

# **SADAKATHULLAH APPA COLLEGE**

**(AUTONOMOUS)**

**(Reaccredited by NAAC at an 'A' Grade with a CGPA of 3.40 out of 4.00 in the III cycle An ISO 9001:2008 Certified Institution)**

**RAHMATH NAGAR, TIRUNELVELI- 11.**

**Tamilnadu**

## **DEPARTMENT OF INFORMATION TECHNOLOGY (Unaided)**



### **CBCS SYLLABUS**

**For**

### **B.Sc. Information Technology**

**(Applicable for students admitted in June 2015 and onwards)**

**(As per the Resolutions of the Academic Council  
Meeting held on 23.02.2016)**



## CONTENTS

Sl. No.	Course Title	Subject Code	Page No.
1	Course Structure	-	1
2	இக்காலத் தமிழ்	15UTAL11	9
3	சமயத் தமிழ்	15UTAL21	11
4	Applied Grammar and Translation – I	15UARL11	13
5	Applied Grammar and Translation – II	15UARL21	14
6	Prose, Poetry and Remedial Grammar - I	15UENL11	15
7	Prose, Poetry and Remedial Grammar - II	15UENL21	16
8	C Programming *	15UITC11	17
9	Introduction to Computers	15UITC12	18
10	Object Oriented Programming with C++	15UITC21	19
11	Digital Principles & Applications *	15UITC22	20
12	Information Technology Core Practical – I	15UITC2P	21
13	Object Oriented Programming with Java	15UITC31	22
14	System Architecture	15UITC32	23
15	Data Structures	15UITC33	24
16	Web Designing Languages	15UITC41	25
17	Modern Operating Systems	15UITC42	26
18	Computer Networks	15UITC43	27
19	Information Technology Core Practical – II	15UITC4P	28
20	GUI Design with VB	15UITC51	29
21	Software Engineering	15UITC52	30
22	Mobile Computing	15UITC53	31
23	ORACLE	15UITE5A	32
24	C # Programming	15UITE5B	33
25	Computer Graphics using C	15UITC61	34
26	Mobile Application and Development	15UITC62	35
27	Project	15UITP61	36
28	Information Technology Core Practical – III	15UITC6P1	37
29	Information Technology Core Practical – IV	15UITC6P2	38

<b>Sl. No.</b>	<b>Course Title</b>	<b>Subject Code</b>	<b>Page No.</b>
30	ASP .Net	15UITE6A	39
31	PHP	15UITE6B	40
32	Information Technology Core Elective Practical – A	15UITE6AP	41
33	Information Technology Core Elective Practical – B	15UITE6BP	43
34	MS Office	15UCSA11	44
35	Graphics and Animation Tools	15UCSA21	45
36	Information Technology Allied I – Practical	15UCSA2P	46
37	Desktop Publishing	15UCSA31	47
38	Unix and Shell Programming	15UCSA41	48
39	Information Technology Allied II – Practical	15UCSA4P	49
40	Management Information System	15UITS31	50
41	Internet Security	15UITS41	51
42	Introduction to Computers	15UITN31	52
43	MS Office	15UITN41	53
44	List of Non-major Elective subjects	-	54
45	Environmental Studies	15UEVS11	56
46	Value Education - I	15USVE2A	58
47	Value Education - II	15USVE2B	59
48	Scheme of Examinations	-	60

**B.Sc. (Information Technology)**  
**COURSE STRUCTURE (CBCS)**  
**(Applicable for students admitted in June 2015 onwards)**

<b>ALLIED I – Computer Application</b>				<b>ALLIED II – Computer Application</b>			
<b>I SEMESTER</b>				<b>II SEMESTER</b>			
<b>P</b>	<b>COURSE</b>	<b>H/W</b>	<b>C</b>	<b>P</b>	<b>COURSE</b>	<b>H/W</b>	<b>C</b>
<b>I</b>	Tamil / Arabic	6	3	<b>I</b>	Tamil / Arabic	6	3
<b>II</b>	English	6	3	<b>II</b>	English	6	3
<b>III</b>	Core – 1	4	4	<b>III</b>	Core – 3	4	4
	Core – 2	3	4		Core – 4	3	4
	Core Practical - I*	3	-		Core Practical - I*	3	3
	Allied I	3	4		Allied II	3	4
	Allied Practical - I*	3	-		Allied Practical - I*	3	2
<b>IV</b>	Environmental Studies	2	1	<b>IV</b>	Islamic Value Education	2	1
					Value Education		
<b>TOTAL</b>		<b>30</b>	<b>19</b>	<b>TOTAL</b>		<b>30</b>	<b>24</b>
<b>III SEMESTER</b>				<b>IV SEMESTER</b>			
<b>III</b>	Core – 5	5	4	<b>III</b>	Core – 8	5	4
	Core – 6	5	4		Core – 9	5	4
	Core – 7	5	4		Core – 10	5	4
	Core Practical – II *	3	-		Core Practical – II *	3	3
	Allied III	3	4		Allied IV	3	4
	Allied Practical – II *	3	-		Allied Practical – II*	3	2
<b>IV</b>	Skill Based Elective - 1	3	2	<b>IV</b>	Skill Based Elective - 2	3	2
	Non Major Elective -1	3	2		Non Major Elective - 2	3	2
				<b>V</b>	Extension Activities	--	1
<b>TOTAL</b>		<b>30</b>	<b>20</b>	<b>TOTAL</b>		<b>30</b>	<b>26</b>
<b>V SEMESTER</b>				<b>VI SEMESTER</b>			
<b>III</b>	Core – 11	6	5	<b>III</b>	Core – 14	6	5
	Core – 12	5	5		Core – 15	5	5
	Core – 13	5	5		Core – 16 – Project	5	5
	Core Practical – III*	3	-		Core Practical – III*	3	3
	Core Practical – IV*	3	-		Core Practical - IV*	3	3
	Core Elective – 1	5	6		Core Elective – 2	5	6
	Core Elective Practical *	3	-		Core Elective Practical *	3	3
<b>TOTAL</b>		<b>30</b>	<b>21</b>	<b>TOTAL</b>		<b>30</b>	<b>30</b>

\* Practical Examination – End of even semester

**G1-S**

<b>B.Sc. (Information Technology)</b>						
<b>DISTRIBUTION OF CREDITS, NO. OF PAPERS &amp; MARKS</b>						
<b>Part</b>	<b>Course</b>	<b>Semester</b>	<b>Hrs.</b>	<b>Credits</b>	<b>No. of Papers</b>	<b>Marks</b>
<b>I</b>	Tamil / Arabic	I to II	12	6	2	200
<b>II</b>	English	I to II	12	6	2	200
<b>III</b>	Core + Core Practical	I to VI	95	77	15 + 4	1900
	Core Elective + CE Practical + Project	V & VI	21	20	2 + 1 + 1	400
	Allied + Practical	I to IV	24	20	4 + 2	600
<b>IV</b>	Environmental Studies	I	2	1	1	100
	Social Value Education	II	2	1	1	100
	Skill Based Elective	III & IV	6	4	2	200
	Non Major Elective	III & IV	6	4	2	200
<b>V</b>	Extension Activities	I to IV	--	1	1 (No Exam)	100
<b>TOTAL</b>			<b>180</b>	<b>140</b>	<b>40</b>	<b>4000</b>

**SEMESTER WISE DISTRIBUTION OF HOURS**

<b>Part</b>	<b>I</b>	<b>II</b>	<b>III</b>				<b>IV</b>			<b>Total</b>
<b>Sem</b>	<b>T/A</b>	<b>ENG</b>	<b>Core + Pract</b>	<b>CE</b>	<b>PRO</b>	<b>Allied+ Pract</b>	<b>SBE</b>	<b>NME</b>	<b>VE/ES</b>	
<b>I</b>	6	6	7 + 3	-	-	3 + 3	-	-	2	<b>30</b>
<b>II</b>	6	6	7 + 3	-	-	3 + 3	-	-	2	<b>30</b>
<b>III</b>	-	-	15 + 3	-	-	3 + 3	3	3	-	<b>30</b>
<b>IV</b>	-	-	15 + 3	-	-	3 + 3	3	3	-	<b>30</b>
<b>V</b>	-	-	16 + 6	5 + 3	-	-	-	-	-	<b>30</b>
<b>VI</b>	-	-	11 + 6	5 + 3	5	-	-	-	-	<b>30</b>
<b>TOT</b>	<b>12</b>	<b>12</b>	<b>71+24=95</b>	<b>10+6=16</b>	<b>5</b>	<b>12+12=24</b>	<b>6</b>	<b>6</b>	<b>4</b>	<b>180</b>

**B.Sc. (Information Technology) - CBCS Syllabus**  
**(Applicable for students admitted in June 2015 onwards)**  
**TITLE OF THE PAPERS, CREDITS & MARKS**

I SEMESTER								
P	SUB	Title of the paper	S.CODE	H/W	C	MARKS		
						I	E	T
I	TA 1	இக்காலத் தமிழ்	15UTAL11	6	3	25	75	100
	AR 1	Applied Grammar and Translation - I	15UARL11					
II	EN 1	Prose, Poetry and Remedial Grammar - I	15UENL11	6	3	25	75	100
III	C1	C Programming *	15UITC11	4	4	25	75	100
	C2	Introduction to Computers	15UITC12	3	4	25	75	100
	CP-1	Information Technology Core Practical – I	-	3	0	Examination II Semester		
	AI-1	MS Office	15UCSA11	3	4	25	75	100
	AI-P	Allied I - Practical	-	3	0	Examination II Semester		
IV	ES	Environmental Studies	15UEVS11	2	1	25	75	100
TOTAL				30	19	150	450	600
II SEMESTER								
I	TA 2	சமயத் தமிழ்	15UTAL21	6	3	25	75	100
	AR 2	Applied Grammar and Translation - II	15UARL21					
II	EN 2	Prose, Poetry and Remedial Grammar - II	15UENL21	6	3	25	75	100
III	C3	Object Oriented Programming with C++	15UITC21	4	4	25	75	100
	C4	Digital Principles & Applications *	15UITC22	3	4	25	75	100
	CP-1	Information Technology Core Practical – I	15UITC2P	3	3	40	60	100
	AI-2	Graphics and Animation Tools	15UCSA21	3	4	25	75	100
	AI-P	Allied I – Practical	15UCSA2P	3	2	40	60	100
IV	VE	Value Education – I	15USVE2A	2	1	25	75	100
		Value Education - II	15USVE2B					
			TOTAL	30	24	230	570	800

III SEMESTER								
P	SUB	Title of the paper	S.CODE	H/W	C	MARKS		
						I	E	T
III	C5	Object Oriented Programming with Java	15UITC31	5	4	25	75	100
	C6	System Architecture	15UITC32	5	4	25	75	100
	C7	Data Structures	15UITC33	5	4	25	75	100
	CP-II	Information Technology Core Practical – II	-	3	-	Examination IV Semester		
	AII-1	Desktop Publishing	15UCSA31	3	4	25	75	100
	AII-P	Allied II - Practical	-	3	-	Examination IV Semester		
IV	SBE1	Management Information System	15UITS31	3	2	25	75	100
	NME1	Choose from the list	-	3	2	25	75	100
TOTAL				30	20	150	450	600
IV SEMESTER								
III	C8	Web Designing Languages	15UITC41	5	4	25	75	100
	C9	Modern Operating Systems	15UITC42	5	4	25	75	100
	C10	Computer Networks	15UITC43	5	4	25	75	100
	CP-II	Information Technology Core Practical – II	15UITC4P	3	3	40	60	100
	AII-2	Unix and Shell Programming	15UCSA41	3	4	25	75	100
	AII-P	Allied II – Practical	15UCSA4P	3	2	40	60	100
IV	SBE2	Quantitative Aptitude	15UITS41	3	2	25	75	100
	NME2	Choose from the list	-	3	2	25	75	100
V	EX	Extension Activities (Choose from the list)	-	--	1	--	100	100
TOTAL				30	26	230	670	900



V SEMESTER								
P	SUB	Title of the paper	S.CODE	H/W	C	MARKS		
						I	E	T
III	C11	GUI Design with VB	15UITC51	6	5	25	75	100
	C12	Software Engineering	15UITC52	5	5	25	75	100
	C13	Mobile Computing	15UITC53	5	5	25	75	100
	CP-III	Information Technology Core Practical – III	-	3	-	Examination VI Semester		
	CP-IV	Information Technology Core Practical – IV	-	3	-	Examination VI Semester		
	CE1	A) ORACLE	15UITE5A	5	6	25	75	100
		B) C # Programming	15UITE5B					
	CE-P	Information Technology Core Elective Practical – A	-	3	-	Examination VI Semester		
		Information Technology Core Elective Practical – B	-					
TOTAL				30	21	100	300	400
VI SEMESTER								
III	C14	Computer Graphics using C	15UITC61	6	5	25	75	100
	C15	Mobile Application and Development	15UITC62	5	5	25	75	100
	C16	Project	15UITP61	5	5	-	100	100
	CP-III	Information Technology Core Practical – III	15UITC6P1	3	3	40	60	100
	CP-IV	Information Technology Core Practical – IV	15UITC6P2	3	3	40	60	100
	CE2	A) ASP .Net	15UITE6A	5	6	25	75	100
		B) PHP	15UITE6B					
	CE-P	Information Technology Core Elective Practical – A	15UITE6AP	3	3	40	60	100
		Information Technology Core Elective Practical – B	15UITE6BP					
TOTAL				30	30	195	505	700

**B.Sc. (Information Technology) CBCS Syllabus**

**PART I AND II SUBJECTS**

**(Applicable for students admitted in June 2015 and onwards)**

**TITLE OF THE PAPERS, CREDITS & MARKS**

<b>GROUP I COURSES (ONE YEAR LANGUAGE COURSES)</b> <b>(B.Com., B.Com. (C.A.), B.Com. (Finance), B.B.A., B.Sc. Computer Science, B.Sc. Information Technology and B.C.A.)</b>							
<b>SEM</b>	<b>Title of the paper</b>	<b>S.CODE</b>	<b>H/W</b>	<b>C</b>	<b>I</b>	<b>E</b>	<b>T</b>
<b>PART I – TAMIL</b>							
<b>I</b>	இக்காலத் தமிழ்	15UTAL11	6	3	25	75	100
<b>II</b>	சமயத் தமிழ்	15UTAL21	6	3	25	75	100
<b>TOTAL</b>			<b>12</b>	<b>6</b>	<b>50</b>	<b>150</b>	<b>200</b>
<b>PART I – ARABIC</b>							
<b>I</b>	Applied Grammar and Translation – I	15UARL11	6	3	25	75	100
<b>II</b>	Applied Grammar and Translation – II	15UARL21	6	3	25	75	100
<b>TOTAL</b>			<b>12</b>	<b>6</b>	<b>50</b>	<b>150</b>	<b>200</b>
<b>PART II – ENGLISH</b>							
<b>I</b>	Prose, Poetry and Remedial Grammar – I	15UENL11	6	3	25	75	100
<b>II</b>	Prose, Poetry and Remedial Grammar – II	15UENL21	6	3	25	75	100
<b>TOTAL</b>			<b>12</b>	<b>6</b>	<b>50</b>	<b>150</b>	<b>200</b>

