the following is not a decision making statement?
  - (a) if-else
  - (b) do-while
  - (c) switch
  - (d) if
6. Which of the following is used with the switch statement?
  - (a) break
  - (b) do
  - (c) Exit
  - (d) Continue
7. Which of these keywords is used to define interfaces in Java?
  - (a) interface
  - (b) Interface
  - (c) intf
  - (d) Intf
8. What keyword is used to declare an interface in Java?
  - (a) class
  - (b) interface
  - (c) implements
  - (d) abstract
9. Java interface can contain \_\_\_\_\_.
  - (a) Final variables
  - (b) Abstract methods
  - (c) Non-abstract methods
  - (d) Final variables and abstract methods
10. Thread priority in Java is?
  - (a) Integer
  - (b) Float
  - (c) double
  - (d) long
11. When a class extends the Thread class, it should override \_\_\_\_\_ method of Thread class to start the thread.
  - (a) start()
  - (b) run()
  - (c) init()
  - (d) go()
12. Which function of pre defined class Thread is used to check whether current thread being checked is still running?
  - (a) isAlive()
  - (b) join()
  - (c) isRunning()
  - (d) Alive()
13. Which of these methods can be used to output a string in an applet?
  - (a) display()
  - (b) print()
  - (c) drawstring()
  - (d) transient()
14. Which of these class contains the methods used to write in a file?
  - (a) FileStream
  - (b) FileInputStream
  - (c) BUfferedOutputStream
  - (d) FileBufferStream
15. Which of these exception is thrown in cases when the file specified for writing is not found?
  - (a) IOException
  - (b) FileNotFoundException
  - (c) FileNotFoudException
  - (d) FileInputException

2

S.No. 2231

PART B — (2 × 5 = 10 marks)

Answer any TWO questions out of Five.

16. List the Eight Basic Data types used in Java. Give Examples.
17. Discuss in detail about Classes and Objects in Java with example.

4

S.No. 2231

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S.No. 2231

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18. Examine in detail about how to handle Packages in Java with example.
19. Analyze in brief about the method for passing parameters to applets with Illustrative Program.
20. What are Input and Output Streams? Explain them with illustration.

PART C — (5 × 10 = 50 marks)

Answer ALL the questions. Choosing Either (a) or (b).

21. (a) What is a token? List the various types of tokens supported by Java.

Or

- (b) Enumerate in briefly about different kinds of operators in Java with examples.

22. (a) Write a Java Program to find all possible roots of a quadratic equation  $Ax^2 + Bx + C = 0$ .

Or

- (b) Explain the Concept of Method and Constructor Overloading with example.

23. (a) What are the Applications of Wrapper Classes? Explain with example.

Or

- (b) Assess in brief about Java Interface with example.

24. (a) What are the uses of try and catch statement in Java? Explain with example.

Or

- (b) What are the uses of `isAlive()` and `join()` methods in Thread? Examine with suitable example.

25. (a) Determine in detail about Java Graphics Class using Line Syntax with example.

Or

- (b) Elucidate on Java Graphics Class using Rectangle Syntax with example.

5

S.No. 2231

6

S.No. 2231

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 TIRUCHIRAPPALLI - 620 005



SENGUNTHAR ARTS AND SCIENCE COLLEGE, TIRUCHENGODE  
MONTHLY EXAMINATIONS – SEP 2022  
CIRCULAR





It is informed that the Second Year ( III Semester) will have their MONTHLY Examinations for TWO Hours (10.00 am – 12.00 pm) from 19.09.2022 as scheduled below:

DATE	B.Com	B.B.A.	B.Com.(C.A)	B.Sc.(MATHS)
09.09.22	FINANCIAL MARKET	FINANCIAL MANAGEMENT	FINANCIAL MARKET	TAMIL-III
12.09.22	BUSINESS LAW	HUMAN RESOURCE MANAGEMENT	BUSINESS LAW	ENGLISH-III
13.09.22	CORPORATE ACCOUNTING-I	MARKETING MANAGEMENT	CORPORATE ACCOUNTING-I	NUMBER THEORY
14.09.22	BANKING THEORY LAW AND PRACTICE	PRODUCTION AND MATERIALS MANAGEMENT	MARKETING	DIFFERENTIAL EQUATIONS
15.09.22	NMEC:ENTREPRENEURIAL DEVELOPMENT	MANAGERIAL ECONOMICS	FUNDAMENTALS OF COMPUTER AND TALLY	ALL:MATHEMATICAL STATISTICS
16.09.22	ALL-BUSINESS STATISTICAL METHODS	NMEC:CELLULAR PHONES	ALL- BUSINESS STATISTICAL METHODS	NMEC- SALAIP PAATHUKAPPU VITHIKAL
19.09.22	--	FUNDAMENTALS OF INSURANCE	NMEC: QUANTITATIVE APTITUDE – I	SBEC- FINANCIAL MATHEMATICS

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02/09/22

To

 B.Com.	 B.B.A..	 B.Com.(C.A)	 B.Sc.(MATHS)- (A ,B)
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SENGUNTHAR ARTS AND SCIENCE COLLEGE, TIRUCHENGODE  
MONTHLY EXAMINATIONS – SEP 2022  
CIRCULAR


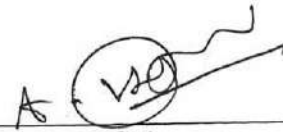
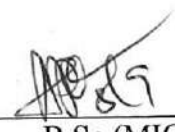
It is informed that the Second Year ( III Semester) will have their MONTHLY Examinations for TWO Hours (10.00 am – 12.00 pm) from 19.09.2022 as scheduled below:

DATE	B.Sc.(COMP)	B.C.A.	B.Sc.(MICRO)
09.09.22	TAMIL – III	DATA STRUCTURES AND ALGORITHMS	TAMIL-III
12.09.22	ENGLISH-III	OPERATING SYSTEM	ENGLISH-III
13.09.22	RELETAIONAL DATABASE MANAGEMENT SYSTEMS	RELETAIONAL DATABASE MANAGEMENT SYSTEMS	MICROBIAL GENETICS AND MOLECULAR BIOLOGY
14.09.22	NMEC; ENTREPRENEURIAL DEVELOPMENT	NMEC; ENTREPRENEURIAL DEVELOPMENT	COMPUTER APPLICATIONS – I
15.09.22	ALL : APPLIED ELECTRONICS-I	APPLIED ELECTRONICS- I	SBEC: APPLIED BIOTECHNIQUES
16.09.22	COMPUTER NETWORKS	---	NMEC: CONCEPTS OF BIOTECHNOLOGY

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SENGUNTHAR ARTS AND SCIENCE COLLEGE  
TIRUCHENGODE - 627 004

  
PRINCIPAL

To

 B.Sc.(COMP)-(A,B)	 B.C.A.	 B.Sc.(MICRO)
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SENGUNTHAP ARTS AND SCIENCE COLLEGE, TIRUCHENGODE  
MONTHLY EXAMINATIONS – SEP 2022

CIRCULAR



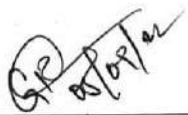

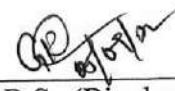
It is informed that the Second Year ( III Semester) will have their MONTHLY Examinations for TWO Hours (10.00 am – 12.00 pm) from 19.09.2022 as scheduled below:

DATE	B.A. (ENG)	B.Sc.(CHEM)	B.Sc.(BIOTECH)	B.Sc.(PHYSICS)	B.Sc.(Biochem)
09.09.22	TAMIL-III	TAMIL-III	TAMIL – III	TAMIL-III	TAMIL-III
12.09.22	ENGLISH-III	ENGLISH-III	ENGLISH-III	ENGLISH-III	ENGLISH-III
13.09.22	CORE-V-FICTION	GENERAL CHEMISTRY-III	GENERAL MICROBIOLOGY	THERMAL AND STATISTICAL PHYSICS	ENZYMES
14.09.22	SBEC- CREATIVE WRITING	ALL: PHYSICS - I	ALLIED: BIOSTATISTICS	ALL: CHEMISTRY - I	ALL – III: BIOSTATISTICS
15.09.22	NMEC: ENTREPRENEURIAL DEVELOPMENT	NMEC: BASIC OF COMPUTER	SBEC: DEVELOPMENT BIOLOGY	NMEC: BASIC OF COMPUTER	NMEC: INDUSTRIAL CHEMISTRY
16.09.22	ALL-LITERARY FORMS AND TERMS	SBEC-POLYMER CHEMISTRY	NMEC- FUNDAMENTALS OF HUMAN PHYSIOLOGY	SBEC- CAREER COMPENTENCY SKILLS-I	SBEC: CELL BIOLOGY
19.09.22	SBCE-II SOFT SKILLS FOR CAREER <i>film studies</i> COMMUNICATION	--	--	--	--

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SENGUNTHAP ARTS AND SCIENCE COLLEGE  
TIRUCHENGODE - 637 405.

  
PRINCIPAL

To

 B.A.(ENG)	 B.Sc.(CHEM)	 B.Sc.(BIOTECH)- A, B	 B.Sc.(PHYSICS)	 B.Sc.(Biochem)
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ODD SEMESTER

SENGUNTHAR ARTS AND SCIENCE COLLEGE, TIRUCHENGODE  
MONTHLY EXAMINATIONS – SEP -22  
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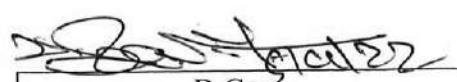


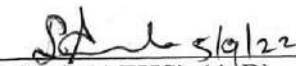

It is informed that the Third Year (V Semester) will have their MONTHLY Examinations for TWO Hours (10.00 am – 12.00 pm) from 09.09.22 as scheduled below:

DATE	B.Com.	B.B.A.	B.Com.(CA)	B.Sc.(MATHS)	B.Sc.(ELECT.)
09.09.22	AUDITING	BUSINESS POLICY & STRATEGY	AUDITING	MODERN ALGEBRA - I	ELECTRONIC COMMUNICATION SYSTEMS
12.09.22	COST ACCOUNTING	OPERATIONS RESEARCH	COST ACCOUNTING	REAL ANALYSIS-I	IC's AND THEIR APPLICATIONS
13.09.22	INCOME TAX LAW AND PRACTICE-I	COST ACCOUNTING	INCOME TAX LAW AND PRACTICE- I	COMPLEX ANALYSIS -I	ELE-8051 MICROCONTROLLER AND INTERFACING
14.09.22	INFORMATION TECHNOLOGY IN BUSINESS	FUNDAMENTALS OF RESEARCH METHODOLOGY	SOFTWARE DEVELOPMENT WITH VISUAL PROGRAMMING	ELE: I : OPERATIONS RESEARCH	ELE: MODERN TELEVISION SYSTEMS
15.09.22	---	ALL: MANAGEMENT INFORMATION SYSTEMS	---	ELE: II: DISCRETE MATHEMATICS	SBEC:ELECTRONIC INSTRUMENTATION
16.09.22	---	ELE-SERVICE MARKETING	---	SBEC-PROGRAMMING IN C	SBEC:COMPITITIVE SKILLS

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PRINCIPAL

To

 B.Com.	 B.B.A	 B.Com.(CA)	 B.Sc.(MATHS)-(A,B)	 B.Sc.(ELECT.)
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SENGUNTHAR ARTS AND SCIENCE COLLEGE, TIRUCHENGODE  
MONTHLY EXAMINATIONS – SEP - 2022  
CIRCULAR

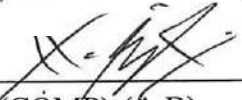
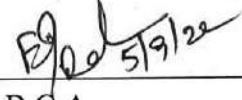
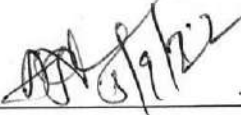

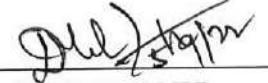
It is informed that the Third Year (V Semester) will have their MONTHLY Examinations for TWO Hours (10.00 am – 12.00 pm) from 19.09.2022 as scheduled below:

DATE	B.Sc.(COMP)	B.CA.	B.Sc.(MICRO)	B.A.(ENG)	B.Sc.(BOTANY)
09.09.22	GUI PROGRAMMING	WEB TECHNOLOGIES	MEDICAL BACTERIOLOGY	SHAKESPEARE	MORPHOLOGY & TAXONOMY OF ANGIOSPERM
12.09.22	PROBLEM SOLVING TECHNIQUES	PROBLEM SOLVING TECHNIQUES	MEDICAL PARASITOLOGY AND ENTOMOLOGY	LANGUAGE AND LIGUISITIES	CYTOLOGY AND GENETICS
13.09.22	OPERATING SYSTEM	JAVA PROGRAMMING	MEDICAL MYCOLOGY	ENGLISH FOR COMPETITIVE EXAMINATION	BIOINSTRUMENTATION AND BIOSTATICS
14.09.22	COMPUTER NETWORKS	E-COMMERCE TECHNOLOGY	FOOD & DAIRY MICROBIOLOGY	FEMINIST WRITING	PLANT BIOTECHNOLOGY
15.09.22	MULTI SKILL DEVELOPMENT	MULTI SKILL DEVELOPMENT	RECOMBINANT DNA TECHNOLOGY	AMERICAN LITERATURE	AGRICULTURAL MICROBIOLOGY
16.09.22	---	---	---	---	PLANT BREEDING AND PLANT UTILIZATION AS FOOD

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TIRUCHENGODE - 607 005.

  
PRINCIPAL

To

 B.Sc.(COMP)-(A,B)	 B.C.A.	 B.Sc.(MICRO)	 B.A.(ENG)	 B.SC.(BOTANY)
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SENGUNTHAR ARTS AND SCIENCE COLLEGE, TIRUCHENGODE  
MONTHLY EXAMINATIONS – SEP 2022  
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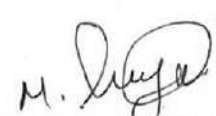

It is informed that the Third Year (V Semester) will have their MONTHLY Examinations for TWO Hours (10.00 am – 12.00 pm) from 19.09.2022 as scheduled below:

DATE	B.Sc.(CHEM))	B.Sc.(BIOTECH)	B.Sc.(PHYSICS)
09.09.22	INORGANIC CHEMISTRY	PLANT BIOTECHNOLOGY	ELECTRICITY & MAGNETISM
12.09.22	ORGANIC CHEMISTRY	IMMUNOLOGY AND IMMUNO TECHNOLOGY	BASIC ELECTRONICS
13.09.22	ELE-I-PHYSICAL CHEMISTRY	GENETIC ENGINEERING	ELE:SOLID STATE PHYSICS
14.09.22	ELE-II- ANALYTICAL CHEMISTRY	SBEC: NANO BIOTECHNOLOGY AND BIOINFORMATICS	ELE-APPLIED PHYSICS
15.09.22	SBEC-AGRICULTURAL CHEMISTRY	ELE: STEMCELL AND TISSUE ENGINEERING	SBEC-BIOMEDICAL INSTRUMENTATION
16.09.22	SBEC-IV –DYE STUFFS AND TREATMENT OF EFFLUENTS	---	SBEC-DIGITAL ELECTRONICS

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TIRUCHENGODE, 617 005.

  
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To

 B.Sc.(CHEM)	 B.Sc.(BIOTECH)- (A , B)	 B.Sc.(PHYSICS)
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SENGUNTHAR ARTS AND SCIENCE COLLEGE, TIRUCHENGODE

MODEL EXAMINATIONS - NOVEMBER - 2022

CIRCULAR

It is informed that the First Year (I Semester) will have their MODEL Examinations for THREE Hours (10.00 am - 1.00 pm) from 28.11.2022 as scheduled below:

DATE	B.Com.	B.B.A.	B.Com.(C.A)	B.A. (TAMIL)
28.11.22	TAMIL - I	TAMIL - I	TAMIL - I	TAMIL - I
29.11.22	COMMUNICATION ENGLISH	COMMUNICATION ENGLISH	COMMUNICATION ENGLISH	COMMUNICATION ENGLISH
30.11.22	PRINCIPLES OF ACCOUNTANCY	PRINCIPLES OF MANAGEMENT	PRINCIPLES OF ACCOUNTANCY	நன்னூல்
01.12.22	BUSINESS COMMUNICATION	BUSINESS COMMUNICATION	BUSINESS COMMUNICATION	இக்கால இலக்கியங்கள்
02.12.22	ALLIED - BUSINESS ECONOMICS	ALLIED - BUSINESS MATHEMATICS STATISTICS - I	ALLIED - BUSINESS APPLICATION SOFTWARE	தமிழ் இலக்கண வரலாறு
05.12.22	PROFESSIONAL ENGLISH FOR COMMERCE AND MANAGEMENT - I	PROFESSIONAL ENGLISH	PROFESSIONAL ENGLISH FOR COMMERCE AND MANAGEMENT - I	--
06.12.22	MANAVALAKKALAI YOGA	MANAVALAKKALAI YOGA	MANAVALAKKALAI YOGA	MANAVALAKKALAI YOGA

ATTESTED

Principal  
SENGUNTHAR ARTS AND SCIENCE COLLEGE  
TIRUCHENGODE - 613 006

To

B.Com.	B.B.A.	B.Com.(CA)	B.A. (TAMIL)
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MODEL EXAMINATIONS - NOVEMBER - 2022  
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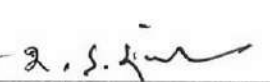



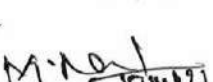
It is informed that the First Year (I Semester) will have their MODEL Examinations for THREE Hours (10.00 am - 1.00 pm) from 28.11.2022 as scheduled below:

DATE	B.Sc.(COMP)	B.Sc.(BIOCHE)	B.Sc.(MICRO)	B.A. (ENG)	B.Sc.(Electronics)
28.11.22	TAMIL - I	TAMIL - I	TAMIL - I	TAMIL - I	TAMIL - I
29.11.22	COMMUNICATION ENGLISH	COMMUNICATION ENGLISH	COMMUNICATION ENGLISH	COMMUNICATION ENGLISH	COMMUNICATION ENGLISH
30.11.22	PROBLEM SOLVING THROUGH C	BASICS OF BIOCHEMISTRY	BASICS OF MICROBIOLOGY	POETRY	SEMI CONDUCTOR DEVICES
01.12.22	ALLIED - ALGEBRA AND CALCULUS	ALLIED - CHEMISTRY - I	ALLIED - BIOCHEMISTRY - I	ALLIED - SOCIAL HISTORY OF ENGLAND	ALLIED - ALGEBRA AND CALCULUS
02.12.22	PROFESSIONAL ENGLISH FOR PHYSICAL SCIENCE - I	PROFESSIONAL ENGLISH	PROFESSIONAL ENGLISH - I	PROFESSIONAL ENGLISH	PROFESSIONAL ENGLISH - I
05.12.22	--	--	--	PROSE	SBEC: APPLIED ELECTRIC CIRCUIT
06.12.22	MANAVALAKKALAI YOGA	MANAVALAKKALAI YOGA	MANAVALAKKALAI YOGA	MANAVALAKKALAI YOGA	MANAVALAKKALAI YOGA

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TIRUCHENGODE - 657 105.

  
PRINCIPAL

To

1.  2. S. J. 		 17/11/22	 17/11/22	 17/11/22
B.Sc.(COMP) - (A,B)	B.Sc.(BIOCHE)	B.Sc.(MICRO)	B.A.(ENG)	B.Sc.(Electronics)

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MODEL EXAMINATIONS - NOVEMBER - 2022  
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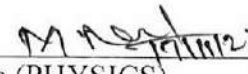
It is informed that the First Year (I Semester) will have their MODEL Examinations for THREE Hours (10.00 am - 1.00 pm) from 28.11.2022 as scheduled below:

DATE	B.C.A.	B.Sc.(BIOTECH)	B.Sc.(PHYSICS)
28.11.22	TAMIL - I	TAMIL - I	TAMIL - I
29.11.22	COMMUNICATION ENGLISH	COMMUNICATION ENGLISH	COMMUNICATION ENGLISH
30.11.22	PROBLEM SOLVING THROUGH C	CELL BIOLOGY	PROPERTIES OF MATTER AND ACOUSTICS
01.12.22	ALLIED - ALGEBRA AND CALCULUS	ALLIED - BIOCHEMISTRY - I	ALLIED - ALGEBRA AND CALCULUS
02.12.22	PROFESSIONAL ENGLISH PHYSICAL SCIENCE - I	PROFESSIONAL ENGLISH - I <i>For Life Science</i>	PROFESSIONAL ENGLISH - I
<i>06</i> .12.22	MANAVALAKKALAI YOGA	MANAVALAKKALAI YOGA	MANAVALAKKALAI YOGA

To

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SENGUNTHAPARTS AND SCIENCE COLLEGE  
TIRUCHENGODE - 627 105.

  
PRINCIPAL

 B.C.A.	 B.Sc.(BIOTECH)	 B.Sc.(PHYSICS)
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SENGUNTHAR ARTS AND SCIENCE COLLEGE, TIRUCHENGODE  
MODEL EXAMINATIONS - NOVEMBER - 2022

CIRCULAR

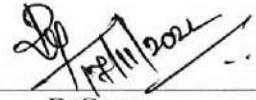
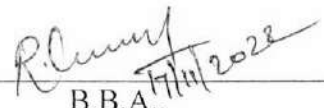


It is informed that the Second Year ( III Semester) will have their MODEL Examinations for THREE Hours (10.00 am - 1.00 pm) from 28.11.2022 as scheduled below:

DATE	B.Com	B.B.A.	B.Com.(C.A)	B.Sc.(MATHS)
28.11.22	FINANCIAL MARKET	FINANCIAL MANAGEMENT	FINANCIAL MARKET	TAMIL - III
29.11.22	BUSINESS LAW	HUMAN RESOURCE MANAGEMENT	BUSINESS LAW	FOUNDATION ENGLISH - III
30.11.22	CORPORATE ACCOUNTING - I	MARKETING MANAGEMENT	CORPORATE ACCOUNTING-I	NUMBER THEORY
01.12.22	BANKING THEORY LAW AND PRACTICE	PRODUCTION AND MATERIAL MANAGEMENT	MARKETING	DIFFERENTIAL EQUATIONS
02.12.22	NMEC:ENTREPRENEURIAL DEVELOPMENT	MANAGERIAL ECONOMICS	FUNDAMENTALS OF COMPUTER AND TALLY	ALLIED: MATHEMATICAL STATISTICS
05.12.22	ALLIED - BUSINESS STATISTICAL METHODS	NMEC: CELLULAR PHONES	ALLIED - BUSINESS STATISTICAL METHODS	NMEC: SALAI PAATHUKAPPU VITHIKAL
06.12.22	--	ELEMENTS OF INSURANCE	NMEC: QUANTITATIVE APTITUDE - I	SBEC: FINANCIAL MATHEMATICS

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SENGUNTHAR ARTS AND SCIENCE COLLEGE  
TIRUCHENGODE - 607 005.

