BHARATHIAR UNIVERSITY: COIMBATORE-641 046
B.Sc. CS/IT/CT/SS/MM/CSA &BCA
(For the students admitted from the academic year **2015-2016** onwards)
SCHEME OF EXAMINATION - CBCS PATTERN

Part	Study Components	Course title	Ins. hrs/ week	Examinations				Credit
				Dur.Hrs	CIA	Marks	Total Marks	
	Semester I							
I	Language – I		6	3	25	75	100	4
II	English – I		6	3	25	75	100	4
III	Core 1: Computing fundamentals and C Programming		4	3	25	75	100	4
III	Core 2: Digital Fundamentals and Architecture		4	3	25	75	100	4
III	Core Lab 1: Programming Lab - C		3	3	40	60	100	4
III	Allied 1: &&		5	3	25	75	100	4
IV	Environmental Studies #		2	3	-	50	50	2
	Semester II							
I	Language – II		6	3	25	75	100	4
II	English – II		6	3	25	75	100	4
III	Core 3: COBOL Programming		5	3	25	75	100	4
III	Core Lab 2: Programming Lab – COBOL		4	3	40	60	100	4
III	Core Lab 3: Programming Lab –Internet Basics		2	3	20	30	50	2
III	Allied 2: &&		5	3	25	75	100	4
IV	Value Education – Human Rights #		2	3	-	50	50	2
	Semester III							
III	Core 4: Data Structures		6	3	25	75	100	4
III	Core 5: C++ Programming		6	3	25	75	100	4
III	Core Lab 3: Programming Lab - C++		5	3	40	60	100	4
III	Allied 3: &&		6	3	25	75	100	4
IV	Skill based Subject I –- &&		5	3	20	55	75	3
IV	Tamil @ / Advanced Tamil# (OR) Non-major elective-1 (Yoga for Human Excellence)# / Women's Rights#		2	3	-	50	50	2
	Semester IV							
III	Core 6: System Software and Operating System		6	3	25	75	100	4
III	Core 7: Java Programming		6	3	25	75	100	4

III	Core Lab 5: : Programming Lab - JAVA	6	3	40	60	100	4
III	Allied 4: &&	6	3	25	75	100	4
IV	Skill based Subject 2 –(lab) &&	4	3	30	45	75	3
IV	Tamil @ /Advanced Tamil # (OR) Non-major elective -II (General Awareness #)	2	3	-	50	50	2
	Semester V						
III	Core 8: RDBMS & ORACLE	6	3	25	75	100	4
III	Core 9: Visual Programming – Visual Basic & Visual C++	6	3	25	75	100	4
III	Core Lab 5: Programming Lab. – V.B.,V C++ & ORACLE	6	3	40	60	100	4
	Elective I &&	6	3	25	75	100	4
IV	Skill based Subject 3- &&	6	3	20	55	75	3
	Semester VI						
III	Core 11: Graphics & Multimedia	5	3	25	75	100	4
III	Core 12: Project Work Lab %%	5	3	-	200	200	8
III	Core Lab 6: Programming Lab - Graphics & Multimedia	6	3	40	60	100	4
III	Elective II &&	5	3	25	75	100	4
III	Elective III &&	5	3	25	75	100	4
IV	Skill Based Subject 4 (lab) - &&	4	3	30	45	75	3
V	Extension Activities @	-	-	50	-	50	2
	Total					3500	140

@ No University Examinations. Only Continuous Internal Assessment (CIA)#

No Continuous Internal Assessment (CIA). Only University Examinations.

%% **see Guidelines for Project Work.**

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SCHEME OF EXAMINATION - CBCS PATTERN

List of Allied, Elective & Skill Based Subjects

	BSc Information Technology
Allied-1	Mathematical Structures for Computer Science
Allied-2	Discrete Mathematics
Allied-3	Microprocessor & ALP
Allied-4	Embedded systems
Elective- I	Multimedia Systems / Animation Techniques / Business Intelligence*
Elective- II	Network Security and Administration/ Mobile Computing / Internet programming*
Elective- III	E- Learning */Component Technology/ Recent Trends in Enterprise Information Technology*
Skill-1	Introduction to web design & applications
Skill-2-Lab	HTML,XML,JAVA Script-Lab
Skill-3	DOT Net Programming
Skill-4_lab	Dot Net lab

B.Sc. Information Technology - List of Elective Papers (2014-15)

Elective- I	Soft Computing / Animation Techniques / Business Intelligence
Elective- II	Network Security and Administration/ Mobile Computing / Internet programming
Elective- III	E- Learning /Component Technology/ E-Commerce

Note :

1. The syllabus for the above papers (**except Soft Computing, E-Learning and E-Commerce**)be the same as prescribed for the academic year 2011-12.

SEMESTER -I

BHARATHIYAR UNIVERSITY, COIMBATORE – 641046

UNDER GRADUATE DEGREE PROGRAMMES (CBCS SEMESTER PATTERN)

(For the students admitted during the academic year 2015 – 2016 and onwards)

பாடத்திட்டம் - முதற்பருவம் - பகுதி -1. தாள் 1

(2015 - 16 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. ஆசுர் 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, நாகம்

அலகு -3 **உரையம் - சிறுகதைத் தொகுப்பு**

பிரிசாட் பப்ளிகேஷன்ஸ், 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 வழூஉச் 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.

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

Part II - English

For the candidates admitted from the academic year 2015-16 and onwards.

Semester – I

Prescribed Text: CONFLUENCE
A Textbook for undergraduate students

Publishers : Anu Chitra Publications
New No.21, Old No.9, Rajagopalar street,
West Mambalam, Chennai – 600 033.

Contents:

Unit I Preparatory Lessons

1. Competition Matters – Suzanne Sievert
2. A Personal Crisis May Change History - Dr.A.P.J. Abdulkalam
3. Why preserve Biodiversity?. - Prof.D. Balasubramanian

Unit – II- Prose

1. My greatest Olympic prize - Jesse owens
2. If you are wrong, admit it - Dale Carnegie
3. The Unexpected - Robert Lynd

Unit – III – Poetry

1. Pulley or the gift of god - George Herbert
2. La Belle Dane Sans Merci - John heats
3. The Night of the Scorpion - Nissim Ezekiel

Unit – IV – Short Story

1. Three Questions - Leo Tolstoy
2. The Gift of the Magi - O Henry

Unit – V – One Act Play

1. The Shirt - Francis Dillon
2. The Pie and the Tart - Hugh Chester man

Grammar exercises and Vocabulary from the prescribed lessons – I to IV Units.

Question paper Pattern : Existing pattern to be followed.

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CBCS PATTERN

CORE SUBJECTS

Course	**BSc CS, IT, CT, SS, CSA, MM & B.C.A (Regular)**
Effective from	**2011-2012 and Onwards**
Semester	**I**
Subject	**CORE 1 : Computing Fundamentals and C Programming**

Subject Description: This subject deals with the Computer fundamentals and the concepts of C programming language.
Goal: To learn about the Computer fundamentals and the C programming language concepts
Objective: On successful completion of this subject the students have the programming ability in C Language

UNIT – I: Fundamentals of Computers : Introduction – History of Computers-Generations of Computers- Classification of Computers-Basic Anatomy of a Computer System-Input Devices-Processor-Output Devices-Memory Management – Types of Software- Overview of Operating System- Programming Languages-Translator Programs-Problem Solving Techniques - 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, Increment and Decrement operators - Arithmetic Expressions - Evaluation of expression - precedence of arithmetic operators - Type conversion in expression – operator precedence & associativity - Mathematical functions - Reading & Writing a character - Formatted input and output.

UNIT – III: Decision Making and Branching : Introduction – If , If….Else, nesting of If …Else statements- Else If ladder – The Switch statement, The ?: Operator – The Goto Statement. Decision Making and Looping : Introduction- The While statement- the do statement – the for statement-jumps in loops. Arrays – Character Arrays and Strings

UNIT – IV: User-Defined Functions : Introduction – Need and Elements of User-Defined Functions- Definition-Return Values and their types - Function Calls – Declarations – Category of Functions- Nesting of Functions - Recursion – Passing Arrays and Strings to Functions - The Scope, Visibility and Lifetime of Variables- Multi file Programs . Structures and 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 and Arrays- Pointers and Strings – Array of pointers – Pointers as Function Arguments-Functions returning pointers – Pointers to Functions – Pointers and Structures. File Management in C.

TEXT BOOK:

1. E Balagurusamy: ‒COMPUTING FUNDAMENTALS & C PROGRAMMING‖ – Tata McGraw-Hill, Second Reprint 2008, ISBN 978-0-07-066909-3.

REFERENCE BOOK:

1. Ashok N Kamthane: Programming with ANSI and Turbo C, Pearson Edition Publ, 2002.
2. Henry Mullish & Huubert L.Cooper: The Sprit of C, Jaico Pub. House, 1996.

