BHARATHIAR UNIVERSITY: COIMBATORE-641

046B.Sc.CS/IT/CT/SS/MM/CSA&BCA

(Forthestudentsadmittedfromtheacademicyear**2017-2018** and onwards)

SCHEMEOFEXAMINATION-CBCS PATTERN

Part	Studycomponents	CourseTitle	Ins.Hrs/week	Examinations				Credit
				Dur.Hrs.	CIA	Marks	Total Marks	
	SemesterI							
I	Language–I		6	3	25	75	100	4
II	English–I		6	3	25	75	100	4
III	Core1:ComputingFundamentalsand CProgramming		4	3	25	75	100	4
III	Core2:DigitalFundamentalsand Architecture		4	3	25	75	100	4
III	CoreLab1:ProgrammingLab–C		3	3	40	60	100	4
III	Allied1:&&		5	3	25	75	100	4
IV	EnvironmentalStudies#		2	3	-	50	50	2
	SemesterII							
I	Language–II		6	3	25	75	100	4
II	English– II		6	3	25	75	100	4
III	Core3:C++Programming		5	3	25	75	100	4
III	CoreLab2:ProgrammingLab –C++		4	3	40	60	100	4
III	CoreLab3: InternetBasics		2	3	20	30	50	2
III	Allied2:&&		5	3	25	75	100	4
IV	ValueEducation –HumanRights#		2	3	-	50	50	2
	SemesterIII							
III	Core4:DataStructures		6	3	25	75	100	4
III	Core5:JavaProgramming		6	3	25	75	100	4
III	CoreLab4:ProgrammingLab –Java		5	3	40	60	100	4
III	Allied3:&&		6	3	25	75	100	4
IV	SkillbasedSubject 1 -&&		5	3	20	55	75	3
IV	Tamil@/AdvancedTamil(OR) Non-majorelective-1(YogaforHumanExcellence)#/ Women‘sRights#		2	3	-	50	50	2
	SemesterIV							
III	Core6:SystemSoftware andOperating System		6	3	25	75	100	4
III	Core7:Linux andShell Programming		6	3	25	75	100	4
III	CoreLab5:Linux andShell ProgrammingLab		6	3	40	60	100	4
III	Allied4:&&		6	3	25	75	100	4

IV	Skillbasedsubject2(lab)&&	4	3	30	45	75	3
IV	Tamil@/AdvancedTamil(OR) Non-majorelective-II(GeneralAwareness)#	2	3	-	50	50	2
	SemesterV						
III	Core8:RDBMS&Oracle	6	3	25	75	100	4
III	Core9:VisualBasic	6	3	25	75	100	4
III	CoreLab6:ProgrammingLab –VB& Oracle	6	3	40	60	100	4
III	Elective1&&	6	3	25	75	100	4
IV	SkillbasedSubject3:&&	6	3	20	55	75	3
	SemesterVI						
III	Core10: Graphics &Multimedia	5	3	25	75	100	4
III	Core11:ProjectWorkLab%%	5	3	-	200	200	8
III	CoreLab7:ProgrammingLab– Graphics &Multimedia	6	3	40	60	100	4
III	Elective II&&	5	3	25	75	100	4
III	ElectiveIII&&	5	3	25	75	100	4
IV	SkillbasedSubject4(lab)&&	4	3	30	45	75	3
V	ExtensionActivities	-	-	50	-	50	2
	Total					3500	140

@ No University Examinations. Only Continuous Internal Assessment

(CIA)#NoContinuousInternalAssessment(CIA).OnlyUniversityExaminations

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%%**see GuidelinesforProjectWork.**

BHARATHIAR UNIVERSITY: COIMBATORE-641
046B.Sc.CS/IT/CT/SS/MM/CSA &BCA
(Forthestudentsadmittedfromtheacademicyear**2016-2017**andonwards)
SCHEMEOFEXAMINATION-CBCS PATTERN

Course / Subject	**B.Sc.INFORMATIONTECHNOLOGY**
Allied-1	MathematicalStructures forComputerScience
Allied-2	DiscreteMathematics
Allied-3	Microprocessor&ALP
Allied-4	ComputerNetworks
Elective-I	SoftComputing/ AnimationTechniques/BusinessIntelligence
Elective-II	NetworkSecurityand Administration/MobileComputing/InternetProgramming
Elective-III	E-Learning/ ComponentTechnology/ E-Commerce
Skill-1	Introductiontowebdesign&Applications
Skill-2(lab)	HTML, XMLandJavaScript Lab
Skill-3	DotNetProgramming
Skill-4(lab)	DotNet Lab

SEMESTER-I

BHARATHIYAR UNIVERSITY, COIMBATORE – 641046

UNDER GRADUATE DEGREE PROGRAMMES (CBCS SEMESTER PATTERN)

(For the students admitted during the academic year 2016 – 2017 and onwards)

பாடத்திட்டம் - முதற்பருவம் - பகுதி -1. தாள் 1

(2016 - 17 ஆம் கல்வியாண்டில் சேர்வோர்க்குரியது (செய்யுள் . சிறுகதை , இலக்கிய வரலாறு, இலக்கணம் , மொழிபெயர்ப்பு)

அலகு 1

1. பாரதியார் - தமிழ்த்தாய், தமிழ்
2. பாரதிதாசன் - அழகின் சிரிப்பு
3. நாமக்கல் கவிஞர் - தமிழ்வழி அரசு
4. ஆரூர் தமிழ்நாடன் - கரிக்கிறது தாய்ப்பால்
5. கவிமணி தேசிக விநாயகம் பிள்ளை - ஒற்றுமை , இலக்கிய மும்மணி

அலகு 2 சமூகம்

6. நவீன தாலாட்டு - வைரமுத்து
7. சாவிலா வீட்டில் - கண்ணதாசன்
8. சருகுகள் சலசலக்கின்றன ஒரு கல்லின் கதை - வெ.இறையன்பு
9. மு. மேத்தா கவிதைகள் - மு.மேத்தா
10. ரிஷி கவிதைகள் - முடிந்தது , இங்கே, படைப்பு, மதி, தாகம்

அலகு -3 சிறுகதைத் தொகுப்பு

அறிவுப் பதிப்பகம், இராயப்பேட்டை, சென்னை.

அலகு - 4 இலக்கிய வரலாறு - (பாடத்திட்டத்தைத் தழுவியது)

1. புதுக்கவிதையின் தோற்றமும் வளர்ச்சியும்
2. சிறுகதையின் தோற்றமும் வளர்ச்சியும்
3. படிமம் , குறியீடு - பற்றிய விளக்கங்கள்
4. இலக்கணம்

   1. மொழித்திறன், சொற்பொருள் வேறுபாடு, ர,ற, ல.ள.ழ. ந.ண.ன, வேறுபடுத்தி அறியும் முறை

   2. தொடரில் வழுஉச் சொற்களை நீக்கி எழுதுதல்

   3. உண்டு , உள, உளது, அன்று, அல்ல, அல்லன், அல்லர், பயன்பாடு, ஒரு, ஓர் - பயன்பாடு

   4. ஒருமை - பன்மை - தொடரில் அமையும் விதம்

அலகு - 5 மொழி பெயர்ப்பு , பொதுப்பகுதி, அலுவலகப்பகுதி - ஆங்கிலத்தில் இருந்து தமிழில் மொழிபெயர்த்தல்.

குறிப்பு: முதற் பருவம் தாள் 1 – அலகு -3 சிறுகதைத் தொகுப்பு மாற்றம் செய்யப்பட்டுள்ளது.

ஏனைய பகுதிகளில் மாற்றம் இல்லை.

BHARATHIAR UNIVERSITY, COIMBATORE

PART-I, PAPER-I, FRENCH
(COMMON FOR ALL U.G. COURSES)
SYLLABUS - UNDER CBCS – AFFILIATED COLLEGES
[with effect from 2014-2015]

SEMESTER- I

PAPER I

Prescribed text : **ALORS I**
Units : 1 – 5

Authors : Marcella Di Giura
Jean-Claude Beacco

Available at : Goyal Publishers Pvt Ltd
86, University Block
Jawahar Nagar (Kamla Nagar)
New Delhi – 110007.

Tel : 011 – 23852986 / 9650597000

Question Paper Pattern: Semester I
(ALL QUESTIONS TO BE SET ONLY FROM THE PRESCRIBED TEXT)

Maximum Marks: 75 Time: 3 hrs.

SECTION A (10)
1. CHOISISSEZ LA MEILLEURE RÉPONSE: (10X1=10)

SECTION B (20)
2. TRADUISEZ LES TEXTES SUIVANTS EN ANGLAIS:(4/5) (4X5=20)
(Pg Nos : 26 ex-6,44 ex-3,56 ex-4,74ex-4,80.)

SECTION C (45)
3. COMPRÉHENSION (8x1=8)
4. EXERCICES DE GRAMMAIRE:(5X5=25) (EITHER/OR)
5. FAITES DES PHRASES:(6/8) (6X1=6)
6. TRADUISEZ LES EXPRESSIONS EN ANGLAIS :(6/8) (6X1=6)

BHARATHIAR UNIVERSITY
COIMBATORE 641 046
Syllabus for U.G. (Part. I) Hindi (C B C S)

(Prose, Non-detailed, Grammar & Translation, Comprehension)

1. PROSE : NUTHAN GADYA SANGRAH
   Editor : Jayaprakash
   (Prescribed Lessons – only 6)
   Lesson 1 – Bharathiya Sanskurthi
   Lesson 3 – Razia
   Lesson 4 – Makreal
   Lesson 5 – Bahtha Pani Nirmala.
   Lesson 6 – Rashtrapitha Mahathma Gandhi
   Lesson 9 – Ninda Ras.

   Publisher : Sumitra Prakashan
   Sumitravas, 16/4, Hastings Road,
   Allahabad – 211 001.

2. NON DETAILED TEXT : KAHANI KUNJ
   Editor : Dr. V.P. Amithab.
   (Stories 1-6 only)
   Publisher : Govind Prakashan
   Sadhar Bagaar, Mathura, Uttar
   Pradesh – 281 001.

3. GRAMMAR : SHABDHA VICHAR ONLY
   (NOUN, PRONOUN, ADJECTIVE, VERB, TENSE, CASE ENDINGS)
   Theoretical & Applied.
   Book for Reference : Vyakaran Pradeep by Ramdev
   Publisher : Hindi Bhavan,
   36, Tagore Town
   Allahabad – 211 002.

4. TRANSLATION : English – Hindi only.
   ANUVADH ABHYAS – III
   (1-15 lessons only)
   Publisher : DAKSHIN BHARAT HINDI PRACHAR SABHA
   CHENNAI – 17.

5. COMPREHENSION : 1 Passage from ANUVADH ABHYAS – III (16-30)
   DAKSHIN BHARATH HINDI PRACHAR SABHA
   CHENNAI-17.

BHARATHIAR UNIVERSITY
COIMBATORE 641 046
Syllabus for U.G. (Part. I) Malayalam (C B C S)

For those who joined in 2017-2018 academic year and onwards

First Semester

Paper I Prose, Composition & Translation

This paper will have the following five units:

Unit I & II	Novel
Unit III & IV	Short Story
Unit V	Composition and Translation

Text books prescribed:

Unit I & II - Pathummayude Aadu - Vaikam Muhammed Basheerr (D.C.Books, Kottayam, Kerala)

Unit III & IV - Ente Priyappeta Kadhakal – Akbar Kakkattil)(D.C. Books, Kottayam, Kerala)

Unit V - Expansion of ideas, General Eassay and Translation. (A simple passagefrom English about 100 works to Malayalam)

Reference Books:

1.Malayala Novel Sahithya Charitram-K.M.Tharakan (N.B.S.Kottayam)
2.Cherukatha Innale Innu-M.Achuyuthan (D.C Books, Kottayam)
3.Sahithya Charitram Prasthanangalilude- Dr.K.M George, (D.C.Books Kottayam)
4. Malayala Sahithya vimarsam-Sukumar Azhee kode (D.C.books)

BharathiarUniversity–Coimbatore
PartIIEnglish-SemesterI

(Forthestudentsadmittedfromtheacademicyear2016-17andonwards)

PrescribedText:AROMABoardof
Editors
Publishers:NewCenturyBookHouse(p)Ltd.,41B,SIDCOIndustrialEs
tate
Chennai-98.