**B.Sc. (Information Technology) - CBCS Syllabus  
PART III – CORE, CORE ELECTIVE AND PROJECT  
TITLE OF THE PAPERS, CREDITS & MARKS**

SEM	SUB	Title of the paper	S.CODE	H/W	C	MARKS		
						I	E	T
I	C1	C Programming *	15UITC11	4	4	25	75	100
	C2	Introduction to Computers	15UITC12	3	4	25	75	100
	CP-I	Information Technology Core Practical – I	-	3	-	Examination II Semester		
II	C3	Object Oriented Programming with C++	15UITC21	4	4	25	75	100
	C4	Digital Principles & Applications *	15UITC22	3	4	25	75	100
	CP-I	Information Technology Core Practical – I	15UITC2P	3	3	40	60	100
III	C5	Object Oriented Programming with Java	15UITC31	5	4	25	75	100
	C6	System Architecture	15UITC32	5	4	25	75	100
	C7	Data Structures	15UITC33	5	4	25	75	100
	CP-II	Information Technology Core Practical – II	-	3	-	Examination IV Semester		
IV	C8	Web Designing Languages	15UITC41	5	4	25	75	100
	C9	Modern Operating Systems	15UITC42	5	4	25	75	100
	C10	Computer Networks	15UITC43	5	4	25	75	100
	CP-II	Information Technology Core Practical – II	15UITC4P	3	3	40	60	100
V	C11	GUI Design with VB	15UITC51	6	5	25	75	100
	C12	Software Engineering	15UITC52	5	5	25	75	100
	C13	Mobile Computing	15UITC53	5	5	25	75	100
	CP-III	Information Technology Core Practical – III	-	3	-	Examination VI Semester		
	CP-IV	Information Technology Core Practical – IV	-	3	-	Examination VI Semester		
	CE1	A) ORACLE	15UITE5A	5	6	25	75	100
		B) C # Programming	15UITE5B					
	CE-P	Information Technology Core Elective Practical – A	-	3	-	Examination VI Semester		
		Information Technology Core Elective Practical – B	-					
VI	C14	Computer Graphics using C	15UITC61	6	5	25	75	100
	C15	Mobile Application and Development	15UITC62	5	5	25	75	100
	C16	Project	15UITP61	5	5	-	100	100
	CP-III	Information Technology Core Practical – III	15UITC6P1	3	3	40	60	100
	CP-IV	Information Technology Core Practical – IV	15UITC6P2	3	3	40	60	100
	CE2	A) ASP .Net	15UITE6A	5	6	25	75	100
		B) PHP	15UITE6B					
	CE-P	Information Technology Core Elective Practical – A	15UITE6AP	3	3	40	60	100
		Information Technology Core Elective Practical – B	15UITE6BP					
TOTAL				116	97	625	1675	2300

**DEPARTMENT OF INFORMATION TECHNOLOGY  
CBCS SYLLABUS**

<b>PART III – ALLIED I &amp; II – COMPUTER APPLICATIONS</b>									
<b>SEM</b>	<b>P</b>	<b>TITLE OF THE PAPER</b>	<b>S.CODE</b>	<b>H/W</b>	<b>C</b>	<b>MARKS</b>			
						<b>I</b>	<b>E</b>	<b>T</b>	
<b>I</b>	AI-1	MS Office	15UCSA11	3	4	25	75	100	
	AI-P	Allied I - Practical	-	3	-	Examination II Semester			
<b>II</b>	AI-2	Graphics and Animation Tools	15UCSA21	3	4	25	75	100	
	AI-P	Allied I – Practical	15UCSA2P	3	2	40	60	100	
<b>III</b>	AII-1	Desktop Publishing	15UCSA31	3	4	25	75	100	
	AII-P	Allied II – Practical	-	3	-	Examination IV Semester			
<b>IV</b>	AII-2	Unix and Shell Programming	15UCSA41	3	4	25	75	100	
	AII-P	Allied II – Practical	15UCSA4P	3	2	40	60	100	
<b>TOTAL</b>				<b>24</b>	<b>20</b>	<b>180</b>	<b>420</b>	<b>600</b>	

**PART IV – Skill-Based Elective (For B.Sc. (Information Technology))**

<b>SEM</b>	<b>P</b>	<b>TITLE OF THE PAPER</b>	<b>S.CODE</b>	<b>H/W</b>	<b>C</b>	<b>MARKS</b>			
						<b>I</b>	<b>E</b>	<b>T</b>	
<b>III</b>	1	Management Information System	15UITS31	3	2	25	75	100	
<b>IV</b>	2	Internet Security	15UITS41	3	2	25	75	100	
<b>TOTAL</b>				<b>6</b>	<b>4</b>	<b>50</b>	<b>150</b>	<b>200</b>	

**PART IV- NON-MAJOR ELECTIVE  
(FOR OTHER MAJOR STUDENTS)**

<b>III</b>	1	Introduction to Computers	15UITN31	3	2	25	75	100	
<b>IV</b>	2	MS Office	15UITN41	3	2	25	75	100	
<b>TOTAL</b>				<b>6</b>	<b>4</b>	<b>50</b>	<b>150</b>	<b>200</b>	

**PART IV – EVS & VALUE EDUCATION  
(FOR ALL MAJOR STUDENTS)**

I	1	Environmental Studies	15UEVS11	2	1	25	75	100
II	2	Islamic Value Education	15USVE2A	2	1	25	75	100
		Value Education	15USVE2B					
TOTAL				4	2	50	150	200

**PART – V**

<b>SEM</b>	<b>Extension Activities (Choose any one)</b>		<b>S.CODE</b>	<b>H/W</b>	<b>C</b>	<b>I</b>	<b>E</b>	<b>T</b>	
<b>I to IV</b>	Enviro Club		15UEXEVC	-	1	-	100	100	
	NCC		15UEXNCC						
	NSS		15UEXNSS						
	Physical Education		15UEXPHY						
	Red Ribbon Club		15UEXRRC						
	Sadakath Outreach Programme		15UEXSOP						
	Youth Red Cross		15UEXYRC						
	Youth Welfare		15UEXYWL						
				-	1	-	100	100	

PART – 1 TAMIL			
முதல் பருவம்			
Part – 1	இக்காலத் தமிழ்		15 UTAL11
Hrs/Week : 6	Hrs/Sem : 90	Hrs/Unit : 18	Credits : 3

### நோக்கம் :

- ❖ தமிழ்ப் படைப்பிலக்கியங்களான புதுக்கவிதைகள், சிறுகதைகள் ஆகியவற்றை எழுத வைத்தல்.
- ❖ சமூகம் பற்றிய சிந்தனைகளைப் படைப்பிலக்கியங்கள் மூலம் ஏற்படுத்துதல்.

### அலகு - 1

#### தமிழ்ச் செய்யுள் - புதுக்கவிதைகள்

- |   |                                |
|---|--------------------------------|
| 1. அல்லாஹ்                                    | - மகாகவி பாரதியார்             |
| 2. தமிழுக்கு அமுதென்று பெயர்                  | - பாவேந்தர் பாரதிதாசன்         |
| 3. பாடல்                                      | - பட்டுக்கோட்டை கல்யாணசுந்தரம் |
| 4. ஆயிரம் திருநாமம் பாடி                      | - கவிக்கோ அப்துல் ரகுமான்      |
| 5. தேசப்பிதாவுக்கு ஒரு தெருப் பாடகனின் அஞ்சலி | - மு. மேத்தா                   |
| 6. ஐந்து பெரிது ஆறு சிறிது                    | - வைரமுத்து                    |
| 7. மழை கொடுக்கும்                             | - கவியரசு கண்ணதாசன்            |
| 8. எத்திசையிலிருந்து எறியப்பட்டது             | - கல்யாணஜி                     |
| 9. சினேகிதனின் தாழ்வான வீடு                   | - கலாப்பிரியா                  |
| 10. தூக்கம் விற்ற காசுகள்                     | - ரசிகவ்ஞானியார்               |
| 11. தோழர் மோசிகீரணார்                         | - ஞானக்கூத்தன்                 |
| 12. வயலும் வாழ்வும்                           | - நா.முத்துக்குமார்            |
| 13. கடவுள் போற்றி                             | - கவிமணி                       |
| 14. நண்பனே                                    | - கலீல் ஜீப்ரான்               |

#### அலகு -2 (சீறுகதைக் களஞ்சியம்)

- |                         |                         |
|-------------------------|-------------------------|
| 1. காஞ்சனை              | - புதுமைப்பித்தன்       |
| 2. கூறல்                | - வண்ணதாசன்             |
| 3. சொர்க்க கன்னிகை      | - கருணாமணாளன்           |
| 4. காலத்தின் ஆவர்த்தனம் | - தோப்பில் முகமதுமீரான் |
| 5. கனவில் உதிர்ந்த பூ   | - நாரும்புநாதன்         |
| 6. ராஜமீன்              | - கீரனார் ஜாஹிர்ராஜா    |
| 7. சங்காத்தி            | - தீன்                  |

### **அலகு- 3 உரைநடை**

1. படிப்பது சுகமே – வெ. இறையன்பு இ.ஆ.ப.  
நீயூ செஞ்சுரி புக ஹவுஸ் (பி) லிட், சென்னை.

### **அலகு- 4 இலக்கிய வரலாறு**

1. தமிழ்ப் புதுக்கவிதைகள் தோற்றமும் வளர்ச்சியும்
2. தமிழ்ச் சிறுகதைகள் தோற்றமும் வளர்ச்சியும்
3. தடம் பதித்த தமிழ்ச் சிறுகதையாசிரியர்கள்
4. தற்காலத் தமிழ்ப் புதுக்கவிதைகள், சிறுகதைகளின் போக்கு

### **அலகு- 5 இலக்கணம்**

1. எழுத்து வகை பற்றிய விளக்கம்  
முதலெழுத்துகள், சார்பெழுத்துகள், சுட்டெழுத்துகள், வினாவெழுத்துகள்
2. மொழி முதல் எழுத்துக்கள், மொழி இறுதி எழுத்துகள்
3. வல்லினம் மிகுமிடங்கள், மிகா இடங்கள்

PART – 1 TAMIL			
இரண்டாம் பருவம்			
Part – 1	சமயத் தமிழ்		15 UTAL21
Hrs/Week : 6	Hrs/Sem : 90	Hrs/Unit : 18	Credits : 3

**நோக்கம் :**

- ❖ பலசமயக் கருத்துக்களை ஒப்பிட்டுச் சமய நல்லிணக்கத்தோடு மாணவர்கள் வாழ இப்பருவம் துணை புரிகிறது.
- ❖ தமிழ்நாடு அரசுப் பணியாளர் தேர்வாணையத் தேர்வுக்கு மாணவர்களை ஆயத்தப்படுத்துதல்

**அலகு- 1**

**தமிழ்ச் செய்யுள் (துறை வெளியீடு)**

**சைவம்**

1. தேவாரம்
  - திருநாவுக்கரசர்
    - மாசில் வீணையும்...
    - நாமார்க்கும் குடியல்லோம்...
    - அப்பன் நீ அம்மை நீ...
  - திருஞானசம்பந்தர்
    - தோடுடைய செவியன்...
    - வேயுறு தோளி பங்கன்...
    - மருந்தவை மந்திரம்...
    - பித்தா பிறைகுடி...
  - சுந்தரமூர்த்தி நாயனார்
    - பித்தா பிறைகுடி...
2. திருவாசகம்
  - மாணிக்கவாசகர்
    - பால் நினைந்தாட்டும்...
3. திருவெம்பாவை
  - ஆதியும் அந்தமும் இல்லா...
4. திருமந்திரம்
  - திருமூலர்
    - ஒன்றே குலமும் ஒருவனே தேவனும்...

**வைணவம்**

5. பொய்கையாழ்வார்
  - பூதத்தாழ்வார்
    - வையம் தகளியா...
  - பேயாழ்வார்
    - அன்பே தகளியா...
    - திருக்கண்டேன்...
6. திருப்பாவை
  - ஆண்டாள்
    - மார்கழித் திங்கள்...

7. வளையாபதி - மக்கட் செல்வம்

### **பௌத்தம்**

8. புத்தபிரான் - மு.ரா.பெருமாள்

### **கிறித்தவம்**

9. இயேசு காவியம் (சில பகுதிகள்) - கண்ணதாசன்

### **இஸ்லாம்**

10. நபிகள் நாயக மான்மிய மஞ்சரி - சதாவதானி செய்குத்தம்பிப்பாவலர் (குறிப்பிட்ட பாடல்கள்)

11. குணங்குடி மஸ்தான் பாடல்கள் - பாசக்கயிற்று வலை

12. ஞானப் புகழ்ச்சி - தக்கலை பீரமுகமது அப்பா

13. அலகிலா அருளும் - இறையருட் கவிமணி. கா.அப்துல்கபூர்

### **நீதி இலக்கியங்கள்**

14. திருக்குறள் (வான் சிறப்பு)

15. நாலடியார் - கல்வி கரையில

16. இன்னாநாற்பது - ஆன்றவித்த...