To

  
PRINCIPAL

 B.Com.	 B.B.A..	 B.Com.(C.A)	 B.Sc.(MATHS)- (A ,B)
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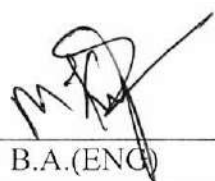



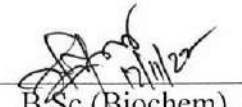
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MODEL EXAMINATIONS - NOVEMBER - 2022  
CIRCULAR

It is informed that the Second Year ( III Semester) will have their MODEL Examinations for THREE Hours (10.00 am - 1.00 pm) from 28.11.2022 as scheduled below:

DATE	B.A. (ENG)	B.Sc.(CHEM)	B.Sc.(BIOTECH)	B.Sc.(PHYSICS)	B.Sc.(Biochem)
28.11.22	TAMIL - III	TAMIL - III	TAMIL - III	TAMIL - III	TAMIL - III
29.11.22	FOUNDATION ENGLISH - III	FOUNDATION ENGLISH - III	FOUNDATION ENGLISH - III	FOUNDATION ENGLISH - III	FOUNDATION ENGLISH - III
30.11.22	CORE-V-FICTION	GENERAL CHEMISTRY - III	GENERAL MICROBIOLOGY	THERMAL AND STATISTICAL PHYSICS	ENZYMES
01.12.22	SBEC: CREATIVE WRITING	ALLIED: PHYSICS - I	ALLIED: BIOSTATISTICS	ALLIED: CHEMISTRY - I	ALLIED: III BIOSTATISTICS
02.12.22	NMEC: ENTREPRENEURIAL DEVELOPMENT MANAGEMENT	NMEC: BASIC OF COMPUTER	SBEC: DEVELOPMENTAL BIOLOGY	NMEC: BASIC OF COMPUTER	NMEC: INDUSTRIAL CHEMISTRY
05.12.22	ALLIED - LITERARY FORMS AND TERMS	--	NMEC: FUNDAMENTALS OF HUMAN PHYSIOLOGY	SBEC: CAREER COMPETENCY SKILLS - I	SBEC: CELL BIOLOGY
06.12.22	FILM STUDIES	--	--	--	--

To

 B.A.(ENG)	 B.Sc.(CHEM)	 B.Sc.(BIOTECH)- A, B	 B.Sc.(PHYSICS)	 B.Sc.(Biochem)
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PRINCIPAL  
SENGUNTHAR ARTS AND SCIENCE COLLEGE  
TIRUCHENGODE - 617 005

  
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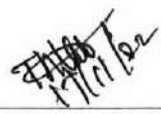


SENGUNTHAR ARTS AND SCIENCE COLLEGE, TIRUCHENGODE  
MODEL EXAMINATIONS - NOVEMBER - 2022  
CIRCULAR

It is informed that the Second Year ( III Semester) will have their MODEL Examinations for THREE Hours (10.00 am - 1.00 pm) from 28.11.2022 as scheduled below:

DATE	B.Sc.(COMP)	B.C.A.	B.Sc.(MICRO)
28.11.22	TAMIL - III	DATA STRUCTURES AND ALGORITHMS	TAMIL - III
29.11.22	FOUNDATION ENGLISH - III	OPERATING SYSTEM	FOUNDATION ENGLISH - III
30.11.22	RELETAIONAL DATABASE MANAGEMENT SYSTEMS	RELETAIONAL DATABASE MANAGEMENT SYSTEMS	MICROBIAL GENETICS AND MOLECULAR BIOLOGY
01.12.22	ALLIED : APPLIED ELECTRONICS - I	ALLIED : APPLIED ELECTRONICS - I	FUNDAMENTALS OF COMPUTER
02.12.22	NMEC: ENTREPRENEURIAL DEVELOPMENT	NMEC: ENTREPRENEURIAL DEVELOPMENT	SBEC: APPLIED BIOTECHNIQUES
05.12.22	COMPUTER NETWORKS	---	NMEC: CONCEPTS OF BIOTECHNOLOGY

To

 <b>B.Sc.(COMP)-(A,B)</b>	 <b>B.C.A.</b>	 <b>B.Sc.(MICRO)</b>
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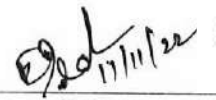

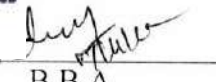





ODD SEMESTER  
SENGUNTHAR ARTS AND SCIENCE COLLEGE, TIRUCHENGODE  
MODEL EXAMINATIONS - NOVEMBER - 2022  
CIRCULAR

It is informed that the Third Year (V Semester) will have their MODEL Examinations for THREE Hours (10.00 am - 1.00 pm) from 28.11.22 as scheduled below:

DATE	B.Com.	B.B.A.	B.Com.(CA)	B.Sc.(MATHS)	B.Sc.(ELECT.)
28.11.22	AUDITING	BUSINESS POLICY & STRATEGY	AUDITING	MODERN ALGEBRA - I	ELECTRONIC COMMUNICATION SYSTEMS
29.11.22	COST ACCOUNTING	OPERATIONS RESEARCH	COST ACCOUNTING	REAL ANALYSIS - I	IC's AND THEIR APPLICATIONS
30.11.22	INCOME TAX LAW AND PRACTICE - I	COST ACCOUNTING	INCOME TAX LAW AND PRACTICE - I	COMPLEX ANALYSIS - I	ELE: 8051 MICROCONTROLLER AND INTERFACING
01.12.22	INFORMATION TECHNOLOGY IN BUSINESS	FUNDAMENTALS OF RESEARCH METHODOLOGY	SOFTWARE DEVELOPMENT WITH VISUAL PROGRAMMING	ELE: I : OPERATIONS RESEARCH	ELE: MODERN TELEVISION SYSTEMS
02.12.22	---	ALLIED: MANAGEMENT INFORMATION SYSTEMS	---	ELE: II: DISCRETE MATHEMATICS	SBEC: ELECTRONIC INSTRUMENTATION
05.12.22	---	ELE: SERVICE MARKETING	---	SBEC: PROGRAMMING IN C	SBEC: COMPETITIVE SKILLS

To

 B.Com.	ATTESTED  PRINCIPAL SENGUNTHAR ARTS AND SCIENCE COLLEGE TIRUCHENGODE - 627 205.	 B.B.A.	 B.Com.(CA)	 B.Sc.(MATHS)-(A,B)	 B.Sc.(ELECT.)
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MODEL EXAMINATIONS - NOVEMBER - 2022  
CIRCULAR

It is informed that the Third Year (V Semester) will have their MODEL Examinations for THREE Hours (10.00 am - 1.00 pm) from 28.11.2022 as scheduled below:

DATE	B.Sc.(COMP)	B.CA.	B.Sc.(MICRO)	B.A.(ENG)	B.Sc.(BOTANY)
28.11.22	GUI PROGRAMMING	WEB TECHNOLOGIES	MEDICAL BACTERIOLOGY	SHAKESPEARE	MORPHOLOGY & TAXONOMY OF ANGIOSPERM
29.11.22	OPERATING SYSTEM	JAVA PROGRAMMING	MEDICAL PARASITOLOGY AND ENTOMOLOGY	LANGUAGE AND LINGUISTICS	CYTOLOGY AND GENETICS
30.11.22	PROBLEM SOLVING TECHNIQUES	PROBLEM SOLVING TECHNIQUES	MEDICAL MYCOLOGY	ENGLISH FOR COMPETITIVE EXAMINATION	BIOINSTRUMENTATION AND BIOSTATISTICS
01.12.22	COMPUTER NETWORKS	E - COMMERCE TECHNIQUES	FOOD & DAIRY MICROBIOLOGY	FEMINIST WRITING	PLANT BIOTECHNOLOGY
02.12.22	MULTI SKILL DEVELOPMENT	MULTI SKILL DEVELOPMENT	RECOMBINANT DNA TECHNOLOGY	AMERICAN LITERATURE	AGRICULTURAL MICROBIOLOGY
05.12.22	---	---	---	---	PLANT BREEDING AND PLANT UTILIZATION AS FOOD

To

B.Sc.(COMP)(A,B)	B.C.A.	B.Sc.(MICRO)	B.A.(ENG)	B.SC.(BOTANY)
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MODEL EXAMINATIONS - NOVEMBER 2022

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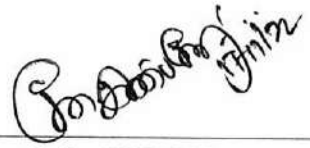
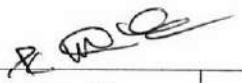

It is informed that the Third Year (V Semester) will have their MODEL Examinations for THREE Hours (10.00 am - 1.00 pm) from 28.11.2022 as scheduled below:

DATE	B.Sc.(CHEM))	B.Sc.(BIOTECH)	B.Sc.(PHYSICS)
28.11.2022	INORGANIC CHEMISTRY	PLANT BIOTECHNOLOGY	ELECTRICITY & MAGNETISM
29.11.2022	ORGANIC CHEMISTRY	IMMUNOLOGY AND IMMUNO TECHNOLOGY	BASIC ELECTRONICS
30.11.2022	ELE: I - PHYSICAL CHEMISTRY	GENETIC ENGINEERING	ELE: SOLID STATE PHYSICS
01.12.2022	ELE: II - ANALYTICAL CHEMISTRY	SBEC: NANO TECHNOLOGY AND BIOINFORMATICS	ELE: APPLIED PHYSICS
02.12.2022	SBEC: AGRICULTURAL CHEMISTRY	ELE: STEMCELL AND TISSUE ENGINEERING	SBEC: BIOMEDICAL INSTRUMENTATION
05.12.2022	SBEC: IV DYE CHEMISTRY	---	SBEC: DIGITAL ELECTRONICS

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To

 B.Sc.(CHEM)	 B.Sc.(BIOTECH)- (A, B)	 B.Sc.(PHYSICS)
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**TIRUCHENGODE – 637 205, NAMAKKAL DT., TAMILNADU**

**DEPARTMENT OF COMPUTER SCIENCE**

**I-MONTHLY EXAM MARCH-20223**

**CLASS : II-B.B.A**

**IV-SEMESTER**

**TIME : 2 HRS**

**MARKS : 50**

**SUBJECT : OBJECT MANAGEMENT INFORMATION SYSTEM**

**PART-A**

**10 \* 1 = 10**

**CHOOSE THE CORRECT ANSWER**

- \_\_\_ is an organized portfolio of formal systems for obtaining processing and delivering information in support of the business operations and management of an organization.  
a) MIS b) DSS c) MRS d) None of the above
- \_\_\_ expressly designed for the support of individual and collective decision-making.  
a) MIS b) DSS c) TPS d) OIS
- \_\_\_ are formal social units devoted to the attainment of specific goals.  
a) Management b) Organization c) Decision Support System d) None of these
- Information system that monitors the elementary activities and transactions of the organizations are \_\_\_  
a) Management Level System b) Operational Level System c) Knowledge Level System d) Strategic Level System
- In MIS \_\_\_ plays economically sound and logically in development process.  
a) Information b) Data c) Statements d) Data Flow.
- Which one is the organizations Back Bone?  
a) Capital b) Employee c) Management d) Both a & b
- MIS is normally found in \_\_\_\_\_ sector  
a) Service b) Education c) Manufacturing d) All of the above
- The basic components of DSS are \_\_\_\_\_  
a) Database b) Model Base c) DSS Software System d) All of the above
- \_\_\_\_\_ details are given by Management to Marketing Service System  
a) Customer b) Employee c) Supplier d) None of the above
- Which one of the following is not a prerequisite for a good MIS?  
a) Database b) Support from staff c) Control and maintenance of MIS d) MIS executives

**PART-B**

**4 \* 5 = 20**

**ANSWER ALL THE QUESTIONS**

- 11.Explain the classification by Management Hierarchy?
- 12.Discuss about the importance of Information system?
- 13.Describe about the components of information system resources?
14. Explain the Characteristics of MIS?

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**PART-C**

**2 \* 10 = 20**

**ANSWER ALL THE QUESTIONS**

**15. Explain the classification of Information?**

**16. Discuss about the Quality of Information System?**

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**DEPARTMENT OF COMPUTER SCIENCE**

**I-MONTHLY EXAM MARCH-20223**

**CLASS : I-B.C.A**

**II-SEMESTER**

**TIME : 2 HRS**

**PAPER CODE : 21UCA02**

**MARKS : 50**

**SUBJECT : OBJECT ORIENTED PROGRAMMING CONCEPTS USING C++**

**PART-A**

**10 \* 1 = 10**

**CHOOSE THE CORRECT ANSWER**

1. Who invented C++  
a) Dennis Ritchie b) Ken Thompson c) Brian Kernighan d) Bjarne Stroustrup
2. What is C++  
a) C++ is an object oriented programming language  
b) C++ is a procedural programming language  
c) C++ supports both procedural and object oriented programming language  
d) C++ is a functional programming language
3. Which of the following user-defined header file extension used in c++?  
a) hg b) cpp c) h d) hf
4. The C++ language is \_\_\_\_\_ object-oriented language.  
a. Pure Object oriented b Not Object oriented c Semi Object-oriented or Partial Object-oriented d None of the above
5. C++ is a \_\_\_\_ type of language.  
a. High-level Language b. Low-level language c. Middle-level language d. None of the above
6. Every variable should be separated by \_\_\_\_ separator.  
a. Dot b. Colon c. Comma d. Semicolon
7. Which header file is required in C++ to use OOP?  
a) OOP can be used without using any header file b) stdlib.h c) iostream.h d) stdio.h
8. \_\_\_\_ is considered to be a partitioned area of computer memory that stores and set of operations that can access the data.  
A. Classes B. Objects C. Variables D. Functions

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**9. Objects are the variables of the type \_\_\_\_?**

- a. String b. Boolean c. Class d. All data types can be included

**10. The binding of data and functions together into a single entity is known as**

- a. Inheritance b. Encapsulation c. Overloading d. Polymorphism

**PART-B**

**4 \* 5 = 20**

**ANSWER ALL THE QUESTIONS**

**11. Explain the advantages of C++?**

**12. How to declare C++ object?**

**13. Describe about Object Oriented Programming Languages?**

**14. How to declare Inline Functions in C++?**

**PART-C**


**2 \* 10 = 20**

**ANSWER ALL THE QUESTIONS**

**15. Explain about key concepts of Object-Oriented Programming?**

**16. Explain about Control Structures in C++?**

=====ALL THE BEST=====

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**DEPARTMENT OF COMPUTER SCIENCE**

**I-MONTHLY EXAM MARCH-20223**

**CLASS : III.B.C.A**

**VI-SEMESTER**

**TIME : 2 HRS**

**MARKS : 50**

**SUBJECT :SBEC-VI-SHELL PROGRAMMING**

**PART-A**

**10 \* 1 = 10**

**CHOOSE THE CORRECT ANSWER**

1. What is a shell programming
  - a) Group of commands b) a file containing special symbols c) a file containing a series of commands d) group of functions
2. The first line in any shell script begins with a \_\_\_\_\_
  - a) & b) ! c) \$ d) #
3. In which language UNIX is written?
  - a) C++ b) C c) JAVA d) Python
4. Which Unix command is used for changing the current directory?
  - a) Pwd b) rm c) cd d) cp
5. Which command is used for listing files in a directory?
  - a) List b) ls c) wc d) ps
6. Which command is used for displaying the contents of a file in Unix?
  - a) mkdir b) cat c) rm d) cp
7. echo command is used for \_\_\_\_\_
  - a) displaying diagnostic messages b) displaying date and time c) displaying errors
  - d) displaying operating system details
8. Which command is used for renaming files in Unix?
  - a) rename b) move c) mv d) cp
9. Which Unix command is used for counting words, lines, and characters in a file?
  - a) wc b) man c) count d) diff
10. Which process is immediately set up by the kernel when we log on to a Unix system?
  - a) System b) bash c) shell d) parent

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**PART-B**

**4 \* 5 = 20**

**ANSWER ALL THE QUESTIONS**

- 11. Write about login shell.**
- 12. Explain about working with directories.**
- 13. Discuss about changing directories.**
- 14. Discuss about the Kernel and the Utilities**


**PART-C**

**2 \* 10 = 20**

**ANSWER ALL THE QUESTIONS**

- 15. Discuss about working with files.**
- 16. What is mean by shell? Explain it.**

**\*\*\*\*\*ALL THE BEST\*\*\*\*\***

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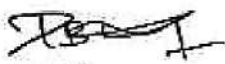
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## DEPARTMENT OF COMPUTER SCIENCE PRACTICAL EXAMINATIONS SCHEDULE - NOV/DEC-2022

CLASS : III-B.Sc (COMPUTER SCIENCE)

S.NO	DATE	SESSION	REG.NO	NO.OF STUDENTS	SUBJECT CODE	NAME OF THE SUBJECT	EXAMINER
1	07.12.2022	FN	20UCS2214-20UCS2260	41	19UCSP05	PROGRAMMING IN VB	A.SUGANTHI
2	08.12.2022	FN	20UCS2214-20UCS2260	41	19UCSP01	SHELL PROGRAMMING	V.BALASUBRAMANYAM

  
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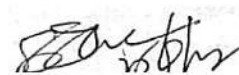


**CLASS : II-B.Sc (COMPUTER SCIENCE)**

S.NO	DATE	SESSION	REG.NO	NO.OF STUDENTS	SUBJECT CODE	NAME OF THE SUBJECT	EXAMINER
1	21.12.2022	FN	C21UG127CSC001 - C21UG127CSC043	43	21UCSP03	SQL AND PL/SQL	S.SOUNDARARAJAN
2	22.12.2022	FN	C21UG127CSC001 - C21UG127CSC043	43	21UCSSP01	OFFICE AUTOMATION LAB	V.BALASUBRAMANYAM

  
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**DEPARTMENT OF COMPUTER SCIENCE  
PRACTICAL EXAMINATIONS SCHEDULE - NOV/DEC-2022****CLASS : III-B.C.A**

S.NO	DATE	SESSION	REG.NO	NO.OF STUDENTS	SUBJECT CODE	NAME OF THE SUBJECT	EXAMINER
1	12.12.2022	FN	20UCA1622-20UCA1637	15	19UCAP05	PROGRAMMING IN JAVA	G.SENTHILKUMAR
2	12.12.2022	FN	20UCA1622-20UCA1637	15	19UCASP01	IMAGE EDITING TOOL	E.PRABAKAR RAJ

  
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**CLASS : II-B.C.A**

1	19.12.2022	FN	C21UG127CAP001 - C21UG127CAP004, C21UG127CAP006 C21UG127CAP023	22	21UCAP03	SQL AND PL/SQL	A.SHAKESPEAR
2	31.3.2021	FN	C21UG127CAP001 - C21UG127CAP004, C21UG127CAP006 C21UG127CAP023	22	17UCASP02	OFFICE AUTOMATION LAB	S.SOUNDARAJAN

  
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## DEPARTMENT OF COMPUTER SCIENCE PRACTICAL EXAMINATIONS SCHEDULE - MAY 2023

CLASS : III-B.Sc (COMPUTER SCIENCE)

S.NO	DATE	SESSION	REG.NO	NO.OF STUDENTS	SUBJECT CODE	NAME OF THE SUBJECT	EXAMINER
1	18.04.2023	FN	20UCS2214-20UCS2218, 20UCS2220-20UCS2222, 20UCS2224-20UCS2242, 20UCS2244, 20UCS2246-20UCS2250, 20UCS2252-20UCS2258, 20UCS2260	41	19UCSP06	PROGRAMMING IN JAVA	A.SUGANTHI
2	19.04.2023.	FN	20UCS2214-20UCS2218, 20UCS2220-20UCS2222, 20UCS2224-20UCS2242, 20UCS2244, 20UCS2246-20UCS2250, 20UCS2252-20UCS2258, 20UCS2260	41	19UCSP02	IMAGE EDITING TOOL	S.SOUNDARARAJ AN

  
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**CLASS : II-B.Sc (COMPUTER SCIENCE)**

S.NO	DATE	SESSION	REG.NO	NO.OF STUDENTS	SUBJECT CODE	NAME OF THE SUBJECT	EXAMINER
1	20.04.2023	FN	C21UG127CSC001 - C21UG127CSC024, C21UG127CSC026, C21UG127CSC027, C21UG127CSC029 - C21UG127CSC043	41	21UCSP04	PROGRAMMING IN JAVA	V.BALASUBRAMANIAM

  
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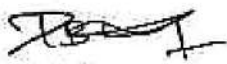
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#### CLASS : I-B.Sc (COMPUTER SCIENCE)

S.NO	DATE	SESSION	REG.NO	NO.OF STUDENTS	SUBJECT CODE	NAME OF THE SUBJECT	EXAMINER
1	20.04.2023	FN	C22UG127CSC001 - C22UG127CSC043	40	21UCSP01	C PROGRAMMING	M.CHINNUSAMY
2	20.04.2023	AN	C22UG127CSC044 - C22UG127CSC081, C22UG222CSC024, C22UG222CSC036	43	21UCSP01	C PROGRAMMING	M.CHINNUSAMY
3	20.04.2023	FN	C22UG127CSC001 - C22UG127CSC043	40	21UCSP02	DATA STRUCTURE USING C	P.BALAMURUGAN
4	20.04.2023	AN	C22UG127CSC044 - C22UG127CSC081, C22UG222CSC024, C22UG222CSC036	43	21UCSP02	DATA STRUCTURE USING C	P.BALAMURUGAN

  
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CLASS : II-B.Sc (BIO-CHEMISTRY)

S.NO	DATE	SESSION	REG.NO	NO.OF STUDENTS	SUBJECT CODE	NAME OF THE SUBJECT	EXAMINER
1	09.05.2023	FN	C22UG127CSC001 - C22UG127CSC043	12	21UCSAP02	HTML PROGRAMMING	M.CHINNUSAMY

  
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**CLASS : II-B.Sc (BIOTECHNOLOGY)**

S.NO	DATE	SESSION	REG.NO	NO.OF STUDENTS	SUBJECT CODE	NAME OF THE SUBJECT	EXAMINER
1	09.05.2023	FN	C21UG127BIT001 - C21UG127BIT008, C21UG148BIT018	09	21UCSAP02	HTML PROGRAMMING	M.CHINNUSAMY

  
**HOD**

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**TIRUCHENGODE - 637 205**

  
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### SENGUNTHAR ARTS AND SCIENCE COLLEGE

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Recognised under section 2(f) and 12(B) of the UGC Act, 1956


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**CLASS : II-B.Sc (MICROBIOLOGY)**

S.NO	DATE	SESSION	REG.NO	NO.OF STUDENTS	SUBJECT CODE	NAME OF THE SUBJECT	EXAMINER
1	08.05.2023	FN	C21UG127MIB001 - C21UG127MIB022	22	21UCSAP01	OFFICE AUTOMATION	S.BALACHANDAR
1	08.05.2023	AN	C21UG127MIB001 - C21UG127MIB022	22	21UCSAP01	OFFICE AUTOMATION	S.BALACHANDAR

  
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**DEPARTMENT OF COMPUTER SCIENCE  
PRACTICAL EXAMINATIONS SCHEDULE - APRIL/MAY-2023****CLASS : III-B.C.A**

S.NO	DATE	SESSION	REG.NO	NO.OF STUDENTS	SUBJECT CODE	NAME OF THE SUBJECT	EXAMINER
1	18.04.2023	AN	20UCA1622-20UCA1637	15	19UCAP06	PROGRAMMING IN VB	S.BALACHANDAR
2	19.04.2023	AN	20UCA1622-20UCA1637	15	19UCASP02	ANDROID PROGRAMMING	G.SENTHILKUMAR

  
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**CLASS : II-B.C.A**

S.NO	DATE	SESSION	REG.NO	NO.OF STUDENTS	SUBJECT CODE	NAME OF THE SUBJECT	EXAMINER
1	20.04.2023	AN	C21UG127CAP001 - C21UG127CAP004,  C21UG127CAP006 C21UG127CAP023	22	21UCAP04	JAVA PROGRAMMING	A.SHAKESPEAR

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**CLASS : I-B.C.A**

S.NO	DATE	SESSION	REG.NO	NO.OF STUDENTS	SUBJECT CODE	NAME OF THE SUBJECT	EXAMINER
1	24.04.2023	FN	C22UG127CAP001 - C22UG127CAP007, C22UG127CAP009 - C22UG127CAP028,	27	21UCAP01	C PROGRAMMING	E.PRABAKAR RAJ
2	21.04.2023	AN	C22UG127CAP001 - C22UG127CAP007, C22UG127CAP009 - C22UG127CAP028,	27	21UCAP02	C++ PROGRAMMING	S.BALACHANDAR

  
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PERIYAR UNIVERSITY, Salem – 636 011  
Office of the Controller of Examinations

Scheme of Examination – December 2022

FN – 10.00 a.m. – 1.00 p.m.

AN – 2.00 p.m. – 5.00 p.m.

DEGREE : FOUNDATION PAPER

PAPER CODE	TITLE OF THE PAPER	DATE & SESSION
SEMESTER -1		
17UFEN01	ENGLISH - I	11-01-2023 FN
17UFTA01	TAMIL - I	09-01-2023 FN
19UFEN01	ENGLISH - I	11-01-2023 FN
19UFEN02	ENGLISH - II	11-01-2023 FN
19UFTA01	TAMIL - I	09-01-2023 FN
20UENC01	COMMUNICATIVE ENGLISH - I	11-01-2023 FN
21UFMA01	MALAYALAM - I	09-01-2023 FN
21UFTA01	TAMIL - I	09-01-2023 FN
21UFTE01	TELUGU - I	09-01-2023 FN
SEMESTER -2		
17UFEN02	ENGLISH - II	11-01-2023 AN
17UFTA02	TAMIL - II	09-01-2023 AN
19UFEN02	ENGLISH - II	11-01-2023 FN
19UFHI02	HINDI - II	09-01-2023 AN
19UFTA02	TAMIL - II	09-01-2023 AN
19UFTE02	TELUGU - II	09-01-2023 AN
20UENC02	COMMUNICATIVE ENGLISH - II	11-01-2023 AN
21UFFR02	FRENCH - II	09-01-2023 AN
21UFHI02	HINDI - II	09-01-2023 AN
21UFMA02	MALAYALAM - II	09-01-2023 AN
21UFSA02	SANSKRIT - II	09-01-2023 AN
21UFTA02	FOUNDATION TAMIL - II	09-01-2023 AN
21UFTE02	TELUGU - II	09-01-2023 AN
21UFUR02	URDU - II	09-01-2023 AN
SEMESTER -3		
17UFEN03	ENGLISH - III	10-01-2023 FN
17UFTA03	TAMIL - III	07-01-2023 FN
19UFEN03	ENGLISH - III	10-01-2023 FN
19UFTA03	TAMIL - III	07-01-2023 FN
21UFFR03	FRENCH - III	07-01-2023 FN
21UFHI03	HINDI - III	07-01-2023 FN
21UFKA03	KANNADA - III	07-01-2023 FN
21UFMA03	MALAYALAM - III	07-01-2023 FN
21UFSA03	SANSKRIT - III	07-01-2023 FN
21UFTA03	FOUNDATION TAMIL - III	07-01-2023 FN
21UFTE03	TELUGU - III	07-01-2023 FN
21UFUR03	URDU - III	07-01-2023 FN
22UFEN03	FOUNDATION ENGLISH - III	10-01-2023 FN

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PERIYAR UNIVERSITY, Salem – 636 011  
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Scheme of Examination – December 2022

AN – 2.00 p.m. – 5.00 p.m.

FN – 10.00 a.m. – 1.00 p.m.