UnitI:-Poetry

1. Wherethe mindiswithoutFear-RabindranathTagore
2. TheRoadnotTaken-RobertFrost
3. TheVillageSchoolmaster-OliverGoldsmith

UnitII:Prose

1. SpokenEnglishandBrokenEnglish-G.B.Shaw
2. Howto Avoid FoolishOpinion BertrandRussell
3. AtSchool –M.K.Gandhi

UnitIII:Short Stories

1.Lalajee-JimCorbett
2.AHero-R.K.Narayan
3.ADay's Wait-Hemingway

UnitIV:OneActPlays

1. Refund-FritzKarinthy
2. TheNeverNeverNest-Cedric Mounte

UnitV:Grammar andComposition

1. PartsofSpeechNou
n
PronounAdjectiv
eVerbAdverbPre
position

2. Reading Comprehension(a Passage with 5 questions)

QuestionPaperPattern:Existing Patternisto befollowed.

BHARATHIAR UNIVERSITY: COIMBATORE-641
046B.Sc.CS/IT/CT/SS/MM/CSA &BCA
(For the students admitted from the academic year **2016-2017** and onwards)CBCSPATTERN

CORESUBJECTS

Course	**BScCS,IT,CT,SS,CSA, MM&B.C.A (Regular)**
Effectivefrom	**2016-2017andOnwards**
Semester	**I**
Subject	**CORE1 : COMPUTINGFUNDAMENTALSANDCPROGRAMMING**

Subject Description: This subject deals with the Computer fundamentals and the concepts ofCprogramminglanguage.

Goal: To learn about the Computer fundamentals and the C programming language concepts.**Objective:** On successful completion of this subject the students have theprogrammingabilityin CLanguage.

UNIT I: Fundamentals of Computers : Introduction – History of Computers-Generations ofComputers-ClassificationofComputers-BasicAnatomyofaComputerSystem-InputDevices-Processor-Output Devices-Memory Management – Types of Software- Overview ofOperatingSystem-ProgrammingLanguages-TranslatorPrograms-ProblemSolvingTechniques-Overview of C.

UNIT II: Overview of C - Introduction - Character set - C tokens - keyword & Identifiers - Constants - Variables - Data types - Declaration of variables - Assigning values to variables - Defining Symbolic Constants - Arithmetic, Relational, Logical, Assignment, Conditional,Bitwise,Special,IncrementandDecrementoperators-ArithmeticExpressions-Evaluationof expression - precedence of arithmetic operators - Type conversion in expression – operatorprecedence& associativity - Mathematicalfunctions- Reading & Writing acharacter-Formattedinput and output.

UNIT III: Decision Making and Branching: Introduction – if, if….else, nesting of if …elsestatements-elseifladder–Theswitchstatement,The?:Operator–ThegotoStatement.

Decision Making and Looping: Introduction- The while statement- the do statement – the forstatement-jumpsin loops. Arrays – Character Arraysand Strings

UNITIV: User-DefinedFunctions:Introduction–NeedandElementsofUser-DefinedFunctions-Definition-ReturnValuesandtheirtypes-FunctionCalls–Declarations–Category of Functions-Nesting of Functions - Recursion – Passing Arrays and Strings toFunctions - The Scope, Visibility and Lifetime of Variables- Multi file Programs. Structuresand Unions.

UNIT V: Pointers: Introduction-Understanding pointers-Accessing the address of a variable-Declaration and Initialization of pointer Variable – Accessing a variable through its pointer-Chain of pointers- Pointer Expressions – Pointer Increments and Scale factor- Pointers andArrays-PointersandStrings–Arrayofpointers–PointersasFunctionArguments-Functionsreturningpointers–PointerstoFunctions–PointersandStructures.FileManagementin C.

TEXTBOOK:

1.EBalagurusamy:ComputingFundamentals&CProgramming–TataMcGraw-Hill,SecondReprint 2008.

REFERENCEBOOK:

1. AshokNKamthane:Programming withANSIandTurbo C,Pearson, 2002.
2. HenryMullish &HubertL.Cooper: TheSprit of C, Jaico,1996.

Course	**BScCS,IT,CT,SS,CSA, MM&B.C.A (Regular)**
Effective from	**2017-2018 and Onwards**
Semester	**I**
Subject	**CORE2:** **DIGITAL FUNDAMENTALS AND COMPUTER ARCHITECTURE**

Subject Description:

Thissubjectdealswithfundamentalsofdigitalcomputers,Microprocessorsand System architecture.

Goal: TolearnaboutComputerFundamentalsanditsArchitecture.

Objective: OnsuccessfulcompletionofthissubjectthestudentsshouldhaveKnowledgeonDigitalcircuits,Microprocessor architecture,andInterfacingofvarious components.

UNIT I: Number System and Binary Codes: Decimal, Binary, Octal, Hexadecimal – Binaryaddition,Multiplication,Division– Floatingpointrepresentation,Complements,BCD,Excess3, Gray Code. Arithmetic Circuits: Half adder, Full adder, Parallel binary adder, BCDadder, Half subtractor, Full subtractor, Parallel binary subtractor - Digital Logic: the BasicGates– NOR, NAND, XOR Gates.

UNIT II: Combinational Logic Circuits: Boolean algebra – Karnaugh map – Canonical form1 – Construction and properties – Implicants – Don‘t care combinations - Product of sum,Sumofproducts,simplifications.Sequentialcircuits:Flip-Flops:RS,D,JK,andT-Multiplexers– Demultiplexers – Decoder Encoder– shift registers-Counters.

UNIT III: Input – Output Organization:Input– output interface –I/O Bus andInterface–I/O Bus Versus Memory Bus – Isolated Versus Memory – Mapped I/O – Example of I/OInterface.Asynchronousdata transfer: StrobeControl and Handshaking

UNITIV:Priority Interrupt:Daisy-Chaining Priority, Parallel Priority Interrupt. DirectMemory Access:DMAController,DMATransfer.Input–Output Processor:CPU-IOPCommunication.

UNIT V: Memory Organization: Memory Hierarchy – Main Memory- Associative memory:Hardware Organization, Match Logic, Read Operation, Write Operation. Cache Memory:Associative,Direct, Set-associativeMapping–Writinginto CacheInitialization.

TEXTBOOKS:

1. DigitalElectronicsCircuits andSystems,V.K.Puri,TMH.
2. Digitalprinciples andapplications,AlbertPaul Malvino,DonaldPLeach,TMH,1996.
3. ComputerSystemArchitecture-M.MorrisMano,PHI.

REFERENCEBOOKS:

1.ComputerArchitecture-M.Carter,Schaum’soutlineseries,TMH

Course	**BScCS,IT,CT,SS,CSA, MM&B.C.A (Regular)**
Effective from	**2016-2017andOnwards**
Semester	**I**
Subject	**CORELAB 1:PROGRAMMINGLAB– C**

1. WriteaCprogramtofindthesum,average,standarddeviationforagivensetofnumbers.
2. WriteaC programtogenerate nprimenumbers.
3. WriteaCprogramtogenerate Fibonacciseries.
4. WriteaCprogram toprint magicsquareofordernwheren>3and n isodd.
5. WriteaCprogram tosort thegivenset ofnumbers inascendingorder.
6. WriteaCprogramtocheckwhetherthegivenstringisapalindromeornotusingpointers.
7. WriteaCprogram tocountthenumberofVowelsin thegivensentence.
8. WriteaC programto findthefactorial ofa given numberusingrecursivefunction.
9. WriteaCprogramtoprintthestudent_sMarksheetassumingrollno,name,andmarksin5 subjects in a structure. Create an array of structures and print the mark sheet in theuniversitypattern.
10. Write a function using pointers to add two matrices and to return the resultant matrix tothecalling function.
11. Write a C program which receives two filenames as arguments and check whether the filecontentsaresame ornot.Ifsamedelete thesecondfile.
12. Write a program which takes a file as command line argument and copy it to another file.At the end of the second file write the total i)no of chars ii) no. of words and iii) no. oflines.

BHARATHIAR UNIVERSITY: COIMBATORE-641

046B.Sc.CS/IT/CT/SS/MM/CSA&BCA

(Forthestudentsadmittedfromthe academic year**2011-2012**andonwards)

CBCSPATTERN

ALLIEDSUBJECTS

Course	**BScCS,IT, CT,SS,CSA, MM&B.C.A (Regular)**
Effectivefrom	**2011-2012andOnwards**
Semester	**I**
Subject	**Allied1:MATHEMATICALSTRUCTURESFORCOMPUTERSCIENCE**

SubjectDescription: This subject deals with mathematical concepts likeMatrices,NumericalanalysisandStatisticalmethods forcomputer scienceand applications.
Goal: Tolearnaboutthe mathematicalstructuresforcomputerbasedapplications

Objective: On successfulcompletion ofthissubject thestudentsshould have:
- Understandingtheconceptsofmathematics
- Learningapplications ofstatisticalandnumericalmethodsforComputerScience.

UNIT–I: Matrices–Introduction–Determination–Inverse of amatrix–RankofaMatrix –EigenvalueProblems
UNIT – II: SystemofSimultaneousLinearalgebraicEquation– Gausselimination,GaussJordon,GaussSeidalmethods.ThesolutionofNumericalAlgebraic&Transcendental equation– Bisection method – Newton – Rapson method – false positionmethod.
UNIT – III: NumericalDifferentiations–Newton'sforwardDifference-BackwardDifference– StartlingformulaNumericalIntegration–TrapezoidalRule&Simpson'sruleNumerical solutions of orderingdifferential Equations – Taylor series & Runge kuttamethod
UNIT – IV: Measuresofcentraltendency–MeanMedianandMode–Relationshipamongmean mediaandmode.Measuresofdispersion–Range,quartiledeviation,meandeviation and Standard deviation
UNIT – V: RegressionandCorrelation–Typesofrelationship–Linearregression–Correlation– Coefficientofcorrelation–Regressionequationofvariables–DiscreteProbabilitydistribution– Uniform, Binomial &poision Distribution

TEXTBOOKS:

1. EngineeringMathematicsVolume II–DrM.K. Venkataraman –NPC (UnitI)
2. NumericalMethodsinscience&Engineering -M.K.Venkataraman– NPC,RevisedEdition -2005 (UnitII&III)
3. BusinessStatistics-S.P.Gupta&M.P.GuptaSultan Chandand Sons(UnitIV &V)

REFERENCEBOOKS:

1. Numericalmethods –E.BalagurusamyTataMCGrawHill.
2. Fundamentalof MathematicalstatisticsSC Gupta,V. K.Kapoor SultanChandand Sons

CORE MODULE SYLLABUS FOR ENVIRONMENTAL STUDIES

FOR UNDER GRADUATE COURSES OF ALL BRANCHES

OF HIGHER EDUCATION

SYLLABUS

Unit 1 : Multidisciplinary nature of environmental studies, Definition, scope and importance (2 lectures) Need for public awareness.

Unit 2 : Natural Resources : Renewable and non-renewable resources : natural resources and associated problems.

a) Forest resources : Use and over-exploitation, deforestation, case studies.

Timber extraction, mining, dams and their effects on forest and tribal people.

b) Water resources : Use and over-utilization of surface and ground water,

floods, drought, conflicts over water, dams-benefits and problems.

c) Mineral resources : Use and exploitation, environmental effects of extracting

and using mineral resources, case studies.

d) Food resources : World food problems, changes caused by agriculture and

overgrazing, effects of modern agriculture, fertilizer-pesticide problems, water logging, salinity, case studies.

e) Energy resources : Growing energy needs, renewable and non renewable

energy sources, use of alternate energy sources. Case studies.

f) Land resources : Land as a resource, land degradation, man induced

landslides, soil erosion and desertification.