### **அலகு- 2 புதினம்**

- “கல்மரம்” - திலகவதி

### **அலகு - 3 உரைநடை (தமிழ்த் துறை வெளியீடு)**

1. நபிகள் நாயகம் (ஸல்) அன்பின் தாயகம்
2. சதக்கத்துல்லாஹ் அப்பா அவர்களின் வாழ்வும் பணியும்
3. [கவி.கா.மு.ஷெரிப்](#) - த.மு.சா காசாமைதீன்
4. கவிக்கோ அப்துல்ரகுமானின் கவிதைகள்
5. தமிழ் இலக்கியங்களில் மனிதநேயச் சிந்தனைகள்
6. இணையத்தில் தமிழ்

### **அலகு- 4 (போட்டித் தேர்வுத் தயாரிப்பு)**

### **இலக்கிய வரலாறு**

1. சைவம், வைணவம், கிறித்துவம், இசுலாம் வளர்த்த தமிழ்
2. புகழ் பெற்ற தமிழ் நூல்கள், நூலாசிரியர்கள்
3. தமிழ்நாடு அரசுப் பணியாளர் தேர்வாணையம் நடத்தும் போட்டித் தேர்வுக்குரிய பொதுத்தமிழ் பாடத்திட்டம் - ஓர் அறிமுகம்

### **அலகு- 5 இலக்கணம்**

வேர்ச்சொல் அறிதல், அகரவரிசைப்படி மாற்றியமைத்தல், செய்வினை, செய்யப்பட்டுவினை, தன்வினை, பிறவினை, உடன்பாடு, எதிர்மறை, செய்தி வாக்கியம், கலவை வாக்கியம், பெயர்வினை, இடை, உரிச்சொற்களின் இலக்கணம் மற்றும் பெயர்ச்சொல், வினைச்சொல் வகைகள், லகர, ளகர, ணகர, ரகர, றகர வேறுபாடுகள்.



<b>Part - I ARABIC</b>			
<b>Applicable for Group I Courses (One Year Language Courses) such as B.Com, B.Com. (C.A) B.Com, (Finance) , B.B.A, B.Sc. Computer Science, B.Sc., Information Technology and B.C.A.</b>			
<b>PAPER-I</b>	<b>APPLIED GRAMMAR AND TRANSLATION-I</b>	<b>15UARL11</b>	
<b>Hrs/ Week: 6</b>	<b>Hrs/ Sem: 90</b>	<b>Hrs/ Unit: 18</b>	<b>Credits: 3</b>

**Unit I :-**

**Lessons 1 to 5 (Reader)**

**Unit II :-**

**Lessons 6 to 10**

**Unit III :-**

**Grammar Portions**

- 1) Al Mufrad wal- muthanna wal jam'
- 2) Huroof ul Jarr
- 3) Asmaa – ul Ishaarah.
- 4) Adawaatul Istifhaam
- 5) Ad Damaair – ul – Munfasilah Val Muthasilah
- 6) Al-Idaafah
- 7) Al Muftada wal khabar
- 8) As-sifatu wal mausoof
- 9) Al mudhakkar wal muannath
- 10) Asmaa-ul-mausool

**Unit IV :-**

**Lessons 11 to 15**

**Unit V :-**

**Lessons 16 to 20**

**TEXT BOOKS**

- 1) Duroosul Lughatil Arabiya Part – I (Reader) - Lessons 1 to 20 only by Dr.V. Abdur Rahim. Available at Islamic foundation Trust, 78 Perambur High Road , Perambur, Chennai- 600 012.
- 2) An-Nahwul Waadih Ibtidayee – Part I (Grammar, selected topics only) by Ali Al-jaarim and Mustafa Ameen. Available at Hilal Book House , Tirurkad, Angadipuram, Kerala.

Semester - II			
<b>PAPER-II</b>	<b>APPLIED GRAMMAR AND TRANSLATION-II</b>	<b>15UARL 21</b>	
<b>Hrs/ Week: 6</b>	<b>Hrs/ Sem: 90</b>	<b>Hrs/ Unit: 18</b>	<b>Credits: 3</b>

**Unit I :-**

**Lessons 1 to 3 (Reader)**

**Unit II :-**

**Lessons 4 to 7**

**Unit III :-**

**Grammar Portions**

- 1) Inna wa Akhavaatuha.
- 2) Ismut Tafleel
- 3) AlMali wal Mularee
- 4) Al-Amr wan Nahi
- 5) Al Fa-il
- 6) Al Maf-ool
- 7) Al-Asmaul Mausool
- 8) Taqseemu Fihl ila As-saheeh wal Muhtal
- 9) Ismul Mafool
- 10) Ismul Faa'il.

**Unit IV**

**Lessons 8 to 11**

**Unit V**

**Lessons 12 to 15**

**TEXT BOOKS**

1. **Duroosul Lughatil Arabiya** Part – II (Reader) Lessons 1 to 15 only by Dr.V. Abdur Rahim. Available at: Islamic foundation Trust, 78 Perambur High Road , Perambur, Chennai-600 012.
2. **An-Nahwul Waadih Ibtidayee** –Part I &II (Selected Grammar Portions only) by Ali Al-jaarim and Mustafa Ameen. Available at: Hilal Book House , Tirurkad, Angadipuram, Kerala.

**PART – II ENGLISH**  
**ONE – YEAR LANGUAGE COURSE**  
**B.Com., B.Sc. Computer Science, Information Technology, B.B.A.,**  
**B.Com, (C.A), B.C.A., and B.Com (Finance)**

<b>I SEMESTER</b>			
<b>EN1</b>	<b>PROSE, POETRY AND REMEDIAL GRAMMAR - I</b>		<b>15UENL11</b>
<b>Hrs/ Week: 6</b>	<b>Hrs/ Sem: 90</b>	<b>Hrs/ Unit: 18</b>	<b>Credits: 3</b>

**Objectives:**

1. To answer comprehensive questions on passages of moderate level of difficulty.
2. To analyse the prescribed prose pieces and to attempt a critical appreciation of the poems.
3. To write grammatically.

**UNIT I – PROSE**

1. Letter to a Teacher - Nora Rossi and Tom Cole (Trans.)
2. Spoken English and Broken English - George Bernard Shaw
3. Voluntary Poverty - M.K. Gandhi

**UNIT II – PROSE**

4. A Snake in the Grass - R.K. Narayan
5. The Civilization of Today - C.E.M. Joad
6. Kamala Nehru - Jawaharlal Nehru

**UNIT III – POETRY**

1. On His Blindness - John Milton
2. Upon Westminster Bridge - William Wordsworth
3. When I have Fears - John Keats

**UNIT IV – FUNCTIONAL GRAMMAR**

1. Articles and Nouns (Units 68-80 of Intermediate English Grammar)
2. Pronouns and Determiners (Units 81-90 of Intermediate English Grammar)

**UNIT V – FUNCTIONAL GRAMMAR**

3. Reported Speech (Units 46-47 of Intermediate English Grammar)
4. Questions and auxiliary verbs (Units 48-51 of Intermediate English Grammar)
5. 'ing' and the infinitive (Units 52-67 of Intermediate English Grammar)

**TEXTBOOKS:**

1. T. Srirama, Colin Swatridge. ed. College Prose and Poetry. TRINITY, New Delhi: Trichy, 1989 (rpt. 2014).
2. Raymond Murphy. ed. Intermediate English Grammar. New Delhi : Cambridge University Press, 1994 (rpt. 2006).

<b>II SEMESTER</b>			
<b>EN2</b>	<b>PROSE, POETRY AND REMEDIAL GRAMMAR - II</b>	<b>15UENL21</b>	
<b>Hrs/ Week: 6</b>	<b>Hrs/ Sem: 90</b>	<b>Hrs/ Unit: 18</b>	<b>Credits: 3</b>

**Objectives:**

1. To answer comprehensive questions on passages of moderate level of difficulty.
2. To analyse the prescribed prose pieces and to attempt a critical appreciation of the poems.
3. To write grammatically.

**UNIT I – PROSE**

- |                          |                       |
|--------------------------|-----------------------|
| 1. With the Photographer | - Stephen Leacock     |
| 2. Professions for Women | - Virginia Woolf      |
| 3. On Letter Writing     | - Alpha of the Plough |

**UNIT II – PROSE**

- |                               |                         |
|-------------------------------|-------------------------|
| 4. The Night the Ghost Got In | - James Thurber         |
| 5. The Donkey                 | - Sir. J.Arthur Thomson |
| 6. A Cup of Tea               | - Katherine Mansfield   |

**UNIT III – POETRY**

- |                           |                        |
|---------------------------|------------------------|
| 1. The Flower             | - Alfred Lord Tennyson |
| 2. Homage to a Government | - Philip Larkin        |
| 3. Obituary               | - A.K. Ramanujan       |

**UNIT IV – FUNCTIONAL GRAMMAR**

1. Present and Past (Units 1-6 of Intermediate English Grammar)
2. Present Perfect and Past ( Units 7-18 of Intermediate English Grammar)
3. Future (Units 19-22 of Intermediate English Grammar)

**UNIT V – FUNCTIONAL GRAMMAR**

4. Future (Units 23-25 of Intermediate English Grammar)
5. Modals (Units 26-36 of Intermediate English Grammar)
6. Conditionals and 'Wish' (Units 37-40 of Intermediate English Grammar)
7. Passive (Units 41-45 of Intermediate English Grammar)

**TEXTBOOKS:**

1. T. Srirama, Colin Swatridge. ed. College Prose and Poetry. TRINITY, New Delhi: Trichy, 1989 (rpt. 2014).
2. Raymond Murphy. ed. Intermediate English Grammar. New Delhi: Cambridge University Press, 1994 (rpt. 2006).

<b>B.SC (INFORMATION TECHNOLOGY) – CBCS SYLLABUS (2015 – 2016)</b>			
<b>PART III - CORE, CORE ELECTIVE &amp; PROJECT</b>			
<b>I SEMESTER</b>			
<b>C 1</b>	<b>C PROGRAMMING</b>		<b>15UITC11</b>
<b>Hrs / Week : 4</b>	<b>Hrs / Sem :4X15 60</b>	<b>Hrs / Unit : 12</b>	<b>Credits : 4</b>

## **UNIT I**

**Overview of C Language** History of C- C Fundamental : constants-variable- data types - character set – C tokens – identifiers- keywords - data types - Operators & Expressions- Managing Input & Output Operations.

## **UNIT II**

**Decision making & Branching** : Introduction – IF statement - IF-ELSE- Nesting of IF ELSE – ELSE IF LADDER – Switch- Conditional Operator – GOTO Statement

**Decision making & Looping** : Introduction – WHILE Statement – DO – FOR – Jumps In Loops

## **UNIT III**

**Arrays:** Introduction –One Dimensional Arrays- Declaration-Initialization-Two Dimensional Arrays -Initialization –Multi Dimensional Arrays.

**Functions** : Introduction – Need for User Defined Functions –A Multi Function Program – Elements of User Defined Functions – Definitions of Functions – Category of Functions.

## **UNIT IV**

**Structures & Unions** : Introduction – Defining a structures – Declaring Structure variables – Accessing Structure Members – Structure Initialization – Unions

**Pointers** : Introduction – Understanding Pointers – Accessing address of the variable – Declaring Pointer Variable - Initialization of pointer Variables – Pointers & Arrays.

## **UNIT V**

**File Management in C** : Introduction - Defining & Opening a File – Closing a File – Input / Output Operations & files– Random Access to File – Command Line arguments.

### **TEXT BOOK:**

Programming IN ANSI C 4E by E. Balagurusamy

### **REFERENCE BOOK :**

Programming With C – C. Ravichandran

<b>B.SC (INFORMATION TECHNOLOGY) – CBCS SYLLABUS (2015 – 2016)</b>			
<b>PART III - CORE, CORE ELECTIVE &amp; PROJECT</b>			
<b>I SEMESTER</b>			
<b>C 2</b>	<b>INTRODUCTION TO COMPUTERS</b>	<b>15UITC12</b>	
<b>Hrs / Week : 3</b>	<b>Hrs / Sem :3X15=45</b>	<b>Hrs / Unit : 9</b>	<b>Credits : 4</b>

### **UNIT I**

**Computers an Overview:** Introduction to computers – Five Generations of modern computers- Classification of Digital computer Systems.- **Inside the computer:** Anatomy of digital computer – Computer Architecture.

### **UNIT II**

**Number system & Boolean Algebra:** Number system – Boolean algebra and logic circuits. **Memory:** Memory units – Auxiliary Storage Devices Primary.

### **UNIT III**

**Input / Output:** Input devices - Output Devices – **Computer Software & Software Development:** Introduction to computer software - Operating systems - Programming languages.

### **UNIT IV**

**Data processing and Networking:** Data processing – Computer networks – Distributed data processing. **Telecommunications:** Introduction to Telecommunications. **Security:** Introduction to computer security – Cryptography - Computer Viruses, Bombs and worms.

### **UNIT V**

**Internet and Intranet:** Internet and world wide web – Introduction to Intranets. **Multimedia and virtual reality:** Introduction to Multimedia - Multimedia tools - Introduction to virtual reality.

### **TEXT BOOK :**

Alexis Leon and Mathews Leon. “Introduction to Computers” VIKAS publishing house Pvt Ltd, 1999.

### **REFERENCE BOOK:**

Alexis Leon, Fundamentals of Introduction System. Vijay Niicholas, Imprints Pvt. Ltd. 2004.

<b>B.SC (INFORMATION TECHNOLOGY) – CBCS SYLLABUS (2015 – 2016)</b>			
<b>PART III - CORE, CORE ELECTIVE &amp; PROJECT</b>			
<b>II SEMESTER</b>			
<b>C 3</b>	<b>OBJECT ORIENTED PROGRAMMING WITH C++</b>	<b>15UITC21</b>	
<b>Hrs / Week : 4</b>	<b>Hrs / Sem :4X15=60</b>	<b>Hrs / Unit : 12</b>	<b>Credit : 4</b>

### **UNIT I - Classes and objects**

Introduction- c structures revisited - specifying a class- defining member functions - a c++ program with class - Making an outside function inline - Nesting of member functions - Private member functions - Array within a class - Memory allocation for objects - Static data members - Static member functions - Array of objects - Object as function arguments - Friendly functions - returning objects.

### **UNIT II - Constructors and Destructors**

Introduction – constructors - parameterized constructors - multiple constructor in a class - constructor with default arguments - dynamic initialization of objects - copy constructor - dynamic constructors - constructing two - dimensional arrays - const objects - Destructors.

### **UNIT III - Operator overloading**

Introduction - defining operator overloading - overloading unary operators - overloading binary operators - overloading binary operators using friends - manipulation of strings using operators - rules for overloading operators.

### **UNIT IV - Inheritance: Extending classes**

Introduction - defining derived classes- single inheritance - making a private member inheritable - multilevel inheritance- multiple inheritance - hierarchical inheritance - hybrid inheritance - virtual base classes - abstract classes - constructors in derived classes- member classes: Nesting of classes.