SEMESTER -5

19UCD06	COMPUTERS IN GARMENT INDUSTRY	26-12-2022	FN
19UCD07	TEXTILE FINISHING	28-12-2022	FN
19UCD08	DYEING AND PRINTING	30-12-2022	FN
19UCDE01	MBEC - GARMENT QUALITY AND COST CONTROL	02-01-2023	FN

SEMESTER -6

17UCD09	ORGANISATION OF GARMENT UNIT	26-12-2022	AN
17UCDE02	MBEC - BOUTIQUE MANAGEMENT	28-12-2022	AN
17UCDE03	MBEC - FASHION MERCHANDISING	30-12-2022	AN

DEGREE : B.Sc.- CHEMISTRY ✓

PAPER CODE TITLE OF THE PAPER DATE & SESSION

SEMESTER -1

17UCH01	GENERAL CHEMISTRY - I	12-01-2023	FN
17UMAA01	ALLIED - ALGEBRA AND CALCULUS	03-01-2023	AN
17UPHA01	ALLIED - PHYSICS - I	31-12-2022	FN
19UBOA01	ALLIED - BOTANY - I	31-12-2022	FN
19UCH01	GENERAL CHEMISTRY-I	12-01-2023	FN
19UMAA01	ALLIED - ALGEBRA AND CALCULUS	29-12-2022	FN
19UPHA01	ALLIED - PHYSICS - I	18-01-2023	FN
19UZOA01	ALLIED - ZOOLOGY - I	18-01-2023	FN
20UPES01	PROFESSIONAL ENGLISH FOR PHYSICAL SCIENCE - I	19-01-2023	FN
21UBOA01	ALLIED - BOTANY - I	18-01-2023	FN
21UCH01	GENERAL CHEMISTRY-I	12-01-2023	FN
21UMAA01	ALLIED - ALGEBRA CALCULUS & FOURIER SERIES	18-01-2023	FN
21UPHA01	ALLIED - PHYSICS - I	13-01-2023	FN
21UZOA01	ALLIED - ZOOLOGY - I	18-01-2023	FN

SEMESTER -2

12UCH02	GENERAL CHEMISTRY - II	12-01-2023	AN
17UBOA02	ALLIED - BOTANY - II	03-01-2023	AN
17UCH02	GENERAL CHEMISTRY - II	12-01-2023	AN
17UCHS01	SBEC - FOOD AND NUTRITION	13-01-2023	AN
17UMAA02	ALLIED - DIFFERENTIAL EQUATIONS AND LAPLACE TRANSFORMS	31-12-2022	AN
17UPHA02	ALLIED - PHYSICS - II	03-01-2023	FN
19UBOA02	ALLIED - BOTANY - II	03-01-2023	AN
19UMAA02	ALLIED - DIFFERENTIAL EQUATIONS AND LAPLACE TRANSFORMS	18-01-2023	AN
19UPHA02	ALLIED - PHYSICS - II	03-01-2023	AN
19UZOA02	ALLIED - ZOOLOGY - II	03-01-2023	AN
20UPES02	PROFESSIONAL ENGLISH FOR PHYSICAL SCIENCE - II	19-01-2023	AN
21UBOA02	ALLIED - BOTANY - II	18-01-2023	AN
21UCH02	GENERAL CHEMISTRY - II	12-01-2023	AN
21UCHS01	SBEC - FOOD AND NUTRITION	13-01-2023	AN
21UMAA03	ALLIED - MATHEMATICS - II	02-01-2023	AN
21UPHA02	ALLIED - PHYSICS - II	18-01-2023	AN
21UZOA02	ALLIED - ZOOLOGY - II	2023	AN

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Scheme of Examination – December 2022

FN – 10.00 a.m. – 1.00 p.m.

AN – 2.00 p.m. – 5.00 p.m.

SEMESTER -3

17UCH03	GENERAL CHEMISTRY - III	27-12-2022	FN
17UCHS02	SBEC - POLYMER CHEMISTRY	29-12-2022	FN
17UMAA01	ALLIED - ALGEBRA AND CALCULUS	03-01-2023	AN
17UPHA01	ALLIED - PHYSICS - I	31-12-2022	FN
19UBOA01	ALLIED - BOTANY - I	31-12-2022	FN
19UCH03	GENERAL CHEMISTRY-III	27-12-2022	FN
19UCHS02	SBEC - POLYMER CHEMISTRY	29-12-2022	FN
19UMAA01	ALLIED - ALGEBRA AND CALCULUS	29-12-2022	FN
19UPHA01	ALLIED - PHYSICS - I	18-01-2023	FN
19UZOA01	ALLIED - ZOOLOGY - I	18-01-2023	FN
21UBOA01	ALLIED - BOTANY - I	18-01-2023	FN
21UCH03	GENERAL CHEMISTRY - III	29-12-2022	FN
21UPHA01	ALLIED - PHYSICS - I	13-01-2023	FN
21UZOA01	ALLIED - ZOOLOGY - I	18-01-2023	FN

SEMESTER -4

17UBOA02	ALLIED - BOTANY - II	03-01-2023	AN
17UCH04	GENERAL CHEMISTRY - IV	29-12-2022	AN
17UCHS02	SBEC - POLYMER CHEMISTRY	29-12-2022	FN
17UMAA02	ALLIED - DIFFERENTIAL EQUATIONS AND LAPLACE TRANSFORMS	31-12-2022	AN
17UPHA02	ALLIED - PHYSICS - II	03-01-2023	FN
19UBOA02	ALLIED - BOTANY - II	03-01-2023	AN
19UCH04	GENERAL CHEMISTRY-IV	27-12-2022	AN
19UCHS02	SBEC - POLYMER CHEMISTRY	29-12-2022	FN
19UMAA02	ALLIED - DIFFERENTIAL EQUATIONS AND LAPLACE TRANSFORMS	18-01-2023	AN
19UPHA02	ALLIED - PHYSICS - II	03-01-2023	AN
19UZOA02	ALLIED - ZOOLOGY - II	03-01-2023	AN

SEMESTER -5

17UCH05	INORGANIC CHEMISTRY - I	26-12-2022	FN
17UCH06	ORGANIC CHEMISTRY - I	28-12-2022	FN
17UCH07	PHYSICAL CHEMISTRY - I	30-12-2022	FN
17UCHE01	ELECTIVE - ANALYTICAL CHEMISTRY - I	02-01-2023	FN
17UCHS03	SBEC - AGRICULTURAL CHEMISTRY	04-01-2023	FN
17UCHS04	SBEC - DYE STUFFS AND TREATMENT OF EFFLUENTS	05-01-2023	FN
19UCH05	INORGANIC CHEMISTRY - I	26-12-2022	FN
19UCH06	ORGANIC CHEMISTRY - I	28-12-2022	FN
19UCH07	PHYSICAL CHEMISTRY - I	30-12-2022	FN
19UCHE01	ELECTIVE -ANALYTICAL CHEMISTRY - I	02-01-2023	FN
19UCHS03	SBEC - AGRICULTURAL CHEMISTRY	04-01-2023	FN
19UCHS04	SBEC - DYE STUFFS AND TREATMENT OF EFFLUENTS	05-01-2023	FN

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Scheme of Examination – December 2022

FN – 10.00 a.m. – 1.00 p.m.

AN – 2.00 p.m. – 5.00 p.m.

19UGGN02	NMEC - GEOGRAPHY OF TAMILNADU	06-01-2023	FN
19UGYN05	NMEC - GEOHAZARDS	05-01-2023	FN
19UHN01	NMEC-WOMEN'S STUDIES	06-01-2023	FN
19UHN02	NMEC -II- MAKERS OF MODERN INDIA	06-01-2023	AN
19UHMN02	NMEC - PRINCIPLES OF TOURISM	06-01-2023	FN
19UMAN01	NMEC - QUANTITATIVE APTITUDE - I	06-01-2023	AN
19UMAN02	NMEC - MATRIX ALGEBRA	06-01-2023	FN
19UMAN04	NMEC - QUANTITATIVE APTITUDE - II	06-01-2023	FN
19UMAN05	NMEC - NUMERICAL METHODS	06-01-2023	FN
19UMBN02	NMEC - MUSHROOM TECHNOLOGY	06-01-2023	FN
19UMBN03	NMEC - ENTREPRENEURIAL MICROBIOLOGY	06-01-2023	FN
19UMBN04	NMEC - ELEMENTAL CONCEPTS OF MICROBIOLOGY	06-01-2023	FN
19UNDN01	NMEC-BASIC FOOD SCIENCE	06-01-2023	FN
19UNDN02	NMEC - BASIC NUTRITION	06-01-2023	FN
19UPHN02	NMEC - PHYSICS IN EVERYDAY LIFE	06-01-2023	FN
19UPSN02	NMEC-II- OUTLINES OF POLITICAL THEORY - II	06-01-2023	FN
19UPYN01	NMEC - PSYCHOLOGY FOR EFFECTIVE LIVING	06-01-2023	FN
19UTAN01	NMEC-SALAIP PAATHUKAPPU VITHIKAL	06-01-2023	AN
19UTAN02	NMEC- VILAMBARAKKALAI	06-01-2023	FN
19UTLN01	NMEC - SALAIP PAATHUKAPPU VITHIKAL	06-01-2023	AN
19UTLN02	NMEC - VILAMBARAKKALAI	06-01-2023	FN
19UZON01	NMEC- HUMAN HEALTH AND HYGIENE	06-01-2023	FN
19UZON02	NMEC - WILD LIFE MANAGEMENT	06-01-2023	FN
21UAFN01	NMEC - MARKETING	06-01-2023	FN
21UBAN01	NMEC - ENTREPRENEURIAL DEVELOPMENT	06-01-2023	FN
21UBCN01	NMEC - FUNDAMENTALS OF HUMAN PHYSIOLOGY	06-01-2023	FN
21UBCN02	NMEC - BIOCHEMISTRY IN NUTRITION	06-01-2023	FN
21UBMN01	NMEC - SHARE MARKET OPERATIONS	06-01-2023	FN
21UBON01	NMEC - MUSHROOM CULTURE	06-01-2023	FN
21UBTN01	NMEC - CONCEPT OF BIOTECHNOLOGY	06-01-2023	FN
21UBXN01	NMEC - ENTREPRENEURIAL DEVELOPMENT	06-01-2023	FN
21UCAN01	NMEC - BASICS OF COMPUTERS	06-01-2023	FN
21UCAN02	NMEC - COMPUTER APPLICATIONS FOR AUTOMATION	06-01-2023	FN
21UCBN01	NMEC - MARKETING	06-01-2023	FN
21UCCN01	NMEC - MARKETING	04-01-2023	FN
21UCDN01	NMEC - BASIC TEXTILES	06-01-2023	FN
21UCHN03	NMEC - INDUSTRIAL CHEMISTRY	06-01-2023	FN
21UCHN06	NMEC - FOOD CHEMISTRY	06-01-2023	FN
21UCHN07	NMEC - AGRO CHEMISTRY	06-01-2023	FN
21UCHN08	NMEC - POLYMER & PLASTICS	06-01-2023	FN
21UCMN01	NMEC - MARKETING	06-01-2023	FN
21UCON01	NMEC - FUNDAMENTALS OF CO-OPERATION	06-01-2023	FN
21UCSN01	NMEC - BASICS OF COMPUTERS	06-01-2023	FN
21UCSN02	NMEC - COMPUTER APPLICATIONS FOR AUTOMATION	06-01-2023	FN
21UCYN01	NMEC - FINANCIAL SERVICES	06-01-2023	FN
21UECN01	NMEC - TOURISM AND ECONOMIC DEVELOPMENT	06-01-2023	FN
21UELNO3	NMEC - CELLULAR PHONES	06-01-2023	FN
21UENN01	NMEC - SOFT SKILLS FOR CAREER COMMUNICATION	06-01-2023	FN
21UGGN01	NMEC - GEOGRAPHY OF INDIA	06-01-2023	FN
21UHN01	NMEC - WOMEN'S STUDIES	06-01-2023	FN
21UMAN01	NMEC - QUANTITATIVE APTITUDE - I	06-01-2023	FN
21UMBN01	NMEC - BIOFERTILIZER TECHNOLOGY	06-01-2023	FN
21UNDN01	NMEC - BASIC FOOD SCIENCE	06-01-2023	FN
21UPHN01	NMEC - PHYSICS IN EVERYDAY LIFE	06-01-2023	FN
21UPSN01	NMEC - POLITICAL THEORY - I	06-01-2023	FN

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*[Signature]*  
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PERIYAR UNIVERSITY, Salem - 636 011  
Office of the Controller of Examinations  
Scheme of Examination - May 2023

FN - 10.00 a.m. - 1.00 p.m.

AN - 2.00 p.m. - 5.00 p.m

SEMESTER : 4

17UFTA04	TAMIL - IV	24-05-2023	FN
19UFTA04	TAMIL - IV	24-05-2023	FN
19UFTE04	TELUGU-IV	24-05-2023	FN
21UFAR04	ARABIC - IV	24-05-2023	FN
21UFFR04	FRENCH - IV	24-05-2023	FN
21UFHI04	HINDI - IV	24-05-2023	FN
21UFHI04	HINDI - IV	24-05-2023	FN
21UFKA04	KANNADA - IV	24-05-2023	FN
21UFMA04	MALAYALAM - IV	24-05-2023	FN
21UFSA04	SANSKRIT - IV	24-05-2023	FN
21UFTA04	TAMIL - IV	24-05-2023	FN
21UFTE04	TELUGU - IV	24-05-2023	FN
21UFUR04	URDU - IV	26-05-2023	FN
17UFEN04	ENGLISH - IV	26-05-2023	FN
19UFEN04	ENGLISH - IV	26-05-2023	FN
22UFEN04	FOUNDATION ENGLISH - IV	26-05-2023	FN

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PERIYAR UNIVERSITY, Salem - 636 011  
Office of the Controller of Examinations

Scheme of Examination - May 2023

FN - 10.00 a.m. - 1.00 p.m.

AN - 2.00 p.m. - 5.00 p.m.

DEGREE NAME: B.Sc. - CHEMISTRY

PAPER CODE

TITLE OF THE PAPER

EXAM DATE SESSION

SEMESTER : 1

20UPES01	PROFESSIONAL ENGLISH FOR PHYSICAL SCIENCE - I	27-05-2023	AN
19UBOA01	ALLIED - BOTANY - I	03-06-2023	AN
17UPHA01	ALLIED - PHYSICS - I	05-06-2023	AN
21UPHA01	ALLIED - PHYSICS - I	05-06-2023	AN
17UBOA01	ALLIED - BOTANY - I	08-06-2023	AN
17UMAA01	ALLIED - ALGEBRA AND CALCULUS	08-06-2023	AN
19UMAA01	ALLIED - ALGEBRA AND CALCULUS	10-06-2023	AN
19UPHA01	ALLIED - PHYSICS - I	10-06-2023	AN
19UZOA01	ALLIED - ZOOLOGY - I	10-06-2023	AN
21UBOA01	ALLIED - BOTANY - I	10-06-2023	AN
21UMAA01	ALLIED - ALGEBRA CALCULUS	10-06-2023	AN
21UZOA01	ALLIED - ZOOLOGY - I	10-06-2023	AN
17UCH01	GENERAL CHEMISTRY - I	14-06-2023	AN
19UCH01	GENERAL CHEMISTRY-I	14-06-2023	AN
21UCH01	GENERAL CHEMISTRY-I	14-06-2023	AN

SEMESTER : 2

20UPES02	PROFESSIONAL ENGLISH FOR PHYSICAL SCIENCE - II	27-05-2023	FN
21UPHA02	ALLIED - PHYSICS - II	05-06-2023	FN
19UPHA02	ALLIED - PHYSICS - II	05-06-2023	AN
17UPHA02	ALLIED - PHYSICS - II	06-06-2023	FN
17UBOA02	ALLIED - BOTANY - II	10-06-2023	FN
17UZOA02	ALLIED - ZOOLOGY - II	10-06-2023	FN
19UBOA02	ALLIED - BOTANY - II	10-06-2023	FN
19UMAA02	ALLIED - DIFFERENTIAL EQUATIONS AND LAPLACE TRANSFORMS	10-06-2023	FN
19UZOA02	ALLIED - ZOOLOGY - II	10-06-2023	FN
21UMAA03	ALLIED - MATHEMATICS - II	10-06-2023	FN
21UZOA02	ALLIED - ZOOLOGY - II	10-06-2023	FN
22UZOA02	ALLIED - ZOOLOGY - II	10-06-2023	FN
17UCH02	GENERAL CHEMISTRY - II	14-06-2023	FN
21UCH02	GENERAL CHEMISTRY - II	14-06-2023	FN ✓
17UCHS01	SBEC - FOOD AND NUTRITION	15-06-2023	FN
21UCHS01	SBEC - FOOD AND NUTRITION	15-06-2023	FN
17UMAA02	ALLIED - DIFFERENTIAL EQUATIONS AND LAPLACE TRANSFORMS	16-06-2023	FN
21UBOA02	ALLIED - BOTANY - II	16-06-2023	FN
21UBOA02	ALLIED - BOTANY - II	16-06-2023	FN

SEMESTER : 3

17UCH03	GENERAL CHEMISTRY - III	01-06-2023	AN
19UCH03	GENERAL CHEMISTRY-III	01-06-2023	AN
21UCH03	GENERAL CHEMISTRY - III	01-06-2023	AN ✓
17UCHS02	SBEC - POLYMER CHEMISTRY	03-06-2023	FN
19UCHS02	SBEC - POLYMER CHEMISTRY	03-06-2023	FN
21UCHS02	SBEC - POLYMER CHEMISTRY	03-06-2023	FN X

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PERIYAR UNIVERSITY, Salem - 636 011  
Office of the Controller of Examinations  
Scheme of Examination - May 2023

FN - 10.00 a.m. - 1.00 p.m.

19UBOA01	ALLIED - BOTANY - I	AN - 2.00 p.m. - 5.00 p.m.
17UPHA01	ALLIED - PHYSICS - I	03-06-2023 AN
19UPHA02	ALLIED - PHYSICS - II	05-06-2023 AN
21UPHA01	ALLIED - PHYSICS - I	05-06-2023 AN ✓
17UPHA02	ALLIED - PHYSICS - II	06-06-2023 FN
17UBOA01	ALLIED - BOTANY - I	08-06-2023 AN
17UMAA01	ALLIED - ALGEBRA AND CALCULUS	08-06-2023 AN
19UMAA01	ALLIED - ALGEBRA AND CALCULUS	10-06-2023 AN
19UPHA01	ALLIED - PHYSICS - I	10-06-2023 AN
19UZOA01	ALLIED - ZOOLOGY - I	10-06-2023 AN
21UBOA01	ALLIED - BOTANY - I	10-06-2023 AN
21UZOA01	ALLIED - ZOOLOGY - I	10-06-2023 AN
17UMAA02	ALLIED - DIFFERENTIAL EQUATIONS AND LAPLACE TRANSFORMS	16-06-2023 FN

SEMESTER : 4

17UCH04	GENERAL CHEMISTRY - IV	01-06-2023 FN
19UCH04	GENERAL CHEMISTRY - IV	01-06-2023 FN ✓
21UCH04	GENERAL CHEMISTRY - IV	01-06-2023 FN ✓
17UCHS02	SBEC - POLYMER CHEMISTRY	03-06-2023 FN
19UCHS02	SBEC - POLYMER CHEMISTRY	03-06-2023 FN
21UCHS02	SBEC - POLYMER CHEMISTRY	03-06-2023 FN ✓
21UPHA02	ALLIED - PHYSICS - II	05-06-2023 FN ✓
19UPHA02	ALLIED - PHYSICS - II	05-06-2023 AN ✓
17UPHA02	ALLIED - PHYSICS - II	06-06-2023 FN
17UBOA02	ALLIED - BOTANY - II	10-06-2023 FN
17UZOA02	ALLIED - ZOOLOGY - II	10-06-2023 FN
19UBOA02	ALLIED - BOTANY - II	10-06-2023 FN
19UMAA02	ALLIED - DIFFERENTIAL EQUATIONS AND LAPLACE TRANSFORMS	10-06-2023 FN
19UZOA02	ALLIED - ZOOLOGY - II	10-06-2023 FN
22UZOA02	ALLIED - ZOOLOGY - II	10-06-2023 FN
17UMAA02	ALLIED - DIFFERENTIAL EQUATIONS AND LAPLACE TRANSFORMS	16-06-2023 FN
21UBOA02	ALLIED - BOTANY - II	16-06-2023 FN

SEMESTER : 5

17UCH05	INORGANIC CHEMISTRY - I	31-05-2023 AN
19UCH05	INORGANIC CHEMISTRY - I	31-05-2023 AN ✓
17UCH06	ORGANIC CHEMISTRY - I	02-06-2023 AN
19UCH06	ORGANIC CHEMISTRY - I	02-06-2023 AN ✓
17UCH07	PHYSICAL CHEMISTRY - I	03-06-2023 FN
19UCH07	PHYSICAL CHEMISTRY - I	06-06-2023 FN ✓
17UCHS04	SBEC - DYE STUFFS AND TREATMENT OF EFFLUENTS	06-06-2023 AN
17UCHE01	ELECTIVE - ANALYTICAL CHEMISTRY - I	07-06-2023 AN
19UCHE01	ELECTIVE - ANALYTICAL CHEMISTRY - I	07-06-2023 AN
17UCHS03	SBEC - AGRICULTURAL CHEMISTRY	09-06-2023 AN
19UCHS03	SBEC - AGRICULTURAL CHEMISTRY	09-06-2023 AN ✓
19UCHS04	SBEC - DYE STUFFS AND TREATMENT OF EFFLUENTS	12-06-2023 AN

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PERIYAR UNIVERSITY, Salem - 636 011  
Office of the Controller of Examinations  
Scheme of Examination - May 2023

FN - 10.00 a.m. - 1.00 p.m.

AN - 2.00 p.m. - 5.00 p.m.

SEMESTER : 6

17UCH08	INORGANIC CHEMISTRY - II	31-05-2023	FN
19UCH08	INORGANIC CHEMISTRY - II	31-05-2023	FN ✓
17UCH09	PHYSICAL CHEMISTRY - II	02-06-2023	FN
19UCH09	PHYSICAL CHEMISTRY - II	02-06-2023	FN ✓
17UCHE02	ELECTIVE - ORGANIC CHEMISTRY - II	05-06-2023	FN
19UCHE03	ELECTIVE - ANALYTICAL CHEMISTRY - II	05-06-2023	FN ✓
17UCHS05	SBEC - PHARMACEUTICAL CHEMISTRY	07-06-2023	FN
19UCHS05	SBEC - PHARMACEUTICAL CHEMISTRY	07-06-2023	FN ✓
17UCHS06	SBEC - INDUSTRIAL CHEMISTRY	09-06-2023	FN
19UCHS06	SBEC - INDUSTRIAL CHEMISTRY	09-06-2023	FN ✓
17UCHE03	ELECTIVE - ANALYTICAL CHEMISTRY - II	12-06-2023	FN
19UCHE02	ELECTIVE - ORGANIC CHEMISTRY - II	12-06-2023	FN ✓

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TIRUCHENGODE - 637 205





PERIYAR UNIVERSITY, Salem - 636 011  
Office of the Controller of Examinations  
Scheme of Examination - May 2023

FN - 10.00 a.m. - 1.00 p.m.		AN - 2.00 p.m. - 5.00 p.m.
21UCAN03	NMEC - BASICS OF INTERNET	13-06-2023 FN
21UCDN02	NMEC - FUNDAMENTALS OF DESIGNING	13-06-2023 FN
21UCHN04	NMEC - BIOLOGICAL CHEMISTRY	13-06-2023 FN
21UCHN07	NMEC - AGRO CHEMISTRY	13-06-2023 FN
21UCHN08	NMEC - POLYMER & PLASTICS	13-06-2023 FN
21UCON02	NMEC - CO-OPERATIVE FINANCE AND BANKING	13-06-2023 FN
✓21UCSN03	NMEC - BASICS OF INTERNET	13-06-2023 FN ✓
21UCYN02	NMEC - HUMAN RESOURCE MANAGEMENT	13-06-2023 FN
21UECN02	NMEC - FOREIGN TRADE MANAGEMENT	13-06-2023 FN
21UELNO4	NMEC - BASIC ELECTRONICS - II	13-06-2023 FN
21UENN02	NMEC - COMMUNICATION FOR PLACEMENT	13-06-2023 FN
21UGGN02	NMEC - GEOGRAPHY OF TAMIL NADU	13-06-2023 FN
21UHN02	NMEC - MAKERS OF MODERN INDIA	13-06-2023 FN
21UMAN02	NMEC - LINEAR PROGRAMMING	13-06-2023 FN
21UMAN03	NMEC - QUANTITATIVE APTITUDE - II	13-06-2023 FN
21UMAN04	NMEC - NUMERICAL METHODS	13-06-2023 FN
21UMBN02	NMEC - MUSHROOM TECHNOLOGY	13-06-2023 FN
21UMBN04	NMEC - QUALITY CONTROL IN INDUSTRIES	13-06-2023 FN
21UNDN02	NMEC - BASIC NUTRITION	13-06-2023 FN
21UPHN02	NMEC - NON CONVENTIONAL ENERGY SOURCES	13-06-2023 FN
21UPSN02	NMEC - POLITICAL THEORY - II	13-06-2023 FN
21UPYN02	NMEC - PERSONALITY DEVELOPMENT	13-06-2023 FN
21USTN02	NMEC - BASIC STATISTICS - II	13-06-2023 FN
21UTAN02	NMEC - VILAMPARAKKALAI	13-06-2023 FN
21UTFN02	NMEC - FUNDAMENTALS OF DESIGNING	13-06-2023 FN
21UTLN02	NMEC - VILAMPARAKKALAI	13-06-2023 FN
21UVCN02	NMEC - CITIZEN JOURNALISM	13-06-2023 FN
22UZON02	NMEC - WILDLIFE MANAGEMENT	13-06-2023 FN
17UBAN01	NMEC - PRINCIPLES OF MANAGEMENT	13-06-2023 AN
17UBON01	NMEC - MUSHROOM CULTIVATION	13-06-2023 AN
17UECN01	NMEC-TOURISM AND ECONOMIC DEVELOPMENT-I	13-06-2023 AN
17UHN01	NMEC-WOMEN'S STUDIES	13-06-2023 AN
17UMAN01	NMEC - QUANTITATIVE APTITUDE - I	13-06-2023 AN
17UTAN01	NMEC - SALAI PAATHUKAPPU VITHIKAL	13-06-2023 AN
19UBAN01	NMEC - PRINCIPLES OF MANAGEMENT	13-06-2023 AN
19UCCN01	NMEC-MARKETING	13-06-2023 AN
19UCHN01	NMEC - DAIRY CHEMISTRY	13-06-2023 AN
19UCMN01	NMEC-MARKETING	13-06-2023 AN
19UCSN01	NMEC - BASICS OF COMPUTERS	13-06-2023 AN
19UGGN01	NMEC - GEOGRAPHY OF INDIA	13-06-2023 AN
19UHN01	NMEC-WOMEN'S STUDIES	13-06-2023 AN
19UMAN01	NMEC - QUANTITATIVE APTITUDE - I	13-06-2023 AN
19UMBN02	NMEC - MUSHROOM TECHNOLOGY	13-06-2023 AN
19UPHN01	NMEC - ESSENTIAL OF ELECTRICITY	13-06-2023 AN
19UPYN01	NMEC - PSYCHOLOGY FOR EFFECTIVE LIVING	13-06-2023 AN
19UTAN01	NMEC-SALAIP PAATHUKAPPU VITHIKAL	13-06-2023 AN
19UZON01	NMEC- HUMAN HEALTH AND HYGIENE	13-06-2023 AN
21UAFN01	NMEC - MARKETING	13-06-2023 AN

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Recognised under section 2(f) and 12(B) of the UGC Act 1956  
Accredited by NAAC  
Tiruchengode - 637 205, Namakkal dt., Tamilnadu



## MINUTES OF DEPARTMENT MEETING

Department of Computer Science (Odd Semester (2022-2023))

Minutes of Meeting on 29-07-2022 at 1.30p.m. at HOD Cabin

S. No.	Points Discussed
1	Staff members are asked to give proper syllabus to the students.
2	Staff members should concentrate on students discipline for every day.
3	Students should attend class at proper time and write points on their note.
4	Staff members should present at proper time in class room
5	Staff members should give proper time table for students to attend regular class
6	Staffs should take students attendance every hour via attendance slip and put attendance detail in Register.
7	Staff members are asked to do not send students outside during class hour.
8	Staff should cover all topics in every unit of subject,
9	Staff should give assignment to the students and also students submit it at given time

### Members Present:

S. No.	Name of the Faculty Member	Designation	Signature
1	S.Balachandar	Assistant professor	
2	S.Soundararajan	Assistant professor	
3	E.Prabhakarraj	Assistant professor	
4	A.Shakespear	Assistant professor	
5	M.Chinnusamy	Assistant professor	
6	G.Senthilkumar	Assistant professor	
7	V.Balasubramaniam	Assistant professor	
8	A.Suganthi	Assistant professor	
9	Dr.S.Sivakumar	Assistant professor	

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## MINUTES OF DEPARTMENT MEETING

### Department of Computer Science

Minutes of Meeting on 24.08.2022 at 1.30p.m. at HOD Cabin

S. No.	Points Discussed
1	Students get any needs through subject incharge or class incharge without fear
2	Staff members should submit first internal test question paper and answer key to the department and follow seating arrangement.
3	Students should write first internal test on this month with out absence
3	Staffs should present at proper time in class and inform rules of the college to the students.
4	Staffs should maintain students attendance for internal mark purpose
6	Staff should cover 1 or 1&1/2 unit for first internal test.
7	Staff members are instructed to do NAAC work with out fail.