• Role of an individual in conservation of natural resources.

• Equitable use of resoureces for sustainable lifestyles.

Unit 3 : Ecosystems : • Concept of an ecosystem. Structure and function of an ecosystem. • Producers, consumers and decomposers.• Energy flow in the ecosystem. • Ecological succession. • Food chains, food webs and ecological pyramids. • Introduction, types, characteristic features, structure and function of the following ecosystem :- a. Forest ecosystem b. Grassland ecosystem c. Desert ecosystem d. Aquatic ecosystems (ponds, streams, lakes, rivers, oceans, estuaries)

Unit 4 : Biodiversity and its conservation : • Introduction – Definition :

genetic, species and ecosystem diversity. • Biogeographical classification of India • Value of biodiversity : consumptive use, productive use, social, ethical, aesthetic and option values. • Biodiversity at global, National and local levels.

• India as a mega-diversity nation. • Hot-sports of biodiversity. • Threats to biodiversity : habitat loss, poaching of wildlife, man-wildlife conflicts. • Endangered and endemic species of India

• Conservation of biodiversity : In-situ and Ex-situ conservation of biodiversity.

Unit 5 : Environmental Pollution : Definition - • Cause, effects and control measures of :- a. Air pollution b. Water pollution c. Soil pollution d. Marine pollution e. Noise pollution f. Thermal pollution g. Nuclear hazards

• Solid waste Management : Causes, effects and control measures of urban and industrial wastes. • Role of an individual in prevention of pollution. • Pollution case studies. • Diaster management : floods, earthquake, cyclone and landslides.

Unit 6 : Social Issues and the Environment : • From Unsustainable to Sustainable development . • Urban problems related to energy • Water conservation, rain water harvesting, watershed management • Resettlement and rahabilitation of people; its problems and concerns. Case Studies : • Environmental ethics : Issues and possible solutions. • Climate change, global warming, acid rain, ozone layer depletion, nuclear accidents and holocaust. Case Studies. • Wasteland reclamation. • Consumerism and waste products.

• Environment Protection Act. • Air (Prevention and Control of Pollution) Act.

• Water (Prevention and control of Pollution) Act • Wildlife Protection Act

• Forest Conservation Act • Issues involved in enforcement of environmental legislation. • Public awareness.

Unit 7 : Human Population and the Environment • Population growth, variation among nations. • Population explosion – Family Welfare Programme. • Environment and human health. • Human Rights. • Value Education. • HIV/AIDS. • Women and Child Welfare. • Role of Information Technology in Environment and human health.• Case Studies.

Unit 8 : Field work • Visit to a local area to document environmental assetsriver/ forest/grassland/hill/mountain • Visit to a local polluted site-Urban/Rural/Industrial/Agricultural • Study of common plants, insects, birds.

• Study of simple ecosystems-pond, river, hill slopes, etc. (Field work Equal to 5 lecture hours)

SEMESTER-II

BHARATHIAR UNIVERSITY: COIMBATORE-641

இரண்டாம் பருவம்

பாடத்திட்டம் - பகுதி -1. தாள் -2.

(செய்யுள் , உரைநடை, இலக்கிய வரலாறு, விண்ணப்பம் வரைதல்)

அலகு - 1 திருக்குறள் - (மூன்று அதிகாரங்கள்)

அ. நட்பு
ஆ. நட்பாராய்தல்
இ. கூடா நட்பு

2. மூதுரை - ஔவையார் 1-15 (15 பாடல்கள்)
3. பழமொழி நானூறு கல்வி 10 பாடல்கள்

அலகு - 2

1. நந்திக்கலம்பகம்
2. திருப்பாவை, திருவெம்பாவை
3. சித்தர்பாடல்கள்

அலகு -3 **உரைநடை**

1.	சங்கநெறிகள் - முனைவர் ,	வ.சுப.மாணிக்கம்.
2.	இன்றைய சூழலில் மகளிரின் பணி-	மீனாட்சி
3.	புதிர் எதிர் காலம் -	சிற்பி பாலசுப்பிரமணியம்
4.	இணையத் தமிழ் வளர்ச்சி -	முனைவர் ப.அர.நக்கீரன்.

அலகு - 4

1. வல்லினம் மிகும் இடம் - மிகா இடம்.
2. வினா- விடை வகைகள் (அறுவகை வினா, எண்வகை விடை, தொல்காப்பியர் வழியில்).
3. ஆகுபெயர் விளக்கம் - பயன்பாடு-வகைகள் 10

அலகு- 5

இலக்கிய வரலாறு பாடத்திட்டத்தைத் தழுவியது

1. பதினெண் கீழ்க்கணக்கு நூல்கள
2. தமிழ் உரைநடையின் தோற்றமும் - வளர்ச்சியும்

பயிற்சிக்குரியன

3. விண்ணப்பங்கள் , மடல்கள், எழுதச்செய்தல்.

BHARATHIAR UNIVERSITY, COIMBATORE

PART-I, PAPER-II, FRENCH
(COMMON FOR ALL U.G. COURSES)
SYLLABUS - UNDER CBCS – AFFILIATED COLLEGES
[with effect from 2014-2015]

SEMESTER- II

PAPER II

Prescribed text : **ALORS I**
Units : 6 – 10

Authors : Marcella Di Giura
Jean-Claude Beacco

Available at : Goyal Publishers Pvt Ltd
86, University Block
Jawahar Nagar (Kamla Nagar)
New Delhi – 110007.

Tel : 011 – 23852986 / 9650597000

Question Paper Pattern: **Semester II**
(ALL QUESTIONS TO BE SET ONLY FROM THE PRESCRIBED TEXT)

Maximum Marks: 75 Time: 3 hrs.

SECTION A (10)
1.CHOISISSEZ LA MEILLEURE RÉPONSE: (10X1=10)

SECTION B (20)
2. TRADUISEZ LES TEXTES SUIVANTS EN ANGLAIS:(4/5) (4X5=20)
(Pg Nos :86 ex-4,104 ex-3,116 ex-3a,b,134 ex-4,146 ex-2,162,163,164,165,166,167)

SECTION C (45)
3. COMPRÉHENSION (8x1=8)
4. EXERCICES DE GRAMMAIRE:(5X5=25) (EITHER/OR)
5. FAITES DES PHRASES:(6/8) (6X1=6)
6. TRADUISEZ LES EXPRESSIONS EN ANGLAIS :(6/8) (6X1=6)

BHARATHIAR UNIVERSITY: COIMBATORE-641

Syllabus for U.G. (Part. I) Hindi (C B C S)

SECOND SEMESTER – PAPER II

(Modern Poetry, One Act Play, Translation & Letter Writing, Conversation)

1. MODERN POETRY : BHOOMIJA by NAGARJUN

   Publishers : Rajkamal Prakashan
   1B Nethaji Subash Marg,
   New Delhi.

2. ONE ACT PLAY : NAVEEN EKANKI SANGRAH
   By Dr. Smt. MALATI THIVARI
   SUMITHRA PRAKASHAN
   ASHOK NAGAR ALLAHABAD
   – 1.

3. TRANSLATION : HINDI-ENGLISH ONLY
   (ANUVADH ABYAS-III)
   Lessons – 1-15 only

   PUBLISHER : DAKSHIN BHARATH HINDI PRACHAR SABHA
   CHENNAI – 600 017.

4. LETTER WRITING : (Leave Letter, Job Application, Ordering Books, Letter to Publisher, Personal Letter)

5. CONVERSATION : (Doctor & Patient, Teacher & Student, Storekeeper & Buyer, Two Friends, Booking Clerk & Passenger at Railway Station, Autorickshaw driver and Passenger)
   Ref : Bolchal Ki Hindi Aur Sanchar by Dr. Madhu Dhavan
   Vani Prakashan, New Delhi.

BHARATHIAR UNIVERSITY: COIMBATORE-641

Syllabus for U.G. (Part. I) Malayalam (C B C S)

Second Semester

Paper II Prose : Non-Fiction

This paper will have the following five units:

Unit I & II

Autobiography

Uinit III,IV & V

Travelogue

Text Books prescribed:

Unit I & II

Vazhithiruvukal-Dr.A.P.J.Abdulkalam
(D.C.Books, Kottayam)

Unit III,IV & V

Alkoottathil Thaniyae - M.T Vasudhevan Nair (D.C.Books, Kottayam)

Reference books:

1. Athmakathasahithyam Malayalathil-Dr.Vijayalam Jayakumar (N.B.S.Kottayam)
2. Sancharasahithyam Malayalathil –Prof.Ramesh chandran. V,(Kerala Bhasha Institute, Trivandrum)

BHARATHIAR UNIVERSITY: COIMBATORE-641

PartIIEnglish-SemesterII

PrescribedText:SIZZLERSBoardof
Editors
Publishers:ManimekalaPublishingHouse39,NorhC
hitraiStreet,
Madurai-625001

UnitI:Poetry

1. StoppingByWoodsonaSnowyEvening-RobertFrost
2. APrayerformyDaughter-
W.B.Yeats3.Enterprise-NissimEzekiel

UnitII:Prose

1. Woman, notthe weakersex-M.K.Gandhi
2. Dimensions ofCreativity-Dr.A.P.J. Abdul
Kalam3.ThreeDaystoSee-HelenKeller

UnitIII:Short Stories

1. AnAstrologer'sDay-R.K.Narayan
2. LittleGirlswiser thanMen-Tolstoy
3. BoywhoWantedmoreCheese-WilliamElliot Griffir

UnitIV:Biographies

1. MartinLutherKing-R.N.Roy
2. Nehru-A.J.Toynbee

UnitV:Grammar andComposition

1.Phrasesandclauses2.Types
ofsentences
3.Framingquestionsandanswers4.Dialogu
eWriting

Question PaperPattern:Existing Patternisto befollowed.

Course	**BScCS,IT,CT,SS,CSA, MM&B.C.A (Regular)**
Effective from	**2016-2017andOnwards**
Semester	**II**
Subject	**CORE3:C++ PROGRAMMING**

Subject Description: This subject deals with Object–oriented programming concepts likeAbstraction,Encapsulation,Inheritanceand Polymorphism.

Goal: KnowledgeonObject–orientedconceptandprogrammingwithC++.

Objective: Toinculcate knowledgeonObject-orientedprogrammingconceptsusingC++.

UNIT I: Introduction to C++ - key concepts of Object-Oriented Programming –Advantages – Object Oriented Languages – I/O in C++ - C++ Declarations. Control Structures : - DecisionMaking and Statements : If .. else ,jump, goto, break, continue, Switch case statements -Loopsin C++: for,while, do-functionsin C++-inlinefunctions –Function Overloading.

UNIT II: Classes and Objects: Declaring Objects – Defining Member Functions – StaticMember variables and functions – array of objects –friend functions – Overloading memberfunctions–Bit fieldsandclasses – Constructorand destructorwith staticmembers.

UNIT III: Operator Overloading: Overloading unary, binary operators – Overloading Friendfunctions–typeconversion–Inheritance:TypesofInheritance– Single,Multilevel,Multiple,Hierarchal,Hybrid,Multipathinheritance–VirtualbaseClasses– AbstractClasses.

UNIT IV: Pointers – Declaration – Pointer to Class , Object – this pointer – Pointers toderived classes and Base classes – Arrays – Characteristics – array of classes – Memorymodels – new and delete operators – dynamic object – Binding, Polymorphism and VirtualFunctions.

UNIT V: Files – File stream classes – file modes – Sequential Read / Write operations – Binary and ASCII Files – Random Access Operation – Templates – Exception Handling - String–DeclaringandInitializingstringobjects–StringAttributes–Miscellaneousfunctions.

TEXTBOOK:

1.AshokNKamthane,Object-
OrientedProgrammingwithAnsiAndTurboC++,PearsonEducation,2003.

REFERENCEBOOKS:

1. E.Balagurusamy,Object-OrientedProgrammingwithC++, TMH,1998.
2. MariaLitvin&GrayLitvin,C++foryou,Vikaspublication,2002.
3. JohnRHubbard, ProgrammingwithC, 2ndEdition,TMH publication,2002.