Course	**BSc CS, IT, CT, SS, CSA, MM & B.C.A (Regular)**
Effective from	**2011-2012 and Onwards**
Semester	**I**
Subject	**CORE 2** : DIGITAL FUNDAMENTALS AND ARCHITECTURE

Subject Description: This subject deals with fundamentals of digital computers, Microprocessors and System architecture.
Goal: To learn about Computer Fundamentals and its Architecture.
Objective: On successful completion of this subject the students should have Knowledge on Digital circuits, Microprocessor architecture, and Interfacing of various components.

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

UNIT-II: Combinational Logic Circuits: Boolean algebra – Karnaugh map – Canonical form 1 – Construction and properties – Implicants – Don‘t care combinations - Product of sum, Sum of products, simplifications. Sequential circuits: Flip-Flops: RS, D, JK, and T - Multiplexers – Demultiplexers – Decoder Encoder – shift registers-Counters.

UNIT-III: Input – Output Organization: Input – output interface – I/O Bus and Interface – I/O Bus Versus Memory Bus – Isolated Versus Memory – Mapped I/O – Example of I/O Interface. Asynchronous data transfer: Strobe Control and Handshaking – Priority Interrupt: Daisy- Chaining Priority, Parallel Priority Interrupt. Direct Memory Access: DMA Controller, DMA Transfer. Input – Output Processor: CPU-IOP Communication.

UNIT-IV: Memory Organization: Memory Hierarchy – Main Memory- Associative memory: Hardware Organization, Match Logic, Read Operation, Write Operation. Cache Memory: Associative, Direct, Set-associative Mapping – Writing into Cache Initialization. Virtual Memory: Address Space and Memory Space, Address Mapping Using Pages, Associative Memory, Page Table, Page Replacement.

UNIT-V: CASE STUDY: Pin out diagram, Architecture, Organization and addressing modes of 80286-80386-80486-Introduction to microcontrollers.

TEXT BOOKS:

1. Digital principles and applications, Albert Paul Malvino, Donald P Leach , TMH,1996.
2.COMPUTER SYSTEM ARCHITECTURE -M. Morris Mano , PHI.
3. MICROPROCESSORS AND ITS APPLICATIONS-RAMESH S.GOANKAR

REFERENCE BOOKS:

1. DIGITAL ELECTRONICS CIRCUITS AND SYSTEMS - V.K. Puri , TMH.
2. COMPUTER ARCHITECTURE , M. Carter , Schaum‘s outline series, TMH.

Course	**(BSc CS, IT, CT, SS, CSA, MM & B.C.A (Regular)**
Effective from	**2011-2012 and Onwards**
Semester	**I**
Subject	**CORE LAB 1 : PRACTICAL LIST- PROGRAMMING LAB – C**

1. Write a C program to find the sum, average, standard deviation for a given set of numbers.
2. Write a C program to generate ‒n‖ prime numbers.
3. Write a C program to generate Fibonacci series.
4. Write a C program to print magic square of order n where n > 3 and n is odd.
5. Write a C program to sort the given set of numbers in ascending order.
6. Write a C program to check whether the given string is a palindrome or not using pointers.
7. Write a C program to count the number of Vowels in the given sentence.
8. Write a C program to find the factorial of a given number using recursive function.
9. Write a C program to print the student‘s Mark sheet assuming roll no, name, and marks in 5 subjects in a structure. Create an array of structures and print the mark sheet in the university pattern.
10. Write a function using pointers to add two matrices and to return the resultant matrix to the calling function.
11. Write a C program which receives two filenames as arguments and check whether the file contents are same or not. If same delete the second file.
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. of lines.

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

(For the students admitted from the academic year **2011-2012** and onwards)

CBCS PATTERN

ALLIED SUBJECTS

Course	**BSc CS, IT, CT, SS, CSA, MM & B.C.A (Regular)**
Effective from	**2011-2012 and Onwards**
Semester	**I**
Subject	**Allied 1: MATHEMATICAL STRUCTURES FOR COMPUTER SCIENCE**

Subject Description: This subject deals with mathematical concepts like Matrices, Numerical analysis and Statistical methods for computer science and applications.
Goal: To learn about the mathematical structures for computer based applications

Objective: On successful completion of this subject the students should have :
- Understanding the concepts of mathematics
- Learning applications of statistical and numerical methods for Computer Science.

UNIT – I: Matrices – Introduction – Determination – Inverse of a matrix – Rank of a Matrix – Eigen value Problems
UNIT – II: System of Simultaneous Linear algebraic Equation – Gauss elimination, Gauss Jordon, Gauss Seidal methods. The solution of Numerical Algebraic & Transcendental equation – Bisection method – Newton – Rapson method – false position method.
UNIT – III: Numerical Differentiations – Newton‘s forward Difference - Backward Difference – Startling formula Numerical Integration – Trapezoidal Rule & Simpson‘s rule Numerical solutions of ordering differential Equations – Taylor series & Runge kutta method
UNIT – IV: Measures of central tendency – Mean Median and Mode – Relationship among mean media and mode. Measures of dispersion – Range, quartile deviation, mean deviation and Standard deviation
UNIT – V: Regression and Correlation – Types of relationship – Linear regression – Correlation – Coefficient of correlation – Regression equation of variables – Discrete Probability distribution – Uniform, Binomial & poision Distribution

TEXT BOOKS:
1. Engineering Mathematics Volume II – Dr M.K. Venkataraman – NPC (Unit I)
2. Numerical Methods in science & Engineering - M.K. Venkataraman – NPC , Revised Edition -2005 (Unit II & III)
3. Business Statistics - S.P. Gupta & M.P. Gupta Sultan Chand and Sons (Unit IV & V)

REFERENCE BOOKS:
1. Numerical methods – E. Balagurusamy Tata MC Graw Hill.
2. Fundamental of Mathematical statistics S C Gupta, V. K. Kapoor Sultan Chand and 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.
• Inida 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

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.அரு.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)

Semester – II

Prescribed Text : **REFLECTIONS III (REVISED)**

An anthology of prose poetry and fiction

CLN Prakash

Publishers : Cambridge University Press India Foundation Books.
Cambridge House
21/1 (New No.49) Thousand lights
Chennai – 600 006.

Unit – I

1. A Day's wait - Ernest Hemingway
2. Dress in Communication - Ernest Hemingway
3. The Justice of Peace - Hilaire Belloc

Unit –II

4. The Happy Prince - Oscar wilde
5. A Speech by N.R. Narayana Murthy
6. The Cockroach - Kevin Hallingan

Unit – III

7. Graphic Novels
8. A Speech by Barack Obama

Unit – IV

9. The Many and the None
10. Meeting at Night - Robert Browning
11. The Blue Bouquet - Octavia Paz

Unit – V

12. Real Time - Amit Chaudhuri
13. The Chimney Sweeper's Complaint - Mary Alcock

Grammar and Vocabulary exercises from the prescribed lessons.

Question paper Pattern : Existing Pattern to be followed.

Course	**BSc CS, IT, CT, SS, CSA, MM & B.C.A (Regular)**
Effective from	**2011-2012 and Onwards**
Semester	**II**
Subject	**CORE 3 : COBOL PROGRAMMING**

Subject Description: This subject deals with the programming concepts on business applications using COBOL language.
Goal: To learn about COBOL programming language for business problems
Objective: On successful completion of this subject the students should have :
- Writing programs for business applications
- Concepts of file handling in programming languages

UNIT – I: Introduction to COBOL: COBOL words - Literals - Structure of COBOL Program - COBOL Coding Sheet-IDENTIFICATION DIVISION- ENVIRONMENT DIVISION – DATA DIVISION – Editing and Non-editing Picture Clauses – Level Numbers – VALUE and FILLER Clause.

UNIT – II: PROCEDURE DIVISION – Data Movement Verb – Arithmetic Verbs : Add, Subtract, Multiply, Divide, Compute – Input/Output Statement: Accept, Display Control Verbs: GOTO – GOTO Depending on – Stop Run – CORRESPONDING Option - ROUNDED option - ON SIZE ERROR option - Simple Programs Using Above Verbs.

UNIT – III: Conditional Statements: If Statement – Nested if statement – Sign Condition – Class Condition- Condition Name – Compound Condition- PERFORM Statements, More about
DATA Division: RENAMES-REDEFINES – Simple Programs Using the above Verbs.

UNIT – IV: Files in COBOL: Sequential – Relative – Indexed Sequential - Random files – File description and Record description entries - Input/Output Verbs: Open, read, write, rewrite, Close, Delete – Sort Verb – Simple Programs using above Verbs.

UNIT – V: Table Handling: Occurs Clause – Two and Multi-Dimensional Tables – Occurs. Indexed By Clause – SET Verb – START and SEARCH Verb – Random Files-Keys & Their Importance – INVALID KEY Clause – SCREEN SECTION - Simple Programs using above Verbs.

TEXT BOOKS:

1. COBOL PROGRAMMING, M.K. R OY & D.GHOSH DASTIDAR,TATA Mc.GRAW HILL, SECOND EDITION - 1998.

REFERENCE BOOKS:

1. COBOL programming – V. Rajaraman, PHI Pub.
2. Introduction To Cobol Programmin g – Author Dr. R. Krishnamoorthy, JJ Publications.
3. Structured COBOL – Welburn, Tata McGrawhill, 4 th Edition.