### Members Present:

S. No.	Name of the Faculty Member	Designation	Signature
1	S.Balachandar	Assistant professor	
2	S.Soundararajan	Assistant professor	
3	E.Prabhakarraj	Assistant professor	
4	A.Shakespear	Assistant professor	
5	M.Chinnusamy	Assistant professor	
6	G.Senthilkumar	Assistant professor	
7	V.Balasubramaniam	Assistant professor	
8	A.Suganthi	Assistant professor	
9	Dr.S.Sivakumar	Assistant professor	

HOD Sign:

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## MINUTES OF DEPARTMENT MEETING

### Department of Computer Science

Minutes of Meeting on 14.09.2022 at 1.30p.m. at HOD Cabin

S. No.	Points Discussed
1	Students get any important questions through subject incharge
2	Staff members should cover 1 or 1&1/2 units for second internal tests
3	Staff members should submit second internal test question paper and answer key to the department and follow seating arrangement,
4	Students should write second internal test on this month without absence
5	Staff members should maintain every month of students attendance for internal mark purpose
6	Staffs are instructed to do naac work properly
7	Students attend seminars or workshop or conference to inside or outside colleges.
8	Staff members are asked to proper practical record work for ii and iii years students
9	Staff members are asked to exam on line entry to be completed on given date.

### Members Present:

S. No.	Name of the Faculty Member	Designation	Signature
1	S.Balachandar	Assistant professor	
2	S.Soundararajan	Assistant professor	
3	E.Prabhakarraj	Assistant professor	
4	A.Shakespear	Assistant professor	
5	M.Chinnusamy	Assistant professor	
6	G.Senthilkumar	Assistant professor	
7	V.Balasubramaniyam	Assistant professor	
8	A.Suganthi	Assistant professor	
9	Dr.S.Sivakumar	Assistant professor	

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## MINUTES OF DEPARTMENT MEETING

### Department of Computer Science

Minutes of Meeting on 10.11.2022 at 1.30p.m. at HOD Cabin

S. No.	Points Discussed
1	Students get any model questions through subject incharge
2	Students should attend seminar, workshop, conference to other colleges
4	Staff members should proper fresher's day for first year students.
5	Staff members should cover all units for model exam and prepare progress reports to the students.
6	Staff members should submit model question paper and answer key to the department and seating arrangement.
7	Students should write model test on this month without absence
8	Students should utilize college bus properly.
9	Staff members are asked to do the naac work properly
10	Students should keep practical record for university exam.

### Members Present:

S. No.	Name of the Faculty Member	Designation	Signature
1	S.Balachandar	Assistant professor	
2	S.Soundararajan	Assistant professor	
3	E.Prabhakarraj	Assistant professor	
4	A.Shakespear	Assistant professor	
5	M.Chinnusamy	Assistant professor	
6	G.Senthilkumar	Assistant professor	
7	V.Balasubramaniyam	Assistant professor	
8	A.Suganthi	Assistant professor	
9	Dr.S.Sivakumar	Assistant professor	

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## MINUTES OF DEPARTMENT MEETING

Department of Computer Science (Even semester (2022-2023))

Minutes of Meeting on 20-01-2023 at 1.30p.m. at HOD Cabin

S. No	Points Discussed
1	Staff members are asked to give proper syllabus to the students.
2	Staff members should concentrate on students discipline for every day.
3	Students should attend class at proper time and write points on their note.
4	Staff members should present at proper time in class room
5	Staff members should give proper time table for students to attend regular class
6	Staff members should take students attendance every hour via attendance slip and put attendance detail in Register.
7	Staff members are asked to do not send students outside during class hour.
8	Staff members should cover all topics in every unit of subject,
9	Staff members should give assignment to the students and also students submit it at given time
10	Staff members are asked to instruct the students to study the value added courses

### Members Present:

S. No	Name of the Faculty Member	Designation	Signature
1	S. Balachandar	Assistant professor	
2	S. Soundararajan	Assistant professor	
3	E. Prabhakarraj	Assistant professor	
4	A. Shakespear	Assistant professor	
5	M. Chinnusamy	Assistant professor	
6	G. Senthilkumar	Assistant professor	
7	V. Balasubramaniam	Assistant professor	
8	A. Suganthi	Assistant professor	
9	Dr. S. Sivakumar	Assistant professor	

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## MINUTES OF DEPARTMENT MEETING

### Department of Computer Science

Minutes of Meeting on 17.02.2023 at 1.30p.m. at HOD Cabin

S. No	Points Discussed
1	Students get any needs through subject incharge or class incharge without fear
2	Staff members should submit first internal test question paper and answer key to the department and follow seating arrangement.
3	All students should write first internal test on this month with present.
4	Staff members should present at proper time in class and inform rules of the college to the students.
5	Staff members should maintain students attendance for internal mark purpose
6	Staff members should cover 1 or 1&1/2 unit for first internal test.
7	Staff members are instructed to do NAAC work without fail.
8	Staff members are asked to instruct the students to concentrate on the value added courses

### Members Present:

S. No	Name of the Faculty Member	Designation	Signature
1	S.Balachandar	Assistant professor	
2	S.Soundararajan	Assistant professor	
3	E.Prabhakarraj	Assistant professor	
4	A.Shakespear	Assistant professor	
5	M.Chinnusamy	Assistant professor	
6	G.Senthilkumar	Assistant professor	
7	V.Balasubramaniam	Assistant professor	
8	A.Suganthi	Assistant professor	
9	Dr.S.Sivakumar	Assistant professor	

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17/2/23



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## MINUTES OF DEPARTMENT MEETING

### Department of Computer Science

Minutes of Meeting on 17.03.2023 at 1.30p.m. at HOD Cabin

S. No	Points Discussed
1	Students get any important questions through subject incharge
2	Staff members should cover 1 or 1&1/2 units for second internal tests
3	Staff members should submit second internal test question paper and answer key to the department and follow seating arrangement.
4	Students should write second internal test on this month with present
5	Staff members should maintain every month of students attendance for internal mark purpose
6	Staff members are instructed to do naac work properly
7	Students attend seminars or workshop or conference to inside or outside colleges.
8	Staff members are asked to proper practical record work for the students
9	Staff members are asked to apply on line application entry to be completed on given date.
10	Students are instructed to concentrate on the value added courses

### Members Present:

S. No	Name of the Faculty Member	Designation	Signature
1	S.Balachandar	Assistant professor	
2	S.Soundararajan	Assistant professor	
3	E.Prabhakarraj	Assistant professor	
4	A.Shakespeare	Assistant professor	
5	M.Chinnusamy	Assistant professor	
6	G.Senthilkumar	Assistant professor	
7	V.Balasubramaniam	Assistant professor	
8	A.Suganthi	Assistant professor	
9	Dr.S.Sivakumar	Assistant professor	

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*[Signature]*  
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*[Signature]*  
17/3/23  
HOD SCS





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## MINUTES OF DEPARTMENT MEETING

Department of Computer Science  
Minutes of Meeting on 28.04.2023 at 1.30p.m. at HOD Cabin

S. No	Points Discussed
1	Students get any model questions through subject incharge
2	Students should attend seminar, workshop, conference to other colleges
3	Staff members should concentrate farewell day for iii year students with help of I & II years.
4	Staff members should cover all units for model examination and prepare progress reports to the students.
5	Staff members should submit model question paper and answer key to the department and seating arrangement.
6	Students should write model test on this month with present.
7	Students should utilize college bus properly.
8	Staff members are asked to do the naac work properly
9	Students should keep practical record for university examination.
10	Students are instructed to concentrate on the value added courses

### Members Present:

S. No	Name of the Faculty Member	Designation	Signature
1	S. Balachandar	Assistant professor	
2	S. Soundararajan	Assistant professor	
3	E. Prabhakarraj	Assistant professor	
4	A. Shakespear	Assistant professor	
5	M. Chinnusamy	Assistant professor	
6	G. Senthilkumar	Assistant professor	
7	V. Balasubramaniyam	Assistant professor	
8	A. Suganthi	Assistant professor	
9	Dr. S. Sivakumar	Assistant professor	

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28/4/23  
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## MINUTES OF END SEMESTER MEETING

Department of Computer Science(Even Semester)

Minutes of End Semester Meeting on 15.05.2023 at 1.15 p.m. at HOD Cabin

S.No	Points Discussed
	Staff members and Students should follow the instructions for the semester examination
1	Students can receive hall ticket through class incharge for write the university examination.
2	Students are instructed to check front page of exam paper(main sheet). (Reg.no, name of the student, name of degree, paper name, paper code, question paper s.no., date & session, student sign, no of pages written, check principal sign etc) and also total no of sheets.
3	Students are instructed to bring hall ticket ,pen pencil, eraser scale for examination
4	Staff members are instructed to check id card, hall ticket of each student in the exam hall.
5	Staff members are instructed to alert in the exam hall.
6	Students are instructed to come 10 minutes before for commencement of examination

### Members Present:

S. No	Name of the Faculty Member	Designation	Signature
1	S.Balachandar	Assistant professor	
2	S.Soundararajan	Assistant professor	
3	E.Prabhakarraj	Assistant professor	
4	A.Shakespear	Assistant professor	
5	M.Chinnusamy	Assistant professor	
6	G.Senthilkumar	Assistant professor	
7	V.Balasubramaniyam	Assistant professor	
8	A.Suganthi	Assistant professor	
9	Dr.S.Sivakumar	Assistant professor	

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15/5/23



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## DEPARTMENT OF COMPUTER SCIENCE CLASS COMMITTEE MEETING - 2022-2023

CLASS: I, II, III B.Sc (CS)  
SEMESTER: ODD  
VENUE: PLACEMENT LAB

DATE: 20.07.22  
TIME: 1.40 PM  
MEETING NO: 1


NAME OF THE CHAIR PERSON: Mrs. A.SUGANTHI, Mr. A.SHAKESPEARE, Mr. R.SENTHILKUMAR

S. NO	CLASS	NAME OF THE REPRESENTATIVE	REPRESENTATIVE SIGN
1	I B.Sc (CS)	GOWTHAM.P	G.P
2		HARIHARAN.E	E. Hariharan
3		KISHORE.C	C.K
4		PRIYANKA.V	V. Priya
5	II B.Sc (CS)	BALAJI.T	T. Balaji
6		GOWTHAM.S	S. Gowtham
7		SELVI.S	S. Selvi
8		VANMATHI.B	B. Vanmathi
9	III B.Sc (CS)	G.KAVIRAJAN	G. Kavirajan
10		K.S.ABISHEK	K. S. Abhishek
11		M.ABINAYASRI	M. Abinayasri
12		V.ATCHAYA	V. Atchaya

### The following points were discussed in the meeting

1. University Exam Result Were Discussed And Students Were Asked To Improve Their Performance
2. Students were instructed to be punctual for their classes and to maintain the proper dress code.
3. Students were instructed to be attentive in the classroom and lab classes.
4. Students were advised to make their skills. Students were advised to maintain good internal marks.
5. Identifying the slow learners, if any and informing the staffs concerned to conduct coaching class to such students.
6. Instructed to attend the internal and university examination without fail.
7. It was decided to arrange one day industrial visit for the benefit of the students

ATTESTED

  
PRINCIPAL  
SENGUNTHAR ARTS AND SCIENCE COLLEGE  
TIRUCHENGODE - 637 205.





Since 1991

# SENGUNTHAR ARTS AND SCIENCE COLLEGE

(Affiliated to Periyar University, Salem and Approved by AICTE, New Delhi)

An ISO 9001:2015 Certified Institution

Recognised under section 2(f) and 12(B) of the UGC Act 1956

Accredited by NAAC

Tiruchengode - 637 205, Namakkal dt., Tamilnadu



## 7. Syllabus completion.

S.NO	CLASS	NAME OF THE SUBJECT	SYLLABUS COMPLETION REPORT	NOTES	REMARKS
1	I B.Sc (CS)	Tamil - I	1-UNIT	GIVEN	
2		English - I	1-UNIT	GIVEN	
3		Problem Solving Through C	1-UNIT	GIVEN	
4		Algebra and Calculas	1-UNIT	GIVEN	
5		Value Education	1-UNIT	GIVEN	
6		Profssional English For Physical Science	1-UNIT	GIVEN	
7	II B.Sc (CS)	Tamil-III	1-UNIT	GIVEN	
8		English-III	1-UNIT	GIVEN	
9		Relational Database Management Systems	1-UNIT	GIVEN	
10		Computer Network	1-UNIT	GIVEN	
11		Allicd-II Applied Electronics-I	1-UNIT	GIVEN	
12	III B.Sc (CS)	NMEC-I Business Management	1-UNIT	GIVEN	
13		GUI Programming	1-UNIT	GIVEN	
14		Operating Systems	1-UNIT	GIVEN	
15		Computer Networks	1-UNIT	GIVEN	
16		SBEC-IV Multi Skill Development	1-UNIT	GIVEN	

ANY OTHER SUGGESTION:

*T. B. S.*  
HOD  
20/12/22

ATTESTED  
*[Signature]*  
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TIRUCHENGODE - 637 205.

*[Signature]*  
PRINCIPAL





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Tiruchengode - 637 205, Namakkal dt., Tamilnadu



## DEPTMENT OF COMPUTER SCIENCE CLASS COMMITTEE MEETING - 2022-2023

CLASS: I, II, III B.Sc (CS)  
SEMESTER: ODD  
VENUE: PLACEMENT LAB

DATE: 21.10.22  
TIME: 1.40 PM  
MEETING NO: 2

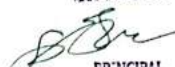
NAME OF THE CHAIR PERSON: Mrs. A.SUGANTHI, Mr. A.SHAKESPEARE, Mr. R.SENTHILKUMAR

S. NO	CLASS	NAME OF THE REPRESENTATIVE	REPRESENTATIVE SIGN
1	I B.Sc (CS)	GOWTHAM.P	goh
2		HARIHARAN.E	E.
3		KISHORE.C	C.K
4		PRIYANKA.V	V.priya
5	II B.Sc (CS)	BALAJI.T	T.B
6		GOWTHAM.S	Gow
7		SELVI.S	S.S
8		VANMATHI.B	B.v.m
9	III B.Sc (CS)	G.KAVIRAJAN	G.K.K
10		K.S.ABISHEK	K.S.A
11		M.ABINAYASRI	M.A.B
12		V.ATCHAYA	V.A

### The following points were discussed in the meeting

1. Keeping track of late comers and reporting to the Class in charge all cases of indiscipline
2. University Exam Result Were Discussed And Students Were Asked To Improve Their Performance
3. Students were instructed to be punctual for their classes and to maintain the proper dress code.
4. Students were instructed to be attentive in the classroom and lab classes.
5. Students were advised to make their skills. Students were advised to maintain good internal marks.
6. Identifying the slow learners, if any and informing the staffs concerned to conduct coaching class to such students.
7. Decision was taken that the students those who are having less than 65% attendance are not allowed for writing their end semester examination

ATTESTED

  
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TIRUCHENGODE - 637 205.



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Accredited by NAAC

Tiruchengode – 637 205, Namakkal dt., Tamilnadu



## 7. Syllabus completion.

S.NO	CLASS	NAME OF THE SUBJECT	SYLLABUS COMPLETION REPORT	NOTES	REMARKS
1	I B.Sc (CS)	Tamil - I	FULLY COMPLETED	GIVEN	
2		English – I	FULLY COMPLETED	GIVEN	
3		Problem Solving Through C	FULLY COMPLETED	GIVEN	
4		Algebra and Calculas	FULLY COMPLETED	GIVEN	
5		Value Education	FULLY COMPLETED	GIVEN	
6		Profssional English For Physical Science	FULLY COMPLETED	GIVEN	
7	II B.Sc (CS)	Tamil-III	FULLY COMPLETED	GIVEN	
8		English-III	FULLY COMPLETED	GIVEN	
9		Relational Database Management Systems	FULLY COMPLETED	GIVEN	
10		Computer Network	FULLY COMPLETED	GIVEN	
11		Allied-II Applied Electronics-I	FULLY COMPLETED	GIVEN	
12	III B.Sc (CS)	NMEC-I Business Management	FULLY COMPLETED	GIVEN	
13		GUI Programming	FULLY COMPLETED	GIVEN	
14		Operating Systems	FULLY COMPLETED	GIVEN	
15		Computer Networks	FULLY COMPLETED	GIVEN	
16		SBEC-IV Multi Skill Development	FULLY COMPLETED	GIVEN	

ANY OTHER SUGGESTION:

*[Signature]*  
HOD  
21/10/22

ATTESTED  
*[Signature]*  
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TIRUCHENGODE - 637 205.

*[Signature]*  
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## DEPARTMENT OF COMPUTER SCIENCE CLASS COMMITTEE MEETING - 2022-2023

CLASS: I, II, III BCA  
SEMESTER: ODD  
VENUE: PLACEMENT LAB

DATE: 20.07.22  
TIME: 1.40 PM  
MEETING NO: 1

NAME OF THE CHAIR PERSON: Mr G.SENTHILKUMAR, Mr.M.CHINNUSAMY, Mr. BALACHANDAR

S. NO	CLASS	NAME OF THE REPRESENTATIVE	REPRESENTATIVE SIGN
1	I BCA	K.POOVARASAN	K. Poo
2		K.THAMILARASI	K. Thamil
3		RAGINI .R	R. Ragini
4		NANDHITHA .R	R. Nandhitha
5	II BCA	G.BHUVANESHWARI	Bhuvanesh
6		N.DEVI	N. Devi
7		C.RAMYA	C. Ramya
8		M.RANJITH	M. Ranjith
9	III BCA	M.ABIRAJ	M. Abiraj
10		S.MANOJ	S. Manoj
11		B.SASIKUMAR	B. Sasikumar
12		G.DHARANI	G. Dhara

The following points were discussed in the meeting

1. University Exam Result Were Discussed And Students Were Asked To Improve Their Performance
2. Students were instructed to be punctual for their classes and to maintain the proper dress code.
3. Students were instructed to be attentive in the classroom and lab classes.
4. Students were advised to make their skills. Students were advised to maintain good internal marks.
5. Identifying the slow learners, if any and informing the staffs concerned to conduct coaching class to such students.
6. Instructed to attend the internal and university examination without fail.
7. It was decided to arrange one day industrial visit for the benefit of the students

ATTESTED

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Tiruchengode – 637 205, Namakkal dt., Tamilnadu




## 7. Syllabus completion.

S.NO	CLASS	NAME OF THE SUBJECT	SYLLABUS COMPLETION REPORT	NOTES	REMARKS
1	I BCA	Tamil - I	1-UNIT	GIVEN	
2		English - I	1-UNIT	GIVEN	
3		Problem Solving Through C	1-UNIT	GIVEN	
4		Algebra and Calculus	1-UNIT	GIVEN	
5		Value Education	1-UNIT	GIVEN	
6		Professional English For Physical Science	1-UNIT	GIVEN	
7	II BCA	Operating System	1-UNIT	GIVEN	
8		Data Structure and Algorithms	1-UNIT	GIVEN	
9		Allied-II Applied Electronics-I	1-UNIT	GIVEN	
11		Relational Database Management Systems	1-UNIT	GIVEN	
12		NMEC	1-UNIT	GIVEN	
13	III BCA	Java Programming	1-UNIT	GIVEN	
14		Problem solving techniques	1-UNIT	GIVEN	
15		Operating Systems	1-UNIT	GIVEN	
16		Web Technologies	1-UNIT	GIVEN	
17		SBEC-IV Multi Skill Development	1-UNIT	GIVEN	

ANY OTHER SUGGESTION:

  
HOD 20/7/22

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## DEPARTMENT OF COMPUTER SCIENCE CLASS COMMITTEE MEETING – 2022-2023

CLASS: I, II, III BCA  
SEMESTER: ODD  
VENUE: PLACEMENT LAB

DATE: 21.10.22  
TIME: 1.40 PM  
MEETING NO: 2

NAME OF THE CHAIR PERSON: Mr G.SENTHILKUMAR, Mr.M.CHINNUSAMY, Mr. BALACHANDAR

S. NO	CLASS	NAME OF THE REPRESENTATIVE	REPRESENTATIVE SIGN
1	I BCA	POOVARASAN K	K. Poo
2		THAMILARASI .K	K. Thami
3		RAGINI .R	R. Ragini
4		NANDHITHA .R	R. Nandhitha
5	II BCA	G.BHUVANESHWARI	Bhuvanesh
6		N.DEVI	N. Devi
7		C.RAMYA	C. Ramya
8		M.RANJITH	M. Ranjith
9	III BCA	M.ABIRAJ	M. Abiraj
10		S.MANOJ	S. Manoj
11		B.SASIKUMAR	B. Sasikumar
12		G.DHARANI	G. Dhara

### The following points were discussed in the meeting

1. Keeping track of late comers and reporting to the Class in charge all cases of indiscipline
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4. Students were instructed to be attentive in the classroom and lab classes.
5. Students were advised to make their skills. Students were advised to maintain good internal marks.
6. Identifying the slow learners, if any and informing the staffs concerned to conduct coaching class to such students.
7. Decision was taken that the students those who are having less than 65% attendance are not allowed for writing their end semester examination





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Tiruchengode – 637 205, Namakkal dt., Tamilnadu



## 7. Syllabus completion.

S.NO	CLASS	NAME OF THE SUBJECT	SYLLABUS COMPLETION REPORT	NOTES	REMARKS
1	I BCA	Tamil - I	FULLY COMPLETED	GIVEN	
2		English - I	FULLY COMPLETED	GIVEN	
3		Problem Solving Through C	FULLY COMPLETED	GIVEN	
4		Algebra and Calculus	FULLY COMPLETED	GIVEN	
5		Value Education	FULLY COMPLETED	GIVEN	
6		Professional English For Physical Science	FULLY COMPLETED	GIVEN	
7	II BCA	Operating System	FULLY COMPLETED	GIVEN	
8		Data Structure and Algorithms	FULLY COMPLETED	GIVEN	
9		Allied-II Applied Electronics-I	FULLY COMPLETED	GIVEN	
11		Relational Database Management Systems	FULLY COMPLETED	GIVEN	
12		NMEC	FULLY COMPLETED	GIVEN	
13	III BCA	Java Programming	FULLY COMPLETED	GIVEN	
14		Problem solving techniques	FULLY COMPLETED	GIVEN	
15		Operating Systems	FULLY COMPLETED	GIVEN	
16		Web Technologies	FULLY COMPLETED	GIVEN	
17		SBEC-IV Multi Skill Development	FULLY COMPLETED	GIVEN	

ANY OTHER SUGGESTION:

*[Signature]*  
HOD 21/10/22

ATTESTED  
*[Signature]*  
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TIRUCHENGODE - 637 205.