Course	**BScCS,IT,CT,SS,CSA, MM&B.C.A (Regular)**
Effective from	**2016-2017andOnwards**
Semester	**II**
Subject	**CORELAB 2:PROGRAMMINGLAB–C++**

1. Write a C++ Program to create a class to implement the data structure STACK. Write aconstructor to initialize the TOP of the STACK. Write a member function PUSH() toinsertanelementandmemberfunctionPOP()todeleteanelementcheckforoverflowandunderflowconditions..
2. Write a C++ Program to create a class ARITHMETIC which consists of a FLOAT and anINTEGER variable. Write member functions ADD (),SUB(), MUL(), DIV() to performaddition,subtraction, multiplication, divisionrespectively.Write a member function togetand displayvalues.
3. Write a C++ Program to read an integer number and find the sum of all the digits until itreducestoasingledigitusingconstructors,destructors andinlinemember functions.
4. Write a C++ Program to create a class FLOAT that contains one float data member.Overloadall the fourArithmeticoperators sothat theyoperateonthe objectFLOAT.
5. Write a C++ Program to create a class STRING. Write a Member Function to initialize,getanddisplaystings.Overloadtheoperators++and==toconcatenatetwoStringsandtocomparetwo strings respectively.
6. WriteaC++Programtocreateclass,whichconsistsofEMPLOYEEDetaillikeE_Number, E_Name, Department, Basic, Salary, Grade. Write a member function to getand display them. Derive a class PAY from the above class and write a member functiontocalculate DA, HRA and PFdependingon thegrade.
7. WriteaC++ProgramtocreateaclassSHAPEwhichconsistsoftwoVIRTUALFUNCTIONS Calculate_Area() and Calculate_Perimeter() to calculate area and perimeterof various figures. Derive three classes SQUARE, RECTANGLE, TRIANGE from classShapeand Calculate AreaandPerimeter ofeach classseparatelyand displaythe result.
8. Write a C++ Program to create two classes each class consists of two private variables, ainteger and a float variable. Write member functions to get and display them. Write aFRIENDFunctioncommontobothclasses,whichtakestheobjectofabovetwoclasses

as arguments and the integer and float values of both objects separately and display theresult.

9. Write a C++ Program using Function Overloading to read two Matrices of different DataTypes such as integers and floating point numbers. Find out the sum of the above twomatricesseparatelyand displaythe sum of thesearrays individually.
10. Write a C++ Program to check whether the given string is a palindrome or not usingPointers.
11. Write a C++ Program to create a File and to display the contents of that file with linenumbers.
12. WriteaC++Programtomergetwofilesintoasingle file.

Course	**BScCS,IT,CT,SS,CSA, MM&B.C.A (Regular)**
Effective from	**2016-2017andOnwards**
Semester	**II**
Subject	**CORELAB3:PROGRAMMINGLAB– INTERNETBASICS**

1. To create an email-id.
2. To compose and send a mail.
3. To forward a mail and to reply for a mail.
4. To send a mail with an attachment.
5. To download the attached document of a mail received.
6. To send a mail to a large number of recipients using cc and bcc options.
7. To search a thing using a search engine.
8. To open and read newspaper sites,TVprogram schedules using Internet.
9. To verify a university/college details by opening their websites.
10. To upload your resume with any one job portal.

Course	**BScCS,IT,CT,SS,CSA, MM&B.C.A (Regular)**
Effective from	**2016-2017andOnwards**
Semester	**II**
Subject	**Allied2:DISCRETEMATHEMATICS**

Subject Description: This subject deals with discrete structures like set theory, mathematicallogic,relations, languages, graphs and trees.

Goal: Tolearnaboutthe discretestructuresforcomputerbasedapplications.

Objective: Onsuccessfulcompletionofthissubjectthestudentsshouldhave:-
Understandingtheconceptsofdiscretemathematics-Learningapplicationsofdiscretestructuresin Computer Science.

UNITI: Set theory-Introduction-Set & its Elements-Set Description-Types of sets-Venn-Euler Diagrams- Set operations & Laws of set theory-Fundamental products-partitions ofsets-minsets-Algebraofsetsand Duality-Inclusion and Exclusionprinciple

UNITII: Mathematicallogic–Introduction-prepositionalcalculus–Basiclogicaloperations-Tautologies-Contradiction-Argument-Methodofproof-Predicatecalculus.

UNIT III: Relations – Binary Relations – Set operation on relations-Types of Relations – Partial order relation – Equivalence relation – Composition of relations – Functions – Typesoffunctions –Invertiblefunctions– Compositionoffunctions.

UNITIV: Languages–Operationsonlanguages–RegularExpressionsandregularlanguages– Grammar– Typesof grammars–Finitestatemachine–Finite–Stateautomata

UNIT V: Graph Theory – Basic terminology – paths, cycle & Connectivity – Sub graphs – Typesofgraphs–Representationofgraphsincomputermemory-Trees–Propertiesof trees – Binarytrees– traversingBinarytrees–ComputerRepresentation of generaltrees.

TEXTBOOKS:

1.DiscreteMathematics,J.K.Sharma,2nd edition,2005,MacmillanIndiaLtd.(UNITITOV)

REFERENCEBOOKS:

1. DiscreteMathematicsStructureswithApplicationstoComputerScience,J.P.Tremblay,RManohar, McGraw HillInternational Edition
2. DiscreteMathematics,M.K.Venkataraman,N.Sridharan,N.Chandarasekaran,NationalPublishingCompany, Chennai

BHARATHIAR UNIVERSITY : COIMBATORE 641 046.

Value Education – Human Rights

(2 hours per week)

(FOR THE UNDER GRADUATE STUDENTS OF AFFILIATED COLLEGES

WITH EFFECT FROM 2008-2009)

UNIT – I : Concept of Human Values, Value Education Towards Personal Development

Aim of education and value education; Evolution of value oriented education; Concept of Human values; types of values; Components of value education.

Personal Development :
Self analysis and introspection; sensitization towards gender equality, physically challenged, intellectually challenged. Respect to - age, experience, maturity, family members, neighbours, co-workers.

Character Formation Towards Positive Personality:
Truthfulness, Constructivity, Sacrifice, Sincerity, Self Control, Altruism, Tolerance, Scientific Vision.

UNIT – II : Value Education Towards National and Global Development

National and International Values:
Constitutional or national values - Democracy, socialism, secularism, equality, justice, liberty, freedom and fraternity.

Social Values - Pity and probity, self control, universal brotherhood.

Professional Values - Knowledge thirst, sincerity in profession, regularity, punctuality and faith.

Religious Values - Tolerance, wisdom, character.

Aesthetic values - Love and appreciation of literature and fine arts and respect for the same.

National Integration and international understanding.

UNIT – III : Impact of Global Development on Ethics and Values

Conflict of cross-cultural influences, mass media, cross-border education, materialistic values, professional challenges and compromise.

Modern Challenges of Adolescent Emotions and behavior; Sex and spirituality: Comparision and competition; positive and negative thoughts.

SEMESTER-III

Course	**BScCS,IT,CT,SS,CSA, MM&B.C.A (Regular)**
Effective from	**2016-2017andOnwards**
Semester	**III**
Subject	**CORE4:DATASTRUCTURES**

UNIT I Introduction: Introduction of Algorithms, Analysing Algorithms. Arrays: SparseMatrices-RepresentationofArrays.StacksandQueues.Fundamentals-EvaluationofExpressionInfixto PostfixConversion-MultipleStacks and Queues

UNITIILinkedList:SinglyLinkedList-LinkedStacksandQueues-PolynomialAddition - More on Linked Lists - Sparse Matrices - Doubly Linked List and Dynamic - StorageManagement-GarbageCollection and Compaction.

UNIT III Trees: Basic Terminology - Binary Trees - Binary Tree Representations - BinaryTrees-Traversal-MoreonBinaryTrees-ThreadedBinaryTrees-BinaryTreeRepresentation of Trees - Counting Binary Trees. Graphs: Terminology and Representations - Traversals,ConnectedComponentsandSpanningTrees,ShortestPathsandTransitiveClosure

UNIT IV External Sorting: Storage Devices -Sorting with Disks: K-Way Merging - SortingwithTapesSymbolTables:StaticTreeTables-DynamicTreeTables-HashTables:HashingFunctions -Overflow Handling.

UNIT V Internal Sorting: Insertion Sort - Quick Sort - 2 Way Merge Sort - Heap Sort - ShellSort - Sorting on Several Keys. Files: Files, Queries and Sequential organizations - IndexTechniques-FileOrganizations.

TEXTBOOKS

1. EllisHorowitz,SartajShani,DataStructures,GalgotiaPublication.

2. EllisHorowitz,SartajShani,SanguthevarRajasekaran,ComputerAlgorithms,GalgotiaPublication.

Course	**BScCS,IT,CT,SS,CSA, MM&B.C.A (Regular)**
Effective from	**2016-2017andOnwards**
Semester	**III**
Subject	**CORE5:JAVA PROGRAMMING**

Subject Description: This subject deals with Java Programming concepts.**Goal**: Enable to create wide range of Applications and Applets using Java.**Objective:**To inculcate knowledgeonJavaProgrammingconcepts.

UNIT I: Fundamentals of Object-Oriented Programming: Object-Oriented Paradigm – BasicConcepts of Object-Oriented Programming – Benefits of Object-Oriented Programming –ApplicationofObject-OrientedProgramming.JavaEvolution:History–Features–HowJava differs from C and C++ – Java and Internet – Java and www –Web Browsers. Overviewof Java: simple Java program – Structure – Java Tokens – Statements – Java Virtual Machine.**UNIT II:** Constants, Variables, Data Types - Operators and Expressions – Decision Makingand Branching: if, if...else, nested if, switch, ? : Operator - Decision Making and Looping:while,do, for– Jumps inLoops-Labeled Loops–Classes,Objects and Methods.

UNIT III: Arrays, Strings and Vectors – Interfaces: Multiple Inheritance – Packages: PuttingClassestogether– Multithreaded Programming.

UNITIV: ManagingErrorsandExceptions–AppletProgramming–GraphicsProgramming.

UNIT V: Managing Input / OutputFiles in Java : Concepts of Streams- Stream Classes–Byte Stream classes – Character stream classes – Using streams – I/O Classes – File Class –I/O exceptions – Creation of files – Reading / Writing characters, Byte-Handling PrimitivedataTypes – Random Access Files.

TEXTBOOK:

1.ProgrammingwithJava–APrimer-E. Balagurusamy,3rdEdition,TMH.

REFERENCEBOOKS:

1. TheComplete ReferenceJava2 -PatrickNaughton &Hebert Schildt, 3rdEdition, TMH
2. Programmingwith Java– JohnR. Hubbard, 2ndEdition, TMH.

Course	**BScCS,IT,CT,SS,CSA, MM&B.C.A (Regular)**
Effective from	**2016-2017andOnwards**
Semester	**III**
Subject	**CORELAB4: PROGRAMMINGLAB-JAVA**

1. WriteaJavaApplicationstoextractaportionofacharacterstringandprinttheextractedstring.
2. WriteaJavaProgramtoimplementtheconceptof multipleinheritanceusingInterfaces.
3. WriteaJavaProgramtocreateanExceptioncalledpayout-of-boundsandthrowtheexception.
4. WriteaJavaProgramtoimplementtheconceptofmultithreadingwiththeuseofanythreemultiplication tables andassignthreedifferent priorities tothem.
5. WriteaJavaProgramtodrawseveralshapesinthecreatedwindows.
6. WriteaJavaProgramtocreateaframewithfourtextfieldsname,street,cityandpincode with suitable tables. Also add a button called my details. When the button is clickeditscorrespondingvaluesareto beappeared in thetextfields.
7. WriteaJavaProgramtodemonstratetheMultipleSelectionList-box.
8. WriteaJavaProgramtocreateaframewiththreetextfieldsforname,ageandqualificationand atext field formultiple lineforaddress
9. WriteaJavaProgramtocreateMenuBars andpulldownmenus.
10. WriteaJavaProgramtocreateframeswhichrespondtothemouseclicks.Foreachevents with mouse such as mouse up, mouse down, etc., the corresponding message to bedisplayed.
11. Write a Java Program to draw circle, square, ellipse and rectangle at the mouse clickpositions.
12. WriteaJavaProgramwhich openanexistingfile and appendtextto thatfile.