### **UNIT V – Pointers & Working with files**

Introduction - pointers to objects - this pointer - pointers to derived classes- Introduction- classes for file stream operations - opening and closing a file - detecting End-of-file - more about open(): file modes - file pointers and their manipulations- sequential input and output operations- updating a file: Random Access - error handling during file operations - command-line arguments.

### **TEXT BOOKS:**

1. Object –Oriented Programming with C++ By E.Balagurusamy

### **REFERENCE BOOKS:**

1. Object – Oriented programming in Turbo C++ By Robert Lafore

B.SC (INFORMATION TECHNOLOGY) – CBCS SYLLABUS (2015 – 2016)			
PART III - CORE, CORE ELECTIVE & PROJECT			
II SEMESTER			
<b>C 4</b>	<b>DIGITAL PRINCIPLES AND ITS APPLICATIONS</b>	<b>15UITC22</b>	
<b>Hrs / Week : 3</b>	<b>Hrs / Sem :3X15=45</b>	<b>Hrs / Unit : 9</b>	<b>Credit : 4</b>

### UNIT I

**Logic Circuits:** Binary Number System neither OR Gates - AND Gates – Boolean algebra - NOR Gates NAND Gates. **Circuit Analysis and Design:** Boolean Laws and Theorem- Sum of Products method- Truth table to Karnaugh Map– Pairs, Quads, and Octets- Karnaugh simplification– Don't Care Conditions - Product-of sums method.

### UNIT II

**Data Processing Circuits:** Multiplexers – Demultiplexers-1-of-16 Decoder – BDC-to-decimal Decoders – Encoders – Exclusive-OR Gates.

### UNIT III

**Number Systems and codes :** Binary to Decimal conversion – Decimal to Binary conversion – Octal Numbers – Hexa Decimal Numbers- ASCII Code – The Excess 3 Code.

### Unit IV

**Arithmetic Circuits :** Binary Addition- Binary Subtraction–2'S Complement Representation - 2'SComplement Arithmetic – Arithmetic Building Blocks – The Adder – Subtractor. **Flip Flops:** RS Flip-Flops – D Flip-flops-JK Flip Flop- JK Master Slave Flip flop.

### UNIT V

**Shift Registers :** Types of Registers – Serial In-Serial Out – Serial In Parallel Out – Parallel In Serial Out – Parallel In Parallel Out. **Counters:** – Asynchronous Counter - Synchronous Counter - Shift Counters - Ring Counter- A Digital Clock.

### TEXT BOOK

1. Digital Principals and Applications –Albert Paul Malvino, Donald P Leach, Sixth Edition, The McGraw-Hill Publishing Companies Lmt - 2001

### Reference Book

1. Digital Computer Fundamentals , Thomas C. Bartee TMH 2007.
2. Digital Circuits and Design, S. Salivahanan and S. Arivazhagan , Vikas Publishers. 2005



<b>I &amp; II SEMESTERS</b>		
<b>CPI</b>	<b>INFORMATION TECHNOLOGY</b>	
	<b>CORE PRACTICAL I *</b>	<b>15UITC2P</b>
<b>Hrs / Week : 3</b>	<b>Hrs / Sem : 3X5 = 45</b>	<b>Credits : 3</b>

**\*Examination at the end of II Semester**

### **C PROGRAMMING PRACTICAL**

1. Program using If statement.
2. Program using while & do – while statement.
3. Program using switch statement.
4. Program using for statement.
5. Program using one dimensional array.
6. Program using two dimensional arrays.
7. Program using Functions.
8. Programs using Recursions.
9. Program using strings.
10. Program using Structure.
11. Program using file concepts.

### **C + + PROGRAMMING PRACTICAL**

1. Program to demonstrate all manipulators in C++.
2. Swap 2 Values
3. Evaluate an expression using macros ( Macrosinic & inline function C++)
4. Compare any 2 elementary data types in C++ using function overloading.
5. Find m power n values using default arguments.
6. Program to perform simple banking operation.
7. Write a program using operator overloading .
8. Programs using multiple inheritance, hybrid inheritance, hierarchical inheritance, multilevel inheritance.
9. Program using polymorphism and virtual functions.
10. Create and copy a text file to another.

III SEMESTER			
<b>C 5</b>	<b>OBJECT ORIENTED PROGRAMMING WITH JAVA</b>	<b>15UITC31</b>	
<b>Hrs / Week : 5</b>	<b>Hrs / Sem : 5x15=75</b>	<b>Hrs / Unit : 15</b>	<b>Credits :4</b>

## UNIT I

Introduction to Java – Features of Java – Java Development Environment –Simple programs – Java History and Feature – Java Development Kit (JDK) – Java Tokens – Java Statements – variables - Java Character set – Operators – Strings and StringBuffer.

## UNIT II

**Classes, Interfaces and Packages:** Conditional and Looping Statements - Classes – Objects -- Static members- Abstract and Final classes - Method Overloading – Method Overriding. - Wrapper Classes

## UNIT III

Constructor - Inheritance Extending classes– Interfaces and Inheritance - Final Variables and Methods—arrays – Packages and Interfaces.- Threads – Creating Threads – Life Cycle of Threads – Extending Thread Class – Accessing thread members.

## UNIT IV

**Exception Handling:** Error Handling and Exception Handling – Exception Types and Hierarchy – Try Catch blocks – Use of Throw, Throws and Finally – Programmer Defined Exceptions.

## UNIT V

**Applets and Graphics:** Fundamentals of Applets – Graphics. **AWT and Event Handling:** AWT components and Event Handlers – AWT Controls and Event Handling Types and Examples –Introduction. **Input and Output:** Files – Streams.

## TEXT BOOK

1. Programming with Java a primer 4/E ,E . Balaguruswamy, Mc.Graw Hill

## REFERENCE BOOKS

1. Programming with Java - C. Muthu

III SEMESTER			
<b>C6</b>	<b>SYSTEM ARCHITECTURE</b>	<b>15UITC32</b>	
<b>Hrs / Week : 5</b>	<b>Hrs / Sem : 5x15= 75</b>	<b>Hrs / Unit : 15</b>	<b>Credits : 4</b>

#### UNIT I

**Basic Computer Organization and Design :** Instruction Codes – Computer Registers – Computer Instructions – Timing And Control – Instruction Cycle – Design of Basic computer – Design of Accumulator logic. **Programming the basic Computer:** Introduction – Machine Language - Assembly Language - The Assembler – Program Loops- Subroutines.

#### UNIT II

**Central Processing Unit:** Introduction - General Register Organization – Stack Organization – Instruction Formats –Addressing Modes - Program Control – CISC, RISC Characteristics.

#### UNIT III

**Pipe Lines and Vector Processing:** Parallel Processing – Pipelining – Instruction Pipeline - Vector processing- Array Processors. Computer Arithmetic: Addition and Subtraction – Multiplication Algorithms – Division Algorithms.

#### UNIT IV

**Input output organization:** Input Output Interface – Asynchronous Data Transfer- Modes of Transfer- Priority Interrupt- Direct Memory Access- Input output Processor- Serial Communication.

#### UNIT V

**Memory Organization:** Memory Hierarchy - Main Memory - Auxiliary Memory - Associative Memory - Cache Memory - Virtual Memory. **Multiprocessor :** Interprocessor Communication and Synchronization.

#### TEXT BOOK :

M. Morris Mano - Computer System Architecture - Third Edition

#### REFERENCE BOOK:

S.Salivahanan and S.Arivalagan Digital Circuits and Design, Vikas Publishing House Pvt. Ltd,2005

III SEMESTER			
<b>C7</b>	<b>DATA STRUCTURES</b>	<b>15UITC33</b>	
<b>Hrs / Week : 5</b>	<b>Hrs / Sem : 75</b>	<b>Hrs / Unit : 15</b>	<b>Credits :4</b>

#### **Unit 1:**

Basics of Data Structures: Basic data types-linear,non linear-pseudo code-algorithm efficiency-List searches-Sequential,binary-Hashed list searches.

#### **Unit 2:**

Lists: Linear List Concepts – Linked list Concepts - Definition representation, operations, implementation and applications – Types of linked List - singly, doubly and circular linked lists. Implementation of stack and queue using linked lists.

#### **Unit 3:**

Stacks and Queues: Stacks- Definition, representation, operations, static implementation and applications of stack.

Queues:Definition, representation, operations, static implementation and applications of queue, circular queue, priority queue.

#### **Unit 4:**

Trees: Basic tree Concepts –Binary Trees- Binary Tree Traversals-DFS, BFS –Expression Trees - Binary search tree - AVL trees- B tree-B+ tree and their applications.

#### **Unit 5:**

Sorting Concepts: General Sort Concepts- Insertion sort- Selection Sort – Exchange Sort –External Sort.

Graphs: Terminology –Operations – Graph Storage Structures – Graph Algorithms –Networks.

#### **Text Books:**

Data Structures- A Pseudocode Approach with C – Richard F. Gilberg and Behrouz A. Forouzon 2<sup>nd</sup> Edition

#### **Reference books:**

1. Data Structures Using C-A.M. Tanenbaum, Y.Langsam.
2. Seymous Lipshutz, Scharms Outlines Data Structures, Mc Graw Hill publishing.

IV SEMESTER			
<b>C 8</b>	<b>WEB DESIGNING LANGUAGES</b>	<b>15UITC41</b>	
<b>Hrs / Week : 5</b>	<b>Hrs / Sem : 75</b>	<b>Hrs / Unit : 15</b>	<b>Credits : 4</b>

#### **Unit I:**

Introduction to HTML-History of HTML, HTML Document, Anchor Tag, Hyper Links. Head and body sections-Header section-Title, Prologue, Links, Colorful Web Page, Comment Lines. Designing body section-Heading printing, Aligning the headings, Horizontal rule, Paragraph, Tab Settings.

#### **Unit II:**

Lists, Unordered Lists, Ordered Lists, Table Handling. Frames: Frameset definition-Nested Framesets-Forms-Action Attribute-Drop Down list-Check Boxes-Radio Buttons-Text Field-Text Area-Password-Hidden-Submit and Reset Buttons.

#### **Unit III:**

XML Basics- Getting a Global Perspective- Reviewing XML Validating and Nonvalidating Parsers-Saying "Hello World" in XML-Chapter 4: Organizing XML Data-Creating Well-Formed XML- Adding Attributes- XML Namespaces- Working with DTD- Validating Your XML Documents- Defining DTD Entities-Working with Attributes- Adding Other Data.

#### **Unit IV:**

Adding Style:When to Use Style Sheets- CSS Basics- CSS: The Next Step-XSL Basics-XSL Transformations-XSL: Completing Your Application-Using Schemas-Introducing Schemas-Schema Elements, Types, and Groups-Defining Schema Attributes.

#### **Unit V:**

Using XML Query:Introducing XML Query-Xlinks-Using Xpointer-Resource Description Framework-XML in Action-XHTML-Manipulating XML with JavaScript-Collecting and Writing Data with CGI.

#### **Text Books:**

1. C.Xavier, World Wide Web Design with HTML, Tata McGraw-Hill Publishing.
2. Heather Williamson, "The Complete Reference in XML", First edition, Tata McGraw hill publication.

IV SEMESTER			
<b>C 9</b>	<b>MODERN OPERATING SYSTEMS</b>	<b>15UITC42</b>	
<b>Hrs / Week : 5</b>	<b>Hrs / Sem : 75</b>	<b>Hrs / Unit : 15</b>	<b>Credits : 4</b>

#### **Unit 1**

**Introduction :** Mainframe Systems- Desktop Systems- Multiprocessor System- Distributed Systems- Clustered Systems- Real Time Systems- Handheld Systems- Feature Migration- Computing Environments

#### **Unit 2**

**Process:** Process Concept- Process Scheduling- Operations on Processes- Cooperating Process- Interprocess Communication- Communication in client Server Systems

#### **Unit 3**

**Process Synchronization:** The Critical section problem- Synchronization Hardware- Semaphores- Classical problems of Synchronization- Critical Regions- Monitors- OS Synchronization- Atomic Transactions-Deadlocks

#### **Unit 4**

**Memory Management:** Swapping- Contiguous Memory allocation- Paging- Segmentation- Segmentation with Paging

**Virtual Memory :** Demand Paging- Process Creation- Page Replacement- Allocation of Frames- Thrashing

#### **Unit 5**

**File System Interface :** File Concept- Access Methods- Directory Structure- File System Mounting- File Sharing- Protection.

**File System Implementation :** File System Structure- File System Implementation- Directory Implementation- Allocation Methods- Free Space Management- Efficiency and performance- Recovery

#### **TEXT BOOK :**

1. Operating System Concepts- Silberschatz and Peter B. Galvin Addison Wesley Publishers Sixth Edition.

#### **REFERENCE BOOKS :**

1. Operating Systems - Milan Milenkovic- Tata Mcgraw – Hill Publishing Edition – Second Edition.
2. Systems Programming And Operating Systems - Dhamdhere- Tata Mcgraw – Hill Edition.

IV SEMESTER			
<b>C 10</b>	<b>COMPUTER NETWORKS</b>	<b>15UITC43</b>	
<b>Hrs / Week : 5</b>	<b>Hrs / Sem : 75</b>	<b>Hrs / Unit : 15</b>	<b>Credits : 4</b>

### Unit I

**Introduction - Uses of computer networks :** business applications-home applications-mobile users- **Network Hardware:** LAN-MAN-WAN-wireless networks- **Network Software:** protocol hierarchies- Design Issues for the Layers - Connection oriented and connection less services- **Reference model :** OSI reference model – TCP/IP Reference Model

### Unit II

**The Physical Layer - Guided Transmission media:** Magnetic Media-Twisted Pair-Coaxial Cable-Fiber Optics. **Wireless Transmission:** The Electromagnetic Spectrum – Radio Transmission. **Communication Satellites:** Geostationary Satellites. **The Public Switched Telephone Network:** Switching. **The Mobile Telephone System:** First Generation Mobile Phones (Analog Voice) – Second Generation Mobile Phones (Digital Voice).

### Unit III

**The Data Link Layer - Data Link Layer Design Issues :** Services Provided to the Network Layer – Framing – Error Control – Flow Control. **Sliding Window Protocols :** A One-Bit Sliding Window Protocol – A Protocol Using Go Back N - **The Network Layer - Network layer design issues - Routing Algorithm:** Shortest path Routing- Flooding - Distance vector routing-Broad cast routing-Multi cast routing- **Quality of service:** Integrated services-Differentiated services-The **Network Layer in the Internet:** The IP Protocol- IP addresses-Mobile IP.