Course	**BSc CS, IT, CT, SS, CSA, MM & B.C.A (Regular)**
Effective from	**2011-2012 and Onwards**
Semester	**II**
Subject	**CORE LAB II : PRACTICAL LIST- PROGRAMMING LAB – COBOL**

1. Write a COBOL program to find the sum of individual digits of a 10-digit number until a single digit is produced.
2. Write a COBOL program to accept the inputs student Name, Marks for five subjects and declare the result as PASS, if the student gets minimum 40 in each subject otherwise declare the result as FAIL.
3. Write a COBOL program to accept a date (DDMMYY) and display the result in the following specified format: For eg : 030498 as 3rd APR 1998 [Use REDEFINES Clause].
4. Write a COBOL program to display the given three digit number into words using OCCURS clause For eg : 342 THREE HUNDRED AND FORTY TWO
5. Write a COBOL program to create a student data file using the following fields:
ROLL-NO, NAME, AGE, SEX, YEAR-IN-COLLEGE, MARKS for five subjects.
6. Write a COBOL program to create the following two files using the student data file (Created by pro gram 5) .
FILE 1: List of male student who are studying third year of the College.
FILE 2: List of female students who are studying first year of the College. [Use MOVE…….CORRESPONDING Option]

7. Write a COBOL program to sort the student data file (created by program-5) in the ascending order of the fields SEX, Year-in-college and ROLL-NO. [Use SORT Verb].
8. Write a COBOL program to create an Employee file for the employees of an organization using the following fields :
EMP-NO , NAME , DOB, SEX, BASIC-PAY, DESIGNATION.
9. Write a COBOL program to update the new BASIC-PAY of each employee in the Employee data file (created in program 8) by incrementing 25% of BASIC -PAY.
10. Write a COBOL program to find the number of male employees whose BASIC-PAY > 4000 and the number of female employees whose BASIC-PAY < 3000 using the employee data file (created by program 8)
11. Write a COBOL program to create an inventory data file by using the following fields :
ITEM-CODE, DESCRIPTION, OPEN-STOCK, PURCHASES, SALES, SAFETY-LEVEL, CLOSE-STOCK.
12. Write a COBOL program to prepare RE- ORDER LEVEL STATEMENT by using the inventory data file (crated by program 11) if the CLOSE-STOCK is less than SAFETY-LEVEL :

A.B.C.& COMPANY, CHENNAI-600006
RE-ORDER LEVEL STATEMENT

ITEM-CODE DESCRIPTION SAFETY-LEVEL CLOSE-STOCK

Course	**BSc CS, IT, CT, SS, CSA, MM & B.C.A (Regular)**
Effective from	**2011-2012 and Onwards**
Semester	**II**
Subject	**CORE LAB III : PRACTICAL LIST- Internet Basics**

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, TV program 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	**BSc CS, IT, CT, SS, CSA, MM & B.C.A (Regular)**
Effective from	**2011-2012 and Onwards**
Semester	**II**
Subject	**ALLIED 2: DISCRETE MATHEMATICS**

Subject Description: This subject deals with discrete structures like set theory, mathematical logic, relations, languages, graphs and trees.
Goal: To learn about the discrete structures for computer based applications.
Objective: On successful completion of this subject the students should have:
- Understanding the concepts of discrete mathematics
- Learning applications of discrete structures in Computer Science.

UNIT – I: Set theory-Introduction-Set & its Elements-Set Description-Types of sets- Venn-Euler Diagrams- Set operations & Laws of set theory-Fundamental products-partitions of sets-minsets- Algebra of sets and Duality-Inclusion and Exclusion principle

UNIT – II: Mathematical logic – Introduction- prepositional calculus –Basic logical operations- Tautologies-Contradiction-Argument-Method o f proof- Predicate calculus.

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

UNIT – IV: Languages – Operations on languages – Regular Expressions and regular languages – Grammar – Types of grammars – Finite state machine – Finite – State automata

UNIT – V: Graph Theory – Basic terminology – paths, cycle & Connectivity – Sub graphs – Types of graphs – Representation of graphs in compute memory - Trees – Properties of trees – Binary trees – traversing Binary trees – Computer Representation of general trees.

TEXT BOOKS:

1. Discrete Mathematics – J.K. Sharma Second Edition – 2005 , Macmillan India Ltd.
(UNIT I TO V)

REFERENCE BOOKS:

1. Discrete Mathematics Structures with Applications to computer science - J. P Tremblay R Manohar – Mc Graw Hill International Edition
3. Discrete Mathematics – Dr M. K. Venketaramen, Dr N.Sridharan, N.Chandarasekaran – The National publishing Company 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.

Adolescent Emotions, arrogance, anger, sexual instability, selfishness, defiance.

UNIT - IV : Theraupatic Measures

Control of the mind through

a. Simplified physical exercise
b. Meditation – Objectives, types, effect on body, mind and soul
c. Yoga – Objectives, Types, Asanas
d. Activities:
   (i) Moralisation of Desires
   (ii) Neutralisation of Anger
   (iii)Eradication of Worries
   (iv)Benefits of Blessings

UNIT; V : Human Rights

1. Concept of Human Rights – Indian and International Perspectives
   a. Evolution of Human Rights
   b. Definitions under Indian and International documents

2. Broad classification of Human Rights and Relevant Constitutional Provisions.
   a. Right to Life, Liberty and Dignity
   b. Right to Equality
   c. Right against Exploitation
   d. Cultural and Educational Rights
   e. Economic Rights
   f. Political Rights
   g. Social Rights

3. Human Rights of Women and Children
   a. Social Practice and Constitutional Safeguards
      (i) Female Foeticide and Infanticide
      (ii) Physical assault and harassment
      (iii) Domestic violence
      (iv) Conditions of Working Women

4. Institutions for Implementation
   a. Human Rights Commission
   b. Judiciary

5. Violations and Redressel
   a. Violation by State
   b. Violation by Individuals
   c. Nuclear Weapons and terrorism
   d. Safeguards.

SEMESTER-III

Semester III - Core 4 :Subject Title: DATA STRUCTURES

UNIT I

Introduction: Introduction of Algorithms, Analysing Algorithms. Arrays: Sparse Matrices - Representation of Arrays. Stacks and Queues. Fundamentals - Evaluation of Expression Infix to Postfix Conversion - Multiple Stacks and Queues

UNIT II

Linked List: Singly Linked List - Linked Stacks and Queues - Polynomial Addition - More on Linked Lists - Sparse Matrices - Doubly Linked List and Dynamic - Storage Management - Garbage Collection and Compaction.

UNIT III

Trees: Basic Terminology - Binary Trees - Binary Tree Representations - Binary Trees -Traversal - More on Binary Trees - Threaded Binary Trees - Binary Tree Representation of Trees - Council Binary Trees. Graphs: Terminology and Representations - Traversals, Connected Components and Spanning Trees Shortest Paths and Transitive Closure

UNIT IV

External Sorting: Storage Devices -Sorting with Disks: K-Way Merging - Sorting with Tapes

Symbol Tables: Static Tree Tables - Dynamic Tree Tables - Hash Tables: Hashing Functions - Overflow Handling.

UNIT V

Internal Sorting: Insertion Sort - Quick Sort - 2 Way Merge Sort - Heap Sort - Shell Sort - Sorting on Several Keys. Files: Files, Queries and Sequential organizations - Index Techniques -File Organizations.

TEXT BOOKS

1. Ellis Horowitz, Sartaj Shani, Data and File Structures Galgotia Publication.
2. Ellis Horowitz, Sartaj Shani, Sanguthevar Rajasekaran, â€œComputer Algorithms Galgotia Publication.

SEMESTER III CORE 5 : C++ PROGRAMMING

Subject Description: This subject deals with Object–oriented programming concepts like Abstraction, Encapsulation, Inheritance and Polymorphism.
Goal: Knowledge on Object–oriented concept and programming with C++.
Objective: To inculcate knowledge on Object-oriented programming concepts using C++.

UNIT-I: Introduction to C++ - key concepts of Object-Oriented Programming –Advantages – Object Oriented Languages – I/O in C++ - C++ Declarations. Control Structures : - Decision Making and Statements : If .. else ,jump, goto, break, continue, Switch case statements - Loops in C++ : For,While, Do - Functions in C++ - Inline functions – Function Overloading.

UNIT-II : Classes and Objects : Declaring Objects – Defining Member Functions – Static Member variables and functions – array of objects –friend functions – Overloading member functions – Bit fields and classes – Constructor and destructor with static members.

UNIT-III
Operator Overloading: Overloading unary, binary operators – Overloading Friend functions – type conversion – Inheritance: Types of Inheritance – Single, Multilevel, Multiple, Hierarchal, Hybrid, Multi path inheritance – Virtual base Classes – Abstract Classes.