*[Signature]*  
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Tiruchengode – 637 205, Namakkal dt., Tamilnadu



## DEPARTMENT OF COMPUTER SCIENCE CLASS COMMITTEE MEETING – 2022-2023

CLASS: I, II, III B.Sc. (CS)  
SEMESTER: EVEN  
VENUE: PLACEMENT LAB

DATE: 18.01.23  
TIME: 1.40 PM  
MEETING NO: 3

NAME OF THE CHAIR PERSON: Mrs. A.SUGANTHI, Mr. A.SHAKESPEARE, Mr. R.SENTHILKUMAR

S. NO	CLASS	NAME OF THE REPRESENTATIVE	REPRESENTATIVE SIGN
1	I B.Sc (CS)	GOWTHAM.P	gok
2		HARIHARAN.E	E. Hari Haran
3		KISHORE.C	C. K
4		PRIYANKA.V	V. Priya
5	II B.Sc (CS)	BALAJI.T	T. Balaji
6		GOWTHAM.S	S. Gowtham
7		SELVI.S	S. Selvi
8		VANMATHI.B	B. Vanmathi
9	III B.Sc (CS)	G.KAVIRAJAN	Absent
10		K.S.ABISHEK	K.S. Abhishek
11		M.ABINAYASRI	absent
12		V.ATCHAYA	V. Atchaya

### The following points were discussed in the meeting

1. Students were instructed to be punctual for their classes and to maintain the proper dress code.
2. Instructed to attend the internal and university examination without fail.
3. Students were instructed to be attentive in the classroom and lab classes.
4. Students were advised to make their skills. Students were advised to maintain good internal marks.
5. Identifying the slow learners, if any and informing the staffs concerned to conduct coaching class to such students.
6. University Exam Result Were Discussed And Students Were Asked To Improve Their Performance
7. it was decided to arrange one day industrial visit for the benefit of the students

ATTESTED

PRINCIPAL  
SENGUNTHAR ARTS AND SCIENCE COLLEGE  
TIRUCHENGODE - 637 205.



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# SENGUNTHAR ARTS AND SCIENCE COLLEGE

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An ISO 9001:2015 Certified Institution

Recognized under sections 2(f) and 2(iii) of the U.A. Act 1993

Approved by NAAC

Thiruchengode - 637 205, Namakkal dist., Tamilnadu



## 7. Syllabus completion

S.NO	CLASS	NAME OF THE SUBJECT	SYLLABUS COMPLETION REPORT	NOTES	REMARKS
1	I B.Sc (CS)	Tamil - II	UNIT I	GIVEN	
2		English - II	UNIT I	GIVEN	
3		Data Structure and Algorithms	UNIT I	GIVEN	
4		Computer Organization and Architecture	UNIT I	GIVEN	
5		EVS	UNIT I	GIVEN	
6		Professional English For Physical Science	UNIT I	GIVEN	
7	II B.Sc (CS)	Tamil-III	UNIT I	GIVEN	
8		English-III	UNIT I	GIVEN	
9		Relational Database Management Systems	UNIT I	GIVEN	
10		Computer Network	UNIT I	GIVEN	
11		Allied-II Applied Electronics-I	UNIT I	GIVEN	
12	III B.Sc (CS)	NMDC-I Business Management	UNIT I	GIVEN	
13		Java Programming	UNIT I	GIVEN	
14		Software Engineering	UNIT I	GIVEN	
15		PHP Scripting Language	UNIT I	GIVEN	
16		data mining and warehousing	UNIT I	GIVEN	

ANY OTHER SUGGESTION:

*Bae*  
HOD 18/1/22  
18/1/23

ATTESTED  
*[Signature]*  
PRINCIPAL  
SENGUNTHAR ARTS AND SCIENCE COLLEGE  
THIRUCHENGODE - 637 205.

*[Signature]*  
PRINCIPAL





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Accredited by NAAC

Tiruchengode – 637 205, Namakkal dt., Tamilnadu



## DEPARTMENT OF COMPUTER SCIENCE CLASS COMMITTEE MEETING – 2022-2023

CLASS: I, II, III B.Sc (CS)  
SEMESTER: EVEN  
VENUE: PLACEMENT LAB

DATE: 30.03.23  
TIME: 1.40 PM  
MEETING NO: 4


NAME OF THE CHAIR PERSON: Mrs. A.SUGANTHI, Mr. A.SHAKESPEARE, Mr. R.SENTHILKUMAR

S. NO	CLASS	NAME OF THE REPRESENTATIVE	REPRESENTATIVE SIGN
1	I B.Sc (CS)	GOWTHAM.P	goth
2		HARIHARAN.E	F. Hariharan
3		KISHORE.C	C. Kishore
4		PRIYANKA.V	V. Priya
5	II B.Sc (CS)	BALAJI.T	B. Balaji
6		GOWTHAM.S	G. Gowtham
7		SELVI.S	S. Selvi
8		VANMATHI.B	B. Vanmathi
9	III B.Sc (CS)	G.KAVIRAJAN	absent
10		K.S.ABISHEK	K.S. Abhishek
11		M.ABINAYASRI	absent
12		V.ATCHAYA	V. Atchaya

### The following points were discussed in the meeting

1. Students were instructed to be punctual for their classes and to maintain the proper dress code.
2. Students were instructed to be attentive in the classroom and lab classes.
3. Students were advised to make their skills. Students were advised to maintain good internal marks.
4. Identifying the slow learners, if any and informing the staffs concerned to conduct coaching class to such students.
5. Instructed to attend the internal and university examination without fail.
6. it was decided to arrange one day industrial visit for the benefit of the students
7. Decision was taken that the students those who are having less than 65% attendance are not allowed for writing their end semester examination
8. HOD instructed the students to focus for their placements

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PRINCIPAL  
SENGUNTHAR ARTS AND SCIENCE COLLEGE  
TIRUCHENGODE - 637 205.





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Tiruchengode – 637 205, Namakkal dt., Tamilnadu



## 7. Syllabus completion.

S.NO	CLASS	NAME OF THE SUBJECT	SYLLABUS COMPLETION REPORT	NOTES	REMARKS
1	I B.Sc (CS)	Tamil - II	FULLY COMPLETED	GIVEN	
2		English – II	FULLY COMPLETED	GIVEN	
3		Data Structure and Algorithms	FULLY COMPLETED	GIVEN	
4		Computer Organization and Architecture	FULLY COMPLETED	GIVEN	
5		EVS	FULLY COMPLETED	GIVEN	
6		Professional English For Physical Science	FULLY COMPLETED	GIVEN	
7	II B.Sc (CS)	Tamil-III	FULLY COMPLETED	GIVEN	
8		English-III	FULLY COMPLETED	GIVEN	
9		Relational Database Management Systems	FULLY COMPLETED	GIVEN	
10		Computer Network	FULLY COMPLETED	GIVEN	
11		Allied-II Applied Electronics-I	FULLY COMPLETED	GIVEN	
12	III B.Sc (CS)	NMEC-I Business Management	FULLY COMPLETED	GIVEN	
13		Java Programming	FULLY COMPLETED	GIVEN	
14		Software Engineering	FULLY COMPLETED	GIVEN	
15		PHP Scripting Language	FULLY COMPLETED	GIVEN	
16		data mining and warehousing	FULLY COMPLETED	GIVEN	

ANY OTHER SUGGESTION:

*[Signature]*  
HOD 30/3/23

30/3/23

ATTESTED  
*[Signature]*  
PRINCIPAL  
SENGUNTHAR ARTS AND SCIENCE COLLEGE  
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*[Signature]*  
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## DEPARTMENT OF COMPUTER SCIENCE CLASS COMMITTEE MEETING – 2022-2023

CLASS: I, II, III BCA  
SEMESTER: EVEN  
VENUE: PLACEMENT LAB

DATE: 18.01.23  
TIME: 1.40 PM  
MEETING NO: 3


NAME OF THE CHAIR PERSON: Mr G.SENTHILKUMAR, Mr.M.CHINNUSAMY, Mr. BALACHANDAR

S. NO	CLASS	NAME OF THE REPRESENTATIVE	REPRESENTATIVE SIGN
1	I BCA	POOVARASAN K	K. Poovarasan
2		THAMILARASI .K	K. Thamilarasi
3		RAGINI .R	R. Ragini
4		NANDHITHA .R	R. Nandhitha
5	II BCA	G.BHUVANESHWARI	Bhuvaneshwari
6		N.DEVI	N. Devi
7		C.RAMYA	C. Ramya
8		M.RANJITH	M. Ranjith
9	III BCA	M.ABIRAJ	M. Abiraj
10		S.MANOJ	S. Manoj
11		B.SASIKUMAR	B. Sasikumar
12		G.DHARANI	G. Dharani

### The following points were discussed in the meeting

1. Students were instructed to be punctual for their classes and to maintain the proper dress code.
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6. University Exam Result Were Discussed And Students Were Asked To Improve Their Performance
7. it was decided to arrange one day industrial visit for the benefit of the students

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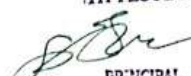


## 7. Syllabus completion.

S.NO	CLASS	NAME OF THE SUBJECT	SYLLABUS COMPLETION REPORT	NOTES	REMARKS
1	I BCA	Tamil - II	1-UNIT	GIVEN	
2		English - II	1-UNIT	GIVEN	
3		Object Oriented Programming Concepts using C++	1-UNIT	GIVEN	
4		Computer Organization and Architecture	1-UNIT	GIVEN	
5		Environmental Studies	1-UNIT	GIVEN	
6		Professional English for physical science	1-UNIT	GIVEN	
7	II BCA	NMEC-I Business Management	1-UNIT	GIVEN	
8		Software Engineering	1-UNIT	GIVEN	
9		Computer Network	1-UNIT	GIVEN	
10		Programming in Java	1-UNIT	GIVEN	
11		Allied-II Applied Electronics-I	1-UNIT	GIVEN	
12	III BCA	GUI Programming	1-UNIT	GIVEN	
13		Computer Networks	1-UNIT	GIVEN	
14		Shell Programming	1-UNIT	GIVEN	
15		Data mining and warehousing	1-UNIT	GIVEN	
16		multimedia	1-UNIT	GIVEN	

ANY OTHER SUGGESTION:

ATTESTED

  
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TIRUCHENGODE - 637 205.

  
PRINCIPAL

  
HOD



# certificate of participation

certification enrollment No: IDM182022016

This is certify that

**GAYATHRI DEVI P - Assistant Professor**

**Sengunthar Arts and Science College**

has sucessfully completed their one Day Hands0n workshop in

**WEB DEVELOPMENT BOOTCAMP**


in our concern on 18.12.2022

  
MANAGING DIRECTOR

  
ADMINISTRATIVE HEAD

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# NAVARASAM

ARTS AND SCIENCE COLLEGE FOR WOMEN

An Institution affiliated to Bharathiar University

Re-accredited with "B" Grade by NAAC, Recognized by UGC with 2(f) & 12(B)

Arachalur, Erode - 638 101, Tamil Nadu.



## CERTIFICATE OF PARTICIPATION

This is to certify that Dr. / Mr. / Mrs.  
**P. Gayathridevi Assistant Professor**

**Sengunthar Arts and Science College**


has actively participated in Six Days Virtual International Faculty Development Programme (FDP) on "PROMINENT CHALLENGES IN COMPUTER VISION, DATA AND INTELLIGENCE" from 26.12.2022 to 31.12.2022 organized by Department of Computer Science & Applications, Navarasam Arts and Science College for Women, Arachalur, Erode.

  
**Head - Computer Science**  
Mr. G. Balakrishnan

  
**Organizing Secretary**  
Mr. A. Arun Joseph

  
**Principal**  
Dr. R. Kanlezhil

ATTESTED

  
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TIRUCHENGODE - 637 205.



## KG College of Arts & Science

Affiliated to Bharathiar University & Accredited by NAAC

ISO 9001:2015 certified Institution

KGISL Campus, Saravanampatti, Coimbatore - 641 035, Tamil Nadu, INDIA

# CERTIFICATE OF PARTICIPATION

This is to certify that

**P. GAYATHRIDEVI**

**Assistant Professor, Segunthar Arts and Science College**

had actively participated in 5-days Virtual FDP on  
"Research & Methodology in Computer Science" organized by the  
Department of Computer Science, KG College of Arts and Science  
from 23/01/2023 to 28/01/2023

**Dr.A.Gokilavani**  
HOD / CS

**Dr.J.Rathinamala**  
PRINCIPAL

**ATTESTED**

**PRINCIPAL**

**SEGUNTHAR ARTS AND SCIENCE COLLEGE**  
**TIRUCHENGODE - 637 205.**





## VET Institute of Arts and Science

(Co-education) College

(Affiliated to Bharathiar University) (Run by Vellalar Educational Trust)  
Thindal, Erode, Tamil Nadu, India - 638 012.



# CERTIFICATE

This is to certify that Dr/Mr/Ms

**GAYATHRIDEVI P**

ASSISTANT PROFESSOR, PG DEPARTMENT OF COMPUTER SCIENCE, SENGUNTHAR ARTS AND SCIENCE COLLEGE, TIRUCHENGODE

Presented a paper entitled

ARTIFICIAL REPLY:

THE AUTOMATED REPLY OF BANDITS USING HISTORICAL DATA

In the 2nd International Virtual Conference on

"AI FOR SUSTAINABLE DEVELOPMENT- CHALLENGES AND OPPORTUNITIES" organized by

School of Commerce, VET Institute of Arts and Science (Co-education) College,

Thindal, Erode, Tamil Nadu, India - 638 012, on 25th November 2022.

  
Dr. S. Arulraj  
Convener

  
Dr. V. P. Nallaswamy  
Dean, Academics

  
Dr. R. Saravanan  
Principal

  
Thiru. S. D. Chandrasekar  
Secretary

[www.vetias.ac.in](http://www.vetias.ac.in)

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PRINCIPAL

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TIRUCHENGODE - 637 205.

## K.S.R COLLEGE OF ARTS AND SCIENCE FOR WOMEN

(An ISO Certified Institution Affiliation to Periyar University, Salem  
Recognized under Section 2(f) & 12(B) of UGC Act 1956  
Tiruchengode - 637215. Namakkal.  
www.ksrwomenarts.edu.in




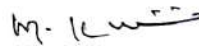
### CERTIFICATE

This is to certify that Dr/Mr/Ms Gayathri Devi P, AP/PG Dept of CS of Sengunthar Arts and Science college has Participated / Presented a paper entitled "Inculcating the evolution, Role and Impact analysis of IOT to society beneficiaries" in the 6<sup>th</sup> International Colloquium on "APPLIED MATHEMATICS AND DATASCIENCE" held at K.S.R College of Arts and Science for Women on 09<sup>th</sup> December 2022.


  
Mrs. R. Prema

Organizing Secretary

  
Mrs. S. Vijayalakshmi  
Convener, CS

  
Dr. M. Karthikeyan  
Principal

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Thindal, Erode, Tamil Nadu, India - 638 012.



# CERTIFICATE

This is to certify that Dr/Mr/Ms

**GAYATHRI T**

ASSISTANT PROFESSOR, PG DEPARTMENT OF COMPUTER SCIENCE, SENGUNTHAR ARTS AND SCIENCE COLLEGE, TIRUCHENGODE

Presented a paper entitled **TOWARDS CONTINUAL REINFORCEMENT LEARNING:**

**A REVIEW AND PERSPECTIVES**

In the 2nd International Virtual Conference on

"AI FOR SUSTAINABLE DEVELOPMENT- CHALLENGES AND OPPORTUNITIES" organized by

School of Commerce, VET Institute of Arts and Science (Co-education) College,

Thindal, Erode, Tamil Nadu, India - 638 012, on 25th November 2022.

  
Dr.S.Arulraj  
Convenor


  
Dr.V.P.Nallaswamy  
Dean, Academics

  
Dr.R.Saravanan  
Principal

  
Thiru.S.D.Chandrasekar  
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**ARTS AND SCIENCE COLLEGE FOR WOMEN**


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Sankagiri, Salem Dt.,



**DEPARTMENT OF COMPUTER SCIENCE & COMPUTER APPLICATIONS and**  
**DEPARTMENT OF MATHEMATICS**

*Certificate*

This is to certify that Dr. / Mr. / Mrs. / Ms. GAYATHRI T., Asst. Prof. of Computer Science.....  
SENGUNTHAR ARTS AND SCIENCE COLLEGE, TIRUCHENGODE..... has actively participated / presented  
/ published a paper entitled TRANSIENT ANALYSIS OF A FINITE QUEUING SYSTEM WITH BULK  
ARRIVALS IN IOT BASED EDGE COMPUTING SYSTEMS..... in the National Level Conference on "INTERNET  
OF THINGS AND ANALYTICAL INSIGHT WITH SPSS - IoTAS'2023" organized by the Department of  
Computer Science & Computer Applications and Department of Mathematics, held on  
24<sup>th</sup> March 2023 at Vivekanandha Arts and Science College for Women, Sankagiri, Salem Dt., TN.

  
Mrs. M. VALARMATHI  
Head-CS & CA


  
Dr. S. LOGANAYAGI  
Head-Maths

  
Dr. B. JAYAKUMAR  
Dean-Academic

  
Dr. B.T. SURESH KUMAR  
Principal

  
Prof. Dr. M. KARUNANITHI  
Chairman & Secretary

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## HINDUSTHAN COLLEGE OF ARTS & SCIENCE

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City Campus, Nava India, Avinashi Road, Coimbatore-641 028.

### DEPARTMENT OF COMMERCE

#### INTERNATIONAL FACULTY DEVELOPMENT PROGRAMME

This is to certify that Mr/Ms/Dr T. GAYATHRI, Assistant Professor of Sengunthar Arts and Science College has Participated in Five days International Faculty Development Programme on Teaching Pedagogy and Life Skill Management organized by the Department of Commerce, Hindusthan College of Arts & Science, Coimbatore from 27<sup>th</sup> March 2023 to 31<sup>st</sup> March 2023.

**Dr. Priya P**  
Professor and Head  
Department of Commerce

**Dr. A. Ponnusamy**  
Principal

**ATTESTED**

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Thindal, Erode, Tamil Nadu, India - 638 012.



### CERTIFICATE

This is to certify that Dr/Mr/Ms

**BHARATHI R**

ASSISTANT PROFESSOR & HEAD, PG DEPARTMENT OF COMPUTER SCIENCE, SENGUNTHAR ARTS AND SCIENCE COLLEGE, TIRUCHENGODE

Presented a paper entitled **ARTIFICIAL INTELLIGENCE IN EDUCATION:**

**FROM DETECTION TO ADAPTATION**

In the 2nd International Virtual Conference on

"AI FOR SUSTAINABLE DEVELOPMENT- CHALLENGES AND OPPORTUNITIES" organized by

School of Commerce, VET Institute of Arts and Science (Co-education) College,

Thindal, Erode, Tamil Nadu, India - 638 012, on 25th November 2022.

  
Dr. S. Arulraj  
Convener

  
Dr. V. P. Nallaswamy  
Dean, Academics

  
Dr. R. Saravanan  
Principal

  
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Tel: 04288 274741-4 (4 lines) | E-mail: [contact@ksrcas.edu](mailto:contact@ksrcas.edu) | Website: [www.ksrcas.edu](http://www.ksrcas.edu)

# Certificate


This is to certify that Dr. / Mr. / Ms. R. BHARATHI, HEAD & AP/COMPUTER SCIENCE  
SENGUNTHAR ARTS & SCIENCE COLLEGE, TIRUCHENGODE  
was a delegate in the NAAC sponsored Two days National Seminar on "*Perspectives of Outcome Based Education (OBE) and NAAC Accreditation*" organized by the Internal Quality Assurance Cell, K.S.Rangasamy College of Arts and Science (Autonomous) on 24<sup>th</sup> and 25<sup>th</sup> January, 2023.

  
Mr.C. Boopathy  
Organizing Secretary

  
Dr.M. Prasanna Rajesh Kumar  
IQAC Coordinator

  
Dr.V. Radhakrishnan  
Principal

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City Campus, Nava India, Avinashi Road, Coimbatore-641 028.



### DEPARTMENT OF COMMERCE

### INTERNATIONAL FACULTY DEVELOPMENT PROGRAMME CERTIFICATE OF PARTICIPATION

This is to certify that Mr/Ms/Dr R. Bharathi, Assistant Professor and Head of Sengunthar Arts and Science College has Participated in Five days International Faculty Development Programme on **Teaching Pedagogy and Life Skill Management** organized by the Department of Commerce, Hindusthan College of Arts & Science, Coimbatore from 27<sup>th</sup> March 2023 to 31<sup>st</sup> March 2023.

**Dr. Priya P**  
Professor and Head  
Department of Commerce

**Dr. A. Ponnusamy**  
Principal

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TIRUCHENGODE - 637 205.

# certificate of participation

certification enrollment No: IDM182022016

This is certify that

**GAYATHRI DEVI P - Assistant Professor**

**Sengunthar Arts and Science College**

has sucessfully completed their one Day Hands0n workshop in

**WEB DEVELOPMENT BOOTCAMP**


in our concern on 18.12.2022

  
MANAGING DIRECTOR

  
ADMINISTRATIVE HEAD

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**PG & RESEARCH DEPARTMENT OF COMPUTER SCIENCE**

**MASTER OF COMPUTER APPLICATIONS**

**CERTIFICATE OF INTERNSHIP PROGRAMME -21PCAIT1**

**Nov/Dec-2022**

This is to certify that is a bonafide record of internship program done by  
**A.GOKUL Reg.No:C21PG127CAP004**, Master of Computer Applications, Sengunthar Arts  
and science College, Tiruchengode.

Submitted for the University viva-voce examination held on 5.12.22

  
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## *Internship Completion Certificate*

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A. GOKUL

*Department of Master of Computer Application*

*From Sengunthar Arts and Science College*

*Tiruchengode*

*In recognition of his/her hard work &*

*Dedication in completing the*

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R. Venkatachalam  
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**MASTER OF COMPUTER APPLICATIONS**

**CERTIFICATE OF INTERNSHIP PROGRAMME -21PCA11**

**Nov/Dec-2022**

This is to certify that is a bonafide record of internship program done by  
**B.SANTHOSHKUMAR Reg.No:C21PG127CAP010**, Master of Computer Applications,  
Sengunthar Arts and science College, Tiruchengode.

Submitted for the University viva-voce examination held on...5.12.22


  
5/12/22

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**B. SANTHOSH KUMAR**

*Department of Master of Computer Application*

*From Sengunthar Arts and Science College*

*Tiruchengode*


*In recognition of his/her hard work &*

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**R. Venkatachalam**  
CEO

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[www.pentaftprojects.com](http://www.pentaftprojects.com)

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**PG & RESEARCH DEPARTMENT OF COMPUTER SCIENCE**

**MASTER OF COMPUTER APPLICATIONS**

**CERTIFICATE OF INTERNSHIP PROGRAMME -21PCA11**

**Nov/Dec-2022**

This is to certify that is a bonafide record of internship program done by  
**J.VIGNESH Reg.No:C21PG127CAP013**, Master of Computer Applications, Sengunthar Arts  
and science College, Tiruchengode.

Submitted for the University viva-voce examination held on...5-12-22.....

  
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**VIGNESH J**

*Department of Master of Computer Application*

*From Sengunthar Arts and Science College*

*Tiruchengode*

*In recognition of his/her hard work &*


*Dedication in completing the*

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**R. Venkatachalam**  
CEO

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**PG & RESEARCH DEPARTMENT OF COMPUTER SCIENCE**

**MASTER OF COMPUTER APPLICATIONS**

**CERTIFICATE OF INTERNSHIP PROGRAMME -21PCAIT1**

**Nov/Dec-2022**

This is to certify that is a bonafide record of internship program done by  
**K.MAITHEESH Reg.No:C21PG127CAP007**, Master of Computer Applications, Sengunthar  
Arts and science College, Tiruchengode.

Submitted for the University viva-voce examination held on...5.12.22.....

  
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**TIRUCHENGODE - 637 405.**



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## *Internship Completion Certificate*

*This certifies that*

**K. MAITHEESH**

*Department of Master of Computer Application*

*From Sengunthar Arts and Science College*

*Tiruchengode*

*In recognition of his/her hard work &*

*Dedication in completing the*

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**R. Venkatachalam**  
CEO

No 107,S.S.D Road, First floor State Bank Building, Tiruchengode, TamilNadu-637211  
Mobile : 9443942108,8248000648, Mail : [pentasoftwaretcode@gmail.com](mailto:pentasoftwaretcode@gmail.com),  
[www.pentasoftwareprojects.com](http://www.pentasoftwareprojects.com)

**SENGUNTHAR ARTS AND SCIENCE COLLEGE**

**(Affiliated to Periyar University)**

**PG & RESEARCH DEPARTMENT OF COMPUTER SCIENCE**

**MASTER OF COMPUTER APPLICATIONS**

**CERTIFICATE OF INTERNSHIP PROGRAMME -21PCAIT1**

**Nov/Dec-2022**

This is to certify that is a bonafide record of internship program done by  
**M.MUTHULAKSHMI Reg.No:C21PG127CAP016**, Master of Computer Applications,  
Sengunthar Arts and science College, Tiruchengode.

Submitted for the University viva-voce examination held on...5.12.22

  
**HEAD OF THE DEPARTMENT**

  
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**TIRUCHENGODE - 627 005.**





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### *Internship Completion Certificate*

*This certifies that*

**M. MUTHULAKSHMI**

*Department of Master of Computer Application*

*From Sengunthar Arts and Science College*

*Tiruchengode*

*In recognition of his/her hard work &*

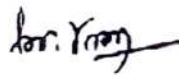
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**R. Venkatachalam**  
CEO

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**CERTIFICATE OF INTERNSHIP PROGRAMME -21PCAIT1**

**Nov/Dec-2022**

This is to certify that is a bonafide record of internship program done by  
**N.DINESH Reg.No:C21PG127CAP003**, Master of Computer Applications, Sengunthar Arts  
and science College, Tiruchengode.