### Unit IV

**The Transport Layer - The Transport services:** Service provided to the upper layer-**Elements of Transport Protocols:** Addressing-Flow control and buffering -Multiplexing- **The Internet Transport protocols:** UDP:-Introduction-Remote procedure call- **TCP:-**Introduction-TCP Service model-TCP protocol- TCP Segment header-TCP Timer management-Wireless TCP & UDP-Transactional TCP.

### Unit V:

**The Application Layer - Domain name system:** DNS namespace- Name servers-**Electronic Mail:** Architecture and services-User Agent-Message format and transfer-Final delivery-**The World Wide Web:** Architectural overview-Static and Dynamic Web documents-HTTP- TheWireless Web-**MultiMedia:** Introduction to digital audio-Audio compression- streaming audio-Introduction to video-video compression. **Network Security :** Cryptography - Communication Security.

### TEXTBOOK:

Computer Networks- Fourth Edition: Andrew S. Tanenbaum, Prentice Hall of India Pvt Ltd. 2005.

### REFERENCE BOOK :

Computer Networks – Fundamentals and applications – R.S . Rajesh and R. Balasubramanian, K.S Easwarakumar, Vikas Publications, New Delhi

<b>III &amp; IV SEMESTER</b>		
<b>CPII</b>	<b>CORE PRACTICAL</b>	<b>15UITC4P</b>
<b>Hrs / Week :3</b>	<b>Hrs / Sem : 45</b>	<b>Credits : 3</b>

### **OBJECT ORIENTED PROGRAMMING WITH JAVA**

1. Program to find the sum of digits of a given number
2. Program to create String object and working with String function
3. Program to read N numbers in array and Find the largest and Smallest Numbers
4. Program using class and objects
5. Program to find area of rectangle, circle and squarer using method overloading
6. program using Multi\_Level inheritance
7. Program to show how a class implements two interfaces.
8. Program to catch more than one exceptions.
9. Program to create user\_defined exception.
10. Program using threads.
11. Program using Packages.
12. Program to copy a text file into another text file
13. Create an applet to draw different shapes.
14. Create an applet to move an object.
15. Create an applet to calculate simple interest

### **AND**

### **WEB SERVICES PRACTICAL**

1. Design a simple web page using HTML.
2. Design a web page in HTML using hidden fields.
3. Design a web page in HTML using frames.
4. Design a web page in HTML using list.
5. Design a web page in HTML using tables.
6. Design a web page in HTML using forms
7. Design a simple XML documents.
8. Design a web page in XML using CSS.
9. Design a web page in XML using XSLT.
10. Design a web page in XML using XPath.
11. Design a web page in XML using XLink.
12. Design a web page in XML using Internal DTD.
13. Design a web page in XML using External DTD.
14. Design XML page using Entities.
15. Design XML page using javascript.



V SEMESTER			
C 11	GUI DESIGN WITH VB	15UITC51	
Hrs / Week : 6	Hrs / Sem : 90	Hrs / Unit : 18	Credits : 5

### UNIT I

**Integrated Development Environment (IDE) And Forms:** Introducing Visual BASIC – Learning the IDE Features – Working with Forms: The Anatomy of a Form – Working with Form Properties – Tweaking a Form's Properties – Introducing Form events – Introducing Form methods – Working with Multiple Document Interface (MDI) Forms.

### UNIT II

**Logic And Program Flow, Data Types:** Understanding Logical operators – Making comparisons – Evaluating Conditions in code – Performing repetitive tasks. Introducing variables – Arrays – Constants.

### UNIT III

**Selecting And Using Controls:** Introducing Controls – Command Buttons – Text Boxes – Labels – Option Button – Check Boxes – Frame Controls – List Boxes- Combo Boxes – Image objects – Picture objects Timers – Scroll Bars – Drive Lists – Directory List Boxes – file List Boxes.

### UNIT IV

**Modules, classes, Menus, And Tool Bars:** Introducing Code Modules and Classes – Creating a code Library – Working with sub procedures – Working with Function procedures – Using Private and public sub procedures. Understanding the Menu Object – Creating a menu with the Menu.

### UNIT V

**Storing and Retrieving Data, Dialog Boxes:** Working with ASCII Files – Data controls – Understanding the Anatomy of a database – Creating data bases with Visual Data Manager – Creating a Data base Table – Data Grid Control- Creating a Query – Modifying a table – DAO- RDO – ADO – Data reports.

### TEXT BOOK:

1. Visual BASIC 6 In Record Time – Steve Brown \_ bpb Publication.

### REFERENCE BOOK:

1. Visual BASIC 6 – Paul Sheriff – PHI
2. The Complete Reference Visual BASIC 6 – Nole Jerke – TATA McGRAW – HILL Edition

V SEMESTER			
<b>C 12</b>	<b>SOFTWARE ENGINEERING</b>	<b>15UITC52</b>	
<b>Hrs / Week : 5</b>	<b>Hrs / Sem : 75</b>	<b>Hrs / Unit : 15</b>	<b>Credits : 5</b>

## UNIT I

**Introduction :** What is Software Engineering – Software Process –software Process model – software engineering methods. CASE Computer Based System Engineering System properties – system environment – system modeling – system engineering process – system requirements – system design – system evolution – system decommissioning – system procurement. Software processes: Software Process models: Process iteration - Software Specification – design and implementation – Software validation – Software Evolution – automated process support.

## UNIT II

**Project Management :** Project Management :Management activities – Project Planning – Project Scheduling - Risk management. Software requirement : Functional and non-functional requirements – user Requirements – system requirements – Software requirements document. System Models – Context models – Behavioural models – data models – Object models – CASE workbenches.

## UNIT III

**Software Prototyping :** Prototyping in the software process – Rapid prototyping techniques – user interface prototyping .Architectural Design - System structuring – Control models – Modular decomposition – domain specified architecture.

## UNIT IV

Object oriented design: Object and object classes – An object oriented design process – design evolution. Real time software - System design – real-time executives – monitoring and control systems – data acquisition systems. User Interface design: User Interface design – User interaction – information presentation – user support – interface evaluation. Verification and Validation: Verification and Validation planning – Software inspections.

## UNIT V

Automated static analysis – clean – room software development . Software testing: Defect testing – Integration testing – Object oriented testing – Testing workbenches. Software cost estimation: Productivity – Estimation techniques – Algorithmic cost modeling – Project duration and staffing. Quality management: Quality assurance and standards – Quality planning – Quality control – Software measurement and metric.

**TEXT BOOK :** Software Engineering , IAN SOMMERVILLE , 6<sup>th</sup> Edition ,Pearson Education Asia Chapters 1 to 5,7,8,10,11,12,13,14,15,19,20,23,24.

**REFERENCE BOOK :**Software Engineering Theory and Practices, Shari Lawrence Pfleeger, 2<sup>nd</sup> Edition, Pearson Education Asia.

<b>V SEMESTER</b>			
<b>C 13</b>	<b>MOBILE COMPUTING</b>	<b>15UITC53</b>	
<b>Hrs / Week : 5</b>	<b>Hrs / Sem : 75</b>	<b>Hrs / Unit : 15</b>	<b>Credits : 5</b>

## **UNIT I WIRELESS COMMUNICATION FUNDAMENTALS**

Introduction – Wireless transmission – Frequencies for radio transmission – Signals – Antennas – Signal Propagation – Modes of propagation- line of sight transmission– Multiplexing – Modulations – Spread spectrum– TDMA – Cellular Wireless Networks.

## **UNIT II TELECOMMUNICATION NETWORKS**

Telecommunication systems – GSM – GSM architecture-GPRS – DECT – Satellite Networks - Basics –Broadcast Systems – DAB - DVB.

## **UNIT III WIRELESS LAN**

Wireless LAN – IEEE 802.11 - Architecture – services – MAC – Physical layer – IEEE 802.11a - HIPERLAN – Blue Tooth.

## **UNIT IV MOBILE NETWORK LAYER**

Mobile IP – Tunneling and Encapsulation– Reverse Tunneling-Dynamic Host Configuration Protocol –Ad-hoc Networks- Routing – DSDV – DSR – Alternative Metrics.

## **UNIT V TRANSPORT AND APPLICATION LAYERS**

Traditional TCP – Congestion Control- Mobility- Indirect TCP-Snooping TCP- Mobile TCP-WAP-WAP Specification-Wireless Datagram, Transaction, Session Protocol .

### **TEXT BOOKS**

1. Jochen Schiller, “Mobile Communications”, PHI/Pearson Education, Second Edition, 2003. (Unit I Chap 1,2 &3- Unit II chap 4,5 &6-Unit III Chap 7.Unit IV Chap 8- Unit V Chap 9&10.)

### **REFERENCES**

1. William Stallings, “Wireless Communications and Networks”, PHI/Pearson Education, 2002. (Unit I Chapter – 7&10-Unit II Chap 9)
2. Kaveh Pahlavan, Prasanth Krishnamoorthy, “Principles of Wireless Networks”, PHI/Pearson Education, 2003.
3. Uwe Hansmann, Lothar Merk, Martin S. Nicklons and Thomas Stober, “Principles of Mobile Computing”, Springer, New York, 2003.

V SEMESTER			
<b>CE 1 A</b>	<b>ORACLE</b>	<b>15UTE5A</b>	
<b>Hrs / Week : 5</b>	<b>Hrs / Sem : 75</b>	<b>Hrs / Unit : 15</b>	<b>Credits : 6</b>

## UNIT I

Introduction to oracle server -data dictionary-table Space and data files -data blocks -extents and segments - Structure of Relational Databases – The Relational Algebra – The Extended Relational – Algebra operations – Modification of Database.

## UNIT II

Data types –constraints-creating and maintaining tables –DDL –DML – arithmetic operators-logical operators-relational operators-other comparison operators.

## UNIT III

Working with tables: function and grouping-built-in functions- character functions – numeric functions – data functions – other functions – conversion functions – nested function – group function-grouping data-having clause- Multiple tables: joins-set operations.

## UNIT IV

Index – sequence – view – users – privileges and roles – synonyms.

## UNIT V

PL/SQL: PL/SQL –control structures- triggers – stored procedures and functions – packages – cursors –Exception handling- transactions

## TEXT BOOK :

1. Database system using oracle – Nileshshah  
Chapter 4 to 7, 10 to 12 and 14.

## REFERENCE BOOK :

1. Jose. A. Ramalho – Learn Oracle, B.P.B Publications.
2. Alex Leon, Database Management System

<b>V SEMESTER</b>			
<b>CE 1B</b>	<b>C # PROGRAMMING</b>	<b>15UTE5B</b>	
<b>Hrs / Week : 5</b>	<b>Hrs / Sem : 75</b>	<b>Hrs / Unit : 15</b>	<b>Credits : 6</b>

## **UNIT I**

Introduction to .NET Framework – Comparing C# to C++ - Comparing C# to Java – How to write a Program in C#

## **UNIT II**

Variable Types: Value Types – Reference Types –Escape sequences and verbatim Strings – Boxing Pointers : Pointer Notation – unsafe code – Pointers, Methods and Arrays . Arrays : Single Dimension Arrays- Rectangular Arrays – Jagged Arrays

## **UNIT III**

Enumerations – Operators – Overloading Operators – Loop Statements : while, do while, for, fore ach statements – Jump Statements – Selection Statements

## **UNIT IV**

Classes and Types – Inheritance – abstract Classes and Interface – Nested Classes – Structs – Namespaces – Class Atributes – Class Modifiers – Method Attributes and Modifiers – Formal parameters – Passing parameters – Method Overloading –Polymorphism : Method overloading, Method overriding – Constants , fields, Indexes and properties

## **UNIT V**

Delgate Declaration and Instantiation- Events – Exceptions – Preprocessor Directivies – C# Documentation Comments – Generating c# Documentation

## **TEXT BOOK :**

- 1 Programming in c# - Balagurusamy E 2007 Mcgraw Hill Education Ltd.

VI SEMESTER			
<b>C 14</b>	<b>COMPUTER GRAPHICS USING C</b>	<b>15UITC61</b>	
<b>Hrs / Week : 6</b>	<b>Hrs / Sem : 90</b>	<b>Hrs / Unit : 18</b>	<b>Credits : 5</b>

#### **UNIT I:**

Introduction to computer Graphics - Video display devices- Raster scan Systems - Random Scan Systems - Interactive input devices - Hard copy devices - Graphics software

#### **UNIT-II**

Output primitives - line drawing algorithms - initializing lines - line function - circle Generating algorithms-Ellipse-Generating algorithms.

#### **UNIT- III**

Two-dimensional Geometric Transformation: Basic transformation-Matrix Representations and Homogeneous coordinates-Composite Transformations-other Transformations.

#### **UNIT-IV**

Two - dimensional viewing - window- to view port co-ordinate transformation-Two dimensional Viewing functions-Clipping operations-point clipping-line clipping-polygen and curve clipping.

#### **UNIT- V**

Three - dimensional concepts - Three dimensional display methods - parallel Projection - Perspective Projection - Depth Cueing - Visible line and surface identification - Three dimensional transformations.

#### **Text Book :**

D.Hearn and M.P.Baker - Computer Graphics (C version) - Pearson Education.

#### **Reference Book:**

W.M. Newman and RF.Sproull - Principles of Interactive Computer Graphics - McGraw Hill International Edition - 1979.