UNIT-IV:
Pointers – Declaration – Pointer to Class , Object – this pointer – Pointers to derived classes and Base classes – Arrays – Characteristics – array of classes – Memory models – new and delete operators – dynamic object – Binding , Polymorphism and Virtual Functions.

UNIT-V:
Files – File stream classes – file modes – Sequential Read / Write operations – Binary and ASCII Files – Random Access Operation – Templates – Exception Handling - String – Declaring and Initializing string objects – String Attributes – Miscellaneous functions .

TEXT BOOKS :
1. Ashok N Kamthane , OBJECT-ORIENTED PROGRAMMING WITH ANSI AND TURBOC C++, Pearson Education publication. 2003.
REFERENCE BOOKS:
1.E. Balagurusamy, OBJECT-ORIENTED PROGRAMMING WITH C++, Tata Mc-Grawhill Pupblication, 1998.
2. Maria Litvin & Gray Litvin , C++ for you, Vikas publication, 2002.
3. John R Hubbard, Programming with C, 2nd Edition, TMH publication, 2002.

CORE LAB - 4 : PROGRAMMING LAB C++

1. Write a C++ Program to create a class to implement the Data Structure STACK. Write a constructor to initialize the TOP of the STACK. Write a member function PUSH() to insert an element and member function POP() to delete an element check for overflow and underflow conditions..

2. Write a C++ Program to create a class ARITHMETIC which consists of a FLOAT and an INTEGER variable. Write a Member function ADD (),SUB(),MUL(),DIV() to perform addition, subtraction, multiplication, division respectively. Write a member function to get and display values.

3. Write a C++ Program to read an integer number and find the sum of all the digits until it reduces to a single digit using constructors, destructors and inline member functions.

4. Write a C++ Program to create a class FLOAT that contains one float data member. Overload all the four Arithmetic operators so that they operate on the object FLOAT.

5. Write a C++ Program to create a class STRING. Write a Member Function to initialize ,get and display stings. Overload the Operator –+‖ to Concatenate two Strings, —= =‖ to Compare two strings

6. Write a C++ Program to create class, which consists of EMPLOYEE Detail like E_Number, E_Name, Department, Basic, Salary, Grade. Write a member function to get and display them. Derive a class PAY from the above class and write a member function to calculate DA, HRA and PF depending on the grade.

7. Write a C++ Program to create a class SHAPE which consists of two VIRTUAL FUNCTIONS Calculate_Area() and Calculate_Perimeter() to calculate area and perimeter of various figures. Derive three classes SQUARE, RECTANGLE, TRIANGE from class Shape and Calculate Area and Perimeter of each class separately and display the result.

8. Write a C++ Program to create two classes each class consists of two private variables, a integer and a float variable. Write member functions to get and display them. Write a FRIEND Function common to both classes, which takes the object of above two classes as arguments and the integer and float values of both objects separately and display the result.

9. Write a C++ Program using Function Overloading to read two Matrices of different Data Types such as integers and floating point numbers. Find out the sum of the above two matrices separately and display the sum of these arrays individually.

10. Write a C++ Program to check whether the given string is a palindrome or not using Pointers.
11. Write a C++ Program to create a File and to display the contents of that file with line numbers.

12. Write a C++ Program to merge two files into a single file.

CORE-6: SYSTEM SOFTWARE AND OPERATING SYSTEM

Subject Description: It deals Fundamentals of System Software and Resources of Operating System.

Goal: Knowledge on various System Software and Operating System concepts.

Objective: Enable the student to get sufficient knowledge on various system resources.

UNIT- I: Introduction –System Software and machine architecture-Assemblers-Basic assembler functions - Machine dependent features-program relocation-Machine independent features – literals - symbol defining statements-expressions-program blocks-control sections and program linking - Assembler design options-one pass assemblers-multi pass assemblers.

Loader and Linkers: Basic Loader Functions - Machine dependent loader features – relocation – program – linking - Machine independent loader features - Automatic Library search - Loader options - Loader design options - linkage editor - dynamic linking - Bootstrap loader.

UNIT- II: Macroprocessor: Basic macroprocessor functions - Machine independent macroprocessor features - concatenation of macro parameter macro processor design options-recursive macro expansion - general purpose macro processor - macro processing within language translators. Text Editors: Overview of editing process - user interface - editor structure.

UNIT-III: Machine dependent compiler features - Intermediate form of the program-Machine dependent code optimization-machine independent compiler features-Compiler design options-division into passes-interpreters-p –code compilers-compiler-compilers.

UNIT IV: Introduction: Definition of DOS – History of DOS – Definition Of Process - Process states - process states transition – Interrupt processing – interrupt classes - Storage Management Real Storage: Real storage management strategies – Contiguous versus Non-contiguous storage allocation – Single User Contiguous Storage allocation-Fixed partition multiprogramming – Variable partition multiprogramming.

Virtual Storage: Virtual storage management strategies – Page replacement strategies – Working sets – Demand paging – page size.

UNIT V: Processor Management Job and Processor Scheduling: Preemptive Vs Non-preemptive scheduling – Priorities – Deadline scheduling - Device and Information Management Disk Performance Optimization: Operation of moving head disk storage – Need for disk scheduling – Seek Optimization –

File and Database Systems: File System – Functions – Organization – Allocating and freeing space – File descriptor – Access control matrix.

TEXT BOOK:

1. Leland –L-Beck, ‒System Software-An Introduction to Systems Programming‖, Pearson Education Publishers, Third Edition-2003.

2. H. M Deitel , ― Operating Systems ― , 2nd Edition, Perason Education Publication,2003.

REFERENCE BOOKS :

1. Achyut s Godbole , ― Operating Systems‖ , TMH Publications , 2002

2. John J. Donovan , ‒Systems Programming ‖ , TMH Publications , 1991

3. D.M. Dhamdhrer, ‒Systems Programming and Operating Systems ‒, 2nd Revised Edition.

Allied Paper 3 – IT/CT: MICROPROCESSOR AND ALP

UNIT I	Introduction to microprocessors : Evolution of microprocessors – Single-chip Microcomputer – Embedded Microprocessors – Bit- Slice processors – Microprogramming – RISC and CISC Processors – Scalar and Superscalar Processors – Vector Processors – Array Processors – Symbolic Processors – Digital Signal Processors Intel 8086 – Pin Description of Intel 8086 – Operating modes of 8086 – Register organization of 8086 – BIU and EU – Interrupts – 8086 based computer system – Addressing Modes of 8086
UNIT II	8086 Instruction Set – Instruction Groups – Addressing Mode Byte – Segment Register Selection – Segment Override – 8086 Instructions Assembly Language Programs for 8086: Largest Number, Smallest Number in a Data Array – Numbers in Ascending and Descending order – Block Move or Relocation – Block Move using REP instruction – Sum of a series – Multibyte Addition
UNIT III	Intel 386 and 486 Microprocessors: Intel 386 and 486 Microprocessor – 486DX Architecture – Register Organization of 486 Microprocessor – Memory Organization – Operating Modes of Intel 486 – Virtual Memory – Memory Managament Unit – Gates – Interrupts and Exceptions – Addressing Modes of 80486 – Pin Configuration
UNIT IV	Input devices – Output devices – Memory and I/O addressing – 8086 Addressing and Address Decoding – Programmable I/O Ports – DMA Data Transfer. Other Microprocessors – PowerPC Microprocessors – Pentium Microprocessors – Pentium Pro microprocessor – Alpha Microprocessor – Cyrix Microprocessor – MIPS Microprocessor – AMD Microprocessor
UNIT V	MOTOROLA 68000, MOTOROLA 68020, MOTOROLA 68030, MOTOROLA 68040 Interfacing of A/D Converter and Applications: Introduction – Interfacing of ADC 0808 or ADC 0809 to Intel 8086 – Bipolar to Unipolar Converter – Sample and Hold Circuit, LF 398 – Microprocessor-based Measurement and Control of Physical Quantities
Text Book(s)	Badri Ram, ― Advanced Microprocessors and Interfacing‖, Tata McGraw-Hill Publishing Company Limited, Fourteenth reprint, 2007
Ref. Book(s)	A.K. Ray, K.M. Bhurchandi, ― Advanced Microprocessors and Peripherals‖, Tata McGraw-Hill Publishing Company Limited, Second Edition, 2007