Submitted for the University viva-voce examination held on.....5.12.22.....

  
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*This certifies that*

N. Dinesh

*Department of Master of Computer Application*

*From Sengunthar Arts and Science College*

*Tiruchengode*

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TIRUCHENGODE - 637 211.

  
R. Venkatachalam  
CEO

No 107, S.S.D Road, First floor State Bank Building, Tiruchengode, TamilNadu-637211  
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[www.pentaftprojects.com](http://www.pentaftprojects.com)



**SENGUNTHAR ARTS AND SCIENCE COLLEGE**

**(Affiliated to Periyar University)**

**PG & RESEARCH DEPARTMENT OF COMPUTER SCIENCE**

**MASTER OF COMPUTER APPLICATIONS**

**CERTIFICATE OF INTERNSHIP PROGRAMME -21PCAIT1**

**Nov/Dec-2022**

This is to certify that is a bonafide record of internship program done by  
**P.JAYAPRAKASH Reg.No:C21PG127CAP005**, Master of Computer Applications,  
Sengunthar Arts and science College, Tiruchengode.

Submitted for the University viva-voce examination held on...5.12.22

  
**HEAD OF THE DEPARTMENT**

  
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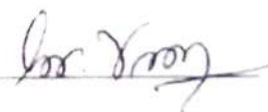
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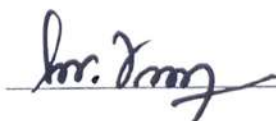
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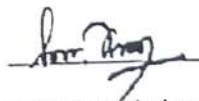
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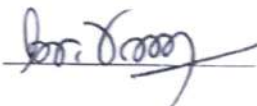
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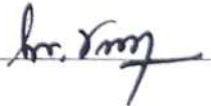
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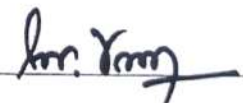
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# **TOPOLOGY CONTROL IN MOBILE AD HOC NETWORKS WITH COOPERATIVE COMMUNICATIONS**

A dissertation submitted in partial fulfillment of the requirements

for the award of the degree of

**MASTER OF COMPUTER APPLICATIONS**

to the

**Periyar University, Salem – 11**

**BY**

**U.SARAN**

**Register Number: C21PG127CAP011**

**Under the Guidance of**

**Mrs.R.BHARATHI, M.Sc., M.Phil.,**



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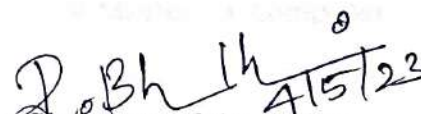
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Date : 04.05.2023

  
Signature of the Guide

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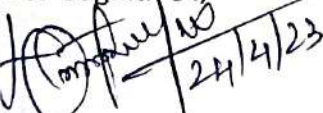
This is to certify that **U.SARAN** (Reg. No: **C21PG127CAP011**) student of **Master Of Computer Applications**, Sengunthar Arts and Science College, Tiruchengode, has successfully Completed with us to do his final year project entitled "**Topology Control In Mobile Ad Hoc Networks With Cooperative Communications**" using **Java/MySQL** at Cognitive i, Salem from **December'2022** to **March'2023**.

During the period of project work his performance and conduct was found to be good.

We wish him the very best forever.

With Regards,

For Cognitive i,

  
24/4/23

Arunprakasam.T  
Project Head



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## ABSTRACT

Cooperative communication has received tremendous interest for wireless networks. Most existing works on cooperative communications are focused on link-level physical layer issues. Consequently, the impacts of cooperative communications on network-level upper layer issues, such as topology control, routing and network capacity, are largely ignored. In this article, we propose a Capacity-Optimized Cooperative (COCO) topology control scheme to improve the network capacity in MANETs by jointly considering both upper layer network capacity and physical layer cooperative communications. Through simulations, we show that physical layer cooperative communications have significant impacts on the network capacity, and the proposed topology control scheme can substantially improve the network capacity in MANETs with cooperative communications.

## INTRODUCTION

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## 5. CONCLUSION AND FUTURE ENHANCEMENT

In this project, we have introduced physical layer cooperative communications, topology control, and network capacity in MANETs. To improve the network capacity of MANETs with cooperative communications, we have proposed a Capacity- Optimized Cooperative (COCO) topology control scheme that considers both upper layer network capacity and physical layer relay selection in cooperative communications. Simulation results have shown that physical layer cooperative communications techniques have significant impacts on the network capacity, and the proposed topology control scheme can substantially improve the network capacity in MANETs with cooperative communications. Future work is in progress to consider dynamic traffic patterns in the proposed scheme to further improve the performance of MANETs with cooperative communications.

BIBLIOGRAPHY

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# **CRIMINAL FACE DETECTION**

A dissertation submitted in partial fulfillment of the requirements

for the award of the degree of

**MASTER OF COMPUTER APPLICATIONS**

to the

**Periyar University, Salem – 11**

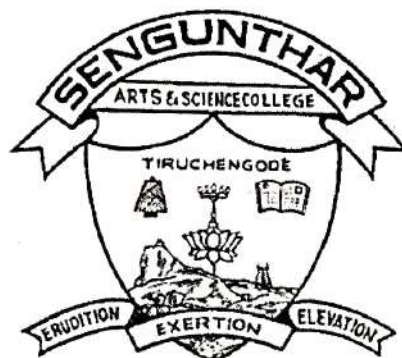
**BY**

**P.SATHISH KUMAR**

**Register Number: C21PG127CAP012**

**Under the Guidance of**

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This is to certify that project report entitled "CRIMINAL FACE DETECTION" submitted in partial fulfillment of the requirement for the degree of MASTER OF COMPUTER APPLICATIONS to the Periyar University, Salem is a of bonafide work carried out by P.SATHISH KUMAR, Register No: C21PG127CAP012 under supervision and guidance and that no part of the has been submitted for the award of any degree or diploma.

Place: Tiruchengode

Date : 3.5.23


  
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Date: 24.04.2023

## TO WHOMSOEVER IT MAY CONCERN

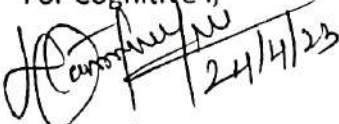
This is to certify that P.SATHISH KUMAR (Reg. No: C21PG127/CAP012) student of Master Of Computer Applications, Sengunthar Arts and Science College, Tiruchengode, has successfully Completed with us to do his final year project entitled "Criminal Face Detection" using Java/MySQL at Cognitive i, Salem from December'2022 to March'2023.

During the period of project work his performance and conduct was found to be good.

We wish him the very best forever.

With Regards,

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## ABSTRACT

Criminal record generally contains personal information about particular person along with photograph. To identify any criminal we need some identification regarding person, which are given by eyewitnesses. In most cases the quality and resolution of the recorded image-segments is poor and hard to identify a face. To overcome this sort of problem we are developing software. Identification can be done in many ways like fingerprint, eyes, DNA etc. One of the applications is face identification. The face is our primary focus of attention in social inter course playing a major role in conveying identity and emotion. Although the ability to infer intelligence or character from facial appearance is suspect, the human ability to recognize faces is remarkable.

The operator first logs into the system by entering username and password. Then depending on the work allotted he has to select the screens from main menu screen. There are mainly three important function which he can do they are adding details, clipping image and finally construction of the face by using the eyewitness. The face that is finally formed is one the who has done the crime.

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## 5. CONCLUSION AND FUTURE ENHANCEMENT

The purpose of face identification system is to identify criminals. In past years this process is carried out by humans. This process gives the exact image of the criminal but it is very difficult to identify the criminal details and also it requires much amount of human burden. The main aim of our project is to overcome the drawbacks of human based system by using the machine based face identification process. In this process we store the details of criminal into the database along with his photo or image. Then we make the image into different clips containing hair, forehead, eyes, nose, lips and chin and store these clips into the database. When any crime occurs we compare the details given by the eyewitness with the clips already stored in the database and we will identify the criminal. This project can be extended to adjust the gaps between the clips after construction of the image to be a perfect photograph using Image processing Techniques.

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# **CELL BREATHING TECHNIQUES FOR LOAD BALANCING IN WIRELESS LANS**

A Dissertation submitted in partial fulfillment of the requirements

for the award of the degree of

**MASTER OF COMPUTER APPLICATIONS**

to the

**Periyar University, Salem – 11**

**BY**

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**Register Number: C21PG127CAP013**

**Under the Guidance of**

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This is to certify that project report entitled “CELL BREATHING TECHNIQUES FOR LOAD BALANCING IN WIRELESS LANS” submitted in partial fulfillment of the requirement for the degree of **MASTER OF COMPUTER APPLICATIONS** to the Periyar University, Salem is a of bonafide work carried out by **J.VIGNESH**, Register No: **C21PG127CAP013** under supervision and guidance and that no part of the has been submitted for the award of any degree or diploma.

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Date: 24.04.2023

## TO WHOMSOEVER IT MAY CONCERN

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During the period of project work his performance and conduct was found to be good.

Wish him the very best forever.

With Regards,

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## ABSTRACT

Maximizing network throughput while providing fairness is one of the key challenges in wireless LANs (WLANs). This goal is typically achieved when the load of access points (APs) is balanced. Recent studies on operational WLANs, however, have shown that AP load is often substantially uneven. To alleviate such imbalance of load, several load balancing schemes have been proposed. These schemes commonly require proprietary software or hardware at the user side for controlling the user-AP association. In this paper we present a new load balancing technique by controlling the size of WLAN cells (i.e., AP's coverage range), which is conceptually similar to cell breathing in cellular networks. The proposed scheme does not require any modification to the users neither the IEEE 802.11 standard. It only requires the ability of dynamically changing the transmission power of the AP beacon messages. We develop a set of polynomial time algorithms that find the optimal beacon power settings which minimize the load of the most congested AP. We also consider the problem of network-wide min-max load balancing. Simulation results show that the performance of the proposed method is comparable with or superior to the best existing association-based methods.

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## 5. CONCLUSION

We presented a novel scheme for optimal load balancing in IEEE 802.11 WLANs. We provided rigorous analysis of the problem and presented two algorithms that find deterministic optimal solutions. The first algorithm minimizes the load of the congested AP(s) in the network, and the second algorithm produces an optimal min-max (priority) load balanced solution. These optimal solutions are obtained only with the minimal information which is readily available without any special assistance from the users or modification of the standard. We assume only the control on the transmission power of the AP beacon messages. The simulations show that even a small number of power levels, e.g., between 5 and 10, is enough to achieve near optimal results.

## FUTURE ENHANCEMENT

This cell breathing mechanism has advantages over other documented schemes for a number of reasons. As already stated, it gives the network the ability to adapt to dynamically changing load conditions in a distributed fashion. Such a property is most desirable, particularly in the case of nomadic users whose mobility pattern is highly variable and causes hotspot movement throughout the network.

Another benefit of this scheme is that the load balancing procedure is transparent to network users. They are completely unaware of the transmit power changes and resulting reassociation procedures with neighbouring access points. While these characteristics are beneficial, the described algorithm does exhibit some weaknesses. The solution presented is a greedy one. Each access point is concerned with its own loading state only; the load at neighbouring access points is not considered before transmit power changes are applied. Therefore, it is possible that the cell breathing procedure could cause a load increase at an access point that is already in a congested state.



# **DYNAMIC ROUTING WITH SECURITY CONSIDERATIONS**

A Dissertation submitted in partial fulfillment of the requirements

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**MASTER OF COMPUTER APPLICATIONS**

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**Periyar University, Salem – 11**

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This is to certify that project report entitled "DYNAMIC ROUTING WITH SECURITY CONSIDERATIONS" submitted in partial fulfillment of the requirement for the degree of MASTER OF COMPUTER APPLICATIONS to the Periyar University, Salem is a of bonafide work carried out by S.VIKRAM, Register No: C21PG127CAP014 under supervision and guidance and that no part of the has been submitted for the award of any degree or diploma.

Place: Tiruchengode

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Date : 04-05-2023

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External Examiner

Date: 24.04.2023

**TO WHOMSOEVER IT MAY CONCERN**

This is to certify that S.VIKRAM (Reg. No: C21PG127CAP014) student of Master Of Computer Applications, Sengunthar Arts and Science College, Tiruchengode, has successfully Completed with us to do his final year project entitled "Dynamic Routing with Security Considerations" using Java/MySQL at Cognitive i, Salem from December'2022 to March'2023.

During the period of project work his performance and conduct was found to be good.

We wish him the very best forever.

With Regards,

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## ABSTRACT

Security has become one of the major issues for data communication over wired and wireless networks. To enhance the security of data transmission, existing system works on the cryptography based algorithms such as SSL, IPsec. Although IPsec and SSL accounts for great level of security, they introduce overheads. A mass of control messages exchanging also needed in order to adopt multiple path deliveries from source to destination. Different from the past work on the designs of cryptography algorithms and system infrastructures, we will propose a dynamic routing algorithm that could randomize delivery paths for data transmission. The algorithm is easy to implement and compatible with popular routing protocols, such as the Routing Information Protocol in wired networks and Destination-Sequenced Distance Vector protocol in wireless networks, without introducing extra control messages. An analytic study on the proposed algorithm is presented, and a series of simulation experiments are conducted to verify the analytic results and to show the capability of the proposed algorithm.

The main objective is to propose a dynamic routing algorithm to provide security enhanced data delivery without introducing any extra control messages. The objective of this work is to explore a security enhanced dynamic routing algorithm based on distributed routing information widely supported in existing wired and wireless networks. We aim at the randomization of delivery paths for data transmission to provide considerably small path similarity (i.e., the number of common links between two delivery paths) of two consecutive transmitted packets. The proposed algorithm should be easy to implement and compatible with popular routing protocols, such as the Routing Information Protocol (RIP) for wired networks and Destination- Sequenced Distance Vector (DSDV) protocol for wireless networks, over existing infrastructures. These protocols shall not increase the number of control messages if the proposed algorithm is adopted. An analytic study will be presented for the proposed routing algorithm, and a series of simulation study will be conducted to verify the analytic results and to show the capability of the proposed algorithm.

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## 5. CONCLUSION AND FUTURE ENHANCEMENT

The main contribution of the project is in proposing a security-enhanced dynamic routing with security based on cryptographic algorithm, such as Blow fish algorithm in the Multi-Organization system. The main proposed of the project a dynamic routing with strong security algorithm, such as Blow fish algorithm, which is provided a fast and strong security from source to destination based on key length of algorithm. The dynamic routing could be used to a randomization of delivery paths from client to sever in the wire and wireless network. It avoids the path similarity and two same packets on the same path among the different paths in the network. This algorithm is a more performance than other algorithms such as DES, 3DES and AES .In this project main objective is provide a fast data encryption and decryption and strong security for data communication in the multiple-organization system. The objective of the project is a taking very less time for data processing to other algorithm and cost also very less to implement any kinds of the large networks ,we may use this algorithm, so The dynamic routing with security for data transmission in the multiple-organizations system.

The proposed algorithm is easy to implement and compatible with popular routing protocols which includes RIP and DSDV in existing infrastructures. An substantial study was developed for the proposed algorithm and was verified against the experimental results. A simulation experiments were Conducted to show the capability of the proposed algorithm and for that we have very encouraging results. Thus we must point out that the pro-posed algorithm is completely orthogonal to the work based on the designs of cryptography algorithms and system infrastructures. Our security enhanced dynamic routing could be used with cryptography-based system designs to further improve the security of the data transmission over networks.

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# **E-AUTHENTICATION SYSTEM USING QR CODE AND OTP**

A dissertation submitted in partial fulfillment of the requirements

for the award of the degree of

**MASTER OF COMPUTER APPLICATIONS**

to the

**Periyar University, Salem – 11**

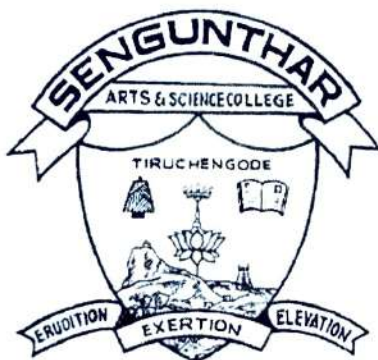
**BY**

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**Register Number: C21PG127CAP015**

**Under the Guidance of**

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CETIFICATE

This is to certify that project report entitled "E-AUTHENTICATION SYSTEM USING QR CODE AND OTP" submitted in partial fulfillment of the requirement for the degree of MASTER OF COMPUTER APPLICATIONS to the Periyar University, Salem is a of bonafide work carried out by S.DEVIPRIYA, Register No: C21PG127CAP015 under supervision and guidance and that no part of the has been submitted for the award of any degree or diploma.

Place: Tiruchengode

  
Signature of the Guide

Date : 04/05/2023.

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Date: 24.04.2023

**TO WHOMSOEVER IT MAY CONCERN**

This is to certify that **S.DEVIPRIYA** (Reg. No: C21PG127CAP015) student of **Master Of Computer Applications**, Sengunthar Arts and Science College, Tiruchengode, has successfully Completed with us to do her final year project entitled "**E-Authentication System using QR Code and OTP**" using **Java/MySQL** at Cognitive i, Salem from **December'2022 to March'2023**.

During the period of project work her performance and conduct was found to be good.

We wish her the very best forever.

With Regards,

For Cognitive i,

  
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Arunprakasham.T  
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## ABSTRACT

In this project we develop E-Authentication System using QR code and OTP for the Students Attendance System. The use of QR code-based technologies and applications has become prevalent in recent years where QR codes are accepted to be a practical and intriguing data representation / processing mechanism amongst worldwide users. The aim of this study is to design and implement an alternative two-factor identity authentication system by using QR codes and to make the relevant mechanism and process that could be more user-friendly and practical than one-time password mechanisms used with similar purposes today. The proposed model in this project has been designed in order to enable the verification and validation steps with several security and networking options during the logon process. The model has been implemented by developing a two-factor identity verification system where the second factor is the user's email ID which can be accessed from PC or Mobile device and a pseudo-randomly generated alphanumeric QR code which is used as the one-time password token sent to the user via e-mail. The proposed model has been developed using Java & MYSQL languages with symmetrical and asymmetrical cryptography standards for database encryption / hashing and network infrastructure and it has been tested as a prototype where promising results are observed regarding the efficiency, speed and security requirements.

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## 5. CONCLUSION AND FUTURE ENHANCEMENT

This project concludes that there are so many possibilities for QR Code's use in different areas for authentication and to provide security and lot more are yet to be explored. In many countries, QR codes are used in most of the commercial market items. Essentially, QR codes are a convenient way to add the virtual to the physical to provide useful content, often at the time of need. QR codes are a low threshold technology, easy to use and implement and it's cheap. QR Code has various applications in numerous fields. Student Attendance system which involves high security transactions are made even more highly protected using QR codes .OTP distribution is made accessible by authenticated users with the help of QRcodes.

### **Future Enhancement:**

As a Future Enhancement, this project can be developed using Android Application so the generation of the QR code and storing process is reduced and also receiving the OTP can be made directly to the Android App instead of the email so the application is more easily simplified to the users.

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# **ATTRIBUTE BASED ENCRYPTION WITH PRIVACY PROTECTION AND ACCOUNTABILITY FOR CLOUD IOT**

A dissertation submitted in partial fulfillment of the requirements

for the award of the degree of

**MASTER OF COMPUTER APPLICATIONS**

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**BY**

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This is to certify that dissertation entitled "ATTRIBUTE BASED ENCRYPTION WITH PRIVACY PROTECTION AND ACCOUNTABILITY FOR CLOUD IOT" submitted in partial fulfillment of the requirement for the degree of MASTER OF COMPUTER APPLICATIONS to the Periyar University, Salem is a of bonafide work carried out by M.MUTHULAKSHMI, Register No: C21PG127CAP016 under supervision and guidance and that no part of the has been submitted for the award of any degree or diploma.

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Date : 04.05.2023

  
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Date: 24.04.2023

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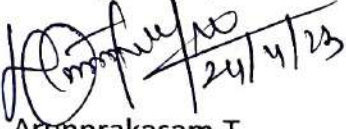
This is to certify that **M.MUTHULAKSHMI** (Reg. No: **C21PG127CAP016**) student of **Master Of Computer Applications**, Sengunthar Arts and Science College, Tiruchengode, has successfully Completed with us to do her final year project entitled "**Attribute Based Encryption with Privacy Protection and Accountability for Cloud IoT**" using **Java/MySQL** at Cognitive i, Salem from **December'2022 to March'2023**.

During the period of project work her performance and conduct was found to be good.

We wish her the very best forever.

With Regards,

For Cognitive i,

  
24/4/23

Arunprakasam.T  
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## ABSTRACT

In CloudIoT platform, the data is collected and shared by IoT-enabled devices and further processed and stored on the cloud. Although CloudIoT has obvious advantages, it is important to protect the confidentiality and privacy of the data by encrypting it before uploading to the cloud. One of the major challenges in CloudIoT is to authenticate IoT devices and prevent illegal users from accessing the platform. In this regard, the study proposes an access control system model for CloudIoT platform, based on attribute-based encryption (ABE) technique. This project proposes a novel Attribute Based Encryption (ABE) scheme with privacy protection and accountability for CloudIoT environments. The scheme aims to provide secure data sharing and access control in a dynamic and resource-constrained cloud environment, where a large number of Internet of Things (IoT) devices generate sensitive data.

The proposed scheme utilizes a privacy-preserving authentication mechanism and a multi-authority ABE scheme to achieve secure data sharing and accountability. The model involves five entities, namely, data owner, data user, attribute authority, cloud server, and auditor. The attribute authority generates system parameters and issues access credentials to data owner and data user. The data owner encrypts messages using relevant access structures and outsources the ciphertext to the cloud server. Each ciphertext is related to an access structure, and the private key of the data user is related to an attribute set. The authorized data user can decrypt the outsourced data if his/her attribute set satisfies the access structure. In case of doubts by the data owner regarding leaked access credentials, an auditor is required to take charge of audit and returns the trace and audit results to data owner and data user. The proposed system provides a secure and efficient access control mechanism for CloudIoT with accountability and privacy protection. Overall, the proposed scheme offers a practical solution to secure data sharing in the CloudIoT environment and can have significant implications for various real-world applications.

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## 5. CONCLUSION AND FUTURE ENHANCEMENT

In conclusion, the proposed access control system model based on Attribute-Based Encryption (ABE) for CloudIoT platform with privacy protection and accountability provides a promising solution to address the security and privacy challenges in CloudIoT. By leveraging ABE, the system achieves secure data transmission, storage, and sharing, while preserving the confidentiality and privacy of the data. The model includes five entities, namely data owner, data user, attribute authority, cloud server, and auditor, which work together to ensure the integrity and traceability of the system. Compared to earlier systems, the proposed system offers several advantages, including efficient and secure access control, privacy-preserving authentication, and accountability for potential abuse or leakage of access credentials. However, the system may have some limitations or trade-offs, such as the overhead of audit and traceability, the complexity of the system, or the suitability for certain types of data and access patterns.

Overall, the proposed system presents a significant contribution to the field of CloudIoT security and can be a valuable reference for future research and development in this area. The system can help ensure the confidentiality, integrity, and availability of sensitive data in CloudIoT and promote the adoption and growth of this promising technology.

### Future Enhancement:

There are several possible future enhancements for the proposed access control system model based on Attribute-Based Encryption (ABE) for CloudIoT platform with privacy protection and accountability. Some of them are:

- ❖ Performance optimization: The proposed system may have certain overheads due to the use of ABE and audit and traceability mechanisms. Future research can focus on optimizing the performance of the system by exploring new techniques, algorithms, and architectures that can reduce the computation and communication costs.
- ❖ Integration with blockchain: Blockchain technology can provide a decentralized and tamper-proof mechanism for audit and traceability, which can enhance the accountability and transparency of the system. Future research can investigate the integration of ABE-

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TIRUPATI, ANDHRA PRADESH, INDIA



# **ONLINE BUG TRACKING SYSTEM**

A dissertation submitted in partial fulfillment of the requirements

for the award of the degree of

**MASTER OF COMPUTER APPLICATIONS**

to the

**Periyar University, Salem – 11**

**BY R.PRIYADHARSHINI**

**Register Number: C21PG127CAP017**

**Under the Guidance of**

**Mrs.R.BHARATHI, M.Sc., M.Phil.,**



**DEPARTMENT OF MASTER OF COMPUTER APPLICATIONS**

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**APRIL -2023**

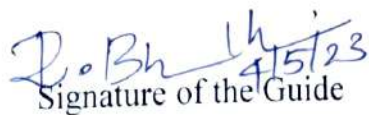
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CETIFICATE

This is to certify that project report entitled "ONLINE BUG TRACKING SYSTEM" submitted in partial fulfillment of the requirement for the degree of MASTER OF COMPUTER APPLICATIONS to the Periyar University, Salem is a of bonafide work carried out by R.PRIYADHARSHINI, Register No: C21PG127CAP017 under supervision and guidance and that no part of the has been submitted for the award of any degree or diploma.

Place: Tiruchengode

Date : 04/05/2023

  
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Date: 24.04.2023

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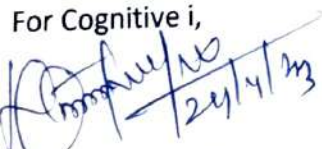
This is to certify that **R.PRIYADHARSHINI** (Reg. No: **C21PG127CAP017**) student of **Master Of Computer Applications**, Sengunthar Arts and Science College, Tiruchengode, has successfully Completed with us to do her final year project entitled "**Online Bug Tracking System**" using **PHP/MySQL** at Cognitive i, Salem from **December'2022 to March'2023**.

During the period of project work her performance and conduct was found to be good.