AlliedPaper3 –IT/CT: MICROPROCESSORANDALP

UNITI	Introductiontomicroprocessors:Evolutionofmicroprocessors–Single-chipMicrocomputer–EmbeddedMicroprocessors–Bit-Sliceprocessors–Microprogramming–RISCandCISCProcessors–ScalarandSuperscalarProcessors–VectorProcessors–ArrayProcessors–SymbolicProcessors–DigitalSignal Processors Intel 8086 – Pin Description of Intel 8086 – Operating modes of 8086 – Registerorganization of 8086 – BIU and EU – Interrupts – 8086 based computer system –AddressingModes of 8086
UNITII	8086 Instruction Set – Instruction Groups – Addressing Mode Byte – SegmentRegister Selection – Segment Override – 8086 InstructionsAssembly LanguagePrograms for 8086: Largest Number, Smallest Number in a Data Array – Numbersin Ascending and Descending order – Block Move or Relocation – Block MoveusingREP instruction– Sum of aseries– MultibyteAddition
UNITIII	Intel 386 and 486 Microprocessors: Intel 386 and 486 Microprocessor – 486DXArchitecture–RegisterOrganizationof486Microprocessor–MemoryOrganization–OperatingModesofIntel486–VirtualMemory–MemoryManagament Unit – Gates – Interrupts and Exceptions – Addressing Modes of80486– Pin Configuration
UNITIV	Input devices – Output devices – Memory and I/O addressing – 8086 Addressingand Address Decoding – Programmable I/O Ports – DMA Data Transfer. OtherMicroprocessors–PowerPCMicroprocessors–PentiumMicroprocessors–Pentium Pro microprocessor – Alpha Microprocessor – Cyrix Microprocessor –MIPSMicroprocessor–AMDMicroprocessor
UNITV	MOTOROLA68000,MOTOROLA68020,MOTOROLA68030,MOTOROLA 68040 Interfacing of A/D Converter and Applications: Introduction – Interfacing of ADC0808 or ADC 0809 to Intel 8086 – Bipolar to Unipolar Converter – Sample andHoldCircuit,LF398–Microprocessor-basedMeasurementandControlofPhysicalQuantities
Text Book(s)	BadriRam,― AdvancedMicroprocessorsandInterfacing‖,TataMcGraw-HillPublishingCompanyLimited, Fourteenth reprint, 2007
Ref. Book(s)	A.K.Ray,K.M.Bhurchandi,― AdvancedMicroprocessorsandPeripherals‖,TataMcGraw-HillPublishingCompanyLimited, SecondEdition, 2007

SKILLED-1

SKILL-1:BSCIT :INTRODUCTION TOWEBDESIGN ANDAPPLICATIONS

UNITI	**FundamentalsofElectronicMail:**Introduction-Email:AdvantagesandDisadvantages-Userids,PasswordsandEmailaddresses-MessageComponents -Message Composition - Mailer Features - E mail Inner Workings-EmailManagement-MIMETypes.**BrowsingandPublishing**;Introduction–Browserbarebones–Coast–to–Coastsurfing–HyberTextMarkupLanguages – Web page installation – Web page set up – HTML formatting andhyperlink creation
UNITII	**The internet** : Introduction – internet defined – internet history – the way theinternetworks –internetcongestion –Internetculture–Business cultureandtheinternet – collaborative computing and the internet . **World Wide Web** :introduction the web defined – web browser details – web writing styles – webpresentationoutline, design, and management– registeringweb pages
UNITIII	**Searching the world wide web** : introduction – directories , search engines andmetasearch engines – search fundamentals – search strategies – how does a searchengine works. **Telnet and FTP** : introduction – telnet and remote login – Filetransfer– ComputerViruses

UNITIV	**Basic HTML** : introduction – semantic versus syntactic – based styletypes – headers and footers – lists – tables – debugging . **Advanced HTML :**introduction – frames – html forms – CGI scripts – dynamic documents – htmltools– next generation html– cascadingstylesheets
UNITV	**News groups, Mailing Lists, Chat rooms and MUDs** : introduction – newsgroups and mailing lists history – mailing list fundamentals – newsgroups andmailinglistsavailability–chat-rooms–MUDs.**ElectronicPublishing:**introduction – electronic publishing advantages and disadvantages – copy rightissues–projectGutenbergandon-linebooks–electronicjournals,magazinesandnews papers – miscellaneous publishingissues.
Text Book(s)	RaymondGreenlaw,EllenHepp,FundamentalsoftheINTERNET andtheWorldWideWeb,Second Edition , TataMcGRAW–HillEdition, 2005

NON MAJOR ELECTIVE - I

"**Women'sRights**
FORPART–IV
INTHIRDSEMESTEROFUNDERGRADUATECANDIDATESWITHEFFECTFRO
M2008-09
IN CBCSPATTERN

UNITI
Laws,LegalSystems and Change

Definition-Constitutionallaw,CEDAWandInternationalHumanRights–LawsandNorms–LawsandSocialContext–Constitutionaland LegalFramework.

UNITII

Politicsof landand genderinIndia

Introduction – Faces of Poverty – Land as Productive Resources – Locating Identities – Women'sClaims to Land– Right to Property-CaseStudies.

UNITIII

Women'sRights:AccesstoJustice

Introduction – Criminal Law – Crime Against Women – Domestic Violence – DowryRelated Harassment and Dowry Deaths – Molestation – Sexual Abuse and Rape –Loopholesin Practice–LawEnforcementAgency.

UNITIV

Women'sRights

Violence Against Women – Domestic Violence - The Protection of Women fromDomestic Violence Act, 2005- The Marriage Validation Act, 1982 - The Hindu WidowRe-marriageAct, 1856 - TheDowryProhibition Act,1961

UNITV

SpecialWomen WelfareLaws

SexualHarassmentatWorkPlaces–RapeandIndecentRepresentation–TheIndecedentRepresentation (Prohibition) Act, 1986 - Immoral Trafficking – The Immoral Traffic(Prevention) Act, 1956 - Acts Enacted for Women Development and Empowerment -RoleofRapeCrisis Centers.

References

1. NityaRao"GoodWomendonot Inherit Land"SocialSciencePressandOrientBlackswan2008
2.InternationalSolidarityNetwork"KnowingOurRights"AnimprintofKaliforWomen2006
3. P.D.Kaushik"WomenRights"BookwellPublication2007
4. Aruna Goal "Violence Protective Measures for Women Development andEmpowerment"DeepandDeep PublicationsPvt 2004
5. MonicaChawla"GenderJustice"Deep andDeepPublicationsPvtLtd.2006
6. Preeti Mishra "Domestic Violence Against Women" Deep and Deep Publications Pvt2007
7. ClairM.Renzetti, Jeffrey L.Edleson, Raquel Kennedy Bergen, Source Book on"Violence Against Women"SagePublications 2001

CONSTITUTIONOFINDIA

UNITI

MakingofConstitution-ConstituentAssembly-Dr.RajendraPrasath-Dr.B.R.Ambedkar -Salient features-FundamentalRights.

UNITII

UnionExecutive-PresidentofIndia-Vice-President-PrimeMinister-Cabinet -Functions

UNITIII

UnionLegislature-RajiyaSabha-LokSabha-FunctionsandPowers

UNITIV

UnionJudiciary-SupremeCourt-Functions -Ruleoflaw

UNITV

State-Executive-Legislature-Judiciary

BooksforReference:

1. Agharwal.R.C.-NationalMomentandConstitutionalDevelopment-NewDelhi,1977
2. ChapraB.R.,ConstitutionofIndia,NewDelhi,1970
3. RaoB.V.,ModernIndianConstitution,Hyderabad,1975.
4. NaniPalkhivala-ConstitutionofIndia,NewDelhi,1970
5. KrishnaIyer,V.R.,LawandJustice,NewDelhi,2009

BHARATHIAR UNIVERSITY : COIMBATORE

SYLLABUS FOR

"YOGA FOR HUMAN EXCELLENCE"

FOR PART – IV IN THIRD SEMESTER OF UNDERGRADUATE CANDIDATES

WITH EFFECT FROM 2008-09

IN CBCS PATTERN

Unit I - Yoga and Physical Health

1.1 Physical Structure – Three bodies – Five limitations

1.2 Simplified Physical Exercises – Hand Exercises -Leg Exercises – Breathing Exercises – Eye Exercises – Kapalapathi

1.3 Maharasanas 1-2 – Massages – Acu-puncture – Relaxation

1.4 Yogasanas – [redacted] – Padmasana – Vajrasanas – Chakrasanas (Side) – Viruchasanas – Yoga muthra – Patchimothasanas – Ustrasanas – Vakkarasanas – Salabasanas

Unit II - Art of Nurturing the life force and Mind

2.1 Maintaining the youthfulness – Postponing the ageing process

2.2 Sex and Spirituality - Significance of sexual vital fluid – Married life – Chastity

2.3 Ten stages of Mind

2.4 Mental frequency – Methods for concentration

Unit III - Sublimation

3.1 Purpose and Philosophy of life

3.2 Introspection – Analysis of Thought

3.3 Moralization of Desires

3.4 Neutralization of Anger

Unit IV – Human Resources Development

4.1 Eradication of worries

4.2 Benefits of Blessings

4.3. Greatness of Friendship

4.4 Individual Peace and World Peace

Unit V – Law of Nature

5.1 Unified force – Cause and Effect system

5.2 Purity of Thought and Deed and Genetic Centre

5.3 Love and Compassion

5.4 Cultural Education – Five fold Culture

பாரதியார் பல்கலைக்கழகம் : கோயமுத்தூர்

பகுதி – IV: தமிழ்த் தாள் - 1 - முன்றாம் பருவம்

இளங்கலை 2012-13 கல்வி ஆண்டுமுதல் சேர்வோர்க்குரியது

(12-ம் வகுப்பு வரை தமிழ் மொழிப்பாடம் பயிலாதவர்களுக்கு)

அக மதிப்பீட்டுத் தேர்வு மட்டும் - பல்கலைக்கழக எழுத்துத் தேர்வுகள் கிடையாது

1. தமிழ் மொழியின் அடிப்படைக் கூறுகள்.
   எழுத்துகள் : முதலெழுத்துகள் (உயிர் எழுத்து, மெய் எழுத்து, உயிர்மெய் எழுத்து)
   சொற்கள் : வகைகள் (பெயர்ச்சொல், வினைச்சொல், இடைச்சொல், உரிச்சொல்)
   தொடர் : தொடரமைப்பு (எழுவாய், செயப்படுபொருள், பயனிலை)
2. குறிப்பு எழுதுதல் : பத்துப் பதினைந்து தொடர்களில் குறிப்பு வரைதல்
   பிழைநீக்கி எழுதுதல் : (ஒற்றுப்பிழை, எழுத்துப்பிழை)

2012-2013 கல்வியாண்டு முதல் பயில்பவர்களுக்குப் பின்வரும் வினாத்தாள் அமைப்பு பின்பற்றப்பட வேண்டும்.

	அக மதிப்பீட்டுத் தேர்வு மதிப்பெண் வழங்கும் முறை	மதிப்பெண்கள்
1.	வகுப்புத் தேர்வு-1	10
2.	வகுப்புத் தேர்வு-2	10
3.	மாதிரித் தேர்வு	10
4	பயிற்சிக் கட்டுரை	10
5	வாய்மொழித் தேர்வு	10
	மொத்த மதிப்பெண்கள்	50

குறிப்பு : வாய்மொழித் தேர்வில் தமிழ்ச் செம்மொழி வரலாறு தொடர்பான வினாக்கள் மட்டுமே கேட்கப்பட வேண்டும்.