SKILLED-1

SKILL-1: BSC IT : INTRODUCTION TO WEB DESIGN AND APPLICATIONS

UNIT I	**Fundamentals of Electronic Mail :** Introduction - Email :Advantages and Disadvantages - Userids, Passwords and Email addresses - Message Components - Message Composition - Mailer Features - E mail Inner Workings - Email Management - MIME Types . **Browsing and Publishing** ; Introduction – Browser bare bones – Coast – to – Coast surfing – Hyber Text Markup Languages – Web page installation – Web page set up – HTML formatting and hyper link creation
UNIT II	**The internet** : Introduction – internet defined – internet history – the way the internet works – internet congestion – Inter net culture – Business culture and the internet – collaborative computing and the internet . **World Wide Web** : introduction the web defined – web browser details – web writing styles – web presentation outline, design , and management – registering web pages
UNIT III	**Searching the world wide web** : introduction – directories , search engines and metasearch engines – search fundamentals – search strategies – how does a search engine works. **Telnet and FTP** : introduction – telnet and remote login – File transfer – Computer Viruses
UNIT IV	**Basic HTML** : introduction – semantic versus syntactic – based style types – headers and footers – lists – tables – debugging . **Advanced HTML :** introduction – frames – html forms – CGI scripts – dynamic documents – html tools – next generation html – cascading style sheets
UNIT V	**News groups, Mailing Lists, Chat rooms and MUDs** : introduction – news groups and mailing lists history – mailing list fundamentals – newsgroups and mailing lists availability – chat-rooms – MUDs. **Electronic Publishing :** introduction – electronic publishing advantages and disadvantages – copy right issues – project Gutenberg and on-line books – electronic journals , magazines and news papers – miscellaneous publishing issues.
Text Book(s)	Raymond Greenlaw, Ellen Hepp , Fundamentals of the INTERNET and the World Wide Web, Second Edition , Tata McGRAW –HillEdition, 2005

Tamil @ /Advanced Tamil
Non-major Elective -I

"Women'sRights

FORPART–IV IN THIRD SEMESTER OF UNDER GRADUATE CANDIDATES WITH EFFECT FROM
2008-09
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-Fundamental Rights.

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 - றன ர வேறுபாடு அறிதல்
ளன, ழன, லன 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

CORE-7 : 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 knowledge on Java Programming concepts.

UNIT-I: Fundamentals of Object-Oriented Programming: Object-Oriented Paradigm – Basic Concepts of Object-Oriented Programming – Benefits of Object-Oriented Programming – Application of Object-Oriented Programming. Java Evolution: History – Features – How Java differs from C and C++ – Java and Internet – Java and www –Web Browsers. Overview of Java: simple Java program – Structure – Java Tokens – Statements – Java Virtual Machine.

UNIT-II: Constants, Variables, Data Types - Operators and Expressions – Decision Making and Branching: if, if ..else, nested if, switch, ? : Operator - Decision Making and Looping: while, do, for – Jumps in Loops - Labeled Loops – Classes, Objects and Methods.

UNIT-III: Arrays, Strings and Vectors – Interfaces: Multiple Inheritance – Packages: Putting Classes together – Multithreaded Programming.

UNIT-IV: Managing Errors and Exceptions – Applet Programming – Graphics Programming.

UNIT-V: Managing Input / Output Files 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 Primitive data Types – Random Access Files.

TEXTBOOKS:

1. PROGRAMMING WITH JAVA – A PRIMER - E. Balagurusamy, 3 rd Edition, TMH.

REFERENCE BOOKS:

1. THE COMPLETE REFERENCE JAVA 2 - Patrick Naughton & Hebert Schildt, 3rd ed,TMH

2. PROGRAMMING WITH JAVA – John R. Hubbard, 2nd Edition, TMH.

CORE LAB-5 : PROGRAMMING LAB - JAVA

1. Write a Java Applications to extract a portion of a character string and print the extracted string.

2. Write a Java Program to implement the concept of multiple inheritance using Interfaces.

3. Write a Java Program to create an Exception called payout-of-bounds and throw the exception.

4. Write a Java Program to implement the concept of multithreading with the use of any three multiplication tables and assign three different priorities to them.

5. Write a Java Program to draw several shapes in the created windows.

6. Write a Java Program to create a frame with four text fields name, street, city and pin code with suitable tables. Also add a button called –my details‖, When the button is clicked its corresponding values are to be appeared in the text fields.

7. Write a Java Program to demonstrate the Multiple Selection List-box.

8. Write a Java Program to create a frame with three text fields for name, age and qualification and a text field for multiple line for address

9. Write a Java Program to create Menu Bars and pull down menus.
10. Write a Java Program to create frames which respond to the mouse clicks. For each events with mouse such as mouse up, mouse down, etc., the corresponding message to be displayed.

11. Write a Java Program to draw circle, square, ellipse and rectangle at the mouse click positions.

12. Write a Java Program which open an existing file and append text to that file.

Allied: IT/CT: EMBEDDED SYSTEMS

UNIT I	Introduction to Embedded System: An Embedded System – Processor in the System – Other Hardware units – Software embedded into a system – Exemplary embedded system – Embedded system on chip and in VLSI circuit. Processor and Memory organization: Structural units in a processor – Processor selection – Memory devices – Memory selection - Allocation of memory – DMA – Interfacing processor, memories and I/O devices
UNIT II	Devices and buses for device networks: I/O devices – Timer and counting devices – Serial communication – Host system. Device drivers and Interrupts servicing mechanism: Device drivers – Parallel port device drivers – Serial port device drivers – Device drivers for IPTD – Interrupt servicing mechanism – Context and the periods for context-switching, dead-line and interrupt latency
UNIT III	Programming concepts and embedded programming in C and C++: Software programming in ALP and C – C program elements – Header and source files and processor directives – Macros and functions – Data types – Data structures – Modifiers – Statements – Loops and pointers – Queues – Stacks – Lists and ordered lists – Embedded programming in C++ - Java – C program compiler and cross compiler – Source code for engineering tools for embedded C / C++ - Optimization of memory needs
UNIT IV	Program modeling concepts in single and multi processor systems: Modeling process for software analysis before software implementation – Programming models for event controlled or response time constrained real time programs – Modeling of multiprocessor systems. Software engineering practices: Software algorithm complexity – Software development process life cycle and its models – Software analysis – Software design – Implementation – Testing, Validation and debugging – Software maintenance
UNIT V	Inter-process communication and synchronization of processes, tasks and threads: Multiple processor – Problem of sharing data by multiple tasks and routines – Inter process communication. Real time operating systems: Operating system services – I/O subsystem – Network operating systems – Real time and embedded operating systems – Interrupt routine in RTOS environment – RTOS task scheduling – Performance metric in scheduling
Text Book(s)	Raj Kamal, ― Embedded Systems – Architecture, Programming and Design‖, TMH, 2007

SKILLED-2

SKILL-2- BSC IT : HTML, XML, Java Scripts - LAB

Students are required to write code snippets, which covers the following objectives

1	Design Simple Web Pages using standard HTML tags like, HEAD, TITLE, BODY
2	Design HTML web pages, which make use of INPUT, META, SCRIPT, FORM, APPLET, BGSOUND, MAP
3	Working with various attributes of standard HTML elements
4	Using Java Script's Window and document objects and their properties and various methods like alert (), evaI (), Parselnt () etc. methods to give the dynamic functionality to HTML web pages
5	Writing Java Script snippet which make use of Java Script's inbulit as well as user defined objects like navigator, Date Array, Event, Number etc.

6	Write code which does the form validation in various INPUT elements like TextFiled, Text Area, Password, Selection list etc.
7	Writing XML web Documents which make use of XML Declaration, Element Declaration, Attribute Decelaration
8	Usage of Internal DTD, External DTD, Entity Declaration.

Tamil @ /Advanced Tamil
Non-major Elective -II

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 கணணெனத்தகும்" 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 ஏஜென்ஸிஸ்
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

SEMESTER-V

CORE-8: RDBMS & ORACLE

Subject Description: This subject deals with RDBMS concepts using Oracle SQL and PL/SQL.

Goal: Knowledge on Oracle Programming techniques.

Objective: To inculcate knowledge on RDBMS concepts and Programming with Oracle.

UNIT-I: Database Concepts: A Relational approach: Database – Relationships – DBMS – Relational Data Model – Integrity Rules – Theoretical Relational Languages. Database Design: Data Modeling and Normalization: Data Modeling – Dependency – Database Design – Normal forms – Dependency Diagrams – De -normalization – Another Example of Normalization.

UNIT-II: Oracle9*i*: Overview: Personal Databases – Client/Server Databases – Oracle9i an introduction – SQL *Plus Environment – SQL – Logging into SQL *Plus - SQL *Plus Commands – Errors & Help – Alternate Text Editors - SQL *Plus Worksheet - *i*SQL *Plus. Oracle Tables: DDL: Naming Rules and conventions – Data Types – Constraints – Creating Oracle Table – Displaying Table Information – Altering an Existing Table – Dropping, Renaming, Truncating Table – Table Types – Spooling – Error codes.

UNIT-III: Working with Table: Data Management and Retrieval: DML – adding a new Row/Record – Customized Prompts – Updating and Deleting an Existing Rows/Records – retrieving Data from Table – Arithmetic Operations – restricting Data with WHERE clause – Sorting – Revisiting Substitution Variables – DEFINE command – CASE structure. Functions and Grouping: Built-in functions –Grouping Data. Multiple Tables: Joins and Set operations: Join – Set operations.