We wish her the very best forever.

With Regards,

For Cognitive i,



Arunprakasam.T  
Project Head



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## Abstract

Nowadays, when project are so extensive, defects or bugs have been existed as a problem in the system and they are normally inevitable in software development. A bug could be in either a program's source code or its design. Huge amount of bugs could be found in system development. It is relatively difficult to manage bugs in simple word documents or remember everything in one's head. Because of that, it becomes very important to have appropriate bug tracking tool. Bug tracking tool makes communication between teams more effective and all the bugs and changes are recorded in web based system and hence the system is scalable. The purpose of this paper is to study different bug tracking tools, and purpose new set of selection criteria that gives more satisfying solution, as the industry needs criteria to select the best tool among the available set of tools that will help in fixing and tracking the progress of bug fixes.

Online Bug Tracking System on the Web is a web-based code bug tracking system which runs on the web portal. It is a open source package which is written in the PHP scripting language and it works with the pre-requisites MySQL Database, Microsoft SQL Database and PostgreSQL databases and the webserver. It can be installed on the different operating system such as Windows and Linux. Almost all the web browsers will be able to work as a client for tracking system. The Bug Tracking system generates the quick links to the auto generated individual searches such as like open issues, various Milestone to do list, Most nonvoted issues and the Project wish list for all the different projects in a tracking system. These all the quick searches can also be easily accessed from the different Issues in the system and whenever users or developers in the project space of the bug tracking system. It is the intelligent search that lets you to specify the number of every code debugged in seconds for finding the most recent issues in real-time. The bug tracking system can easily debug the project codes in online user interface on the web. It is open source and easier for developers to work on it.

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## 5. CONCLUSION AND FUTURE ENHANCEMENT

Existing bug tracking systems do not effectively accumulate all of the information needed by developers. Without this information developers cannot resolve bugs in a timely fashion and so we believe that improvements to the way issue tracking systems collect information are needed. We summarized criteria that are used in modern bug tracking systems. Such criteria often doesn't give appropriate results in describing bug. So, we proposed an improved set of criteria that will give much more satisfying solution for the current system. This work can be important to the designers of the future bug and defect tracking systems. They should know importance of selection criteria for describing bug, because a well described bug will be easier to be trace and solved.

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# **A survey on block chain technology evolution architecture and security**

A project report submitted in partial fulfillment of the requirements for the award of the degree of

**MASTEROFCOMPUTERSCIENCE**

to the

**PeriyarUniversity,Salem-11**

By

**KARTHICKRAJA.S**

**Reg.No: C21PG127CSC001**

Under the Guidance of

**Mrs.T.GAYATHRIM.C.A.,M.Phil.,**



**PGANDRESEARCHDEPARTMENTOFCOMPUTERSCIENCE**

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**SENGUNTHARARTSANDSCIENCECOLLEGE**  
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**CERTIFICATE**

This is to certify that the project report entitled “**A survey on blockchain technology evolution architecture and security**” submitted in partial fulfillment of the requirement for the degree of Master of computer science to the periyar university, Salem is a record of bonafide work carried out by **KARTHICKRAJAS**. Register No: **C21PG127CSC001** under supervision and guidance and that no part of the report has been submitted for the award of any degree or diploma.

Place: Tiruchengode Date

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 04/5/23

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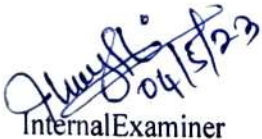
(Mrs. T. GAYATHRI, M.C.A., M.Phil.)

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**TIRUCHENGODE - 637 205**

# **A SURVEY ON BLOCKCHAIN TECHNOLOGY EVOLUTION ARCHITECTURE AND SECURITY**

## **ABSTRACT**

Blockchain is an emerging digital technology allowing ubiquitous financial transactions among distributed untrusted parties, without the need of intermediaries such as banks. This article examines the impact of blockchain technology in agriculture and food supply chain, presents existing ongoing projects and initiatives, and discusses overall implications, challenges and potential, with a critical view over the maturity of these projects.

Our findings indicate that blockchain is a promising technology towards a transparent supply chain of food, with many ongoing initiatives in various food products and food-related issues, but many barriers and challenges still exist, which hinder its wider popularity among farmers and systems. These challenges involve technical aspects, education, policies and regulatory frameworks.

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## CONCLUSION

Summing up, blockchain is a promising technology towards a transparent supply chain of food, but many barriers and challenges still exist, which hinder its wider popularity among farmers and food supply systems. The near future will show if and how these challenges could be addressed by governmental and private efforts, in order to establish blockchain technology as a secure, reliable and transparent way to ensure food safety and integrity. It is very interest to see how blockchain will be combined with other emerging technologies towards higher automation of the food supply processes, enhanced with full transparency and traceability. As a result the bitcoin sha – 256 algorithm proves it is faster , accurate and less likely traceable when compared with the previous algorithm

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# **CONGESTION FREE SMART DEVICE BYCACHING INFORMATION IN MANET AND IOT**

A Project report submitted in partial fulfillment of the requirement

for the award of the degree of

**MASTER OF COMPUTER SCIENCE**

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**Periyar University, Salem-11**

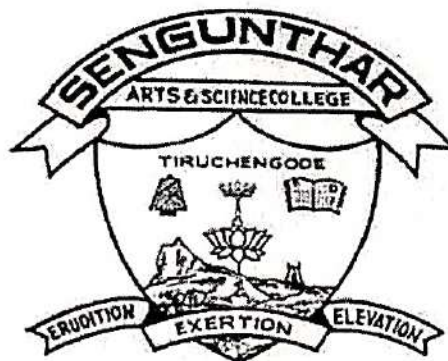
By

**S.GEETHASHRI**

**REG.No: C21PG127CSC004**

Under the guidance of

**P.GAYATHRIDEVI M.Sc., M.Phil.,M.A.YOGA**



**PG AND RESEARCH DEPARTMENT OF COMPUTER SCIENCE**

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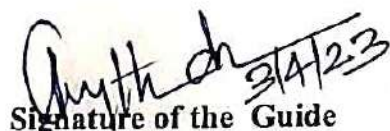
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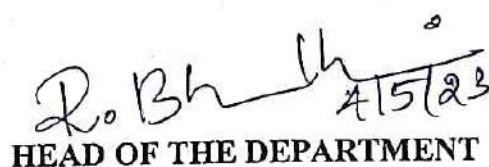
This is to certify that the project report entitled "Congestion Free Smart Device By Caching Information In Manet And Iot" submitted in partial fulfillment of the requirement for the award of the degree of Master of Computer Applications to the Periyar university, Salem is a record of bonafide work carried out by S.Geethashri, Register No : C21PG127CSC004 under Supervision and guidance and that no part of the report has been submitted for the award for any degree or diploma .

Place: Tiruchengode

Date: 4.5.2023

  
Signature of the Guide

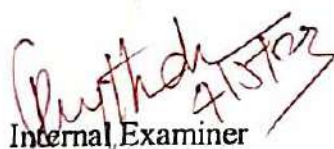
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Submitted for the viva-vice examination held on

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Date: 24.04.2023

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This is to certify that S.GEETHASHRI (Reg. No: C21PG127CSC004) student of M.Sc., (Computer science), Sengunthar Arts and Science College, Tiruchengode, has successfully Completed with s to do her final year project entitled "Congestion free smart devices by catching information n MANET and IoT" using JAVA at Cognitive i, Salem from December'2022 to March'2023.

During the period of project work her performance and conduct was found to be good.

We wish her the very best forever.

With Regards,

For Cognitive i

  
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Arunprakasam.T  
Project Head



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## ABSTRACT

Mobile ad-hoc networks (MANETs) comprise a large number of mobile wireless nodes that can move in a random fashion with the capability to join or leave the network anytime. Due to the rapid growth of devices on the Internet of Things (IoT), a large number of messages are transmitted during information exchange in dense areas. It can cause congestion that result in increasing transmission delay and packet loss. This problem is more severe in larger networks with more network traffic and high mobility that enforces dynamic topology. To resolve these issues, we present a bandwidth aware routing scheme (BARS) that can avoid congestion by monitoring residual bandwidth capacity in network paths and available space in queues to cache the information. The amount of available and consumed bandwidth along with residual cache must be worked out before transmitting messages. The BARS utilizes the feedback mechanism to intimate the traffic source for adjusting the data rate according to the availability of bandwidth and queue in the routing path.

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## 5. CONCLUSION AND FUTURE ENHANCEMENT

### 5.1 CONCLUSION

The proposed scheme presents the bandwidth aware routing where the current network status is evaluated in terms of residual bandwidth and residual size of interface queue to cache the information. Packet from source to destination node can suffer from mutual interference between packets in the same flow that can cause congestion. To manage the congestion, Hello messages are used to predict residual bandwidth on a link by taking average of most recent values of residual bandwidth and cached entries in queues at intermediaries by checking queue sizes. Next, the estimation of consumed bandwidth involves the maximum amount of bandwidth that each node can support. On the basis of residual bandwidth, the source node transmits data packets accordingly and manages re-establishment of broken links by adopting capabilities of caching, computation and communication. The algorithm detects route break during neighbor discovery when Hello message is not received at neighbor node. To check the impact of proposed BARS, a number of simulations have been carried out to check its performance using NS 2.35. C language has been used to implement functionality for bandwidth estimation, rate control and queue management. Perl scripts are used to get results from a number of trace files obtained for existing and proposed schemes. Results show that the proposed BARS scheme outperforms counterparts in terms of packet delivery ratio, end-to-end delay, packet loss and throughput and probability for existence of congested node for static and dynamic scenarios. In future, we shall include quality of service factors like energy aware route selection in combination with bandwidth estimation.

### 5.2 FUTURE ENHANCEMENT

We will compare the extra power that CPU consumes for computing fingerprints with the power that the storage saves, thus systematically investigating the energy efficiency of POD.

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# **MULTI-CLOUD SYSTEM TO AVOID SERVER FAILURES**

A dissertation submitted in partial fulfillment of the requirements

for the award of the degree of

**MASTER OF COMPUTER APPLICATIONS**

to the

**Periyar University, Salem – 11**

**BY**

**S.AJAY**

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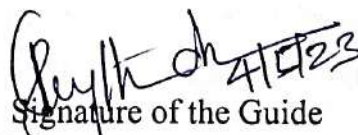


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**CETIFICATE**

This is to certify that dissertation entitled "MULTI-CLOUD SYSTEM TO AVOID SERVER FAILURES" submitted in partial fulfillment of the requirement for the degree of **MASTER OF COMPUTER APPLICATIONS** to the Periyar University, Salem is a of bonafide work carried out by **S.AJAY**, Register No: **C21PG127CAP001** under supervision and guidance and that no part of the has been submitted for the award of any degree or diploma.

Place: Tiruchengode

  
Signature of the Guide

Date : 04.05.2023

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Submitted for the project Viva Voce Examination held on 04.05.2023

  
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TIRUCHENGODE - 637 205

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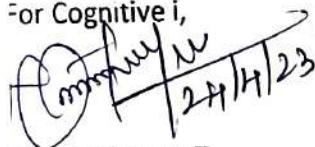
This is to certify that **S.AJAY** (Reg. No: **C21PG127CAP001**) student of **Master Of Computer applications**, Sengunthar Arts and Science College, Tiruchengode, has successfully Completed with us to do his final year project entitled "**Multi-Cloud System to avoid Server Failures**" using **Java/MySQL** at Cognitive i, Salem from **December'2022 to March'2023**.

During the period of project work his performance and conduct was found to be good.

We wish him the very best forever.

With Regards,

For Cognitive i,

  
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Arunprakasam.T  
Project Head



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## ABSTRACT

The use of cloud computing has increased rapidly in many organizations. Cloud computing provides many benefits in terms of low cost and accessibility of data. Ensuring the security of cloud computing is a major factor in the cloud computing environment, as users often store sensitive information with cloud storage providers but these providers may be untrusted. Dealing with “single cloud” providers is predicted to become less popular with customers due to risks of service availability failure and the possibility of malicious insiders in the single cloud. A movement towards “multi-clouds”, or in other words, “interclouds” or “cloud-of-clouds” has emerged recently. This paper surveys recent research related to single and multi-cloud security and addresses possible solutions. It is found that the research into the use of multi-cloud providers to maintain security has received less attention from the research community than has the use of single clouds. This work aims to promote the use of multi-clouds due to its ability to reduce security risks that affect the cloud computing user.

## INTRODUCTION

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## 5. CONCLUSION AND FUTURE ENHANCEMENT

It is clear that although the use of cloud computing has rapidly increased, cloud computing security is still considered the major issue in the cloud computing environment. Customers do not want to lose their private information as a result of malicious insiders in the cloud. In addition, the loss of service availability has caused many problems for a large number of customers recently. Furthermore, data intrusion leads to many problems for the users of cloud computing. The purpose of this work is to survey the recent research on single clouds and multi-clouds to address the security risks and solutions. We have found that much research has been done to ensure the security of the single cloud and cloud storage whereas multi-clouds have received less attention in the area of security. We support the migration to multi-clouds due to its ability to decrease security risks that affect the cloud computing user.

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GRAPHY

A Project dissertation in partial fulfillment of the requirements

for the award of the degree of

**MASTER OF COMPUTER APPLICATIONS**

to the

**Periyar University, Salem – 11**

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**CETIFICATE**

This is to certify that project dissertation entitled “**LOCATION-BASED SPATIAL QUERY PROCESSING IN WIRELESS BROADCAST ENVIRONMENTS**” submitted in partial fulfillment of the requirement for the degree of **MASTER OF COMPUTER APPLICATIONS** to the Periyar University, Salem is a of bonafide work carried out by **N.DINESH**, Register No: **C21PG127CAP003** under supervision and guidance and that no part of the has been submitted for the award of any degree or diploma.

Place: Tiruchengode

  
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Date: 24.04.2023

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This is to certify that N.DINESH (Reg. No: C21PG127CAP003) student of Master Of Computer Applications, Sengunthar Arts and Science College, Tiruchengode, has successfully Completed with us to do his final year project entitled "Location-Based Spatial Query Processing In Wireless Broadcast Environments" using Java/MySQL at Cognitive i, Salem from December'2022 to March'2023.

During the period of project work his performance and conduct was found to be good.

We wish him the very best forever.

With Regards,

For Cognitive i

  
24/4/23

Arunprakasam.T  
Project Head



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## ABSTRACT

The wireless data broadcast model has good scalability for supporting an almost unlimited number of clients. Its main limitation lies in its sequential data access; the access latency becomes longer as the number of data items increases. If we can provide (approximate) answers to spatial queries before the arrival of the related data packets, it will overcome the limitation of the broadcast model. A novel component in our methodology is a verification algorithm that verifies whether a data item from neighboring peers is part of the solution set to a spatial query. Even if the verified results constitute only part of the solution set, in which case the query client needs to wait for the required data packets to get the remaining answers, the partial answer can be utilized by many applications that do not need exact solutions but require a short response time.

Location-based spatial queries (LBSQ s) refer to spatial queries whose answers rely on the location of the inquirer. Efficient processing of LBSQ s is of critical importance with the ever-increasing deployment and use of mobile technologies. We show that LBSQ s has certain unique characteristics that the traditional spatial query processing in centralized databases does not address. For example, a significant challenge is presented by wireless broadcasting environments, which have excellent scalability but often exhibit high-latency database access. In this paper, we present a novel query processing technique that, though maintaining high scalability and accuracy, manages to reduce the latency considerably in answering LBSQ s. Our approach is based on peer-to-peer sharing, which enables us to process queries without delay at a mobile host by using query results cached in its neighboring mobile peers. We demonstrate the feasibility of our approach through a probabilistic analysis, and we illustrate the appeal of our technique through extensive simulation results.

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## 5. CONCLUSION AND FUTURE WORK

### CONCLUSION

In this project, spatial query processing in wireless broadcast environments. Existing methods have some disadvantages e.g. increases complexity at server and client side. This can be overcome by above following ways. Spatial query processing in wireless broadcast environments and use shortest path computation as an example of specific challenges and solutions considered in that setting. Given the limitations faced in traditional query processing architectures and the ability of wireless broadcasting to alleviate many of them, it bears strong potential to serve as an alternative or a complement to common computation paradigms. A challenging problem is solved here with devising cost models for monitoring spatial queries processing in wireless broadcast environments.

### FUTURE WORK

The continuing diffusion of mobile devices enables a flourishing market of location-based services, but also poses serious scalability concerns. This motivates the wireless broadcast model, where a server repeatedly transmits the entire database, while clients selectively tune in the communication channel and process their queries locally.

It is therefore a promising research direction to extend the air indexing literature with solutions for other query types, be them of a spatial nature or otherwise.

Another interesting direction is to study different types of spatial queries, such as reverse Nearest Neighbours, and to extend.

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# **A PROXY RE-ENCRYPTION APPROACH TO SECURE DATASHARING IN THE INTERNET OF THINGS BASED ON BLOCKCHAIN**

A dissertation submitted in partial fulfillment of the requirements

for the award of the degree of

**MASTER OF COMPUTER APPLICATIONS**

to the

**Periyar University, Salem – 11**

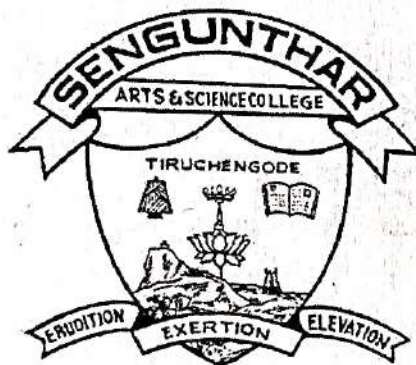
**BY**

**P.JAYAPRAKASH**

**Register Number: C21PG127CAP005**

**Under the Guidance of**

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TIRUCHENGODE - 637 205.

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**CETIFICATE**

This is to certify that dissertation entitled "A PROXY RE-ENCRYPTION APPROACH TO SECURE DATASHARING IN THE INTERNET OF THINGSBASED ON BLOCKCHAIN" submitted in partial fulfillment of the requirement for the degree of MASTER OF COMPUTER APPLICATIONS to the Periyar University, Salem is a of bonafide work carried out by P.JAYAPRAKASH, Register No: C21PG127CAP005 under supervision and guidance and that no part of the has been submitted for the award of any degree or diploma.

Place: Tiruchengode

  
Signature of the Guide

Date : 04/05/2023

Mrs.R.BHARATHI, M.Sc., M.Phil.,

  
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Submitted for the project Viva Voce Examination held on 04/05/2023

  
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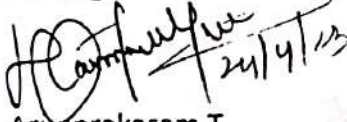
This is to certify that JAYAPRAKASH.P (Reg. No: C21PG127CAP005) student of Master Of Computer Applications, Sengunthar Arts and Science College, Tiruchengode, has successfully Completed with us to do his final year project entitled "A Proxy Re-Encryption Approach to Secure Data Sharing in the Internet of Things Based on Block chain" using Java/MySQL at Cognitive i, Salem from December'2022 to March'2023

During the period of project work his performance and conduct was found to be good.

We wish him the very best forever.

With Regards,

For Cognitive i,

  
Arunprakasham.T  
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## ABSTRACT

The evolution of the Internet of Things has seen data sharing as one of its most useful applications in cloud computing. As eye-catching as this technology has been, data security remains one of the obstacles it faces since the wrongful use of data leads to several damages. In this article, we propose a proxy re-encryption approach to secure data sharing in cloud environments. Data owners can outsource their encrypted data to the cloud using identity-based encryption, while proxy re-encryption construction will grant legitimate users access to the data. With the Internet of Things devices being resource-constrained, an edge device acts as a proxy server to handle intensive computations. Also, we make use of the features of information-centric networking to deliver cached content in the proxy effectively, thus improving the quality of service and making good use of the network bandwidth. Further, our system model is based on block chain, a disruptive technology that enables decentralization in data sharing. It mitigates the bottle necks in centralized systems and achieves fine-grained access control to data. The security analysis and evaluation of our scheme show the promise of our approach in ensuring data confidentiality, integrity, and security.

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## 5. CONCLUSION AND FUTURE ENHANCEMENT

The emergence of the IoT has made data sharing one of its most prominent applications. To guarantee data confidentiality, integrity, and privacy, we propose a secure identity-based PREdata-sharing scheme in a cloud computing environment. Secure data sharing is realized with IBPRE technique, which allows the data owners to store their encrypted data in the cloud and share them with legitimate users efficiently. Due to resource constraints, an edge device serves as the proxy to handle the intensive computations. The scheme also incorporates the features of ICN to proficiently deliver cached content, thereby improving the quality of service and making great use of the network bandwidth. Then, we present a blockchain-based system model that allows for flexible authorization on encrypted data. Fine grained access control is achieved, and it can help data owners achieve privacy preservation in an adequate way. The analysis and results of the proposed model show how efficient our scheme is, compared to existing schemes.

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# **DUAL ACCESS CONTROL FOR CLOUD-BASED DATA STORAGE AND SHARING**

A dissertation submitted in partial fulfillment of the requirements

for the award of the degree of

**MASTER OF COMPUTER APPLICATIONS**

to the

**Periyar University, Salem – 11**

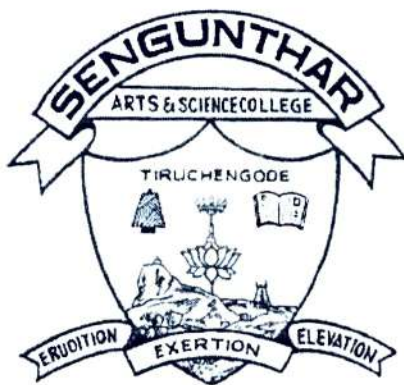
**BY**

**P.KAVIYARASAN**

**Register Number: C21PG127CAP006**

**Under the Guidance of**

**Mrs.P.GAYATHRIDEVI, M.Sc (IT)., M.Phil.,M.A.,**



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SENGUNTHAR ARTS AND SCIENCE COLLEGE, TIRUCHNGODE-637205

**CETIFICATE**

This is to certify that dissertation entitled "DUAL ACCESS CONTROL FOR CLOUD-BASED DATA STORAGE AND SHARING" submitted in partial fulfillment of the requirement for the degree of **MASTER OF COMPUTER APPLICATIONS** to the Periyar University, Salem is a of bonafide work carried out by **P.KAVIYARASAN** , **Register No: C21PG127CAP006** under supervision and guidance and that no part of the has been submitted for the award of any degree or diploma.

Place: Tiruchengode

  
Signature of the Guide

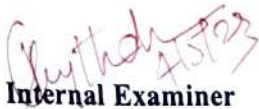
Date : 04-05-2023

Mrs.P.GAYATHRIDEVI, M.Sc (IT)., M.Phil.,M.A.,

  
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Date: 24.04.2023

## TO WHOMSOEVER IT MAY CONCERN

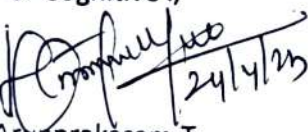
This is to certify that P.KAVIYARASAN (Reg. No: C21PG127CAP006) student of Master Of Computer Applications, Sengunthar Arts and Science College, Tiruchengode, has successfully Completed with us to do his final year project entitled "Dual Access Control For Cloud Based Data Storage And Sharing" using Java/MySQL at Cognitive i, Salem from December'2022 to March'2023.

During the period of project work his performance and conduct was found to be good.

We wish him the very best forever.

With Regards,

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Arunprakasam.T  
Project Head



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## ABSTRACT

Cloud-based data storage service has drawn increasing interests from both academic and industry in the recent years due to its efficient and low cost management. Since it provides services in an open network, it is urgent for service providers to make use of secure data storage and sharing mechanism to ensure data confidentiality and service user privacy. To protect sensitive data from being compromised, the most widely used method is encryption. However, simply encrypting data (e.g., via AES) cannot fully address the practical need of data management. Besides, an effective access control over download request also needs to be considered so that Economic Denial of Sustainability (EDoS) attacks cannot be launched to hinder users from enjoying service. In this paper, we consider the dual access control, in the context of cloud-based storage, in the sense that we design a control mechanism over both data access and download request without loss of security and efficiency. Two dual access control systems are designed in this project, where each of them is for a distinct designed setting. The security and experimental analysis for the systems are also presented.

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## 5. CONCLUSION AND FUTURE ENHANCEMENT

The project addressed an interesting and long-lasting problem in cloud-based data sharing, and presented two dual access control systems. The proposed systems are resistant to DDoS/EDoS attacks. We state that the technique used to achieve the feature of control on download request is “transplantable” to other CP-ABE constructions. Our experimental results show that the proposed systems do not impose any significant computational and communication overhead (compared to its underlying CP-ABE building block). In our enhanced system, we employ the fact that the secret information loaded into the enclave cannot be extracted. However, recent work shows that enclave may leak some amounts of its secret(s) to a malicious host through the memory access patterns or other related side-channel attacks. The model of transparent enclave execution is hence introduced. Constructing a dual access control system for cloud data sharing from transparent enclave is an interesting problem. In our future work, we will consider the corresponding solution to the problem.

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# **A SECURE AND EFFICIENT DATA SHARING AND SEARCHING SCHEME IN WIRELESS SENSOR NETWORK**

A dissertation submitted in partial fulfillment of the requirements

for the award of the degree of

**MASTER OF COMPUTER APPLICATIONS**

to the

**Periyar University, Salem – 11**

**BY**

**K.MAITHEESH**

**Register Number: C21PG127CAP007**

**Under the Guidance of**

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CETIFICATE

This is to certify that dissertation entitled "A SECURE AND EFFICIENT DATA SHARING AND SEARCHING SCHEME IN WIRELESS SENSOR NETWORK" submitted in partial fulfillment of the requirement for the degree of MASTER OF COMPUTER APPLICATIONS to the Periyar University, Salem is a of bonafide work carried out by K.MAITHEESH, Register No: C21PG127CAP007 under supervision and guidance and that no part of the has been submitted for the award of any degree or diploma.