VI SEMESTER			
<b>C 15</b>	<b>MOBILE APPLICATION AND DEVELOPMENT</b>	<b>15UITC62</b>	
<b>Hrs / Week : 5</b>	<b>Hrs / Sem : 75</b>	<b>Hrs / Unit : 15</b>	<b>Credits : 5</b>

### **UNIT-I**

Introduction to Android – What is Android – Advantages of Android – Preparing of Liftoff: Java – Eclipse – Android – SDK. – Android Development Environment: Installing Java, Eclipse and Android – updating the Android SDK: Setting up AVDs and Smart Phone Connections – Developing on 64 Bit Computing Platforms

### **UNIT-II**

Introducing the Android Software Development Platform: Understanding Java SE and the Dalvik Virtual Machine – The directory Structure – Android XML and Android Application Resources – Launching Application: Android Manifest.XML – Creating your first Android Application – Android Frame work Overview – Foundation of OOPS – Overview of XML – The APK File – Android Application Components – Android Intent Objects – Android Manifest XML

### **UNIT-III**

Screen Layouts Design: Views and Layouts – Android view Hierarchical – Defining Screen Layouts using XML – UI Design: Buttons, Menus, Dialogs – Using Common UI Elements – Using Menus in Android – Adding Dialogs

### **UNIT-IV**

An Introduction to Graphic Resources in Android: Introducing the Drawables – Using Bitmap Images in Android – Creating Animation in Android – Using Transitions – Creating 9-Patch Customs Scalable Images – Playing Video in your Android Apps - Adding Interactivity: Handling UI events - An overview of UI events in Android – Handling Onclick events

### **UNIT-V**

In understanding content providers: An overview of Android Content Providers – Defining a Content Providers – Working with a Database – Understanding Intents and Intent Filters – What is an Intent – Android Intent Messaging via Intent Objects – Intent Resolution: Implicit Intents and Explicit Intents – Using Intents with Activities – Android Services – The Future: Widgets – Location Basis Services in Android – Google Maps in Android – Google Search in Android – Data Storage in Android

### **TEXT BOOK :**

Android Apps for Absolute Beginners 2<sup>nd</sup> Edition by Wallace Jackson, A press

### **REFERENCE BOOKS :**

1. Professional Android Open Accessory Programming with Arduino by Andreas Goransson, David Cuartielles Ruiz
2. Enterprise Android Programming Android Database Application for the Enterprise by Zigurd Mednieks, G.Blake Meike, Laird Dornin, Zane Pan

VI SEMESTER			
C16	PROJECT		15UITP61
Hrs / Week : 5	Hrs / Sem : 90	Hrs./Unit:15	Credits : 5

### OBJECTIVES :

At the end of the semester the students should be able to:

1. Identify the potential areas of interest in his/her field;
2. Collect data from various sources including the internet, analyse them, make new connections and link them to life;
3. Read and write originally and usefully.

### GUIDELINES :

1. The project may be done individually or in groups **not exceeding five per group.**
2. The minimum length of the project should be 30 pages in A4 size.
3. The project may not be experimental oriented
4. Project should be cheap within the expense of students limit.
5. It can be of survey method.
6. Marks for the project report will be 100 divided as **60% for the presentation of project and 40% for viva-voce.**

### Evaluation scheme:

The project will be evaluated by both Internal and External Examiners. Each Examiner will evaluate for 100 marks. The allocation of marks for project is as follows:

Project	Internal	External
Word of title	5	5
Objectives / Formulation including Hypothesis	5	5
Review of literature	10	10
Relevance of project to social needs	5	5
Methodology / Technique / Procedure adopted	20	20
Summary / Findings / Summation	5	5
Works cited / Annexure / Footnotes	10	10
<b>Total</b>	<b>60</b>	<b>60</b>



<b>V &amp; VI SEMESTERS</b>		
<b>CP III</b>	<b>CORE PRACTICAL III</b>	<b>15UITC6P1</b>
<b>Hrs / Week : 3</b>	<b>Hrs / Sem : 45</b>	<b>Credits : 3</b>

### **VISUAL BASIC**

- 1.Create a calculator that can add, subtract, multiply and divide two numbers given by the user.
2. Write a program to convert inches to centimetres OR centimetres to inches (using the conversion 1 inch = 2.54 centimetres).
- 3.Program to animate a Picture.
- 4.Program to create Menu.
- 5.Program to manipulate and formatting a text
- 6.Program to pick a color from color dialog box
- 7.Program to create a Stop watch using Timer Control
- 8.Program using String function
- 9.Program using Common Dialog Control
- 10.Program using Modules and Function.
- 11.Program to Save the content of list box in a file
- 12.Viewing Records using Database controls
- 13.Adding records to the database
- 14.Display the information in the report form.
- 15.View and edit data using Data Grid control.

<b>V &amp; VI SEMESTERS</b>		
<b>CP IV</b>	<b>CORE PRACTICAL IV</b>	<b>15UITC6P2</b>
<b>Hrs / Week : 3</b>	<b>Hrs / Sem : 45</b>	<b>Credits : 3</b>

### **COMPUTER GRAPHICS USING C**

1. Program to draw line using Bresenham's Algorithm
2. Program to draw circle using Bresenham's Algorithm
3. program to draw an object and fill it using various styles
4. program using any filling algorithm
5. program to use transformations
6. program to draw a natural scenery
7. program to animate an object
8. program to draw text in various styles
9. program to scroll a text
10. program to clip a line

<b>VI SEMESTER</b>			
<b>CE 2 A</b>	<b>ASP .NET</b>	<b>15UTE6A</b>	
<b>Hrs / Week : 5</b>	<b>Hrs / Sem : 75</b>	<b>Hrs / Unit : 15</b>	<b>Credits : 6</b>

### **UNIT I**

The .NET framework – The .NET programming framework – VB.NET , C#, and the NET language – the common language runtime – the .NET class library – ASP .NET – visual studio .NET

Learning the .NET language – Data types – declaring variables – scope and accessibility – variable operations – object based manipulation – conditional structures – loop structures – functions and subroutines

### **UNIT II**

ASP .NET Applications – ASP .NET Applications – code behind the global ASP application file – understanding ASP .NET classes – ASP .NET configuration

Web form fundamentals – a simple page Applet – improving the currency converter – a deeper look at HTML control classes – the page class – assessing HTML server controls.

### **UNIT III**

Web controls – stepping up to web controls – web control classes – auto post back and web control events – a simple web page applet – assessing web controls

Using visual studio .NET – the promise of Visual Studio .NET – starting a visual studio .NET project – the web form designer – writing code – visual studio .NET debugging – working without Visual Studio .NET

### **UNIT IV**

State management – the problem of state – view state – transferring Information – custom cookies – session state – session state configuration – application state.

Tracing and logging – logging exceptions – error pages – page tracing

### **UNIT V**

Component based programming – why use components – creating a simple component – properties and state – database components – a simple database component using COM components

### **TEXT BOOK :**

1. The complete reference ASP .NET , Mathew Macdonald, TMH 2002

### **REFERENCE BOOK :**

1. Microsoft ASP. NET Step by step , G. Andrew Duthie, PHI

VI SEMESTER			
CE 2B	PHP		15UTE6B
Hrs / Week : 5	Hrs / Sem : 75	Hrs / Unit : 15	Credits : 6

### Unit – I

Introduction: PHP History – Unique Feature – Writing and running the script – Mixing PHP with HTML – Variables and operators: Assigning values to variable – Destroying and inspecting variable content – PHP Data Types - Manipulating variable with operators.

### Unit – II

Controlling program flow: writing simple conditional statements – if – if else – if else if -Switch case Repeating action with loops: while – do while – for loops – String functions – Numeric function.

### Unit – III

Working with Array: Storing data in Array – Assigning Array values – Nesting Arrays – for each loop – Array functions –Generating Date and Time – Format Date and Time – Date and Time functions.

### Unit – IV

Functions: Creating and invoking function – using arguments and return values - Cookies: Basics – Attributes – Headers – setting , reading and removing cookies – Session: Basics – Creating and removing sessions – Handling scripting Errors.

### Unit – V

Working with database and SQL: Database, records, primary and foreign key - SQL statements – Creating database – Adding Tables – Adding Records – Executing Queries – modifying and removing records – Retrieving Data – Returning data as array and object.

### Text Book:

PHP A Beginner's Guide – Vikram Vaswani – Tata Mc Graw Hill .

<b>V &amp; VI SEMESTERS</b>		
<b>CEP A</b>	<b>CORE ELECTIVE PRACTICAL</b>	<b>15UTE6AP</b>
<b>Hrs / Week : 3</b>	<b>Hrs / Sem : 45</b>	<b>Credits :3</b>

### **ORACLE PRACTICAL**

1. Creating, modifying and dropping tables.
2. Creating tables with referential and check constraints.
3. Inserting, modifying, deleting rows.
4. Dropping, disabling / enabling constraints.
5. Retrieving rows with operators in where clause.
6. Retrieving rows with Character functions.
7. Retrieving rows with Number and Data functions.
8. Retrieving row with Group functions and HAVING.
9. Joining Tables (Inner and Outer)
10. Simple PL/SQL Programs.
11. PL/SQL programs with control structures.
12. PL/SQL programs with procedures
13. PL/SQL programs with Cursors.
14. PL/SQL programs with Exception Handling.
15. Working with Triggers
16. Creating a View

### **ASP.NET**

- 1) A. Create a page in ASP.Net using VB.Net or C#, to choose a color from drop-down-list and display a message “you have chosen ‘color name’ ” in same color that you choose. Also add a color toolbox on the form to add color to button.  
B. Create a page in ASP.Net using VB.NET or C# that takes name and message from the user and choose a color by radio button, select a style for ex.-bold, italic, underline from the checkbox and display in label control, when you clicked on display button. And clear the information when you clicked on clear button
- 2) Create a page in ASP.Net using VB.NET or C# that take a student name from the user, add that name in list-box control. And delete the chosen name from the list-box.
- 3) Create a page in ASP.Net using VB.NET or C#, to calculate compound interest. Take a compound frequency from drop-down-list. For example-Annual value-1, quaterly value-4, monthly value-12, daily value-365.  
Formula:  $Temp = (1 + rate/period)$   
Result = Principal amount + Pow (Temp, (year\*period))
- 4) Create a page in ASP.Net using VB.NET or C#, for book sales. Enter the quantity, title and price of the book. Calculate the extended price, discount (15%) and after discount, the actual price of the book. Show the summery of book sales. (Like total no of books, total discount given, total discounted amount and average discount.) You will need command buttons- calculate, clear sale.
- 5) Create a page in ASP.Net using VB.Net or C#, using HTML Server controls that take user name, address, and city, state and country name from the user and display it.

- 6) Create a page in ASP.Net using VB.Net or C#, using HTML Server controls that convert given currency into another selected currency. For that you need a drop-down-list.
- 7) Create a page in ASP.Net using VB.NET or C#, which generate a greeting card and display a greeting message in selected font. For that you need a drop-down-list for font selection.
- 8) Create a page in ASP.Net using VB.NET or C# that take Name, Password, Email add. & age from the user. Put appropriate validation. Show the summary of invalid validation.
- 9) Create a page in ASP.Net using VB.NET or C# to create a custom validation control that check even number.
- 10) Create a page in ASP.Net using VB.NET or C# that displays registration form. Fields are First Name, Last Name, Email, Password, repass, Age (dd-mm-yyyy), Ph. No., address, city, with appropriate validation controls such as email validation, city to choose from combo box options.
- 11) Create a page in ASP.Net using VB.NET or C# that takes no. of rows and columns from the user and make a table using Grid Control.
- 12) Design a database component for Account maintenance. The component should handle the following functionality Adding and Updating Account.
- 13) Create a page in ASP.Net using VB.NET or C#, to add a list box control to a Web forms page through coding which prompts for adding or deleting Name of fruits through indexing. The listbox control properties should be user defined i.e. color, font etc. of the list box control.

V & VI SEMESTERS		
<b>CEP B</b>	<b>CORE ELECTIVE PRACTICAL</b>	<b>15UTE6BP</b>
<b>Hrs / Week : 3</b>	<b>Hrs / Sem : 45</b>	<b>Credits :3</b>

### **C # PROGRAMMING PRACTICAL**

1. Find Maximum of an Array.
2. Find Factorial of a number using recursion.
3. Write a program to generate Fibonacci series for a given number.
4. Create a class with your own attributes and with suitable constructor and method to display the details of a Television Set.
5. Write a C# Program to evaluate the following function values

$$\begin{aligned}
 f(x) &= x^2 + \sin 2x & \text{if } x < 3 \\
 &= 10.3 & \text{if } x = 3 \\
 &= x^3 - \cos 3x & \text{if } x > 3
 \end{aligned}$$

6. Write a program to check whether a given integer is a prime number.
7. Write a program to calculate the value of Sin(x), Cos(x) and  $e^x$
8. Write a program to add, subtract and multiply two matrices.
9. Define a class with certain attributes. Write a C# program to throw user defined Exception.
10. Write a program to copy contents of a file to two different destinations using command line input.

### **PHP PRACTICAL**

1. Write a PHP code using if else statement.
2. Write a PHP code using while loop.
3. Write a PHP code to print the multiplication table.
4. Write a PHP code using string and numeric functions.
5. Write a PHP code using numeric function.
6. Write a PHP code using array functions.
7. Design a HTML form using HTML Control and write a PHP code for displaying the employee's information.
8. Write a PHP code for Adding, Deleting, and Modifying records.
9. Write a PHP code using function.
10. Write a PHP code to add and retrieve an image into database through form.

<b>PART III - ALLIED - OFFICE TOOLS AND SHELL PROGRAMMING</b>
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I SEMESTER			
AI - 1	MS OFFICE		15UCSA11
Hrs / Week : 3	Hrs / Sem : 45	Hrs / Unit : 9	Credits : 4

#### UNIT I

**Documentation Using MS-Word :** Introduction to Office Automation, Creating & Editing Document, Formatting Document, Auto-text, Autocorrect, Spelling and Grammar Tool, Document Dictionary, Page Formatting, Bookmark.

#### UNIT II

**Advance MS-Word :** Advance Features of MS-Word [Mail Merge, Macros], Tables, File Management, Printing, Styles, linking and embedding object, Template.

#### UNIT III

**Electronic Spread Sheet using MS-Excel :** Introduction to MS-Excel, Creating & Editing Worksheet, Formatting and Essential Operations, Formulas and Functions, Charts,

#### UNIT IV

**Advance features of MS-Excel :** Pivot table & Pivot Chart, Linking and Consolidation, Database Management using Excel- Sorting, Filtering, Table, Validation, Goal Seek, and Scenario, Macros

#### UNIT V

**Presentation using MS-PowerPoint :** Presentations, Creating, Manipulating & Enhancing Slides, Word Art, Layering art Objects, Animations and Sounds, Inserting Animated Pictures or Accessing through Object, Inserting Recorded Sound Effect or In-Built Sound Effect.

#### TEXT BOOK :

Microsoft Office – Complete Reference – BPB Publication

#### REFERENCE BOOK :

Learn Microsoft Office – Russell A. Stultz – BPB Publication.



<b>II SEMESTER</b>			
<b>A 2</b>	<b>GRAPHICS AND ANIMATION TOOLS</b>	<b>15UCSA21</b>	
<b>Hrs / Week : 3</b>	<b>Hrs / Sem : 45</b>	<b>Hrs / Unit : 9</b>	<b>Credits : 4</b>

## **UNIT I**

How flash works – Uses of flash – What Flash can do – Animation – Interacting – Basic functions – Timeline – Stage – Toolbars – Menu bar – The inspectors – Viewing options – preferences.