UNIT-IV: PL/SQL: A Programming Language: History – Fundamentals – Block Structure – Comments – Data Types – Other Data Types – Declaration – Assignment operation – Bind variables – Substitution Variables – Printing – Arithmetic Operators. Control Structures and Embedded SQL: Control Structures – Nested Blocks – SQ L in PL/SQL – Data Manipulation – Transaction Control statements. PL/SQL Cursors and Exceptions: Cursors – Implicit & Explicit Cursors and Attributes – Cursor FOR loops – SELECT…FOR UPDATE – WHERE CURRENT OF clause – Cursor with Parameters – Cursor Variables – Exceptions – Types of Exceptions.

UNIT-V: PL/SQL Composite Data Types: Records – Tables – arrays. Named Blocks: Procedures – Functions – Packages –Triggers –Data Dictionary Views.

TEXTBOOKS:

1. DATABASE SYSTEMS USING ORCLE – Nilesh Shah, 2nd edition, PHI.

(UNIT-I: Chapters 1 & 2 UNIT-II: Chapters 3 & 4 UNIT III: Chapters 5 & 6

UNIT-IV: Chapters 10 & 11 UNIT-V: Chapters 12,13 & 14)

REFERENCE BOOKS:

1. DATABASE MANAGEMNET SYSTEMS – Arun Majumdar & Pritimoy Bhattacharya, 2007, TMH.

2. DATABASE MANAGEMETN SYSTEMS – Gerald V. Post, 3rd edition, TMH.

Core 9 :VISUALPROGRAMMING- VISUAL BASIC & VISUAL C++

UNIT-I:
Introducing Visual Basic: What is VB? – Event and Event Procedures – Object related concepts –VB program Development Process- Logical Program Organization -VB Program Components – VB environment – Opening, Saving, Running a VB Project –Visual Basic Fundamentals: constants – Variables – Data Types and Declarations – Operators and Expressions – Program Comments. Branching and Looping: Relational operators and Logical Expressions – Branching with If-Then, If-Then-Else blocks – Selection Select Case – Looping with For-Next, Do-Loop, While-Wend – Stop statement.

UNIT-II: Visual Basic control Fundamentals: Control tools – Control tool Categories – Working with Controls – Naming Forms and Controls – Assigning Property values to Forms and Controls – Executing commands – Displaying Output – Entering Input Data – Selecting Multiple Features, Exclusive Alternatives, Form from a List - Assigning Properties collectively – Generating Error Messages – Creating timed Events – Scroll Bars.
Menus and Dialog Boxes: Building Drop-Down Menus – Accessing Menu from Keyboard – Menu Enhancements – Submenus – Pop-Up Menus – Dialog Boxes – more about MsgBox Function – The Input Box function.

UNIT-III:
Procedures: Modules and Procedures – Sub Procedures – Event Procedures – Function Procedures – Scope – Optional Arguments.

Arrays: Characteristics – Declarations –Processing – Passing Arrays to Procedures – Dynamic Arrays – Array-related Functions – Control Arrays – Looping with for Each-Next.

Data Files : Sequential Data Files – Random-Access Data files– Binary files.

UNIT IV:
Visual C++: Programming: MFC and Windows – MFC Fundamentals – MFS Class Hierarchy – MFC Member & Global Functions – Various Object Properties – Cobject,

CArchive, CWinApp, CWnd, CFile, CGD, Object, CExcept, CDialog, CString, CEdit, CList –

Resources: Menus – Accelerators, Dialogs, Icons, Bitmaps, Versions – Message Maps – Document/View Architecture.

UNIT V

VC++ (Contd): connecting to Data Source – DAO – ODBC – Thread – BasedMultitaksing – Visual C++ APPWIZARD and class Wizard.

TEXTBOOKS:

1. VISUAL BASIC – Byron S. Gottfried, Schaum‘s Outline series, TMH.
2. Eric A Smith, Valor Whisher, Hank Marquis, ‒Visual Basic 6 Programming Bible‖. 3 . Herbert Schildt, ―MFC Programming From the Ground up‖ Second Edition , TataMcGrawHill.

REFERENCE BOOKS

1. MSDN Visual studio Library.
2. Cornell, ‒Visual Basic 6 From the Ground Up‖, Tata Mcgraw – Hill Company Ltd
3. Mveller, ‒Visual C++ from the Ground up‖, TMCH.
4. Viktor Toth, ‒Visual C++6 Unleased‖, Second Edition, Techmedia.

BHARATHIAR UNIVERSITY: COIMBATORE-641 046

B.Sc. CS/IT/CT/SS/MM/CSA &BCA
(For the students admitted from the academic year **2014-2015** and onwards)

CORE Lab 6 - VISUAL PROGRAMMING: VB, VC++ & ORACLE
(One Program either from VB or VC++ and one from ORACLE)

VISUAL BASIC

1. Write a simple VB program to accept a number as input and convert it into
   a. Binary
   b. Octal
   c. Hexa-decimal
2. Write a simple VB program to add items to list box with user input and move the selected item to combo box one by one.
3. Write a simple VB program to develop a calculator with basic operation.
4. Design a form using common dialog control to display the font, save and open dialog box without using the action control property.
5. Write a VB Program to develop a menu driven program. Add a MDI window in the form and arrange them in the cascading/horizontal style using menus (Create a menu to add form, arrange) (Menu Item 1). Also change the form color using the menu in another menu item (Menu Item 2).

VISUAL C++

1. Write a VC++ Program to display Toolbar and Status bar
2. Write a VC++ Program to add, delete string in a list box
3. Write a VC++ Program to perform menu Editor
4. Write a VC++ Program to perform Free Hand Drawing
5. Write a VC++ Program to perform serialization-SDI

ORACLE

2. **Create** a table for Employee details with Employee Number as primary key and following fields: Name, Designation, Gender, Age, Date of Joining and Salary. **Insert** at least ten rows and perform various **queries** using any one Comparison, Logical, Set, Sorting and Grouping operators.

3. Create tables for library management system which demonstrate the use of **primary key** and **foreign key**. Master table should have the following fields: Accno, Title, Author and Rate. Transaction table should have the following fields: User id, Accno, Date of Issue and Date of Return. Create a Report(**Select verb**) with fields Accno, Title, Date of Issue for the given Date of Return with column formats.

4. Write a PL/SQL to **update** the rate field by 20% more than the current rate in inventory table which has the following fields: Prono, ProName and Rate. After updating the table a new field (**Alter**) called for Number of item and place for values for the new field without using PL/SQL block.

5. Write a PL/SQL to split the student table into two tables based on result (One table for “Pass” and another for “Fail”). Use **cursor** for handling records of student table. Assume necessary fields and create a student details table.

6. Create a database **trigger** to implement on **master** and **transaction** tables which are based on inventory management system for checking data validity. Assume the necessary fields for both tables.

7. Write a PL/SQL to raise the following **Exception** in Bank Account Management table when deposit amount is zero.

ELECTIVE -I

ELECTIVE: SOFT COMPUTING

UNIT-I

Fundamentals of Neural Networks: Basic Concepts of Neural Networks, Human Brain, Model of an Artificial Neuron, Neural Network Architectures, Characteristics of Neural Networks, Learning Methods, Taxonomy of Neural Network Architectures, History of Neural Network Research, Early Neural Network Architectures, Some Application Domains. Back Propagation Networks: Architecture of a Back Propagation Network, Back Propagation Learning, Illustration, Applications.

UNIT-II

Associative Memory: Autocorrelators, Heterocorrelators, Exponential BAM, Associative Memory for Real-Coded Pattern Pairs, Applications, Recent Trends.

Adaptive Resonance Theory: Introduction, ART1, ART2, Applications, Sensitives of Ordering of Data.

UNIT-III

Fuzzy Set Theory: Fuzzy Versus Crisp, Crisp Sets, Fuzzy Sets, Crisp Relations, Fuzzy Relations. Fuzzy Systems: Crisp Logic, Predicate Logic, Fuzzy Logic, Fuzzy Rule Based Systems, Defuzzification Methods, Applications.

UNIT-IV

Fundamentals of Genetic Algorithms: Genetic Algorithms: History, Basic Concepts, Creation of Offsprings, Working Principle, Encoding, Fitness Function, Reproduction.

Genetic Modeling: Inheritance Operators, Cross Over, Inversion, And Deletion, Mutation Operator, Bit-Wise Operators, Bit-Wise Operators used in GA, Generational Cycle, Convergence of Genetic Algorithms.

UNIT-V

Integration of Neural Networks, Fuzzy Logic and Genetic Algorithms: Hybrid Systems, Neural Networks, Fuzzy Logic, and Genetic Algorithms Hybrids, Preview of Hybrid Systems.

TEXT BOOK:

S.Rajasekaran, G.A. Vijayalakshmi Pai, Neural Networks, Fuzzy Logic, and Genetic Algorithms, PHI Learning, 2010.

REFERENCE BOOKS:

1. Klir.G, Yuan B.B. Fuzzy Sets and Fuzzy Logic, Prentice Hall of India, 1997.
2. Laurance Fausett, Fundamentals of Neural Networks, Prentice Hall, 1992.
3. Gen, M. and R. Cheng, Genetic Algorithm and Engineering Design, John Wiley, 1997.