Place: Tiruchengode

Date : 04-05-2023

  
Signature of the Guide

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(Mrs.R.BHARATHI, M.Sc., M.Phil.,)

(Dr. S. ... ..)

Submitted for the project Viva Voce Examination held on \_\_\_\_\_

  
Internal Examiner

  
External Examiner

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Date: 24.04.2023

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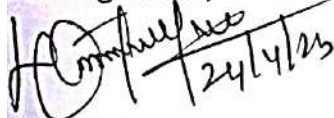
This is to certify that K.MAITHEESH (Reg. No: C21PG127/AP007) student of Master Of Computer Applications, Sengunthar Arts and Science College, Tiruchengode, has successfully Completed with us to do his final year project entitled "A Secure and Efficient Data Sharing and Searching Scheme in Wireless Sensor Network" using ASP.NET(C#)/ SQL Server at Cognitive i, Salem from December'2022 to March'2023.

During the period of project work his performance and conduct was found to be good.

We wish him the very best forever.

With Regards,


For Cognitive i,

  
24/4/23

Arunprakasam.T  
Project Head



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## ABSTRACT

Wireless sensor networks (WSN) generally utilize cloud computing to store and process sensing data in real time, namely, cloud-assisted WSN. However, the cloud-assisted WSN faces new security challenges, particularly outsourced data confidentiality. Data Encryption is a fundamental approach but it limits target data retrieval in massive encrypted data. Public key encryption with keyword search (PEKS) enables a data receiver to retrieve encrypted data containing some specific keyword in cloud-assisted WSN. However, the traditional PEKS schemes suffer from an inherent problem, namely, the keyword guessing attack (KGA). KGA includes off-line KGA and on-line KGA. To date, the existing literature on PEKS cannot simultaneously resist both off-line KGA and on-line KGA performed by an external adversary and an internal adversary. In this work, we propose a secure and efficient data sharing and searching scheme to address the aforementioned problem such that our scheme is secure against both off-line KGA and on-line KGA performed by external and internal adversaries. We would like to stress that our scheme simultaneously achieves document encryption/decryption and keyword search functions. We also prove our scheme achieves keyword security and document security. Furthermore, our scheme is more efficient than previous schemes by eliminating the pairing computation.

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## 5. CONCLUSION

The combination of cloud computing and WSN provides a promising solution to handle massive data. Data security requirements have become a key challenge in cloud-assisted WSN. To address limitations inherent in data security problems, in this paper, we defined a secure and efficient DSS scheme that can resist both off-line KGA and on-line KGA performed by external adversary and internal adversary, and we proposed a specific construction. This construction can simultaneously resist both on-line KGA and off-line KGA in cloud-assisted WSN. Our scheme not only realizes the keyword search function in the cloud but also implements the data files encryption/decryption function. The performance analysis shows the computation overhead at lightweight mobile devices insignificantly reduced. We also formally proved that our schemes are provably secure.

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# **PRIVACY-PRESERVING AND TRUTHFUL DETECTION OF PACKET DROPPING ATTACKS IN WIRELESS AD HOC NETWORKS**

A dissertation submitted in partial fulfillment of the requirements

for the award of the degree of

**MASTER OF COMPUTER APPLICATIONS**

to the

**Periyar University, Salem – 11**

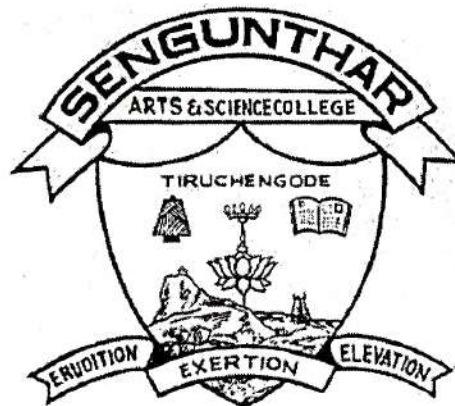
**BY**

**S.MIDHUNKUMAR**

**Register Number: C21PG127CAP008**

**Under the Guidance of**

**Mrs.R.BHARATHI, M.Sc., M.Phil.,**



**DEPARTMENT OF MASTER OF COMPUTER APPLICATIONS**

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**(AFFILIATED TO PERIYAR UNIVERSITY)**

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**CETIFICATE**

This is to certify that dissertation entitled "PRIVACY-PRESERVING AND TRUTHFUL DETECTION OF PACKET DROPPING ATTACKS IN WIRELESS AD HOC NETWORKS" submitted in partial fulfillment of the requirement for the degree of **MASTER OF COMPUTER APPLICATIONS** to the Periyar University, Salem is a of bonafide work carried out by **S.MIDHUNKUMAR**, Register No: **C21PG127CAP008** under supervision and guidance and that no part of the has been submitted for the award of any degree or diploma.

Place: Tiruchengode

Date : 04/05/2023

  
Signature of the Guide

**Mrs.R.BHARATHI, M.Sc., M.Phil.,**

  
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(04/05/2023)

Submitted for the project Viva Voce Examination held on 04/05/2023

  
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TIRUCHENGODE - 637 205

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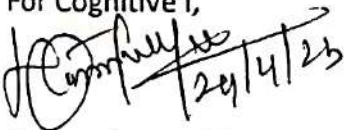
This is to certify that **S.MIDHUNKUMAR** (Reg. No: **C21PG127CAP008**) student of Master Of Computer Applications, Sengunthar Arts and Science College, Tiruchengode, has successfully Completed with us to do his final year project entitled "**Privacy-Preserving and Truthful Detection of Packet Dropping Attacks in Wireless Ad Hoc Networks**" using **ASP.NET(C#)/ SQL Server** at Cognitive i, Salem from **December'2022 to March'2023**.

During the period of project work his performance and conduct was found to be good.

We wish him the very best forever.

With Regards,

For Cognitive i,

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Arunprakasam.T  
Project Head



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## ABSTRACT

Link error and malicious packet dropping are two sources for packet losses in multi-hop wireless ad hoc network. In this project, while observing a sequence of packet losses in the network, we are interested in determining whether the losses are caused by link errors only, or by the combined effect of link errors and malicious drop. We are especially interested in the insider-attack case, whereby malicious nodes that are part of the route exploit their knowledge of the communication context to selectively drop a small amount of packets critical to the network performance. Because the packet dropping rate in this case is comparable to the channel error rate, conventional algorithms that are based on detecting the packet loss rate cannot achieve satisfactory detection accuracy. To improve the detection accuracy, we propose to exploit the correlations between lost packets. Furthermore, to ensure truthful calculation of these correlations, which develop a homomorphic linear authenticator (HLA) based public auditing architecture that allows the detector to verify the truthfulness of the packet loss information reported by nodes. This construction is privacy preserving, collusion proof, and incurs low communication and storage overheads. To reduce the computation overhead of the baseline scheme, a packet-block-based mechanism is also proposed, which allows one to trade detection accuracy for lower computation complexity. Through extensive simulations, we verify that the proposed mechanisms achieve significantly better detection accuracy than conventional methods such as a maximum-likelihood based detection.

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## 5. CONCLUSION AND FUTURE ENHANCEMENT

In this project, we showed that compared with conventional detection algorithms that utilize only the distribution of the number of lost packets, exploiting the correlation between lost packets significantly improves the accuracy in detecting malicious packet drops. Such improvement is especially visible when the number of maliciously dropped packets is comparable with those caused by link errors. To correctly calculate the correlation between lost packets, it is critical to acquire truthful packet-loss information at individual nodes. We developed an HLA-based public auditing architecture that ensures truthful packet-loss reporting by individual nodes. This architecture is collusion proof, requires relatively high computational capacity at the source node, but incurs low communication and storage overheads over the route. To reduce the computation overhead of the baseline construction, a packet-block-based mechanism was also proposed, which allows one to trade detection accuracy for lower computation complexity.

Some open issues remain to be explored in our future work. First, the proposed mechanisms are limited to static or quasi-static wireless ad hoc networks. Frequent changes on topology and link characteristics have not been considered. Extension to highly mobile environment will be studied in our future work. In addition, in this project we have assumed that source and destination are truthful in following the established protocol because delivering packets end-to-end is in their interest. Misbehaving source and destination will be pursued in our future research. Moreover, in this project, as a proof of concept, we mainly focused on showing the feasibility of the proposed crypto-primitives and how second order statistics of packet loss can be utilized to improve detection accuracy. As a first step in this direction, our analysis mainly emphasize the fundamental features of the problem, such as the untruthfulness nature of the attackers, the public verifiability of proofs, the privacy-preserving requirement for the auditing process, and the randomness of wireless channels and packet losses, but ignore the particular behavior of various protocols that may be used at different layers of the protocol stack. The implementation and optimization of the proposed mechanism under various particular protocols will be considered in our future studies.

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# **SECURE PHRASE SEARCH FOR INTELLIGENT PROCESSING OF ENCRYPTED DATA IN CLOUD-BASED IOT**

A dissertation submitted in partial fulfillment of the requirements

for the award of the degree of

**MASTER OF COMPUTER APPLICATIONS**

to the

**Periyar University, Salem – 11**

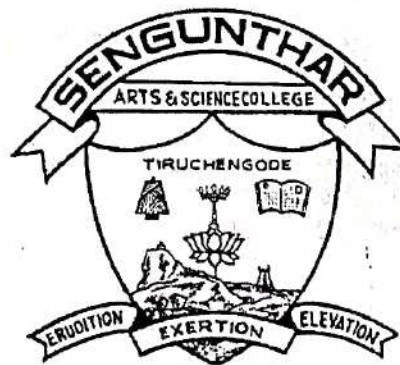
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**P.RANJITHKUMAR**

**Register Number: C21PG127CAP009**

**Under the Guidance of**

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**CETIFICATE**

This is to certify that project dissertation entitled "SECURE PHRASE SEARCH FOR INTELLIGENT PROCESSING OF ENCRYPTED DATA IN CLOUD-BASED IOT" submitted in partial fulfillment of the requirement for the degree of MASTER OF COMPUTER APPLICATIONS to the Periyar University, Salem is a of bonafide work carried out by P.RANJITHKUMAR, Register No: C21PG127CAP009 under supervision and guidance and that no part of the has been submitted for the award of any degree or diploma.

Place: Tiruchengode

  
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Mrs.P.GAYATHRIDEVI, M.Sc (IT)., M.Phil.,M.A.,

  
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Submitted for the project Viva Voce Examination held on 04/05/2023

  
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Date: 24.04.2023

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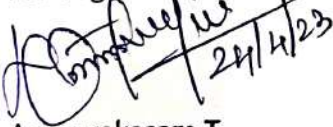
This is to certify that **P.RANJITHKUMAR** (Reg. No: C21PG127CAP009) student of Master Of Computer Applications, Sengunthar Arts and Science College, Tiruchengode, has successfully Completed with us to do his final year project entitled "**Secure Phrase Search for Intelligent Processing of Encrypted Data in Cloud-Based IoT**" using Java/MySQL at Cognitive i, Salem from **December'2022 to March'2023**.

During the period of project work his performance and conduct was found to be good.

We wish him the very best forever.

With Regards,

For Cognitive i,

  
Arunprakasam.T  
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## ABSTRACT

Phrase search allows retrieval of documents containing an exact phrase, which plays an important role in many machine learning applications for cloud-based IoT, such as intelligent medical data analytics. In order to protect sensitive information from being leaked by service providers, documents(e.g., clinic records) are usually encrypted by data owners before being outsourced to the cloud. This, however, makes the search operation an extremely challenging task. Existing searchable encryption schemes for multi-keyword search operations fail to perform phrase search, as they are unable to determine the location relationship of multiple keywords in a queried phrase over encrypted data on the cloud server side.

In this project, propose **P3**, an efficient privacy-preserving phrase search scheme for intelligent encrypted data processing in cloud-based IoT. Our scheme exploits the homomorphic encryption and bilinear map to determine the location relationship of multiple queried keywords over encrypted data. It also utilizes a probabilistic trapdoor generation algorithm to protect users' search patterns. Thorough security analysis demonstrates the security guarantees achieved by **P3**. We implement a prototype and conduct extensive experiments on real-world datasets. The evaluation results show that compared with existing multi key word search schemes, **P3** can greatly improve the search accuracy with moderate overheads.

## INTRODUCTION

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## 5. CONCLUSION AND FUTURE ENHANCEMENT

In this project, we presented a novel scheme, P3, which tackled the challenges in phrase search for intelligent encrypted data processing in cloud-based IoT. The scheme exploits the homomorphic encryption and bilinear map to determine the pair wise location relationship of queried keywords on the cloud server side. It eliminates the need of a trusted third party and greatly reduces communication overheads. Thorough security analysis illustrated that the proposed scheme provides the desired security guarantees. The experimental evaluation results demonstrated the effectiveness and efficiency of the proposed scheme. In future work, we plan to further improve the flexibility and efficiency of the scheme.

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ICRAP-1

# **AN ATTRIBUTE-ASSISTED RERANKING MODEL FOR WEB IMAGE SEARCH**

A dissertation Report submitted in partial fulfillment of the  
requirements for the award of the degree of

**MASTER OF COMPUTER APPLICATIONS**

to the

**Periyar University, Salem – 11**

**BY**

**B.SANTHOSH KUMAR**

**Register Number: C21PG127CAP010**

**Under the Guidance of**

**Mrs.R.BHARATHI, M.Sc., M.Phil.,**



**DEPARTMENT OF MASTER OF COMPUTER APPLICATIONS**

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CETIFICATE

This is to certify that dissertation entitled "AN ATTRIBUTE-ASSISTED RERANKING MODEL FOR WEB IMAGE SEARCH" submitted in partial fulfillment of the requirement for the degree of MASTER OF COMPUTER APPLICATIONS to the Periyar University, Salem is a of bonafide work carried out by B.SANTHOSH KUMAR, Register No: C21PG127CAP010 under supervision and guidance and that no part of the has been submitted for the award of any degree or diploma.

Place: Tiruchengode

Date : 04.05.2023

  
Signature of the Guide

Mrs.R.BHARATHI, M.Sc., M.Phil.,

  
HEAD OF DEPARTMENT

(Mrs.R.BHARATHI, M.Sc., M.Phil.,)

Submitted for the project Viva Voce Examination held on 04.05.2023

  
Internal Examiner

  
External Examiner

ATTESTED  
  
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SENGUNTHAR ARTS AND SCIENCE COLLEGE  
TIRUCHENGODE - 637 205.



Date: 24.04.2023

## TO WHOMSOEVER IT MAY CONCERN

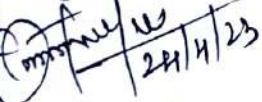
is is to certify that B.SANTHOSH KUMAR (Reg. No: C21PG127CAP010) student of Master Of Computer Applications, Sengunthar Arts and Science College, Tiruchengode, has successfully completed with us to do his final year project entitled "An Attribute-Assisted Reranking Model for Web Image Search" using Java/MySQL at Cognitive i, Salem from December'2022 to March'2023.

During the period of project work his performance and conduct was found to be good.

We wish him the very best forever.

With Regards,

For Cognitive i,

 24/4/23

Arunprakasham.T  
Project Head



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## ABSTRACT

Image search reranking is an effective approach to refine the text-based image search result. Most existing reranking approaches are based on low-level visual features. In this project, we propose to exploit semantic attributes for image search reranking. Based on the classifiers for all the predefined attributes, each image is represented by an attribute feature consisting of the responses from these classifiers. A hypergraph is then used to model the relationship between images by integrating low-level visual features and attribute features. Hyper graph ranking is then performed to order the images. Its basic principle is that visually similar images should have similar ranking scores. In this project, we propose a visual-attribute joint hyper graph learning approach to simultaneously explore two information sources. A hyper graph is constructed to model the relationship of all images. We conduct experiments on more than 1,000 queries in MSRA-MMV2.0 data set. The experimental results demonstrate the effectiveness of our approach.

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## 5. CONCLUSION AND FUTURE ENHANCEMENT

Image search reranking has been studied for several years and various approaches have been developed recently to boost the performance of text-based image search engine for general queries. This project serves as a first attempt to include the attributes in reranking framework. We observe that semantic attributes are expected to narrow down the semantic gap between low-level visual features and highlevel semantic meanings. Motivated by that, we propose a novel attribute-assisted retrieval model for reranking images. Based on the classifiers for all the predefined attributes, each image is represented by an attribute feature consisting of the responses from these classifiers. A hypergraph is then used to model the relationship between images by integrating low-level visual features and semantic attribute features. We perform hypergraph ranking to re-order the images, which is also constructed to model the relationship of all images. Its basic principle is that visually similar images should have similar ranking scores and a visual-attribute joint hypergraph learning approach has been proposed to simultaneously explore two information sources. We conduct extensive experiments on 1,000 queries in MSRA-MM V2.0 dataset. The experimental results demonstrate the effectiveness of our proposed attribute-assisted Web image search reranking method.

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Tiruchengode – 637 205, Namakkal dt., Tamilnadu



## DEPARTMENT OF COMPUTER SCIENCE (UG)

### STUDENTS FEEDBACK 2022 – 2023

Sl. No.	Statement	Excellent	Good	Satisfactory	Needs Improvement
	Whether				
1	Syllabus and learning materials are adequate in terms of quality and quantity	85	90	53	4
2	Equal weightage is given to theory and practical course content	90	86	54	2
3	Syllabus coverage in class by the faculty	98	90	40	4
4	Text books/ reference books recommended in the syllabus are relevant & updated	90	110	26	6
5	Faculty encouragement in learning process	108	87	34	3
6	Teaching - learning process enables clear understanding of the course content	94	103	28	7
7	Reliability of assessment & evaluation process	97	112	19	4
8	Availability of library resources	94	124	10	4
9	The syllabus provides sufficient knowledge & perspective in the respective areas	93	110	21	8
10	Usage of teaching aids and ICT in the class by faculty to facilitate teaching	103	98	24	7

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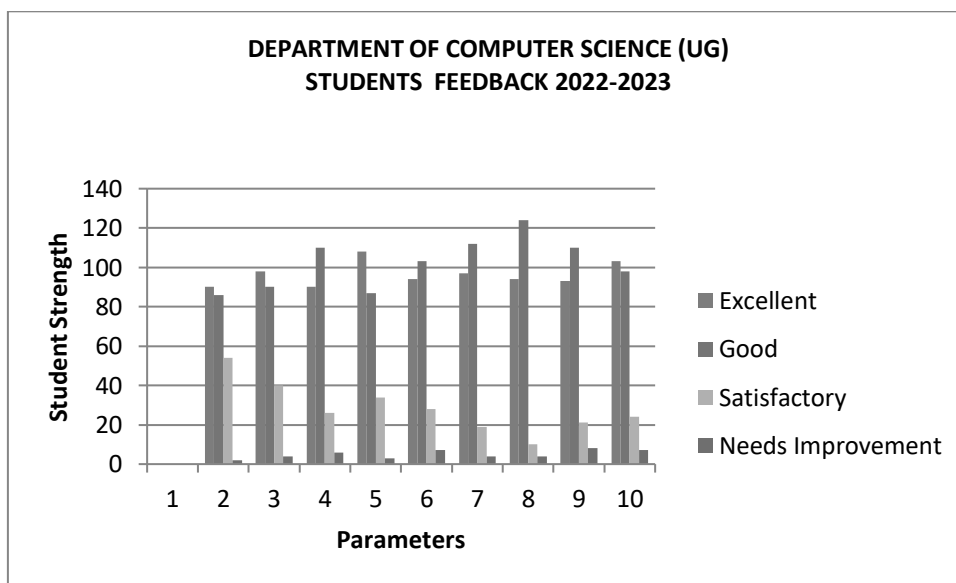
Accredited by NAAC

Tiruchengode – 637 205, Namakkal dt., Tamilnadu




### DEPARTMENT OF COMPUTER SCIENCE (UG)

#### STUDENTS FEEDBACK 2022 – 2023



#### Parameters:

1. Syllabus and learning materials are adequate in terms of quality and quantity.
2. Equal weightage is given to theory and practical course content
3. Syllabus coverage in class by the faculty
4. Text books/ reference books recommended in the syllabus are relevant & updated
5. Faculty encouragement in learning process
6. Teaching - learning process enables clear understanding of the course content
7. Reliability of assessment & evaluation process
8. Availability of library resources
9. The syllabus provides sufficient knowledge & perspective in the respective areas
10. Usage of teaching aids and ICT in the class by faculty to facilitate teaching

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### STUDENTS FEEDBACK ON ACADEMIC AND AMBIENCE

Name of the Student : Nivetha . P

Roll.No: 20B1514

Course & Year : III - BCA

Department: CS

S.NO	Parameter	Excellent	Good	Satisfactory	Needs Improvement
1	Syllabus and learning materials are adequate in terms of quality and quantity		✓		
2	Equal weightage is given to theory and practical course content	✓			
3	Syllabus coverage in class by the faculty		✓		
4	Text books/ reference books recommended in the syllabus are relevant & updated			✓	
5	Faculty encouragement in learning process	✓			
6	Teaching - learning process enables clear understanding of the course content		✓		
7	Reliability of assessment & evaluation process	✓			
8	Availability of library resources		✓		
9	The syllabus provides sufficient knowledge & perspective in the respective areas			✓	
10	Usage of teaching aids and ICT in the class by faculty to facilitate teaching	✓			

Any Suggestions :

Place : Tiruchengode

Date: 23.5.23

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Nivetha . P  
Signature of the Student





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## STUDENTS FEEDBACK ON ACADEMIC AND AMBIENCE

Name of the Student : Abiraj, M

Roll.No: 20B1501

Course & Year : 1<sup>st</sup> - BCA

Department: computer science

S.NO	Parameter	Excellent	Good	Satisfactory	Needs Improvement
1	Syllabus and learning materials are adequate in terms of quality and quantity	✓			
2	Equal weightage is given to theory and practical course content		✓		
3	Syllabus coverage in class by the faculty	✓			
4	Text books/ reference books recommended in the syllabus are relevant & updated			✓	
5	Faculty encouragement in learning process		✓		
6	Teaching - learning process enables clear understanding of the course content	✓			
7	Reliability of assessment & evaluation process		✓		
8	Availability of library resources	✓			
9	The syllabus provides sufficient knowledge & perspective in the respective areas		✓		
10	Usage of teaching aids and ICT in the class by faculty to facilitate teaching			✓	

Any Suggestions :

Place : T. Hode

Date: 23.5.2023

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Abiraj, M  
Signature of the Student



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TIRUCHENGODE - 637 205, NAMAKKAL DT., TAMILNADU

### STUDENTS FEEDBACK ON ACADEMIC AND AMBIENCE

Name of the Student : *Bharath.h.s*

Roll.No: *22VCA1504*

Course & Year : *I-BCA*

Department: *CS*

S.NO	Parameter	Excellent	Good	Satisfactory	Needs Improvement
1	Syllabus and learning materials are adequate in terms of quality and quantity	✓			
2	Equal weightage is given to theory and practical course content		✓		
3	Syllabus coverage in class by the faculty	✓			
4	Text books/ reference books recommended in the syllabus are relevant & updated			✓	
5	Faculty encouragement in learning process		✓		
6	Teaching - learning process enables clear understanding of the course content	✓			
7	Reliability of assessment & evaluation process			✓	
8	Availability of library resources	✓			
9	The syllabus provides sufficient knowledge & perspective in the respective areas			✓	
10	Usage of teaching aids and ICT in the class by faculty to facilitate teaching		✓		

Any Suggestions :

Place : *Trichengode*

Date: *22.5.2023*

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*S. Bharath*  
Signature of the Student



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### STUDENTS FEEDBACK ON ACADEMIC AND AMBIENCE

Name of the Student : P. malathi.

Roll.No: 22VCSF529.

Course & Year : I - CS.

Department: Computer Science.

S.NO	Parameter	Excellent	Good	Satisfactory	Needs Improvement
1	Syllabus and learning materials are adequate in terms of quality and quantity	✓			
2	Equal weightage is given to theory and practical course content		✓		
3	Syllabus coverage in class by the faculty			✓	
4	Text books/ reference books recommended in the syllabus are relevant & updated		✓		
5	Faculty encouragement in learning process	✓			
6	Teaching - learning process enables clear understanding of the course content			✓	
7	Reliability of assessment & evaluation process	✓			
8	Availability of library resources		✓		
9	The syllabus provides sufficient knowledge & perspective in the respective areas		✓		
10	Usage of teaching aids and ICT in the class by faculty to facilitate teaching			✓	

Any Suggestions :

Place : Trichengode.

Date: 22.05.2023.

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P. Malathi.  
Signature of the Student





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### STUDENTS FEEDBACK ON ACADEMIC AND AMBIENCE

Name of the Student : Ramya . C

Roll.No: 21B1502

Course & Year : II - BCA

Department: Computer Science

S.NO	Parameter	Excellent	Good	Satisfactory	Needs Improvement
1	Syllabus and learning materials are adequate in terms of quality and quantity		✓		
2	Equal weightage is given to theory and practical course content	✓			
3	Syllabus coverage in class by the faculty			✓	
4	Text books / reference books recommended in the syllabus are relevant & updated	✓			
5	Faculty encouragement in learning process		✓		
6	Teaching - learning process enables clear understanding of the course content	✓			
7	Reliability of assessment & evaluation process		✓		
8	Availability of library resources			✓	
9	The syllabus provides sufficient knowledge & perspective in the respective areas	✓			
10	Usage of teaching aids and ICT in the class by faculty to facilitate teaching		✓		

Any Suggestions :

Place : Tiruchengode

Date : 22 . 5 . 2023

Ramya . C

Signature of the Student

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