பாரதியார் பல்கலைக்கழகம் : கோயமுத்தூர்

பகுதி – IV : சிறப்புத் தமிழ் தாள் - 1

முன்றாம் பருவம்

இளங்கலை 2012-13 கல்வி ஆண்டுமுதல் சேர்வோர்க்குரியது

(12-ம் வகுப்பு வரை தமிழ் மொழிப்பாடம் பயின்றவர்களுக்கு)

கூறு – 1 : பாரதியார் கவிதைகள்
கண்ணன் என் சேவகன்
பாரதிதாசன் - அழகின் சிரிப்பு (முழுவதும்)
மீரா (கவிஞர்) – குக்கூ (புதுக்கவிதை)

கூறு – 2 : மொழித் திறன்
பிழைநீக்கி எழுதுதல் - ற ன ர வேறுபாடு அறிதல்
ள ன, ழ ன, ல ன வேறுபாடு அறிதல்
ன, ண, ந வேறுபாடு அறிதல்
குறில் நெடில் வேறுபாடு அறிதல்

கூறு – 3 : கடிதங்கள் எழுதுதல் - பாராட்டுக் கடிதம், நன்றிக்கடிதம்
அழைப்புக்கடிதம், அலுவலக விண்ணப்பம்.

கூறு – 4 : சொற்களைத் தந்து தொடர்களை அமைக்கும் பயிற்சி அளித்தல்
வல்லினம் மிகும் இடங்கள்.

கூறு – 5 : பாடந்தழுவிய வரலாறு.

2012-2013 கல்வியாண்டு முதல் பயில்பவர்களுக்கு பின்வரும் வினாத்தாள் அமைப்பு பின்பற்றப்பட வேண்டும்.

Maximum 50 Marks – wherever applicable			
Section A	Multiple choice questions with four options	10*1=10	10 questions – 2 each from every unit
Section B	Short answer questions of either / or type (like 1.a (or) b	5*3=15	5 questions – 1 each from every unit
Section C	Essay-type questions of either / or type (like 1.a (or) b	5*5=25	5 questions – 1 each from every unit
NOTE: In Section "C" one of the questions shall be application oriented or a problem or a case study.			

SEMESTER-IV

Course	**BScCS,IT,CT,SS,CSA, MM&B.C.A (Regular)**
Effective from	**2016-2017andOnwards**
Semester	**IV**
Subject	**CORE6:SYSTEMSOFTWAREANDOPERATINGSYSTEMS**

SubjectDescription: ItdealswithfundamentalsofSystemSoftwareandResourcesofOperatingSystem.

Goal: KnowledgeonvariousSystemSoftwareandOperatingSystemconcepts.

Objective: Enablethestudenttogetsufficientknowledgeonvarioussystemresources.

(SYSTEMSOFTWARE:UnitsI&II)

UNIT I: Introduction –System Software and machine architecture. Loader and Linkers: BasicLoaderFunctions-Machinedependentloaderfeatures–Machineindependentloaderfeatures -Loaderdesignoptions.

UNITII:Machinedependentcompilerfeatures-Intermediateformoftheprogram-Machine dependent code optimization - Machine independent compiler features - Compilerdesign options - Division into passes – Interpreters –p-code compilers - Compiler-compilers.**(OPERATINGSYSTEMS: UNIT III, IV & V)**

UNIT III: What is an Operating System? – Process Concepts: Definition of Process - ProcessStates-ProcessStatesTransition–InterruptProcessing–InterruptClasses-StorageManagement: Real Storage: Real Storage Management Strategies – Contiguous versus Non-contiguous storage allocation – Single User Contiguous Storage allocation- Fixed partitionmultiprogramming– Variablepartition multiprogramming.

UNIT IV: Virtual Storage: Virtual Storage Management Strategies –Page ReplacementStrategies – Working Sets – Demand Paging – Page Size. Processor Management: Job andProcessor Scheduling: Preemptive Vs Non-preemptive scheduling – Priorities – Deadlinescheduling.

UNITV: DeviceandInformationManagementDiskPerformanceOptimization:Operationof moving head disk storage – Need for disk scheduling – Seek Optimization – File andDatabase Systems: File System – Functions – Organization – Allocating and freeing space –Filedescriptor – Accesscontrol matrix.

TEXTBOOKS:

1. Leland L.Beck, System Software: An Introduction to Systems Programming, Pearson,Third Edition.
2. H.M.Deitel,OperatingSystems,2ndEdition, Perason,2003.

REFERENCEBOOKS:

1. Achy8utS. Godbole,OperatingSystems, TMH,2002.
2. JohnJ.Donovan,SystemsProgramming,TMH,1991.
3. D.M. Dhamdhere, Systems Programming and Operating Systems,2nd Revised Edition,TMH.

Course	**BScCS,IT,CT,SS,CSA, MM&B.C.A (Regular)**
Effective from	**2016-2017andOnwards**
Semester	**IV**
Subject	**CORE7:LINUXAND SHELLPROGRAMMING**

UNITI: IntroductiontoLINUXOperatingSystem:Introduction-TheLINUXOperatingSystem.

UNITII: ManagingFilesandDirectories:Introduction–DirectoryCommandsinLINUX–FileCommands inLINUX.

UNITIII: Creatingfilesusingthevieditor:Texteditors–Thevieditor.ManagingDocuments:LocatingfilesinLINUX–Standard files– Redirection–Filters – Pipes.

UNITIV: SecuringfilesinLINUX:Fileaccesspermissions–viewingFileaccesspermissions–ChangingFile accesspermissions.Automating Tasksusing ShellScripts:Introduction–Variables-Local andGlobalShellvariables –CommandSubstitution

UNIT V: UsingConditionalExecutioninShellScripts:ConditionalExecution–Thecase…esac Construct. Managing repetitive tasks using Shell Scripts: Using Iteration in ShellScripts–Thewhileconstruct–untilconstruct–forconstruct–breakandcontinuecommands– Simple Programs usingShell Scripts.

TEXTBOOK:

1.OperatingSystemLINUX,NIIT, PHI,2006,Eastern EconomyEdition.

REFERENCEBOOK:

1.RichardPetersen,Linux:TheCompleteReference,SixthEdition,TataMcGraw-HillPublishingCompanyLimited, New Delhi, Edition 2008.

Course	**BScCS,IT,CT,SS, CSA, MM&B.C.A (Regular)**
Effective from	**2016-2017andOnwards**
Semester	**IV**
Subject	**CORELAB5:LINUXANDSHELL PROGRAMMINGLAB**

1. Writeashellscript tostimulatethefilecommands:rm, cp,cat,mv,cmp,wc,split,diff.
2. Writeashellscript to showthefollowingsystemconfiguration:
    a. currentlylogged userandhislogname
    b. currentshell,homedirectory,OperatingSystemtype,currentPathsetting,currentworkingdirectory
    c. showcurrentlylogged numberof users,show all availableshells
    d. showCPUinformationlikeprocessortype,speed
    e. show memoryinformation
3. WriteaShellScripttoimplementthefollowing:pipes,Redirectionandteecommands.
4. Writeashellscriptfordisplayingcurrentdate,username,filelistinganddirectoriesbygettinguser choice.
5. Writeashell scriptto implementthefiltercommands.
6. Writeashell scriptto removethefiles whichhasfile sizeas zerobytes.
7. Writeashell scriptto find thesum of theindividual digits ofa given number.
8. Writeashellscripttofindthegreatestamongthegivensetofnumbersusingcommandlineargume nts.
9. Writeashellscript forpalindromechecking.
10. Writeashellscript toprintthemultiplication tableofthegiven argumentusingforloop.

Course	**B.Sc.CS/IT/SS/CSA/BCA(Regular)**
Effective from	**2016-2017andOnwards**
Semester	**B.Sc.IT:Allied-4(IVSemester)** **B.Sc.CS/SS/CSA/BCA:Elective**
Subject	**COMPUTERNETWORKS**

SubjectDescription: ThissubjectdealsdifferentNetworkconceptslikeLayers,WirelessConcepts, Transmission and Security.

Goal: Knowledge on Computer Networks and technologies like broadband and Bluetooth.**Objective:**ToinculcateknowledgeonNetworkingconceptsandtechnologieslikewireless,broadbandand Bluetooth.

UNIT I: Network Hardware: LAN – WAN – MAN – Wireless – Home Networks. NetworkSoftware: Protocol Hierarchies – Design Issues for the Layers – Connection-oriented andconnectionless services – Service Primitives – The Relationship of services to Protocols.Reference Models: OSI Reference Model – TCP/IP reference Model – Comparison of OSIandTCP/IP-CritiqueofOSIandprotocols–Critiqueof theTCP/IP Referencemodel.

UNIT II: PHYSICAL LAYER - Guided Transmission Media: Magnetic Media – TwistedPair – Coaxial Cable – Fiber Optics. Wireless Transmission: Electromagnetic Spectrum –Radio Transmission – Microwave Transmission – Infrared and Millimeter Waves – LightWaves.CommunicationSatellites:Geostationary,Medium-EarthOrbit,LowEarth-orbitSatellites– Satellites versus Fiber.

UNIT III: DATA-LINK LAYER: Error Detection and correction – Elementary Data-linkProtocols–SlidingWindowProtocols.MEDIUM-ACCESSCONTROLSUBLAYER:MultipleAccessProtocols– Ethernet–WirelessLANs-BroadbandWireless–Bluetooth.

UNITIV:NETWORKLAYER:Routingalgorithms– CongestionControlAlgorithms.TRANSPORT LAYER: Elements of TransportProtocols– Internet Transport Protocols:TCP.

UNITV:APPLICATIONLAYER:DNS–E-mail.NETWORKSECURITY:Cryptography – SymmetricKeyAlgorithms– PublicKeyAlgorithms–DigitalSignatures.

TEXTBOOK:

1.ComputerNetworks,AndrewS.Tanenbaum,4thedition,PHI.*(UNIT-I:1.2-1.4UNIT-II:2.2-2.4UNIT-III:4.2-4.6 UNIT-IV:5.2,5.3,6.2,6.5 UNIT-V:7.1,7.2,8.1-8.4)*

REFERENCEBOOKS:

1. DataCommunicationandNetworks,AchyutGodbole,2007,TMH.
2. ComputerNetworks:Protocols,Standards,andInterfaces,UylessBlack,2nded,PHI

பாரதியார் பல்கலைக்கழகம் : கோயமுத்தூர்

பகுதி – IV : தமிழ்த் தாள் - 2 - நான்காம் பருவம்

இளங்கலை 2012-13 கல்வி ஆண்டுமுதல் சேர்வோர்க்குரியது

(12-ம் வகுப்பு வரை தமிழ் மொழிப்பாடம் பயிலாதவர்களுக்கு)

அக மதிப்பீட்டுத் தேர்வு மட்டும் - பல்கலைக்கழக எழுத்துத் தேர்வுகள் கிடையாது

1. நீதி நூல்கள் : ஆத்திச்சூடி (முதல் 12) ("அறம் செய விரும்பு", முதல் "ஔவியம் பேசேல்" வரை.

   கொன்றை வேந்தன் - "அன்னையும் பிதாவும் முன்னறி தெய்வம்" முதல் எண்ணும் எழுத்தும் கணெனெத்தகும்" வரை (7)

   திருக்குறள் (5) 1. அகர முதல ... (1)
   2. செயற்கரிய ... (26)
   3. மனத்துக் கண் ... (34)
   4. கற்க கசடறக் ... (391)
   5. எப்பொருள் யார் யார் ... (423)

   எளிய நீதிக் கதைகள் - (தெனாலிராமன் கதைகள், பீர்பால் கதைகள், கிராமியக் கதைகள், ஈசாப் கதைகள்)

2. தமிழ் இலக்கியங்கள் : வரலாறு – குறிப்பு - அறிமுகம்
   எடுத்துக்காட்டு : குறள் பற்றி எளிய தொடர்களில் அறிமுகம்
   தமிழகம் - உணவுமுறை, விழாக்கள், கலைகள் பற்றியக் குறிப்புகள்.