ELECTIVE – ANIMATION TECHNIQUES

UNIT-I: What is mean by Animation – Why we need Animation – History of Animation – Uses of Animation – Types of Animation – Principles of Animation – Some Techniques of Animation – Animation on the WEB – 3D Animation – Special Effects - Creating Animation.

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

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

UNIT-IV: Motion Caption – Formats – Methods – Usages – Expression – Motion Capture Software‘s – Script Animation Usage – Different Language of Script Animation Among the Software.

UNIT-V: Concept Development –Story Developing –Audio & Video – Color Model – Device Independent Color Model – Gamma and Gamma Correction - Production Budgets - 3D Animated Movies.

TEXT BOOK:

1. **PRINCIPLES OF MULTIMEDIA – Ranjan Parekh**, 2007, TMH. (Unit I, Unit V)

2. **Multimedia Technologies – Ashok Banerji, Ananda Mohan Ghosh – McGraw Hill Publication.** (Unit II: Chapter 10)

Text for Unit III, IV & V is appended.

ELECTIVE : BUSINESS INTELLIGENCE

Unit I

Introduction to business intelligence and business decisions – Data warehouses and its role in Business Intelligence – Creating a corporate data warehouse – Data Warehousing architecture – OLAP vs. OLTP - ETL process – Tools for Data Warehousing – Data Mining – KDD Process

Unit II

Applications of Data Mining in Business – Data Mining Techniques for CRM – Text Mining in BI - Web Mining – Mining e-commerce data – Enterprise Information Management - Executive Information Systems

Unit III

Business Intelligence – Function, Process, Services & Tools - Application in different domains – Operational BI - Customizing BI – Managing BI projects vs. Traditional IS projects – Managing BI projects – Best Practices in BI Strategy

Unit IV

Knowledge Management – Definition – Data Vs. Information Vs. Knowledge – The ten key principle of KM – Knowledge Management Architecture – Knowledge Management Vs. Knowledge Processing – KM approaches – KM Tools – KM Infrastructure – KM models - KM Strategies

Unit V

Web Analytics and Business Intelligence – eCRM - Case Study: Web Trends – Boeing – EverBank – China Eastern

Text Book(s)

1. M.Raisinghani - Business Intelligence in the Digital Economy - Opportunities, Limitations and Risks, Idea Group publications, 2004.
2. Introduction to Data Mining and its Applications, Sumathy, Sivanandam, Springer Verlag, 2006
3. Knowledge Management and Business Innovation, Yogesh Malhotra, Idea Group, 2001.

SKILLED-3

SKILL 3 : .NET PROGRAMMING

UNIT I

Introduction to .Net: .net framework- difference between VB6 and VB.Net-Object-Oriented programming and VB.Net-Data types-Variables-Operators-Arrays-Conditional logic.

UNIT II

Procedures- Dialog boxes- File IO and System objects- Error handling-Namespaces- Classes and Objects- Multithreading-Message Queue-Programming MSMQ.

UNIT III

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

UNIT IV

Vb.Net and web: Introduction to ASP.Net page framework- HTML server controls- Web controls- Validation controls- Events-CSS- State management-Tracing- Security.

UNIT V

Web Services: Introduction- Infrastructure- SOAP-Building web services-Deploying and publishing web services- Finding and consuming web services.

Text Book:

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).

References:

1. Fergal Grimes, ―Microsoft .NET for programmers‖, shroff publishers & distributors (p) Ltd. ISBN 81-7366-540-0.

2. Thuan Thai & Hoang Q.Lam, ―.NET Framework essentials‖, shroff publishers & distributors (p) Ltd. ISBN 81-7366-654-7

SEMESTER-VI

CORE-11: GRAPHICS & MULTIMEDIA

Subject Description: This subject deals with Graphics Concepts and Multimedia methodologies.

Goal: Mathematical Knowledge on Graphics and Technical background of Multimedia.

Objective: To inculcate knowledge on Graphics & Multimedia concepts.

(GRAPHICS – UNITS I & II)

UNIT-I: Output Primitives: Points and Lines – Line-Drawing algorithms – Loading frame Buffer – Line function – Circle-Generating algorithms – Ellipse-generating algorithms. Attributes of Output Primitives: Line Attributes – Curve attributes – Color and Grayscale Levels – Area-fill attributes – Character Attributes.

UNIT-II: 2D Geometric Transformations: Basic Transformations – Matrix Representations – Composite Transformations – Other Transformations. 2D Viewing: The Viewing Pipeline – Viewing Co-ordinate Reference Frame – Window-to-Viewport Co-ordinate Transformation - 2D Viewing Functions – Clipping Operations.

(MULTIMEDIA – UNITS III, IV &V)

UNIT-III: Text: Types of Text – Unicode Standard – Font – Insertion of Text – Text compression – File formats. Image: Image Types – Seeing Color – Color Models – Basic Steps for Image Processing – Scanner – Digital Camera – Interface Standards – Specification of Digital Images – CMS – Device Independent Color Models – Image Processing software – File Formats – Image Output on Monitor and Printer.

UNIT-IV: Audio: Introduction – Acoustics – Nature of Sound Waves – Fundamental Characteristics of Sound – Microphone – Amplifier – Loudspeaker – Audio Mixer – Digital Audio – Synthesizers – MIDI – Basics of Staff Notation – Sound Card – Audio Transmission – Audio File formats and CODECs – Audio Recording Systems – Audio and Multimedia – Voice Recognition and Response - Audio Processing Software.

UNIT-V: Video: Analog Video Camera – Transmission of Video Signals – Video Signal Formats – Television Broadcasting Standards – PC Video – Video File Formats and CODECs – Video Editing – Video Editing Software. Animation: Types of Animation – Computer Assisted Animation – Creating Movement – Principles of Animation – Some Techniques of Animation – Animation on the Web – Special Effects – Rendering Algorithms. Compression: MPEG-1 Audio – MPEG-1 Video - MPEG-2Audio – MPEG-2 Video.

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: 7.1-7.3,7.8-7.14,7.18-7.20,7.22,7.24,7.26-28 UNIT-V: 9.5-9.10,9.13,9.15,10.10-10.13)

REFERENCE BOOKS:
1. COMPUTER GRAPHICS – Amarendra N Sinha, Arun D Udai, TMH.
2. MULTIMEDIA: Making it Work – Tay Vaughan, 7th edition, TMH.

CORE LAB-7: PROGRAMMING LAB - GRAPHICS and MULTIMEDIA

Multimedia:

1. Create Sun Flower using Photoshop.
2. Animate Plane Flying in the Clouds using Photoshop.
3. Create Plastic Surgery for the Nose using Photoshop.
4. Create See-through text using Photoshop.
5. Create a Web Page using Photoshop.
6. Convert Black and White Photo to Color Photo using Photoshop.

Graphics:

2. write a program to rotate an image.
3. write a program to drop each word of a sentence one by one from the top.
4. write a program to drop a line using DDA Algorithm.
5. write a program to move a car with sound effect.
6. write a program to bounce a ball an move it with sound effect.
7. write a program to test whether a given pixel is inside or outside or on a polygon.

ELECTIVE -II

ELECTIVE – : NETWORK SECURITY & ADMINISTRATION

UNIT I	**Attacks on computers and computer security** : Introduction –Need for security – Security approaches -principles of security –Types of attacks. **Cryptography** : Concepts and techniques - - introduction – plain text and cipher text –substitution techniques - transposition techniques – encryption and decryption – symmetric and asymmetric key cryptography – steagnograpgy – key range and key size – possible types of attacks
UNIT II	**Symmetric Key Algorithms and AES** : Introduction - Algorith Types and modes – An overview of symmetric key cryptography – Data encryption Standard (DES) – International Data Encryption Algorithm (IDEA) – RC4 – RC5 – Blowfish – Advanced Encryption Standard (AES) . **Asymmetric Key Algorithms**: Digital Signature and RSA : Introduction – brief history of Asymmetric Key cryptography – An Overview of Asymmetric Cryptography - The RSA algorithm – Symmetric and asymmetric cryptography together – digital signatures – Knapsack algorithm – Some other algorithms.
UNIT III	**Digital certificate and Public Key Infrastructure (PKI)** : Introduction – digital certificates – private key management- the PKIX model – Public key cryptography standards – XML, PKI and Security – Creating digital certificates using JAVA. **Internet Security Protocols :** Introduction – basic concepts – Secure Socket Layer – (SSL) – Transport Layer Security(TLS) – Secure Hyper Text Transfer Protocol (SHTTP) – Time Stamping Protocol (TSP) – Secure Electronic Transaction (SET) – SSL Versus SET – 3-D secure Protocol – Electronic Money - - Email security – Wireless Application Protocol (WIP) Security - Security in GSM –Security in 3G.
UNIT IV	**User Authentication and Kerberos :** Introduction – Authentication basics - Passwords – Authentication Tokens – Certificate based Authentication – biometric authentication – kerberos – Key distribution cetre – Security handshake Pitfalls – Single sign on (SSO) Approaches . **Cryptography in JAVA, .NET, and Operating System** : Introduction – Cryptographic Solution using JAVA – Cryptographic Solutions using Microsoft .NET Framework – Cryptographic Toolkits – Security and Operating Systems – Database Security .
UNIT V	**Network Security Firewalls and Virtual Private Networks** (VPN) : Introduction – Brief introduction to TCP/IP – Fire walls – IP security – Virtual Private networks (VPN) – Intrusion. **Case Studies on Cryptography and Security** : Introduction – Cryptographic Solutions a Case Study – SSO – Secure inter brange payment Transactions – DOS Attacks – IP Spoofing Attacks – Cross Site Scripting Vulnerability (CSSV) – Contract signing – secret Splitting - virtual elections – secure multiparty calculations – creating a VPN – Cookies and Privacy.
Text Book(s)	ATUL KAHATE, :CRYPTOGRAPY And NETWORK SECURITY, Second Edition , Tata McGraw-Hill publishing , 2003

