

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)

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Tamilnadu

DEPARTMENT OF COMPUTER APPLICATION (Unaided)



CBCS SYLLABUS

For

B.C.A

(Applicable for students admitted in June 2015 and onwards)

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

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B.C.A. (Bachellor of Computer Application)
COURSE STRUCTURE (CBCS)
(Applicable for students admitted in June 2015 onwards)

ALLIED I – Computer Science				ALLIED II – Computer Science			
I SEMESTER				II SEMESTER			
P	COURSE	H/W	C	P	COURSE	H/W	C
I	Tamil / Arabic	6	3	I	Tamil / Arabic	6	3
II	English	6	3	II	English	6	3
III	Core – 1	4	4	III	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
IV	Environmental Studies	2	1	IV	Value Education – I	2	1
					Value Education - II		
TOTAL		30	19	TOTAL		30	24
III SEMESTER				IV SEMESTER			
III	Core – 5	5	4	III	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
IV	Skill Based Elective - 1	3	2	IV	Skill Based Elective - 2	3	2
	Non Major Elective -1	3	2		Non Major Elective - 2	3	2
				V	Extension Activities	--	1
TOTAL		30	20	TOTAL		30	26
V SEMESTER				VI SEMESTER			
III	Core – 11	6	5	III	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
TOTAL		30	21	TOTAL		30	30

* Practical Examination – End of even semester

G1-S

B.C.A.						
DISTRIBUTION OF CREDITS, NO. OF PAPERS & MARKS						
Part	Course	Semester	Hrs.	Credits	No. of Papers	Marks
I	Tamil / Arabic	I to II	12	6	2	200
II	English	I to II	12	6	2	200
III	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
IV	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
V	Extension Activities	I to IV	--	1	1 (No Exam)	100
TOTAL			180	140	40	4000

SEMESTER WISE DISTRIBUTION OF HOURS

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

B.C.A. - 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	Fundamentals of Computers	15UCAC11	4	4	25	75	100
	C2	Principles of Programming in C	15UCAC12	3	4	25	75	100
	CP-1	Computer Application Core Practical – I	-	3	-	Examination II Semester		
	AI-1	Office Automation	15UITA11	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	C++ Programming	15UCAC21	4	4	25	75	100
	C4	Basic Mathematics	15UCAC22	3	4	25	75	100
	CP-1	Computer Application Core Practical – I	15UCAC2P	3	3	40	60	100
	AI-2	Multimedia Tools	15UITA21	3	4	25	75	100
	AI-P	Allied I – Practical	15UITA2P	3	2	40	60	100
IV	VE	Islamic Value Education	15USVE2A	2	1	25	75	100
		Value Education	15USVE2B					
TOTAL				30	24	230	570	800

B.C.A. - CBCS Syllabus

(Applicable for students admitted in June 2015 onwards)

TITLE OF THE PAPERS, CREDITS & MARKS

III SEMESTER								
P	SUB	Title of the paper	S.CODE	H/W	C	MARKS		
						I	E	T
III	C5	Programming in JAVA	15UCAC31	5	4	25	75	100
	C6	Digital Technology	15UCAC32	5	4	25	75	100
	C7	Computer Networks	15UCAC33	5	4	25	75	100
	CP-II	Computer Application Core Practical – II	-	3	-	Examination IV Semester		
	AII-1	Web Designing	15UITA31	3	4	25	75	100
	AII-P	Allied II - Practical	-	3	-	Examination IV Semester		
IV	SBE1	Desk Top Publishing	15UCAS31	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	GUI Programming	15UCAC41	5	4	25	75	100
	C9	Computer System Architecture	15UCAC42	5	4	25	75	100
	C10	Operating Systems	15UCAC43	5	4	25	75	100
	CP-II	Computer Application Core Practical – II	15UCAC4P	3	3	40	60	100
	AII-2	Unix & Shell Programming	15UITA41	3	4	25	75	100
	AII-P	Allied II – Practical	15UITA4P	3	2	40	60	100
IV	SBE2	RDBMS	15UCAS41	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

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TITLE OF THE PAPERS, CREDITS & MARKS

V SEMESTER								
P	SUB	Title of the paper	S.CODE	H/W	C	MARKS		
						I	E	T
III	C11	Data Structures	15UCAC51	6	5	25	75	100
	C12	ASP.Net	15UCAC52	5	5	25	75	100
	C13	Software Engineering	15UCAC53	5	5	25	75	100
	CP-III	Computer Application Core Practical – III	-	3	-	Examination VI Semester		
	CP-IV	Computer Application Core Practical – IV	-	3	-	Examination VI Semester		
	CE1	A) ORACLE	15UCAE5A	5	6	25	75	100
		B) VB.Net	15UCAE5B					
	CE-P	Computer Application Core Elective Practical – A	-	3	-	Examination VI Semester		
Computer Application Core Elective Practical – B		-						
TOTAL				30	21	100	300	400
VI SEMESTER								
III	C14	Data Mining	15UCAC61	6	5	25	75	100
	C15	Computer Graphics and Multimedia	15UCAC62	5	5	25	75	100
	C16	Project	15UCSP61	5	5	-	100	100
	CP-III	Computer Application Core Practical – III	15UCAC6P1	3	3	40	60	100
	CP-IV	Computer Application Core Practical – IV	15UCAC6P2	3	3	40	60	100
	CE2	A) C # Programming	15UCAE6A	5	6	25	75	100
		B) PHP	15UCAE6B					
	CE-P	Computer Application Core Elective Practical–A	15UCAE6AP	3	3	40	60	100
		Computer Application Core Elective Practical–B	15UCAE6BP					
TOTAL				30	30	195	505	700

B.C.A. CBCS Syllabus
PART I AND II SUBJECTS - TITLE OF THE PAPERS, CREDITS & MARKS
 (Applicable for students admitted in June 2015 and onwards)