2012-2013 கல்வியாண்டு முதல் பயில்பவர்களுக்குப் பின்வரும் வினாத்தாள் அமைப்பு பின்பற்றப்பட வேண்டும்.

	அக மதிப்பீட்டுத் தேர்வு மதிப்பெண் வழங்கும் முறை	மதிப்பெண்கள்
1.	வகுப்புத் தேர்வு-1	10
2.	வகுப்புத் தேர்வு-2	10
3.	மாதிரித் தேர்வு	10
4	பயிற்சிக் கட்டுரை	10
5	வாய்மொழித் தேர்வு	10
	மொத்த மதிப்பெண்கள்	50

குறிப்பு : வாய்மொழித் தேர்வில் தமிழ்ச் செம்மொழி வரலாறு தொடர்பான வினாக்கள் மட்டுமே கேட்கப்பட வேண்டும்.

பாரதியார் பல்கலைக்கழகம் : கோயமுத்தூர்

பகுதி – IV : சிறப்புத் தமிழ் தாள் - 2

நான்காம் பருவம்

இளங்கலை 2012-13 கல்வி ஆண்டுமுதல் சேர்வோர்க்குரியது

(12-ம் வகுப்பு வரை தமிழ் மொழிப்பாடம் பயின்றவர்களுக்கு)

கூறு - 1 திருக்குறள் - ஒழிபியலில் முதல் 5 அதிகாரங்கள் மட்டும்

கூறு - 2 உரைநடை : (கட்டுரை)
(இளைஞர்களின் ஒளிமயமான எதிர்காலத்திற்கு
கு.வெ.பாலசுப்பிரமணியம், அனுராதா எஜென்ஸிஸ்
கும்பகோணம். தொலைபேசி : 04366-262237, 263237

கூறு - 3 எழுத்துப்பிழை நீக்க வழிகள் - பிழையும் திருத்தமும்
சொற்களைச் சரியாகப் பயன்படுத்தும் பாங்கு – வினைச் சொற்கள்
துணை வினைகள் (எடுத்துகாட்டுகளுடன் விளக்குதல்).

கூறு - 4 வழக்கறிதல் : மரபு வழக்கு – இயல்பு வழக்கு – தகுதி வழக்கு அறிதல்

கூறு - 5 படைப்பாற்றல் பயிற்சி
கட்டுரைகள் எழுதுதல்

2012-2013 கல்வியாண்டு முதல் பயில்பவர்களுக்கு பின்வரும் வினாத்தாள் அமைப்பு பின்பற்றப்பட வேண்டும்.

Maximum 50 Marks – wherever applicable			
Section A	Multiple choice questions with four options	10*1=10	10 questions – 2 each from every unit
Section B	Short answer questions of either / or type (like 1.a (or) b	5*3=15	5 questions – 1 each from every unit
Section C	Essay-type questions of either / or type (like 1.a (or) b	5*5=25	5 questions – 1 each from every unit
NOTE: In Section "C" one of the questions shall be application oriented or a problem or a case study.			

BHARATHIAR UNIVERSITY : COIMBATORE 641 046

PART-IV GENERAL AWARENESS

FOR B.A.,B.Sc., B.C.A., B.S.W., B.Com., B.B.M. and B.B.A. DEGREE EXAMINATIONS

CONTENTS

1. VERBAL APTITUDE

2. NUMERICAL APTITUDE

3. ABSTRACT REASONING

4. TAMIL AND OTHER LITERATURE

5. GENERAL SCIENCE AND TECHNOLOGY AND EDUCATION

6. COMPUTER SCIENCE

7. ECONOMICS AND COMMERCE

8. HISTORY AND FREEDOM STRUGGLE

9. SPORTS

10. CURRENT AFFAIRS

SEMESTER V

Course	**BScCS,IT,CT,SS,CSA, MM&B.C.A(Regular)**
Effective from	**2016-2017andOnwards**
Semester	**V**
Subject	**CORE8:RDBMSAND ORACLE**

SubjectDescription: ThissubjectdealswithRDBMSconceptsusingOracleSQLandPL/SQL.
Goal: KnowledgeonOracleProgrammingtechniques.
Objective: Toinculcate knowledgeonRDBMSconceptsandProgrammingwithOracle.

UNIT I: Database Concepts: A Relational approach: Database – Relationships – DBMS – RelationalDataModel–IntegrityRules–
TheoreticalRelationalLanguages.DatabaseDesign:DataModelingandNormalization:DataModeling–Dependency–DatabaseDesign
–Normalforms–DependencyDiagrams–De-normalization–AnotherExampleofNormalization.

UNIT II: Oracle9*i*: Overview: Personal Databases – Client/Server Databases – Oracle9i anintroduction – SQL *Plus Environment – SQL – Logging into SQL *Plus - SQL *PlusCommands – Errors & Help – Alternate Text Editors - SQL *Plus Worksheet - *i*SQL *Plus.Oracle Tables: DDL: Naming Rules and conventions – Data Types – Constraints – CreatingOracle Table – Displaying TableInformation – Altering an Existing Table – Dropping,Renaming,TruncatingTable– TableTypes – Spooling– Errorcodes.

UNIT III: Working with Table: Data Management and Retrieval: DML – adding a newRow/Record – Customized Prompts – Updating and Deleting an Existing Rows/Records –retrieving Data from Table – Arithmetic Operations – restricting Data with WHERE clause –Sorting–RevisitingSubstitutionVariables–DEFINEcommand–CASEstructure.Functions and Grouping: Built-in functions –Grouping Data. Multiple Tables: Joins and Setoperations:Join–Set operations.

UNIT IV: PL/SQL: A Programming Language: History – Fundamentals – Block Structure – Comments – Data Types – Other Data Types – Declaration – Assignment operation – Bindvariables – Substitution Variables – Printing – Arithmetic Operators. Control Structures andEmbeddedSQL:ControlStructures–NestedBlocks–SQLinPL/SQL–DataManipulation
– Transaction Control statements. PL/SQL Cursors and Exceptions: Cursors – Implicit &Explicit Cursors and Attributes – Cursor FOR loops – SELECT…FOR UPDATE –

WHERECURRENT OF clause – Cursor with Parameters – Cursor Variables – Exceptions – Types ofExceptions.

UNITV:PL/SQLCompositeDataTypes:Records–Tables–arrays.NamedBlocks:Procedures–Functions–Packages–Triggers–Data DictionaryViews.

TEXTBOOK:

1.DatabaseSystemsusingOracle,NileshShah, 2nd edition,PHI.

REFERENCEBOOKS:

1. DatabaseManagementSystems, Majumdar&Bhattacharya,2007,TMH.
2. DatabaseManagementSystems, GeraldV.Post,3rd edition, TMH.

Course	**BScCS,IT,CT,SS,CSA, MM&B.C.A (Regular)**
Effective from	**2016-2017andOnwards**
Semester	**V**
Subject	**CORE9:VISUAL BASIC**

UNITI: GettingStartedwithVB6,ProgrammingEnvironment,WorkingwithForms,Developinga napplication,Variables,DatatypesandModules,proceduresandcontrolstructures, arrays. Working with Controls: Creating and using controls, working with controlarrays.

UNIT II: Menus, Mouse events and Dialog boxes: Mouse events, Dialog boxes, MDI andFlexgrid:MDI, UsingtheFlexgrid control.

UNIT III: ODBC and Data Access Objects: Data Access Options, ODBC, Remote dataobjects,ActiveXEXEandActiveXDLL:Introduction,CreatinganActiveXEXEComponent, CreatingActiveX DLLComponent.

UNITIV: ObjectLinkingandEmbedding:OLEfundamentals,UsingOLEContainerControl, Using OLE Automation objects, OLE Drag and Drop, File and File System Control:FileSystem Controls, AccessingFiles.

UNIT V: Additional controls in VB: sstab control, setting properties at runtime, addingcontrols to tab, list control, tabstrip control, MSFlexgrid control, Why ADO, Establishing areference,Crystal and Data reports.

TEXTBOOKS:

1. VisualBasic6.0Programming,ContentDevelopmentGroup,TMH,8th reprint,2007. **(UnitItoUnitIV)**
2. ProgrammingwithVisualBasic6.0,MohammedAzam,VikasPublishingHouse,FourthReprint,2006. **(Unit V)**

Course	**BScCS,IT,CT,SS,CSA, MM&B.C.A (Regular)**
Effective from	**2016-2017andOnwards**
Semester	**V**
Subject	**CORELAB6: PROGRAMMINGLAB–VBand Oracle**

VISUALBASIC:

1. WriteasimpleVBprogramto accepta number asinputand convertthem into
   a) Binaryb)Octal c) Hexadecimal
2. Write a simple VB program to add the items to list box with user input and move theselected item to combo boxonebyone.
3. WriteasimpleVBprogramtodevelopa calculatorwithbasicoperation.
4. Design a form using common dialog control to display the font, save and open dialog boxwithoutusingthe actioncontrol property.
5. Write a VB Program to develop a menu driven program Add a MDI window in the formand arrange them in the cascading/horizontal style using menus (Create a menu to addform, arrange) (Menu Item 1). Also change the form color using the menu in anothermenuitem (MenuItem 2).
6. DevelopasimpleprojectforStudentDatabaseManagementSystemusingVBasfrontendand Oracleas backend.

ORACLE:

1. Create a table for Employee details with Employee Number as primary key and followingfields: Name, Designation, Gender, Age, Date of Joining and Salary. Insert at least tenrows and perform various queries using any one Comparison, Logical, Set, Sorting andGroupingoperators.
2. Create tables for library management system which demonstrate the use of primary keyand foreign key. Master table should have the following fields: Accno, Title, Author andRate.Transactiontableshouldhavethefollowingfields:Userid,Accno,DateofIssue

and Date of Return. Create a Report(Select verb) with fields Accno, Title, Date of Issueforthegiven Date ofReturn with column formats.

3. Write a PL/SQL to update the rate field by 20% more than the current rate in inventorytable which has the following fields: Prono, ProName and Rate. After updating the table anew field (Alter) called for Number of item and place for values for the new field withoutusingPL/SQLblock.
4. WriteaPL/SQLtosplitthestudenttableintotwotablesbasedonresult(Onetablefor –Pass‖andanotherfor–Fail‖).Usecursorforhandlingrecordsofstudenttable.Assume necessaryfields andcreate astudent details table.
5. Create a database trigger to implement on master and transaction tables which are basedon inventory management system for checking data validity. Assume the necessary fieldsforbothtables.
6. Write a PL/SQL to raise the following Exception in Bank Account Management tablewhendeposit amount is zero.

ELECTIVE: ANIMATION TECHNIQUE

UNIT I: What is meant by Animation – Why we need Animation – History of Animation – Uses of Animation – Types of Animation – Principles of Animation – Some Techniques ofAnimation– Animation ontheWEB–3D Animation– SpecialEffects-CreatingAnimation.

UNIT II: Creating Animation in Flash**:** Introduction to Flash Animation – Introduction toFlash – Working with the Timeline and Frame-based Animation - Working with the TimelineandTween-basedAnimation–Understanding Layers-Actionscript.

UNIT III: 3D Animation & its Concepts – Types of 3D Animation – Skeleton & Kinetic 3DAnimation – Texturing & Lighting of 3D Animation – 3D Camera Tracking – Applications &Softwareof 3D Animation.

UNIT IV: Motion Caption – Formats – Methods – Usages – Expression – Motion CaptureSoftware_s – Script Animation Usage – Different Language of Script Animation Among theSoftware.

UNITV: ConceptDevelopment–Story Developing–Audio& Video–ColorModel–Device Independent Color Model – Gamma and Gamma Correction - Production Budgets - 3DAnimated Movies.

TEXTBOOKS:

1. PrinciplesofMultimedia, RanjanParekh,2007,TMH.(UnitI,UnitV)
2. MultimediaTechnologies,AshokBanerji,AnandaMohanGhosh,McGrawHillPublication.(UnitII: Chapter10)
3. TextforUnitIII,IV&Visappended.