## **UNIT II**

Creating objects – Drawing toolbar – Various tools like line tool, oval tool etc – Editing objects – Grouping objects – Moving – Resizing – Rotating – Skewing – Reshaping – Copy – Paste – Aligning colour and text – colour palette – Adding colours – Adding text – Formatting and Manipulating text.

## **UNIT III**

Symbols and instances – Creating and Editing symbols – Bitmaps and sounds – Frames and layers – Animation – Elements of Animation – Scenes – Frame by Frame Animation

## **UNIT IV**

Motion Tweening – Motion guides – Motion guide Orientation – Shape tweening – Animating text – Movie clips – Interacting – Types – Frame Actions – Adding stop and play actions.

## **UNIT V**

Adding goto actions Button symbols – Adding actions to buttons – Adding movie clips and sounds

## **TEXT BOOK :**

Flash 8 – Shalini Gupta and Adity Gupta

## **REFERENCE BOOK**

Macromedia Flash MX: Training from the source by Chrissy Rey

<b>I &amp; II SEMESTERS</b>		
<b>AI-P</b>	<b>ALLIED I PRACTICAL</b>	<b>15UCSA2P</b>
<b>Hrs / Week : 3</b>	<b>Hrs / Sem : 45</b>	<b>Credit : 2</b>

## **MS OFFICE PRACTICAL**

### **MS WORD 2007**

1. Typing letters and editing and printing.
2. Using Spell Check and Thesaurus.
3. Designing a cover page with word art.
4. Using Header, Footer Bookmark, Foot notes.
5. Mail merge a letter to an address file.
6. Typing 5 pages of Mathematical equations and symbols.

### **POWER POINT 2007**

1. Creation of presentation with different styles on a given topic of current interest.
2. Preparing Presentation for a topic in the study of all course.

### **EXCEL 2007**

1. Entering spread sheets with formula
2. Entering spreadsheet and doing statistical calculations
3. Printing Of Graphs and charts for the given data.
4. Creating and using macros.

( AND )

## **GRAPHICS AND ANIMATION TOOLS PRACTICAL**

1. Make an object move across the screen.
2. Draw a path an object should follow.
3. Change the color of an object.
4. Using Shape Tweening you can change one object into another.
5. Create your own button and add a URL to it so it becomes a link.
6. Create a draggable movie clip in Flash
7. Animate an object
8. Play sound Play a video file

III SEMESTER			
<b>AII 1</b>	<b>DESK TOP PUBLISHING</b>	<b>15UCSA31</b>	
<b>Hrs / Week : 3</b>	<b>Hrs / Sem : 45</b>	<b>Hrs / Unit : 9</b>	<b>Credits :4</b>

### **UNIT I – INTRODUCTION**

Introduction to Page Maker - layout window – Document setup – Basic PageMaker function: Open, new, close, print, save and save as – Working with text tool, TEXT Block – Editing text – Formatting a Text Character formatting, paragraph formatting and style creation and Color creation

### **UNIT II – Working With Graphics**

Graphics Tool, Masking, Rotation, Flipping, Cropping, positioning and scaling, Fill option. Arrange the object, Grouping, locking, Frame concept polygon setting and Text wrap properties Master pages: Header and Footer and Template files – Story editor: Find & Replace. Spell Checker – Book Creation – TOC Creation - Index Creation both page reference and cross reference – Table editor: Create Tables using Adobe Table, Import tables into Page maker

### **UNIT III - Corel Draw 8.0**

Introduction to CorelDraw – features and advantages – Layout window – Basic Corel Draw functions: open, new, close, print , save and save as. Basic Tools: Rectangle, Ellipse, Text, Freehand drawing, Outline, fill and shape – Creating and manipulating text: Artistic Text, Artistic Tool and paragraph text - Text based Roll – ups: Enveloping., Extruding, Text and fit text to path.

### **UNIT IV – Object Manipulation**

Fill, Outline, Group, ungroup weld, combine, breaking apart, Separate, Intersection. Trim, Align and ordering – Effects: transforming object, Shaping object - Graphic based Roll – ups: Pen, Blend, Contour, symbol, Preset, Layer and Power clip option - Template creation Creating New: Arrow, Pattern, symbol and style

### **UNIT V – Photoshop 5.5**

Introduction to Photoshop - Layout- basic functions – painting tools- Text tools – Zoom tool, hand tool, selection tools: Move and Sponge tools – vignettes and edge effects-working with images-resizing & cropping images-working with basic selections-layers.

### **TEXT BOOK :**

1. Mastering Page Maker6 for windows 95-by Rebecca Bridges Altman & Rick Altman Chapter: 1-7,8(Text Blocks)10-11,13-15.
2. Corel Draw 8: The Official Guide by foster Coburn & Peter McCormick 3-8, 11, 13, 15-16, 18-22, 33, 37.
3. Photoshop 4 Studio skills by steven Moniz.

IV SEMESTER			
<b>AII 2</b>	<b>UNIX AND SHELL PROGRAMMING</b>	<b>15UCSA41</b>	
<b>Hrs / Week : 3</b>	<b>Hrs / Sem : 45</b>	<b>Hrs / Unit : 9</b>	<b>Credits : 4</b>

## **UNIT I**

History of Unix – Architecture of Unix – File system – Simple commands – Creating files – Redirecting input – Indirection with input output and pipelines – Appending output to your files.

## **UNIT II**

Personalized Unix – Changing Password – Login Profiles – Own login profile – Permissions – Changing owner, groups and permission – Multitasking – UNIX images & processes – background process – Killing process – Process status command – Multi line commands – Sleep – Scheduling Process.

## **UNIT III**

Vi editor – Creating Text – Editing text – EX command mode – Shell within Vi – Printing and spooling – Simple formatting with pr.

## **UNIT IV**

Sort – Head – Tail – Split – Cut – Paste – Find – tr – dd – grep family – fgrep – egrep – Sed – awk.

## **UNIT V**

Shell Programming – Shell Scripting Steps Simple Shell Program – Shell and sub shell variables – Setting and unsetting variables – Positional parameters – meta characters – Loops – test – read – error handling – system administration.

## **TEXT BOOK :**

1. UNIX Complete by Peter Dyson, Stan Kelly – Bootle and John Heilbern.

## **REFERENCE BOOK**

1. UNIX CONCEPTS AND APPLICATIONS” Fourth Edition by Sumitabha Das, Tata McGraw Hill Publications.

1.

III & IV SEMESTERS		
<b>AII P</b>	<b>ALLIED II PRACTICAL</b>	<b>15UCSA4P</b>
<b>Hrs / Week : 3</b>	<b>Hrs / Sem : 45</b>	<b>Credit : 2</b>

#### **DTP PRACTICAL**

##### **PAGE MAKER**

1. Preparing simple document with formatting.
2. Document preparation with types of Equations.
3. Creating and Using new colors and styles ( user defined)
4. Prepare document with column layout.
5. Applying word wrap options.
6. Design an invitation model.
7. Applying utility menu plugins.
8. Creating TOC .
9. Creating index.
10. Prepare document with tables.

##### **COREL DRAW**

11. Document with print merging.
12. Draw a simple pictures.
13. Applying roll ups: Envelop, Extrude, Contour, Blend.
14. Creating and Adding new symbols, patterns arrows.
15. Designing a visiting card.
16. Combining text and graphic object.
17. Text manipulation with column layout.
18. Design a Scenery (Natural, Sunset)
19. Design a Fish Tank with fishes using Artistic Tool.

##### **PHOTO SHOP**

20. Drawing Pictures.
21. Using filter tools.
22. Design a cover page for a book.

#### **UNIX AND SHELL PROGRAMMING PRACTICAL**

1. Program for finding factorial
2. Program for generating Multiplication Table.
3. Finding Simple Interest.
4. Leap year checking .
5. Counting No, words, lines, characters.
6. Fibonacci Series.
7. Over time pay calculation.
8. Checking file access permission.
  - a. File Comparison.
  - b. Listing contents of directory
  - c. Checking Validity of user.
  - d. Implementing copy, move commend.
  - e. Counting number of lines before and after updating the file.
  - f. Removing directory.
  - g. Granting and revoking permissions for user, and others.
9. Sorting using GREP
10. Students mark List

<b>PART IV - SKILL BASED ELECTIVE</b>
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III SEMESTER			
<b>SBE 1</b>	<b>MANAGEMENT INFORMATION SYSTEM</b>	<b>15</b>	<b>UITS31</b>
<b>Hrs / Week : 3</b>	<b>Hrs / Sem : 45</b>	<b>Hrs / Unit : 9</b>	<b>Credits : 2</b>

**UNIT I**

Foundation concept : Information systems and technologies – Business Applications – Development and Management

**UNIT II**

Information technologies : Managing data sources – Technical foundations of Database Management .

**UNIT III**

Business applications : Functional Business Systems – Cross functional enterprise systems – Decision support in business

**UNIT IV**

Development process : Planning fundamentals – Implementation Challenges – Developing Business Systems – Implementing Business Systems

**UNIT V**

Management challenges : Managing Information Technology – Managing Global IT - Real world case studies

**TEXTBOOK :**

1.“Management Information System” Sixth edition, James A.O.Brien, TMH  
Chapters 1,2,3,4,5,8,9,10,12,Appendix A-1

**REFERENCE BOOK :**

1.“Management Information System “, Laudon & Laudon, Ninth Edition,  
PHI

IV SEMESTER			
SBE 2	INTERNET SECURITY		15UITS41
Hrs / Week : 3	Hrs / Sem : 45	Hrs / Unit : 9	Credits :2

### **Unit I: Introduction**

Security trends – The OSI Security Architecture – Security Attacks: Passive Attacks – Active Attacks- Security Services –security Mechanism.

### **Unit II : Malicious Software**

Viruses and Related threats: Worms - Types of Worms – Backdoor – Logic bomb – Trojan Horses – Virus Structure – Types of Viruses – Virus Counter measures – Denial of Service Attack - Intruders

### **Unit III : Firewalls**

Firewall Design Principles.-Types of Firewalls:Packet Filters-Application-Level Filtering., Circuit\_Level Gateways - trusted System – Common Criteria for Information Technology Security Evaluation.

### **Unit IV : Web Security**

Web Security Consideration: Web Security Threats – Web Traffic Security Approaches – SSL: SSL Architecture- TLS - SET:SET Overview – Features of SET – SET Participants –Basic Concepts of SNMP

### **Unit V: IP Security**

IP Security Overview – Applications of IPSec – Benefits of IPSec – IP security Architecture – IPSec Services –Role of an Internet Protocol – Ipv4 – Ipv6.

### **TextBook:**

**Network Security Essentials Application and Standards** : third edition

Author : William Stallings, Pearson Education.

Unit I :Chapter 1; Unit II : Chapter 9,10 ; Unit III : Chapter 11 ; Unit IV: chapter 7,8 ; Unit V : 6

### **Reference Book:**

**Firewalls and Internet Security:** Repelling the Wily Hacker , Second Edition  
Addison. Wessly

<b>PART IV - NON MAJOR ELECTIVE</b>
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<b>III SEMESTER</b>
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<b>NME 1</b>	<b>INTRODUCTION TO COMPUTERS</b>	<b>15UITN31</b>
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<b>Hrs / Week : 3</b>	<b>Hrs / Sem : 45</b>	<b>Hrs / Unit : 9</b>	<b>Credits : 2</b>
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#### **UNIT I**

**Computers an Overview:** Introduction to computers – Five Generations of modern computers- Classification of Digital computer Systems.- **Inside the computer:** Anatomy of digital computer – Computer Architecture.

#### **UNIT II**

**Number system & Boolean Algebra:** Number system – Boolean algebra and logic circuits. **Memory:** Memory units – Auxiliary Storage Devices Primary.

#### **UNIT III**

**Input / Output:** Input devices - Output Devices – **Computer Software & Software Development:** Introduction to computer software - Operating systems - Programming languages.

#### **UNIT IV**

**Data processing and Networking:** Data processing – Computer networks – Distributed data processing. **Telecommunications:** Introduction to Telecommunications. **Security:** Introduction to computer security – Cryptography - Computer Viruses, Bombs and worms.

#### **UNIT V**

**Internet and Intranet:** Internet and world wide web – Introduction to Intranets. **Multimedia and virtual reality:** Introduction to Multimedia - Multimedia tools - Introduction to virtual reality.

#### **TEXT BOOK :**

Alexis Leon and Mathews Leon. “Introduction to Computers” VIKAS publishing house Pvt Ltd, 1999.



IV SEMESTER			
NME 2	MS-OFFICE	15UITN41	
Hrs / Week : 3	Hrs / Sem : 45	Hrs / Unit : 9	Credits : 2

## UNIT I

**Documentation Using MS-Word :** Introduction to Office Automation, Creating & Editing Document, Formatting Document, Auto-text, Autocorrect, Spelling and Grammar Tool, Document Dictionary, Page Formatting, Bookmark.

## UNIT II

**Advance MS-Word :** Advance Features of MS-Word [Mail Merge, Macros], Tables, File Management, Printing, Styles, linking and embedding object, Template.

## UNIT III

**Electronic Spread Sheet using MS-Excel :** Introduction to MS-Excel, Creating & Editing Worksheet, Formatting and Essential Operations, Formulas and Functions, Charts,

## UNIT IV

**Advance features of MS-Excel :** Pivot table & Pivot Chart, Linking and Consolidation, Database Management using Excel- Sorting, Filtering, Table, Validation, Goal Seek, and Scenario.

## UNIT V

**Presentation using MS-PowerPoint :** Presentations, Creating, Manipulating & Enhancing Slides, Word Art, Layering art Objects, Animations and Sounds, Inserting Animated Pictures or Accessing through Object, Inserting Recorded Sound Effect or In-Built Sound Effect.

## TEXT BOOK :

Microsoft Office – Complete Reference – BPB Publication

## REFERENCE BOOK :

Learn Microsoft Office – Russell A. Stultz – BPB Publication.