TITLE OF THE PAPERS, CREDITS & MARKS

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

B.C.A. - CBCS Syllabus TITLE OF THE PAPERS, CREDITS & MARKS								
SEM	SUB	Title of the paper	S.CODE	H/W	C	MARKS		
						I	E	T
I	C1	Fundamentals of Computers	15UCAC11	4	4	25	75	100
	C2	Principles of Programming in C	15UCAC12	3	4	25	75	100
	CP-I	Computer Application Core Practical – I	-	3	-	Examination II Semester		
II	C3	C++ Programming	15UCAC21	4	4	25	75	100
	C4	Basic Mathematics	15UCAC22	3	4	25	75	100
	CP-I	Computer Application Core Practical – I	15UCAC2P	3	3	40	60	100
III	C5	Programming in JAVA	15UCAC31	5	4	25	75	100
	C6	Digital Technology	15UCAC32	5	4	25	75	100
	C7	Computer Networks	15UCAC33	5	4	25	75	100
	CP-II	Computer Application Core Practical – II	-	3	-	Examination IV Semester		
IV	C8	GUI Programming	15UCAC41	5	4	25	75	100
	C9	Computer System Architecture	15UCAC42	5	4	25	75	100
	C10	Operating Systems	15UCAC43	5	4	25	75	100
	CP-II	Computer Application Core Practical – II	15UCAC4P	3	3	40	60	100
V	C11	Data Structures	15UCAC51	6	5	25	75	100
	C12	ASP.Net	15UCAC52	5	5	25	75	100
	C13	Software Engineering	15UCAC53	5	5	25	75	100
	CP-III	Computer Application Core Practical – III	-	3	-	Examination VI Semester		
	CP-IV	Computer Application Core Practical – IV	-	3	-	Examination VI Semester		
	CE1	A) Oracle	15UCAE5A	5	6	25	75	100
		B) VB.Net	15UCAE5B					
	CE-P	Computer Application Core Elective Practical – A	-	3	-	Examination VI Semester		
		Computer Application Core Elective Practical – B	-					
VI	C14	Data Mining	15UCAC61	6	5	25	75	100
	C15	Computer Graphics and Multimedia	15UCAC62	5	5	25	75	100
	C16	Project	15UCSP61	5	5	-	100	100
	CP-III	Computer Application Core Practical – III	15UCAC6P1	3	3	40	60	100
	CP-IV	Computer Application Core Practical – IV	15UCAC6P2	3	3	40	60	100
	CE2	A) C # Programming	15UCAE6A	5	6	25	75	100
		B) PHP	15UCAE6B					
	CE-P	Computer Application Core Elective Practical – A	15UCSE6AP	3	3	40	60	100
		Computer Application Core Elective Practical – B	15UCSE6BP					
TOTAL				116	97	625	1675	2300

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PART III – ALLIED I & II – INFORMATION TECHNOLOGY									
SEM	P	TITLE OF THE PAPER	S.CODE	H/W	C	MARKS			
						I	E	T	
I	AI-1	Office Automation	15UITA11	3	4	25	75	100	
	AI-P	Allied I - Practical	-	3	-	Examination II Semester			
II	AI-2	Multimedia Tools	15UITA21	3	4	25	75	100	
	AI-P	Allied I – Practical	15UITA2P	3	2	40	60	100	
III	AII-1	Web Designing	15UITA31	3	4	25	75	100	
	AII-P	Allied II - Practical	-	3	-	Examination IV Semester			
IV	AII-2	Unix & Shell Programming	15UITA41	3	4	25	75	100	
	AII-P	Allied II – Practical	15UITA4P	3	2	40	60	100	
TOTAL				24	20	180	420	600	

PART IV - SKILL BASED ELECTIVE (FOR B.C.A.)

SEM	P	TITLE OF THE PAPER	S.CODE	H/W	C	MARKS			
						I	E	T	
III	1	Desk Top Publishing	15UCAS31	3	2	25	75	100	
IV	2	RDBMS	15UCAS41	3	2	25	75	100	
TOTAL				6	4	50	150	200	

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

III	1	Internet & HTML	15UCAN31	3	2	25	75	100	
IV	2	Desktop Publishing	15UCAN41	3	2	25	75	100	
TOTAL				6	4	50	150	200	

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

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

PART – V

SEM	Extension Activities (Choose any one)		S.CODE	H/W	C	I	E	T	
I to IV	Enviro Club		15UEXEVCL	-	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 மோசிகீரனார் | - | ஞானக்கூத்தன் |
| 12. வயலும் வாழ்வும் | - | நா.முத்துக்குமார் |
| 13. கடவுள் போற்றி | - | கவிமணி |
| 14. நண்பனே | - | கலீல் ஜிப்ரான் |

அலகு -2 (சிறுகதைக் களஞ்சியம்)

- | | | |
|-------------------------|---|-----------------------|
| 1. காஞ்சனை | - | புதுமைப்பித்தன் |
| 2. சமவெளி | - | வண்ணதாசன் |
| 3. சொர்க்க கன்னிகை | - | கருணாமணாளன் |
| 4. காலத்தின் ஆவர்த்தனம் | - | தோப்பில் முகமதுமீரான் |
| 5. கனவில் உதிர்ந்த பூ | - | நாரும்புநாதன் |
| 6. ராஜமீன் | - | கீரனார் ஜாஹிர்ராஜா |
| 7. நண்பன் | - | 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...
 - அன்பே தகளியா...
 - பேயாழ்வார்
 - திருக்கண்டேன்...

6. திருப்பாவை
ஆண்டாள் - மார்கழித் திங்கள்...
7. வளையாபதி - மக்கட் செல்வம்

பெளத்தம்

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 பீர்முகமது அப்பா
13. அலகிலா அருளும் - இறையருட் கவிமணி. கா.அப்துல்கபூர்

நீதி இலக்கியங்கள்

14. திருக்குறள் (வான் சிறப்பு)
15. நாலடியார் - கல்வி கரையில்
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, செய்யப்பாட்டுவினை, தன்வினை, பிறவினை, உடன்பாடு, எதிர்மறை, செய்தி வாக்கியம், கலவை வாக்கியம், பெயர்வினை, இடை, உரிச்சொற்களின் இலக்கணம் மற்றும் பெயர்ச்சொல், வினைச்சொல் வகைகள், லகர, எகர, ணகர, ரகர, றகர வேறுபாடுகள்.

Part - I ARABIC			
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.			
PAPER-I	APPLIED GRAMMAR AND TRANSLATION-I	15UARL11	
Hrs/ Week: 6	Hrs/ Sem: 90	Hrs/ Unit: 18	Credits: 3

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

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 Maf'ool
- 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)

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

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).

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

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).

DEPART OF COMPUTER APPLICATION

BCA SYLLABUS

(Applicable for students admitted in June 2015 onwards)

PART III – CORE , CORE ELECTIVE & PROJECT
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I SEMESTER			
C 1	FUNDAMENTALS OF COMPUTERS	15UCAC11	
Hrs / Week : 4	Hrs / Sem : 60	Hrs / Unit : 12	Credits : 4

UNIT I

An overview of the computer system- the shapes of computers today – Transforming Data into information –CPUs used in personal computers.

UNIT II

Standard method of input –Alternative methods of input- monitor sound system- Devices that output Hardcopy – Types of storage devices- Measuring device performance.

UNIT III

Operating system Basics- Pc operating Systems – Database management systems and Enterprise software- Networking Basics- networking at home and abroad.

UNIT IV

Internet Basics - Gelling Online - working online - Understanding multimedia – creating and Distributing New Media content.