SKILL: DOT NET PROGRAMMING

UNIT I: Introduction to .Net: .NET framework- difference between VB6 and VB .Net-Object-OrientedprogrammingandVB.Net-Datatypes-Variables-Operators-Arrays-Conditionallogic.

UNITII: Procedures-Dialogboxes-FileIOandSystemobjects-Errorhandling-Namespaces-Classes andObjects-Multithreading-MessageQueue-ProgrammingMSMQ.

UNIT III: VB .Net IDE-Compiling and Debugging-Customizing- Data access: ADO.Net-Visual studio .Net and ADO .Net. Windows Forms: Controls-Specific controls-Irregularforms.

UNIT IV: Vb .Net and web: Introduction to ASP.Net page framework- HTML servercontrols-Webcontrols-Validationcontrols-Events-CSS-Statemanagement-Tracing-Security.

UNITV: WebServices:Introduction-Infrastructure-SOAP-Buildingwebservices-Deployingand publishingweb services-Findingand consuming webservices

TEXTBOOK:

1.Bill Evjen, Jason Beres, et.al, Visual Basic .Net programming, Wiley Dreamtech India (p)Ltd. ISBN 81-265-0254-1. (Chapters: 1, 2, 3, 4, 5, 6, 7, 8, 9, 10, 12, 13, 14, 15, 16, 17, 18,19, 21, 22, 25, 26, 27, 29, 31, 32, 33, 34, 35, 36, 38, 39, 40, 42, 43, 44, 45, 46, 47, 48, 49,50).

REFERENCEBOOKS:

1. Fergal Grimes, Microsoft .NET for programmers, Shroff Publishers & Distributors (P)Ltd.ISBN 81-7366-540-0.
2. ThuanThai&HoangQ.Lam,.NETFrameworkEssentials,ShroffPublishers&Distributors(P)Ltd.ISBN 81-7366-654-7

SEMESTER VI

Course	**BScCS,IT,CT,SS,CSA, MM&B.C.A (Regular)**
Effective from	**2016-2017andOnwards**
Semester	**VI**
Subject	**CORE11:GRAPHICSANDMULTIMEDIA**

SubjectDescription: ThissubjectdealswithGraphicsConceptsandMultimediamethodologies.
Goal: MathematicalKnowledgeonGraphics andTechnicalbackgroundof Multimedia.
Objective: Toinculcate knowledgeonGraphics &Multimediaconcepts.

(GRAPHICS –UNITSI&II)

UNIT I: Output Primitives: Points and Lines – Line-Drawing algorithms – Loading frameBuffer–Linefunction–Circle-Generatingalgorithms–Ellipse-generatingalgorithms.Attributes of Output Primitives: Line Attributes – Curve attributes – Color and GrayscaleLevels– Area-fill attributes– Character Attributes.

UNIT II: 2D Geometric Transformations: Basic Transformations – Matrix Representations – CompositeTransformations–OtherTransformations.2DViewing:TheViewingPipeline–

Viewing Co-ordinate Reference Frame – Window-to-Viewport Co-ordinate Transformation - 2DViewingFunctions– ClippingOperations.

(MULTIMEDIA–UNITSIII, IV&V)

UNIT III: Text: Types of Text – Unicode Standard – Font –Insertion of Text – Textcompression – File formats. Image: Image Types – Seeing Color – Color Models – BasicSteps for Image Processing – Scanner – Digital Camera – Interface Standards – Specificationof Digital Images – CMS – Device Independent Color Models – Image Processing software –FileFormats–ImageOutputon Monitor and Printer.

UNITIV: Audio:Introduction–Acoustics–NatureofSoundWaves–FundamentalCharacteristics of Sound – Microphone – Amplifier – Loudspeaker – Audio Mixer – DigitalAudio–Synthesizers–MIDI–BasicsofStaffNotation–SoundCard–AudioTransmission
– Audio File formats and CODECs – Audio Recording Systems – Audio and Multimedia – VoiceRecognition and Response-Audio ProcessingSoftware.

UNIT V: Video: Analog Video Camera – Transmission of Video Signals – Video

SignalFormats–TelevisionBroadcastingStandards–PCVideo–VideoFileFormatsandCODECs – Video Editing – Video Editing Software. Animation: Types of Animation –Computer Assisted Animation– Creating Movement – Principles of Animation– SomeTechniques of Animation – Animation on the Web – Special Effects – Rendering Algorithms.Compression:MPEG-1 Audio– MPEG-1Video-MPEG-2Audio – MPEG-2Video.

TEXTBOOKS:

1. Computer Graphics, Donald Hearn, M.Pauline Baker, 2nd edition, PHI. *(UNIT-I: 3.1-3.6,4.1-4.5&UNIT-II: 5.1-5.4,6.1-6.5)*
2. Principles of Multimedia, Ranjan Parekh, 2007, TMH. *(UNIT III: 4.1-4.7,5.1-5.16 UNIT-IV:7.1-7.3,7.8-7.14,7.18-7.20,7.22,7.24,7.26-28UNIT-V:9.5-9.10,9.13,9.15,10.10-10.13)*

REFERENCEBOOKS:

1. ComputerGraphics,AmarendraNSinha,ArunDUdai,TMH.
2. Multimedia:Makingit Work, TayVaughan, 7thedition, TMH.

BHARATHIAR UNIVERSITY: COIMBATORE-641 046

B.Sc. CS/IT/CT/SS/MM/CSA &BCA
(For the students admitted from the academic year **2016-2017** and onwards)

CBCS PATTERN

GUIDELINES FOR PROJECT WORK

- The aim of the project work is to acquire practical knowledge on the implementation of the programming concepts studied.

- Each student should carry out individually one project work and it may be a work using the software packages that they have learned or the implementation of concepts from the papers studied or implementation of any innovative idea focusing on application oriented concepts.

- The project work should be compulsorily done in the college only under the supervision of the department staff concerned.

Viva Voce

- Viva-Voce will be conducted at the end of the year by both Internal (Respective Guides) and External Examiners, after duly verifying the **Annexure Report** available in the College, for a total of 200 marks at the last day of the practical session.

- Out of 200 marks, 160 marks for project report and 40 marks for Viva Voce.

Course	**BScCS,IT,CT,SS,CSA, MM&B.C.A (Regular)**
Effective from	**2016-2017andOnwards**
Semester	**VI**
Subject	**CORELAB 7:** **PROGRAMMINGLAB –GRAPHICSAND MULTIMEDIA**

Graphics:

1. Writeaprogramtorotateanimage.
2. Write aprogram to dropeach word ofa sentenceonebyone from the top.
3. Write aprogram to drop alineusingDDAAlgorithm.
4. Writeaprogramto moveacarwith soundeffect.
5. Writeaprogram to bounceaball an moveit with sound effect.
6. Writeaprogramto testwhetheragivenpixel isinside oroutsideor onapolygon.

Multimedia:

1. CreateSun Flower usingPhotoshop.
2. AnimatePlaneflyingin the Clouds usingPhotoshop.
3. CreatePlasticSurgeryfortheNose usingPhotoshop.
4. CreateSee-throughtext usingPhotoshop.
5. CreateaWeb PageusingPhotoshop.
6. ConvertBlackandWhitePhoto toColorPhotousingPhotoshop.

SKILL4 : BSC IT: DOT NET LAB 1

1. CreateaVB .NetprogramtoaddastringtoComboboxwithvalueofTextboxwhenuserclicksbutton control.
2. CreateaVB.NetprogramtodisplayhierarchicalrepresentationsofitemswithtreeviewcontrolusingRuntime coding.
3. CreateaVB.NetprogramtohandleuserdefinedExceptions.
4. CreateaVB.NetprogramforEmployeedetailstoreadanddisplaythedatausingconstructorsand memberfunctions.
5. CreateanapplicationinVB.Nettodemonstratethefollowingevents:
    i. Click
    ii. MouseDown
    iii. KeyDown
    iv. FormLoad
6. CreateanapplicationinVB.NetforFileMenuwithMenuitemsNew,Open,Save,PrintandExit &Edit Menuwith Menu items Cut, Copy,Paste, Find and Undo.
7. CreateanapplicationinVB.Netforstudentinformationdatabaseandperformthefollowingoperations:
    i. Addition
    ii. Deletion
    iii. Updation
8. Design a website using web form to show the current date and time when a user clicks thebutton.

ELECTIVE II: MOBILE COMPUTING

UNITI: Introduction:MobilityofBitsandBytes–WirelessTheBeginning–MobileComputing – Dialogue Control – Networks – Middleware and Gateways – Application andservices-DevelopingMobilecomputerApplications–securityinmobilecomputing–Standards_Whyisitnecessary–Standardbodies.MOBILECOMPUTTINGARCHITECTURE: History of computers and Internet – Architecture for mobile computing –Three-tier architecture – Design considerations for mobile computing – Mobile computingthroughInternet – Makingexitingapplications mobileenabled

UNIT II: MOBILE COMPUTING THROUGH TELEPHONY: Evaluation of telephony – Multiple access procedures– Mobile computing through telephone –IVR Application – VoiceXML– TAPI

UNITIII:EMERGINGTECHNOLOGIES:BlueTooth–RFID–WiMAX–MobileIP–IPv6 – Java Card. GSM : Global System for mobile communications – GSM Architecture – GSM Entities – Call routing in GSM – PLMN Interfaces – GSM Addresses and Identifiers – Network Aspects in GSM – GSM Frequency allocations– Authentications and Security.SMS

UNIT IV: GPRS – GPRS and packet data network – GPRS network architecture – GPRSnetwork operations – Data services in GPRS – Application for GPRS- Limitations – BillingandCharging. WAP : MMS– GPRS Applications

UNIT V: CDMA and 3G: Spread spectrum technology – Is 95 – CDMA vs GSM – WirelessData – Third generation networks – Applications on 3G WIRELESS LAN: Wireless LANadvantages – IEEE 802.11 standards – Architecture – Mobile in Wireless LAN – Deployingwireless LAN – Mobile adhoc networks and sensor networks– Wireless LAN Security –WiFi vs 3G

TEXTBOOK:

1.MOBILECOMPUTING,AsokeKTalukder ,RoopaRYavagal, TMH,2005

ELECTIVE III: E-LEARNING

UNIT I: E-Learning Evolution - Advantages and Disadvantages of E-Learning - Instructionaldesign Models for E-Learning - Applying User-Centered Design to E-Learning - E-Learningtools–What is an E-Learningtool?

UNITII: Flash: Geometric shape tools – Drawing tools - Creating Precise Lines with the PenTool-Fill and strokecontrols-Selection Tools-Designingand AligningElements.

UNIT III: Creating Animation and Effects: Animation strategies – TimeLine Animation – ApplyingLayer Types-Characteranimation Techniques.

UNIT IV: Sound: Import and Export formats – Importing sound to flash – Adding sound totimeline – Synchronizing audio to animations - Stopping sounds. Video: Integrating andImportingVideo.

UNIT V: Adobe Premiere: Starting Movie Projects: Starting New Projects - Reviewing andChangingProjectSettings-SavingaProject.AddingSpecialEffectstoYourMovies:Surveying Effects - Introducing the Effect Controls Window - Using Keyframes - RemovingEffects-Workingwith Effect Presets.

TEXTBOOKS

1. ELearningConceptsandTechniques,PamelaBerman,InstituteforInteractiveTechnologies,BloomsburgUniversityof Pennsylvania, USA (e-book), 2006.
2. MacroMediaFlash8Bible,RobertReinHardtandSnowDowd.2006,1stEdition,WileyIndia (P)Ltd, NewDelhi.
3. AdobePremiereElementsforDummies, KeithUnderdahl,WileyPublishingInc.

REFERENCES

1. Flash8,DineshMaidasani,2006,FirewallMedia Publications,NewDelhi.
2. MultiMediaLiteracy,FredT.Hofstetter,2001,TataMcGrawHill,NewDelhi.
3. MultimediaMakingitWork,TayVaughan.2008.7thEdition,TataMcGrawHill ,NewDelhi.