PART IV – NON-MAJOR ELECTIVE (UNAIDED COURSES) (2015 – 2018)								
SEM	TITLE OF THE PAPER	S.CODE	H/W	C	MARKS			
					I	E	T	
DEPT. OF ENGLISH								
III	Computer Assisted Language Learning: Reading & Writing	15UENN31	3	2	25	75	100	
IV	Computer Assisted Language Learning: Listening & Speaking	15UENN41	3	2	25	75	100	
DEPT. OF ISLAMIC STUDIES								
III	Arabic for Beginners	15UISN31	3	2	25	75	100	
IV	Fundamentals of Arabic Grammar	15UISN41	3	2	25	75	100	
DEPT. OF COMMERCE								
III	Principles of Commerce	15UCON31	3	2	25	75	100	
IV	Basics in Accounting*	15UCON41	3	2	25	75	100	
DEPT. OF COMMERCE (CA)								
III	Development of Small Business	15UCCN31	3	2	25	75	100	
IV	Basics in Accounting*	15UCCN41	3	2	25	75	100	
DEPT. OF COMMERCE (FINANCE)								
III	Investment Management	15UCFN31	3	2	25	75	100	
IV	Advertising	15UCFN41	3	2	25	75	100	
DEPT. OF BUSINESS ADMINISTRATION								
III	Basic in Management	15UBAN31	3	2	25	75	100	
IV	Retail Management	15UBAN41	3	2	25	75	100	

<b>DEPT. OF COMPUTER SCIENCE</b>							
<b>III</b>	Office Automation	15UCSN31	<b>3</b>	<b>2</b>	<b>25</b>	<b>75</b>	<b>100</b>
<b>IV</b>	Desktop Publishing	15UCSN41	<b>3</b>	<b>2</b>	<b>25</b>	<b>75</b>	<b>100</b>
<b>DEPT. OF COMPUTER APPLICATION</b>							
<b>III</b>	Internet & HTML	15UCAN31	<b>3</b>	<b>2</b>	<b>25</b>	<b>75</b>	<b>100</b>
<b>IV</b>	Desktop Publishing	15UCAN41	<b>3</b>	<b>2</b>	<b>25</b>	<b>75</b>	<b>100</b>
<b>DEPT. OF INFORMATION TECHNOLOGY</b>							
<b>III</b>	Introduction to Computers	15UITN31	<b>3</b>	<b>2</b>	<b>25</b>	<b>75</b>	<b>100</b>
<b>IV</b>	MS Office	15UITN41	<b>3</b>	<b>2</b>	<b>25</b>	<b>75</b>	<b>100</b>
<b>DEPT. OF MATHEMATICS</b>							
<b>III</b>	Mathematics for Competitive Examinations – I	15UMAN31	<b>3</b>	<b>2</b>	<b>25</b>	<b>75</b>	<b>100</b>
<b>IV</b>	Mathematics for Competitive Examinations – II	15UMAN41	<b>3</b>	<b>2</b>	<b>25</b>	<b>75</b>	<b>100</b>
<b>DEPT. OF MICROBIOLOGY</b>							
<b>III</b>	General Microbiology	15UMBN31	<b>3</b>	<b>2</b>	<b>25</b>	<b>75</b>	<b>100</b>
<b>IV</b>	Biotechnology	15UMBN41	<b>3</b>	<b>2</b>	<b>25</b>	<b>75</b>	<b>100</b>
<b>DEPT. OF NUTRITION AND DIETETICS</b>							
<b>III</b>	Introduction to Bakery	15UNDN31	<b>3</b>	<b>2</b>	<b>25</b>	<b>75</b>	<b>100</b>
<b>IV</b>	Biotechnology	15UMDN41	<b>3</b>	<b>2</b>	<b>25</b>	<b>75</b>	<b>100</b>

\* Common to Department of Commerce and Department of Commerce (CA)

\*\* Common to Department of Computer Science and Department of Computer Application.

<b>I SEMESTER</b>			
<b>EVS</b>	<b>ENVIRONMENTAL STUDIES</b>	<b>15UEVS11</b>	
<b>Hrs/ Week: 2</b>	<b>Hrs/ Sem: 30</b>	<b>Hrs/ UNIT: 6</b>	<b>Credits: 1</b>

### **UNIT - I: Nature of Environmental Studies**

Goals, Objectives and guiding principles of environmental studies. Towards sustainable development - Environmental segments- Atmosphere, Hydrosphere, Lithosphere, Biosphere – definition. Pollution episodes -- Hiroshima – Nagasaki, - Bhopal gas Tragedy, Fukushima – Stone leprosy in Taj Mahal

### **UNIT - II: Natural Resources**

Renewable and Non Renewable resources - classification.

- Forest resources: Use and over - exploitation, Afforestation and deforestation.
- Water resources: Use and over - utilization and conservation of surface and ground water - Rain harvesting.
- Marine Resources: Fisheries and Coral reefs.
- Mineral resources: Use and exploitation - environmental impacts of extracting and using mineral resources.
- Food resources: Effects of modern agriculture fertilizers - pesticide problem.
- Energy resources: Growing energy needs - use of alternate energy source - Solar cells & wind mills.
- Land resources: Land degradation

### **UNIT - III: Ecosystem**

- Concept of Eco-systems - Trophic level, food chains, food web and Ecological pyramids. Types, structure & Functions of the following:
  - a) Aquatic ecosystem
  - b) Grassland ecosystem
  - c) Forest ecosystem
  - d) Desert ecosystem
  - e) Living conditions on other planets (Briefly)

### **UNIT - IV: Biodiversity & Its Conservation**

Introduction - Definition: ecosystem diversity, species and Genetic Hot spots of biodiversity - Western Ghats, Eastern Himalayas and Gulf of Mannar. Threats to biodiversity - Habitat Loss, Poaching of wild life and Man - wild life conflicts.

Conversation of biodiversity: Insitu and ex-insitu.

### **UNIT - V: Environmental Pollution**

Sources, effects, prevention and control measures of the following.

- a) Air pollution: Composition of clean air, Global warming, Ozone layer depletion.
- b) Water Pollution: Fresh and Marine water pollution
- c) Noise Pollution
- d) Soil pollution
- e) Bio degradable and Non Bio degradable wastes
  - Air (prevention & Control of Pollution) Act.
  - Environmental Protection Act
  - Water (Prevention & Control of pollution) Act
  - Environmental movements - Green peace and Chipco,
  - Role of State & Central pollution Control Boards.

### **REFERENCE BOOKS:**

1. Basic of Environmental Science. Viyajalakhmi, Murugesan and Sukumaran - Manonmaniam Sundaranar University publications.
2. Environmental Studies. John de Brito, Victor, Narayanan and Patric Raja - published by St. Xavier's College, Palayamkottai.
3. Environmental Science and Biotechnology. A.G. Murugesan and C. Raja Kumar - MJP Publishers.
4. Fundamental of Environmental pollution - Krishnan Kannan - Chand & Company Ltd., New Delhi 1997.
5. Environmental Studies. S. Muthiah, Ramalakshmi publications, Tirunelveli.
6. Environmental Studies. V.M. Selvaraj, Bavani Publications, Tirunelveli.

II SEMESTER			
VE1	VALUE EDUCATION – I		15USVE2A
Hrs/ Week: 2	Hrs/ Sem: 30	Hrs/ Unit: 6	Credits: 1

### Objectives:

1. To inculcate moral values in the minds of students.
2. To teach ethical practices to be adopted by students in their life.
3. To make students honest and upright in their life.

### UNIT I

Islam – Meaning – Importance – A complete Religion – The religion accepted by God – Five Pillars of Islam – Kalima – Prayers – Fasting – Zakat – Haj.

Iman – Monotheism – Angels – Books – Prophets – Dooms Day – Life after death – Heaven and Hell.

### UNIT II

Quran – The Book of Allah – Wahi – Revelation to Prophet Muhammad(sal) – Compilation – Preservance – Structure – Content – Purpose – Source of Islamic Law – Sura Fathiha , Kafirun, Iqlas, Falakh and Nas.

### UNIT III

Hadith – Siha Sitha – Buhari – Muslim – Tirmithi – Abu Dawood – Nasai – Ibn Maja – Collection of Hadith – Meaning of 40 Hadith.

### UNIT IV

Life History of Prophet Muhammad (sal) – Aiamul Jahiliya – Prophet's Childhood and Marriage – Prophethood – Life at Mecca – Life at Medinah – Farewell Address – Seal of Prophethood.

### UNIT V

Good character – Etiquettes – Halal and Haram – Duties towards Allah – Duties towards fellow beings – Masnoon Duas.

### REFERENCE BOOKS:

1. V.A. Moahmed Ashrof – Islamic Dimensions – Reflection and Review on Quranic Themes.
2. The Presidency of Islamic Researchers – Revised & Edited – The Holy Quran.
3. M. Manzoor Nomani – Islamic Faith & Practice.
4. Abdul Hasan Ali Nadvi – Muhammad Rasulullah.
5. K. Ali – A Study of Islamic History.
6. Abdul Rahuman Abdullah – Islamic Dress code for Women.
7. Dr. Munir Ahamed Mughal – Code For Believers.
8. Abdul Malik Mujahid – Gems and Jewels.

II SEMESTER			
VE2	VALUE EDUCATION – II		15USVE2B
Hrs/ Week: 2	Hrs/ Sem: 30	Hrs/ Unit: 6	Credits: 1

### UNIT I

Individual Morality – Objective of Moral life – Living in accordance with the code of Morality – the goodness of Morality – Morality and *Thirukural*- The need for faith.

### UNIT II

Adherence to higher code of Morality – Fear of God – Good Moral Values – Duty to Parents – Teacher, respecting elders – Moral Etiquettes – Right-minded Principle – High Principles for Proper conduct.

### UNIT III

Inculcating good attitudes – Open mindedness – Morale – analysing the pros and cons of good and bad – Service to others – Mind Power, tolerance, respecting others, showing love to others, patience – tranquility – Modesty, kindness and forgiveness.

### UNIT IV

Quotations and moral Stories expressing Good characters of Great personalities – Life History of Great people: Mahatma Gandhi, Abraham Lincoln, Dr. A.P.J. Abdul Kalam.

### UNIT V

Truth, the importance of uprightness, integrity, friendship – Health awareness on Alcohol and drug abuse – inculcating reading habit – reading good books – Hygiene – Dowry – Corruption.

### TEXTBOOK:

Publication of Sadakathullah Appa College.

<p align="center"><b>SCHEME OF EXAMINATIONS UNDER CBCS (2015 - 2018)</b></p>
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The medium of instruction in all UG and PG courses is English and students shall write the CIA Tests and Semester Examinations in English. However, if the examinations were written in Tamil, the answer papers will be valued.

**DISTRIBUTION OF MARKS FOR CIA AND SEMESTER  
EXAMINATIONS  
UNDERGRADUATE, CERTIFICATE & DIPLOMA COURSES**

SUBJECT	TOTAL MARKS	CIA TEST	SEMESTER EXAMINATION	PASSING MINIMUM		
				CIA TEST	SEM. EXAM.	OVER ALL
<b>Theory</b>	100	25	75	Nil	30	40
<b>Practical</b>	100	40	60	Nil	24	40
<b>Project</b>	100	Nil	Report - 60 marks Viva Voce - 40 marks	Nil	40	40

**POSTGRADUATE COURSES**

SUBJECT	TOTAL MARKS	CIA TEST	SEMESTER EXAMINATION	PASSING MINIMUM		
				CIA EXAM.	SEM. EXAM.	OVER ALL
<b>Theory</b>	100	25	75	nil	38	50
<b>Practical</b>	100	40	60	nil	30	50
<b>Project</b>	100	nil	Report - 60 marks Viva Voce - 40 marks	nil	50	50



### DIVISION OF MARKS FOR CIA TEST

SUBJECT	MARKS	ASSIGNMENT FOR UG / ASSIGNMENT OR SEMINAR FOR PG	REGULARITY	RECORD NOTE	TOTAL MARKS
<b>Theory</b>	20	5	--	--	<b>25</b>
<b>Practical</b>	30	--	5	5	<b>40</b>

1. The duration of each CIA Test is ONE hour and the Semester Examination is THREE hours.
2. Three CIA tests of 20 marks each will be conducted and the average marks of the best two tests out of the three tests will be taken.
3. The I test will be based on the first 1.5 units of the syllabus, the II test will be based on the next 1.5 units of the syllabus and the III test will be based on the next 1.5 units of the syllabus.
4. Two assignments for Undergraduate, Certificate, Diploma and Advanced Diploma Courses and two assignments OR two seminars for Postgraduate Courses.
5. The duration and the pattern of question paper for practical examination may be decided by the respective Boards of Studies. However, out of 60 marks in the semester practical examination, 10 marks may be allotted for record and 50 marks for practical.
6. Three internal practical tests of 25 marks each will be conducted for science students in the even semester and the best two out of the three will be taken. The total 50 marks of the best two tests will be converted to 30 by using the following formula:
$$\left( \frac{\text{Marks secured in the first best Practical Test (Out of 25)} + \text{Marks secured in the next best Practical Test (out of 25)}}{2} \right) \times 0.6$$
7. The Heads of Science Departments are requested to keep a record of attendance of practicals for students to assign marks for regularity.

**QUESTION PAPER PATTERN FOR CIA TEST (THEORY)**

**Duration: 1 Hr**

**Maximum Marks: 20**

<b>Section</b>	<b>Question Type</b>	<b>No. of Questions &amp; Marks</b>	<b>Marks</b>
<b>A</b>	No Choice Answer should not exceed 75 words	2 Questions 2 marks each	$2 \times 2 = 4$
<b>B</b>	Internal choice (Either or type) Answer should not exceed 200 words	2 Questions 4 marks each	$2 \times 4 = 8$
<b>C</b>	Open Choice (Answer ANY ONE out of Two) Answer should not exceed 400 words	1 Question 8 marks	$1 \times 8 = 8$
<b>TOTAL</b>			<b>20 MARKS</b>

**QUESTION PAPER PATTERN FOR SEMESTER EXAMINATION (THEORY)**

**Duration: 3 Hrs**

**Maximum Marks: 75**

<b>Section</b>	<b>Question Type</b>	<b>No. of Questions &amp; Marks</b>	<b>Marks</b>
<b>A</b>	No Choice Answer should not exceed 75 words	10 Questions - 2 marks each (2 Questions from each unit)	$10 \times 2 = 20$
<b>B</b>	Internal choice (Either or type) Answer should not exceed 200 words	5 Questions with internal choice. Each carries 5 marks (Two questions from each unit)	$5 \times 5 = 25$
<b>C</b>	Open Choice (Answer ANY THREE out of FIVE) Answer should not exceed 400 words	3 Questions out of 5 - 10 marks each (1 Question from each unit)	$3 \times 10 = 30$
<b>TOTAL</b>			<b>75 MARKS</b>