UNIT V

The Basic of information systems- Building information systems – Creating computer programs- programming languages and the programming process.

TEXT BOOK :

Introduction to computers fourth Edition by peter Norton, Tata McGrew Hill.Chapters : 1 - 12, 16 - 20, 23 - 28.

I SEMESTER			
C 2	PRINCIPLES OF PROGRAMMING IN C 15UCAC12		
Hrs / Week : 3	Hrs / Sem : 45	Hrs / Unit : 9	Credits : 4

UNIT I

Identifiers & Keyword – Data types – Constants– Variables – Input statement – Output Statement –Operators – Expressions – Assignment statement – IF, IF ELSE, SWITCH – Loop Statement – FOR Loop, WHILE LOOP , DO WHILE LOOP – Break Statement – Go To Statement.

UNIT II

Function & Program Structure – Defining Function – Return Statement – Types of Function – Argument – Local & Global Variable – Scope of the Variable – Recursion-string functions

UNIT III

Array Notation – Array Declaration – Initialization – Processing with Array – Array And Functions – Multidimensional array character array – Pointer declaration – Pointer Arithmetic – Array of Pointers – Pointers & Functions.

UNIT IV

Preprocessors – Macros – Header Files – Standard Functions – Structures– Union – Bit fields – Type def – Enumeration.

UNIT V

Structures – Declaration of structure – Members – Accessing the members of a structure – Arrays of structures – Pointer to structure-File handling-File operations-Creating and accessing a data file

TEXT BOOK:

1. Programming with C by E. Balagurusamy.

Reference Book:

Programming with C by Thamarai Selvi.

Programming with C by Byron S.Gottfried

II SEMESTER			
C 3	C++ PROGRAMMING	15UCAC21	
Hrs / Week : 4	Hrs / Sem : 60	Hrs / Unit : 12	Credits : 4

UNIT I - Classes and objects

Introduction – structures in C – structures in C++ – declaring objects – The public Keyword – defining member functions – characteristics of member function – out side member function inline – Rules for inline functions – data hiding or encapsulation – classes, objects and memory – static variable and functions – static object – Array of objects

UNIT II - Constructors and Destructors

Introduction – Constructors and destructors – Characteristics of constructors and destructors – Types of constructors – calling constructors and destructors – qualifier and nested classes

UNIT III - Operator overloading and Inheritance

Introduction – the keyword operator – overloading unary operator – overloading binary operators – overloading with friend function – type conversion – Rules for overloading operators - Inheritance – access specifiers and simple inheritance – Protected data with private inheritance – types of inheritance – single inheritance – Multilevel inheritance – multiple inheritance – hierarchical inheritance – hybrid inheritance.

UNIT IV - Pointers and Arrays

Introduction – pointers declaration – pointer to class – pointer to object – the this pointer – pointer to derived classes and base classes – arrays – characteristics of arrays – initialization of arrays using functions – arrays of classes – binding in C++ – pointers to derived classes objects.

UNIT V - Virtual functions and files

Virtual function – rules for virtual function – pure virtual functions – virtual functions in derived classes – file stream classes – steps of file operations – Checking for errors – finding end of a file – file opening modes – file pointers and manipulators – manipulators with arguments – sequential read and write operators – binary and ASCII files – random access operation.

TEXT BOOK :

1. Object Oriented Programming with C++ by E. Balagurusamy.

REFERENCE BOOK:

C++ Programming by Ravichandran.

II SEMESTER			
C 4	BASIC MATHEMATICS	15UCAC22	
Hrs / Week : 3	Hrs / Sem : 45	Hrs/Unit : 9	Credits : 4

UNIT I

Number Systems and Equations : – Numbers – Natural - Whole – Rational – Irrational Real – Algebraic expression – factorisation – Equations – linear equations with two or three unknowns – solutions of quadratic equations – permutation – combinations – binomial expansion.

UNIT II

Set theory : Sets and elements, Universal Set and Empty Set, Subsets, Venn Diagrams, Set Operations, Algebra of Sets and Duality, Finite, Infinite Sets and Counting Principle, The Inclusion-Exclusion Principle, Classes of Sets, Power Sets, Partitions.

UNIT III

Logic and Proportional Calculus : Propositions and Compound Propositions , Basic Logical Operations, Propositions and Truth Tables, Tautologies and Contradictions, Logical Equivalence, Algebra of propositions, Conditional and Biconditional statements, Arguments, Logical Implication

UNIT IV

Matrices : – Basic concepts – matrix addition – scalar multiplication – Multiplication of Matrix – inverses of a matrix – solution through linear equations – matrix method.

UNIT V

Commercial Arithmetic : – Percentages – ratio and proportion – simple interest – compound interest – discount – banker's discount - true discount.

TEXT BOOK :

1. Business Mathematics – D.C. Sancheti and V.K.Kapoor Publisher: Sultan Chand & Sons, New Delhi.
2. Discrete Mathematics – Seymour Lipschutz and Marc Lars Lipson - Schaum's Series – Third Edition – Tata McGraw Hill Publications.
3. A text book of Business Mathematics by G.K. Ranganath – Himalaya Publishing House, Delhi.

REFERENCE BOOK :

1. A text book of Business Mathematics by G.K. Ranganath – Himalaya Publishing House, Delhi.

I & II SEMESTERS		
CP I	CORE PRACTICAL - I (Exam end of II Sem)	15UCAC2P
Hrs / Week : 3	Hrs / Sem : 45	Credits : 3

PRINCIPLES OF PROGRAMMING IN C 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, pointers.

C++ PROGRAMMING PRACTICAL

1. Write a c++ program using class.
2. Write a c++ program using pointers.
3. Write a c++ program using Inline.
4. Write a c++ program using method overloading.
5. Write a c++ program using constructor and destructor.
6. Write a c++ program using multiple inheritance
7. Write a c++ program using operator overloading.
8. Write a c++ program using multi-level inheritance.
9. Write a c++ program using virtual function.
10. Write a c++ program using file concept.

III SEMESTER			
C 5	PROGRAMMING IN JAVA	15UCAC31	
Hrs / Week : 5	Hrs / Sem : 75	Hrs / Unit : 15	Credits : 4

UNIT I

Features of Java : History – Characteristics of Java - Developing and Running a Java Program – Structure of a java program – Variables – Features of java – Data types – Type Conversion and casting – arrays – operators – Bitwise Operators – Left shift , right shift – Unsigned right shift operators – relation – Boolean logic – ternary operators. Branching and Looping Statements: If, If-else, nested if else, if else if statement – Switch case- while loop- do while- for loop- break, continue and return statement

UNIT II

Classes methods and objects examples-declaring objects – methods in classes – constructors –this keyword- class structure- Extension to classes and methods: Methods overloading – passing objects to methods- passing arguments – returning objects – recursion – nested classes – string handling – command line execution .

UNIT III

Inheritance: basic concepts – multilevel hierarchy – method overriding – abstract classes – Packages and Interfaces.

UNIT IV

Errors and Exception Handling: Compile time, runtime errors – exceptions – try and catch multiple catch- throw – java's built-in-exceptions. Multiple thread programming: java threads creating several threads – deadlock – controls on threads.

UNIT V

Input Output Operations: reading characters, sentences, writing to console, file processing , copying files Applets: Various applets: chkr, cs, de, font, ga ,lbg, rc, rrc,sp, common.html file. Graphics and Text: lines, rectangles, ellipse, arcs, polygons, paint mode, fonts, text .Event handling

TEXT BOOK:

1. Programming in java2 – R. Rajaram, SCITECH Publications (India) Pvt Ltd, Chennai 2001
2. Java2 – Complete Reference, Tata McGraw Hill Publications

REFERENCE BOOKS:

1. Thomaswu – An Introduction to Object Oriented Programming with Java, Tata McGraw Publications, 2001

III SEMESTER			
C 6	DIGITAL TECHNOLOGY	15UCAC32	
Hrs / Week : 5	Hrs / Sem : 75	Hrs / Unit : 15	Credits : 4

UNIT I

Number system: Binary Addition and Subtraction – Binary Multiplication and Division Converting Decimal numbers to Binary- Negative numbers – Use of Complements to Negative numbers – Binary number complements – BCD – Octal and Hexadecimal number systems. .

UNIT II

Boolean algebra and Gate networks: Fundamental concepts of Boolean algebra – Logical multiplication – AND gates and OR gates – complementation and inverters – logic expressions evaluation – Basic laws of Boolean Algebra – De Morgan's theorem – Duality of boolean algebra - Boolean Algebra – Sum of Products(SOP) and Product of Sums(POS) – Map Simplification using Karnaugh Maps – Don't care conditions – Design using NAND gates - Design using NOR gates – NAND-TO-AND and NOR-TO-OR gates.

UNIT III

Logic Design : Flip-Flop – Gated flip flops – Master- Slave flip flops – SR flip-flop – D flip-flop – JK flip flop - shift registers – Binary counters – BCD counters

UNIT IV

Arithmetic Design : Construction of the ALU - Integer representation – Half Adder – Full Adder – Parallel Binary Adder – BCD Adder – Shift Operation

UNIT V

Counters : Binary counter – Ripple counter - BCD counters – Synchronous and Asynchronous counters – shift counter – Ring counter – Up down counter

TEXT BOOKS:

1. Digital computer Fundamentals – Thomas C.Bartee, sixth Edition , McGraw – Hill Publications

UNIT I - Chapters 2.4 to ,2.12

UNIT II - Chapters 3.1 to 3.23

UNIT III - Chapters 4.1 to 4.9

UNIT IV - Chapters 5.1 to 5.5 , 5.10, 5.11,5.14

UNIT V - Chapters 4.8, 4.9

REFERENCE BOOKS:

1. Digital principles and Applications – Malvino and leach, TMH publications, fifth Editions.
2. Digital Electronics – V.K.puri, TMH Publication, 1997.

III Semester			
C7	COMPUTER NETWORKS	15UCAC33	
Hrs / Week : 5	Hrs / Sem : 75	Hrs / Unit : 15	Credits : 4

UNIT I

Introduction – Data Communication – Networks – Protocols and Standards – Standards Organizations. Basic Concepts: Line Configuration – Topology – Transmission Mode – Categories of Networks – Internetworks.

The OSI Model : The Model – Functions of the layers (Physical, Data Link, Network, Transport, Session, Presentation and Application Layers)

UNIT II

Transmission Media Guided Media (Twisted – Pair Cable, Coaxial Cable, Optical Fiber) – Unguided media (Radio Frequency Allocation, Propagation of Radio Waves, Terrestrial Microwave, Satellite Communication, Cellular Telephony)

UNIT III

DataLink Control : Line Discipline – Flow Control – Error Control. Network Layer Function : Circuit Switching – Packet Switching – Message Switching – Network Layer(Connection – Oriented and Connectionless services).

UNIT IV

LAN : Project 802, Ethernet – IEEE 802.3 CSMA/CD – Implementation – Token Bus – Token Ring – FDDI MAN : IEEE 802.6(DQDB).

UNIT V

Transport Layer : Duties of the transport Layer. Session Layer : Session and Transport Interaction – Synchronization Points – Session Protocol Data Unit – Presentation Layer : Translation – Encryption / Decryption – Authentication Data Compression Application Layer : Message Handling System – File Transfer, Access and Management, Virtual Terminal, Directory Services, Common Management Information Protocol.

TEXT BOOK :

“Introduction to Data Communication and Networking” – Behrouz Forouzan – Tata Mcgraw Hill, 3rd Edition, 2006.

UNIT I – Chapters 1,2,3

UNIT II – Chapters 7.1,7.2

UNIT III – Chapters 10.1,10.2,10.3,14.1,14.2,14.3

UNIT IV – Chapters 12.1,12.2,12.3,12.4,12.5,12.6,13.1

UNIT V – Chapters 22.1,23

REFERENCE BOOKS :

“COMPUTER NETWORKS” – Andrew S. Tanenbaum, 4th Edition, PHI.

IV SEMESTER			
C 8	GUI PROGRAMMING	15UCAC41	
Hrs / Week : 5	Hrs / Sem : 75	Hrs / Unit : 15	Credits : 4

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- variable types- Arrays- Constants.

UNIT III

Selecting And Using Controls : Introducing Controls- Command Buttons-Text Boxes-Labels- Option Buttons- 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- Creating a Query- Modifying a table- DAO-RDO-ADO-Data reports.

TEXT BOOK:

1. Visual BASIC 6 In Record Time – Steve Brown – bpb Publications.

REFERENCE BOOKS:

1. Visual BASIC 6 – Paul Sheriff – PHI
2. The Complete Reference Visual Basic 6 – Noel Jerke - Tata Mcgraw - Hill Edition

IV SEMESTER			
C 9	COMPUTER SYSTEM ARCHITECTURE	15UCAC42	
Hrs / Week : 5	Hrs / Sem : 75	Hrs / Unit : 15	Credits : 4

UNIT I

Basic Computer Organization : Instruction Codes- Computer Registers – Computer Instructions-Timing and Control- Instruction Cycle- Control Memory- Address Sequencing

UNIT II

CPU : General Register Organization-Stack Organization-Instruction Formats-Addressing Modes- Program Control

UNIT III

Computer Arithmetic : Hardware Implementation and Algorithm for Addition, Subtraction, Multiplication, Division- Booth Multiplication Algorithm-Floating Point Arithmetic

UNIT IV

I/O and Memory Organization : I/O Interface –Asynchronous Data Transfer – Modes of I/O Transfer- Priority Interrupt-Direct Memory Access- Memory Hierarchy-Main Memory-Auxiliary Memory-Associative Memory- Cache Memory- Virtual Memory

UNIT V

Advanced Processing : RISC, CISC Characteristics –Parallel Processing- Pipe Lining- Vector Processing – Array Processors – Multi Processors – InterConnections Structures.

TEXT BOOK :

1. M. Morris Mano - Computer System Architecture -Third Edition
 - Unit I - Chapters - 5.1 to 5.5, 7.1 to 7.2
 - Unit II - Chapters - 8.1 to 8.5, 8.7
 - Unit III - Chapters - 10.1 to 10.5
 - Unit IV - Chapters - 11.2 to 11.6, 12.1 to 12.6
 - Unit V - Chapters - 8.8,9.1,9.6,9.7, 13.1 and 13.

IV SEMESTER			
C 10	OPERATING SYSTEMS	15UCAC43	
Hrs / Week : 5	Hrs / Sem : 75	Hrs / Unit : 15	Credits : 4

UNIT I

Operating Systems Objectives and Functions - Operating System and User / Computer Interface, Operating System as a Resource Manager : Evolution of Operating Systems – Serial Processing, Sample Batch Systems, Multi Programmed Batch Systems, Time Sharing Systems.

UNIT II

Process Description, Process Control – Processes and Threads, Concurrency – Principles of Concurrency, Mutual Exclusion – Deadlock Prevention, Deadlock Detection, Deadlock Avoidance. Memory Management - Memory Management Requirements – Fixed Partitioning, Placement Algorithm, Relocation in a Paging System - Sample Segmentation.

UNIT III

Virtual Memory – Paging – Address Translation in a Paging System, Segmentation – Organization, Address Translation in a Segmentation System – Combined Paging and Segmentation – Virtual Memory – Operating System Software – Fetch Policy, Placement Policy and Replacement Policy.

UNIT IV

Scheduling – Types of Scheduling, Scheduling Algorithms, Scheduling Criteria, FIFO, Round Robin, Shortest Process Next, Shortest Remaining Time, Feedback Scheduling – Fairshare Scheduling.

UNIT V

I/O Management and disk scheduling – Organization of the I/O function – The Evaluation of the I/O function, Logical Structure of the I/O function, I/O Buffering, Disk I/O – Disk Scheduling Algorithms, Disk Cache. File Management – Files, File Management Systems, Secondary Storage Management – File Allocation.

TEXT BOOK:

1. William Stallings, Operating Systems, Second Edition, Maxwell McMillan, International Editions, 1997.(unit I)
2. Silberschatz A. Peterson J.L.,Galvan P.Operating System Concepts. Third Edition.(unit II,III,IV,V)

REFERENCE BOOKS :

- 1.Dental H.M., An Introduction to Operating Systems, Addison Wesley Publishing Co., 1998.
2. Charles Crowley, Operating Systems – A Design Oriented Approach, IRWIN Publication.

III & IV SEMESTERS		
CP I	CORE PRACTICAL - II (Exam end of IV Sem)	15UCAC4P
Hrs / Week : 3	Hrs / Sem : 45	Credits : 3

PROGRAMMING IN JAVA PRACTICAL

- 1 Write a java program using class
- 2 Write a java program using inheritance
- 3 Write a java program using interfaces
- 4 Write a java program using packages
- 5 Write a java program to create a user defined exception
- 6 Write a program using threads
- 7 Create an applet program to draw multiple shapes
- 8 Create a java program using event handling
- 9 Create a java programming using Files

GUI PROGRAMMING PRACTICAL

- 1 Arithmetic Calculator.
- 2 Menu Creation with simple file and edit options.
- 3 Designing a color mixer using basic colors.
- 4 Create a file open dialogue box to load a picture.
- 5 Create an application to format the text inside the text box.
- 6 Viewing records using data base controls.
- 7 Adding records to database
- 8 Display the information in the report form.
- 9 Create an application to move the elements from list to list and add new items.
- 10 Picture Animation.

V SEMESTER			
C 11	DATA STRUCTURES	15UCAC51	
Hrs / Week : 6	Hrs / Sem : 90	Hrs / Unit : 18	Credits : 5

UNIT-I ARRAYS AND STRUCTURES

Arrays-Dynamically Allocated Arrays-Structures and Unions-Polynomials-Sparse Matrices : The Abstract Data Type,Sparse matrix representation,transpose a sparse matrix-Representation of Multidimensional Arrays-Strings

UNIT-II STACKS AND QUEUES

Stacks-Abstract data type Stack-add,delete elements from stack-Queues-Abstract data type queue-add,delete elements from queue-Circular Queues-Evaluation of Expressions-Evaluating postfix expressions-infix to postfix-Multiple stacks and Queues..

UNIT-III LINKED LISTS

Singly linked lists and Chains-Representing chains in C - create a two node list-insert an element in a list-delete an element from a list-display the elements in a list-add and delete an element using linked stack and queue- polynomial representation using linked list-adding polynomials-doubly linked list-add and delete an element using doubly linked list

UNIT-IV TREES

Terminology-Representation of trees-binary tree : abstract data type-properties of binary trees-Binary tree representations-binary tree traversals-inorder,preorder and postorder traversal-additional binary tree operations:copying and testing equality.

UNIT-V GRAPHS

Abstract data type -Definitions -Graph Representations -Adjacency Matrix,Adjacency Lists,Adjacency Multilists-Elementary Graph operations-Depth First Search,Breadth First Search,Connected Components,Spanning Trees-Minimum Cost spanning trees-Kruskal'sAlgorithm,Prim's Algorithm-Shortest path and transitive closure-single source all destinations,All pair shortest paths,transitive closure

TEXT BOOK:

"Fundamentals of Data Structures in C"-Horowitz,Sahni and Anderson-Freed,Second edition,University Press(India) private limited

REFERENCE BOOKS :

"Fundamental of Data Structures" Ellis Horowitz and Sartaj Sahni ,Galgotia Publications

V SEMESTER			
C12	ASP.NET	15UCAC52	
Hrs / Week : 5	Hrs / Sem : 75	Hrs / Unit : 15	Credits : 5

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-Validation and Rich Controls-validation-A simple validation controls-Understanding Regular Expressions

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 ADO.NET-Data Access-Accessing Data The Easy Way-Creating a Connection-Defining a Select command- Updating Data Accessing-Modifying-Updating Disconnected Data

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 :

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

REFERENCE BOOK :

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

V SEMESTER			
C13	SOFTWARE ENGINEERING	15UCAC53	
Hrs / Week : 5	Hrs / Sem : 75	Hrs / Unit : 15	Credits : 5

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 BOOKS:

Software Engineering , IAN SOMMERVILLE , 6th 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, 2nd Edition, Pearson Education Asia.

V SEMESTER			
CE 1A	ORACLE	15UCAE5A	
Hrs / Week : 5	Hrs / Sem : 75	Hrs / Unit : 15	Credits : 6

UNIT I

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

UNIT II

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 III

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

UNIT IV

PL/SQL: PL / SQL – triggers – stored procedures and functions – packages – cursors – transactions - Distributed processing: distributed processing – replication.

UNIT V

Introduction to Database Security - Authentication Methods-Authorization- Access Restrictions on Tables, Views, Synonyms, or Rows-Security policies-database auditing

TEXT BOOK:

1. Jose. A. Ramalho – Learn Oracle, B.P.B Publications.(Unit 1 to 4)\
2. http://docs.oracle.com/cd/B19306_01/server.102/b14220/security.htm (Unit 5)

REFERENCE BOOK :

1. Database system using oracle – Nileshshah

V SEMESTER			
CE 1B	VB .NET	15UCAE5B	
Hrs / Week : 5	Hrs / Sem : 75	Hrs / Unit : 15	Credits : 6

UNIT I

Essential Visual Basic .NET Operators-Conditional statements-loops-Procedure-Scope-Exception Handling.

UNIT II

VB.NET controls – Text Box, Buttons, Labels, Check Boxes, Radio Buttons, List Boxes, Combo Boxes, Picture Boxes.

Scrollbars, Timer, Menus, Built-in Dialogs, Image List, Toolbars, Status Bar and Progress bars, Exception – type of errors, Structured and Unstructured exception.

UNIT III

Object Oriented Programming in VB.NET – Class and Objects, Properties, Methods and Events, Constructor and Destructor, Method overloading, Inheritance, Access modifiers: Public, Private, Protected, Friend, Overriding and shadowing, Interfaces, Polymorphism.

UNIT IV

ASP.NET using VB.NET – Introduction to web form, Page directive, all validation controls, Page redirection Concept of web services, Create a small web services.

UNIT V

ADO.NET - Database : Connections, Data adapters, Datasets, Data Reader, Multiple Table Connection, Data binding with controls like Text Boxes, List Boxes, Data grid etc. Navigating data source, Data Grid View.

TEXT BOOK:

Visual Basic .NET Programming Black Book - Steven Holzner.

Reference Books:

Developing Windows-Based Applications With Microsoft Visual Basic .Net and Visual C# .Net By Mattjew Stoecker

VI SEMESTER			
C14	DATA MINING	15UCAC61	
Hrs / Week : 6	Hrs / Sem : 75	Hrs / Unit : 15	Credits : 5

Unit I

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

UNIT-II

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

UNIT-III

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

UNIT -IV

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

UNIT-V

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

TEXT BOOK:

Introduction to Data mining with case studies, G.K. Gupta, PHI Private limited, New Delhi, 2008.2ndEdition, PHI , 2011

REFERENCE:

Data Mining Techniques, Arun K Pujari , University Press.

VI Semester			
C 15	COMPUTER GRAPHICS AND MULTIMEDIA	15UCAC62	
Hrs / Week : 5	Hrs / Sem : 75	Hrs / Unit : 15	Credits : 5

UNIT I

Introduction to graphics : Application of computer graphics – Raster and vector Graphics – Display devices – Graphical Input devices .

UNIT II

Graphics Programming : Graphics in c++ – Coordinate system – Plotting pixels – Line drawing – Circle drawing – Other shapes – Setting drawing colors – Setting background colors – Line styles – Fill styles – Displaying texts – Animations.

UNIT III

Raster Graphics Algorithms : Line drawing – Polynomial – DDA – Bresenham's algorithm – Circle drawing – polynomial – trigonometric – Bresenham's algorithm – Midpoint algorithm.

UNIT IV

Geometrical transformations – 2D and 3D graphics – matrix representation – Homogeneous coordinates – window to view port transformations – Line clipping – Polygon clipping.

UNIT V

Multimedia : Overview – Multimedia operating systems – system requirements and configurations for multimedia – compression technology for multimedia – Multimedia tools – Developing and delivering a multimedia project – Applications of multimedia.

TEXT BOOKS :

1. Computer Graphics and Multimedia – Donald Hearn & paurlin Baker – computer Graphics, Prentice Hall of India pvt Ltd.
2. Interactive computer Graphics –Neumann and Sproull McGrew Hill publications.
3. Multimedia by Tay Vaughan

VI SEMESTER		
C16	PROJECT	15UCAP61
Hrs / Week : 5	Hrs / Sem :6 x 15= 90	Credits : 5

OBJECTIVES :

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

1. Identify the potential areas of research 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.**
7. **Evaluation scheme:**
8. 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
Total	60	60

V & VI SEMESTERS		
CP III	CORE PRACTICAL - III (Exam end of VI Sem)15UCAC6P1	
Hrs / Week : 3	Hrs / Sem : 45	Credits : 3

GRAPHICS AND MULTIMEDIA PRACTICAL

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.

V & VI SEMESTERS		
CP IV	CORE PRACTICAL - IV (Exam end of VI Sem)	15UCAC6P2
Hrs / Week : 3	Hrs / Sem : 45	Credits : 3

ASP.NET PRACTICAL

1. Create a web form with dropdown list box. In dropdown list box enter few colors. When user change the selection in the dropdown list box change the color of the page.
2. Create one web form with code behind model.
3. Create a web form. Add a button. Put caption of the button Add Control. Add a textbox when user clicks on the button.
4. Create a web form to handle list box's selection change event.
5. Create a page 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
6. Create a web form and demonstrate the use of hyperlink control.
7. Create a page that takes number of rows and columns from the user and make a table.
8. Demonstrate use of login controls with web forms for login, create user, password recovery.
9. Create a page using HTML Server controls that convert given currency into another selected currency.
10. Create a page which generates a greeting card.

VI SEMESTER			
CE 2A	C# PROGRAMMING	15UCAE6A	
Hrs / Week : 5	Hrs / Sem : 75	Hrs / Unit : 15	Credits : 6

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, for each statements – Jump Statements – Selection Statements

UNIT IV

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

UNIT V

Delegate Declaration and Instantiation- Events – Exceptions – Preprocessor Directives – C# Documentation Comments – Generating c# Documentation

TEXT BOOK :

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

VI SEMESTER			
CE 2B	PHP	15UCAE6B	
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.

V & VI SEMESTERS		
CEP A	CORE ELECTIVE PRACTICAL	15UCAE6PA
(Exam end of VI Sem)		
Hrs / Week : 3	Hrs / Sem : 45	Credits : 3

CORE ELECTIVE : 1A - 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 Cursors.
13. PL/SQL programs with Exception Handling.
14. Working with Triggers

CORE ELECTIVE : 2A - 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.

V & VI SEMESTERS		
CEP B	CORE ELECTIVE PRACTICAL (Exam end of VI Sem)	15UCAE6PB
Hrs / Week : 3	Hrs / Sem : 45	Credits : 3

CORE ELECTIVE : 1B - VB.NET PROGRAMMING

1. Create User Defined Procedure with Own data.
2. Write VB.Net code to show a different types of Msg Box.
3. Write a VB.Net code to show different Pictures when clicking different Buttons.
4. Write a code for Creating Pull down and Pop- Up menu.
5. Write a code for Validate values using Validation control.
6. Design HTML form using HTML control and write a code for displaying the Employee's Information.
7. Write a VB.Net code for Adding, Deleting and Modifying records.
8. Write a VB.Net code for displaying 4,5,6 Multiplication tables.

CORE ELECTIVE : 2B - 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 array functions.
6. Design a HTML form using HTML Control and write a PHP code for displaying the employee's information.
7. Write a PHP code for Adding, Deleting, and Modifying records.
8. Write a PHP code using function.

I SEMESTER			
AI 1	OFFICE AUTOMATION		15UITA11
Hrs / Week : 3	Hrs / Sem : 45	Hrs / Unit : 9	Credits : 4

UNIT I

Introduction of Office 2000 : Exploring common features in Office. Working with files. Editing in Office 2000, Selecting, moving and Copying – Fonts and font styles. Mastering the basics of Word Creating Word documents – Editing document Texts – applying Text enhancements. Aligning and Formatting, adding Lists, Numbers, Symbols, Date and time, Replacing and checking text, getting into print.

UNIT II

Word : Applying advanced formatting techniques : Formatting pages. Working with Columns, Constructing high quality tables, Creating outlines in Word. Working with complex Documents .

UNIT III

Managing data with Word, creating customized Merge Documents, Publishing online forms, adding reference to documents, working together on documents.

UNIT IV

Excel : Creating Excel Worksheet : Entering and editing Cell entries, Working with numbers, changing worksheet layout, other formatting options, Printing in Excel, using functions and references, naming ranges, creating easy to understand charts, using custom and special effects, using financial and statistical functions. Tracking and analyzing data with Excel, auditing Worksheet.

UNIT V

Power Point : Creating Power Point presentation : Creating a Basic Presentation, building presentations, modifying visual elements, formatting and checking text, adding objects, applying transitions, animations effects and linking, preparing handouts, taking the show on the road.

TEXT BOOK :

Gini Courter & Anette Marquis – MICROSOFT OFFICE 2000 No Experience required, BPB Publications.

REFERENCE BOOK :

Stephen L. Nelson – Office 2000 The Complete Reference, Tata McGraw Hill publishing Company Limited.

II SEMESTER			
AI 2	MULTIMEDIA TOOLS		15UITA21
Hrs / Week : 3	Hrs / Sem : 45	Hrs / Unit : 9	Credits : 4

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 :

1. Macromedia Flash MX: Training from the source by Chrissy Rey.
2. Flash 8 – Shalini Gupta and Adity Gupta.

I & II SEMESTERS		
AI P	ALLIED PRACTICAL - I (Exam end of II Sem)	15UITA2P
Hrs / Week : 3	Hrs / Sem : 45	Credit : 2

OFFICE AUTOMATION PRACTICAL

MS WORD 2000

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 2000

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 2000

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)

MULTIMEDIA 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. Adding sound in a video file.

III Semester			
AII 1	WEB DESIGNING	15UITA31	
Hrs / Week : 3	Hrs / Sem : 45	Hrs / Unit : 9	Credits : 4

UNIT I

Introduction to HTML – History Of HTML –HTML Documents - HTML Editors – HTML Basics – HTML Elements and Attributes – Anchor Tag – Hyper Links. Head and Body Sections – Header Section – Title, prologue, Links, Colorful Web Page, Comment Lines.

UNIT II

Designing Body Sections – Heading printing, Aligning the Headings, Horizontal rule, Paragraph, Tab Settings.

UNIT III

Lists, Unordered Lists, Ordered Lists, Table Handling, Layouts, Frames: Frameset Definition – Frame Definition – Nested Framesets.

UNIT IV

Forms – Action Attribute – Drop Down List – Check Boxes – Radio Buttons – Text Field – Text Area – Password – Hidden – Submit and Reset Buttons.

UNIT V

CSS Introduction – CSS Selectors - Text & fonts – CSS Box Model – CSS Border – Margin & Padding – Pseudo Classes - Javascript Overview – Syntax – Javascript Events – Javascript Functions – Cookies.

TEXT BOOK :

Web Designing and CSS : The Complete Reference, Fifth Edition by Thomas Powell.

REFERENCE BOOK:

World Wide Web design: C. Xavier

IV SEMESTER			
AII 2	UNIX & SHELL PROGRAMMING	15UITA41	
Hrs / Week : 3	Hrs / Sem : 45	Hrs / Unit : 9	Credits : 4

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.

III & IV SEMESTERS		
A II P	ALLIED PRACTICAL - II (Exam end of IV Sem)	15UITA4P
Hrs / Week : 3	Hrs / Sem : 45	Credit : 4

WEB PROGRAMMING PRACTICAL

1. Write a HTML code to display information about your college. Use
1) Bold Tag 2) Centre Tag 3) Heading tags and font tags, Add background color and picture.
2. Design a web page with attractive background color and text color the academic and personal facets of an international leader. Give suitable headings and horizontal rules.
3. Write a HTML program using all formatting elements
4. Write a HTML program to prepare a bio-data in a form.
5. Write an HTML program to print a nested list.
6. Create a table to display your I semester marks obtained in the exam.
7. Write an HTML program to display your current semester time table.
8. Write an HTML code to display a list of cars in a frame Line, each one to a brief description in second frame. Both the frames should be side by side.
9. Write an HTML program to display any three Flower details in separate frames. Each frame should be side by side.
10. Write a HTML program to develop a web page using css.

(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 commands.
 - 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.

PART IV- SKILL BASED ELECTIVE

III SEMESTER			
SBE 1	DESK TOP PUBLISHING	15UCAS31	
Hrs / Week : 3	Hrs / Sem : 45	Hrs / Unit : 9	Credits : 2

UNIT I - Introduction

Introduction to PageMaker - Layout window – Document setup –Basic page Maker function: Open, new, close, print, save and save as – Working with text : text tool, Text block – Editing Text – Formatting a Text: Character formatting, paragraph formatting and style creation & 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 PageMaker.

UNIT III - Corel Draw 8.0

Introduction to CorelDraw – features and advantages – Layout window – Basic CorelDraw 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 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, symble, Preset, Layer and Power clip option –Template creation Creating New: Arrow,pattern, symbol and style.

UNIT V - Photoshop 5.5

Introduction to photo Shop - Layout -basic functions: New, Open, close, save, save as and setup –painting tools: Air brush, paint brush, line pen, eraser, eye dropper, and gradient and paint bucket tools. Text Tools – Zoom tool, Hand tool, selection tools: Move and sponge tools- vignettes and edge effects.

TEXT BOOKS :

1. Mastering Page Maker6 for windows 95 – by Rebecca Bridges Altman & Rick Altman Chapters: 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 Chapters 1 - 6,10,12,13.

IV Semester			
SBE 2	RDBMS	15UCAS41	
Hrs / Week : 3	Hrs / Sem : 45	Hrs / Unit : 9	Credits : 2

UNIT I

Introduction : Purpose of Data base Systems – view of data – data models – data base models – data base languages – transaction management – storage management – data base administrator – data base users.

Entity – relationship model; Basic concepts – design issues – mapping cardinalities – keys – ER Diagrams – Weak entity sets.

UNIT II - Relational Model

Structure of relational databases – relational Algebra – the tuple relational calculus – the domain relational calculus – extended relational Algebra operations –Modification of the database – views .

UNIT III - Storage and File Structure

Overview of physical storage media – magnetic disks – RAID – storage access – file organization – organization of records in files – data directory storage – storage structures for object – oriented data base .

Indexing and Hashing : Basic concepts – oriented indices – static hashing – dynamic hashing – comparison of ordered indexing and hashing .

UNIT IV - Relational data base Design

Pitfalls in Relational data base design – decomposition – normalization using functional dependencies – normalization using multi – valued dependencies .

UNIT V - SQL within PL/SQL

SQL structures – DML in PL/SQL – GRANT, REVOKE, and privileges – Transaction control.

TEXT BOOKS:

1. Database system concepts –Abraham Silberschatz hentry F.Korth, L.Su.Dershan. IIIEdition, McGraw Hill companies, INC New York - Chapters: 1, 2, 3,5,6,7.

REFERENCE BOOKS:

1. Database Management systems – Alexis Leon.
2. Commercial Application Development using Oracle Developer 2000 Invan Bayross.

PART IV - NON MAJOR ELECTIVE

III SEMESTER

NME 1	INTERNET & HTML	15UCAN31
Hrs / Week : 3	Hrs / Sem : 45	Hrs / Unit : 9 Credits : 2

UNIT I

Introduction to internet-computers in business networks-internet-electronic mail-resource sharing-gopher-www-usenet-telnet-bulletin services-wide area information service.

Internet explorer-Netscape navigator

UNIT II

Designing a home page-history of html-html generations-html document-anchor tag-hyper links-sample html documents-header and body section-designing the body-tab setting-image and picture-embedding PNG format images.

UNIT III

List unordered list-ordered list-nested list-table creation-Cell spacing and spanning-coloring cells - rows and columns specification.

UNIT IV

Frameset-definition-frame definition-nested frame sets.

UNIT V

Forms action attributes-method attributes-encype attributes-dropdown list.

TEXT BOOK:

1. World wide web design with html-c.Xavier

IV SEMESTER			
NME 2	DESK TOP PUBLISHING	15UCAN41/ 15UCSN41	
Hrs / Week : 3	Hrs / Sem : 45	Hrs / Unit : 9	Credits : 2

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

Objectives:

To provide the basic methodologies and techniques in Desktop Publishing.

UNIT I

Hardware Requirements for DTP – Beginning a Design – Design Considerations – Text Organization – Designing Common Media Publications.

UNIT II

PageMaker : Getting Started with PageMaker – Editing Text. PageMaker : Formatting Text – Master Pages – Creating Master Pages – Applying, Removing and Editing a Master Page.

UNIT III

Creating a New Publication – Working with columns. Working with Graphics and Objects – Managing and Printing a Publication.

UNIT IV

Photoshop: Getting Started with Photoshop: Opening and Existing File – Creating a New File – Saving, Reverting and Closing Files – Working with Images and Colors – Selection Tools – Painting Tolls – Drawing Tolls – Editing Tools – Eraser Tools.

UNIT V

Understanding Layers : Working with Layers – Applying Layer Styles – Fill and Adjustment Layers – Exploring Layer components – What are Masks? Using Layer Masks – Merging and Flattening Layers.

TEXT BOOKS:

Vikas Gupa, Desktop Publishing Course Kit, Dreamtech Press, 2005.

REFERENCE BOOKS

1. Mastering Page Maker6 for windows 95 –by Rebecca Bridges Altman & Rick Altman
2. Photoshop 4 Studio skills by Steven Moniz.

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	
DEPT. OF COMPUTER SCIENCE								
III	Office Automation	15UCSN31	3	2	25	75	100	
IV	Desktop Publishing	15UCSN41	3	2	25	75	100	

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

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

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

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

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: eco system diversity, species and Genetic Hot spots of biodiversity - Western Ghats, Eastern Himalayas and Gulf of Mannar. Threats to biodiversity - Habitual Loss, Poaching of wild life and Man - wild life conflicts.

Conservation 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.

SCHEME OF EXAMINATIONS UNDER CBCS (2015 - 2018)
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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
Theory	100	25	75	Nil	30	40
Practical	100	40	60	Nil	24	40
Project	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
Theory	100	25	75	nil	38	50
Practical	100	40	60	nil	30	50
Project	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
Theory	20	5	--	--	25
Practical	30	--	5	5	40

- The duration of each CIA Test is ONE hour and the Semester Examination is THREE hours.
- 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.
- 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.
- Two assignments for Undergraduate, Certificate, Diploma and Advanced Diploma Courses and two assignments OR two seminars for Postgraduate Courses.
- 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.
- 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:

$$\left(\frac{\text{Marks secured in the first best Practical Test (Out of 25)} + \text{Marks secured in the next best Practical Test (out of 25)}}{2} \right) \times 0.6$$
- 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

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

QUESTION PAPER PATTERN FOR SEMESTER EXAMINATION (THEORY)

Duration: 3 Hrs

Maximum Marks: 75

Section	Question Type	No. of Questions & Marks	Marks
A	No Choice Answer should not exceed 75 words	10 Questions - 2 marks each (2 Questions from each unit)	10 x 2 = 20
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 x 5 = 25
C	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 x 10 = 30
TOTAL			75 MARKS