ELECTIVE: MOBILE COMPUTING

UNIT I	Introduction: Mobility of Bits and Bytes –Wireless The Beginning – Mobile Computing – Dialogue Control – Networks – Middleware and Gateways – Application and services- Developing Mobile computer Applications – security in mobile computing – Standards _ Why is it necessary – Standard bodies. MOBILE COMPUTTING ARCHITECTURE: History of computers and Internet – Architecture for mobile computing – Three-tier architecture – Design considerations for mobile computing – Mobile computing through Internet – Making exiting applications mobile enabled
UNIT II	MOBILE COMPUTING THROUGH TELEPHONY: Evaluation of telephony – Multiple access procedures – Mobile computing through telephone – IVR Application – Voice XML – TAPI
UNIT III	EMERGING TECHNOLOGIES: Blue Tooth – RFID – WiMAX – Mobile IP – 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 – GPRS network operations – Data services in GPRS – Application for GPRS-Limitations – Billing and Charging. WAP : MMS – GPRS Applications
UNIT V	CDMA and 3G: Spread spectrum technology – Is 95 – CDMA vs GSM – Wireless Data – Third generation networks – Applications on 3G WIRELESS LAN: Wireless LAN advantages – IEEE 802.11 standards – Architecture – Mobile in Wireless LAN – Deploying wireless LAN – Mobile adhoc networks and sensor networks – Wireless LAN Security –WiFi vs 3G
Text Book(s)	MOBILE COMPUTING, Asoke K Talukder , Roopa R Yavagal, TMH, 2005

ELECTIVE/SKILL : INTERNET PROGRAMMING

UNIT I

Basics of Internet communication - Hardware elements associated with internet - Internet Services - Internet Protocols - TCP/IP, UDP, HTTP - other Protocols - Telnet - Gopher - Mail and its types - FTP - Remote access and Transaction - Web Indexes - Search Engines.

UNIT II

Introduction to HTML - Tags and Documents - Link documents using Anchor Tags -Images and Pictures - Tables -HTML Forms - Frames - Framesets.

UNIT III

Introduction to Scripting - Java Script - Data types - Operators - Variables - ConditionalStatements - Functions -Objects - Document object - Image Object - Event Handling - Introduction to VBScript and Perl Script.

UNIT IV

Introduction to XML - Well formed XML - CSS - XSL - Valid XML - DTD - XSD - Introduction to DOM and SAX.

UNIT V

Introduction to Dynamic web applications -Active Server Page Basics - ASP Object Model -Collections - Introduction to PHP.

Text Book(s)

1. Deitel & Deitel ,Internet and www How to program? Prentice Hall 2000.
2. Beginning XML, David Hunter et al., Wrox Publications 2000.

Reference Book(s)

1. Daniel C.Lynch, Marehall T. Rose. Internet systems Harbook , Addison Wesley 1993.
2. Thomas Penny, How to do everything with HTML.

ELECTIVE -III

ELECTIVE: E-LEARNING

UNIT-I

E-Learning Evolution - Advantages and Disadvantages of E-Learning - Instructional design Models for E-Learning - Applying User-Centered Design to E-Learning - E-Learning tools – What is an E-Learning tool?

UNIT-II

Flash: Geometric shape tools – Drawing tools - Creating Precise Lines with the Pen Tool - Fill and stroke controls - Selection Tools - Designing and Aligning Elements.

UNIT-III

Creating Animation and Effects: Animation strategies – TimeLine Animation – Applying Layer Types - Character animation Techniques.

UNIT-IV

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

UNIT-V

Adobe Premiere: Starting Movie Projects: Starting New Projects - Reviewing and Changing Project Settings - Saving a Project. Adding Special Effects to Your Movies: Surveying Effects - Introducing the Effect Controls Window - Using Keyframes - Removing Effects - Working with Effect Presets.

TEXT BOOKS

1. E-Learning Concepts and Techniques - Pamela Berman, institute for InteractiveTechnologies, Bloomsburg University of Pennsylvania, USA (e-book), 2006.
2. MacroMedia Flash 8 Bible - Robert ReinHardt and Snow Dowd. 2006, 1st Edition, Wiley India (P) Ltd, New Delhi.
3. Adobe Premiere Elements For Dummies, Keith Underdahl, Wiley Publishing Inc.

REFERENCES

1. Flash 8 - Dinesh Maidasani. 20061st Edition, Firewall Media Publications, New Delhi.
2. Fred T.Hofstetter. 2001. MultiMedia Literacy, Tata McGraw Hill, New Delhi.

Multimedia making it work, Tay Vaughan. 2008. 7th Edition, Tata McGraw-Hill, New Delhi.

ELECTIVE : COMPONENT TECHNOLOGY

SUBJECT DESCRIPTION : This course presents the middle ware technologies that are available and explaining how this can be used for real time applications.

GOALS : To enable the students to learn the basic functions and concepts of COM, DCOM and CORBA.

OBJECTIVES :

On successful completion of the course the students should have

Understood the facilities available in component technology

Learnt how this can be used for real time application.

UNIT I

Information system - Analyzing the Scenario challenges - CORBA overview -

Concepts - Overview of CORBA IDL - IDL Tutorial Conversion of 00 design to IDL - IDL Guidelines - Overview of CORBA and Standard Object model - Architecture - Clients & Object Implementation interface and implementation.

UNIT II

Language mapping - Portability and inter operability - OLE integration - CCRBA services - Information Management Services - Task Management- System Management - Infrastructure of Services.

UNIT Ill

Facilities and domains - horizontal - Vertical facilities - Leveraging the OMG Process - Relationship with other technologies.

UNIT IV

The CORBA migration process - software Architecture - Applications Design using software Architect ii

UNIT V

Migration case studies - Problem and Objective standard based Profile - Project context - Business objects and Process - Interface migration.

REFERENCE BOOK:

I. Inside CORBA — Distributed Object Standards and Applications Thomas J. owtray, William A. Roh. Addison Wesley 1999.

ELECTIVE : E-COMMERCE

Subject Description : This Subject deals with the E-Commerce

Goal : To learn about E-Commerce

Objective : On Successful Completion of this subject the students should have thorough understandingof: E-Commerce , E-Market , EDI , Business Strategies etc.

UNIT I:

Introduction to E-Commerce : The Scope of E-Commerce – Definition-E-Commerce & the Trade Cycle – Electronic Market – Electronic Data Interchange – The Internet Commerce – The E-Commerce in Perspective. Business Strategy : The Value Chain – Supply Chains – Porter's Value Chain Model – The Inter Organizational Value Chain.

UNIT II:

The Introduction to Business Strategy – Strategic Implications of IT – Technology – Business Environment – Business Capability – Existing Business Strategy – Strategy Formulation & Implementation Planning – e-Commerce Implementation -Commerce Evaluation. The Inter Organizational Transactions – The Credit Transaction Trade Cycle. A Variety of Transactions – Pens & Things.

UNIT III:

E-Markets : Markets – E-Markets-Usage of E-Markets-Advantages & Disadvantages of E-Markets . EDI : Introduction – Definition - Benefits of EDI – EDI Standards – EDI Communication EDI Implementation – EDI Agreement – EDI Security.

UNIT IV:

The Internet : The Internet – The Development of the Internet – TCP/IP – Internet Components – Uses of the Internet – A Page on the Web : HTML Basics – Introduction to HTML – Further HTML – Client Side Scripting – Server Side Scripting – HTML Editors & Editing – The Elements of E-Commerce : Elements – e-Visibility – The e-Shop – On line Payments - Delivering the Goods – Internet e-Commerce Security .

UNIT V:

E-Business : Introduction - The Internet Bookshops – Grocery Supplies - Software Supplies and Support – Electronic Newspapers – The Internet Banking - The Virtual Auctions – Online Share Dealing – Gambling on the Net – e-Diversity.

TEXT BOOK:

David Whiteley–"E-Commerce – Strategy, Technology & Applications " Tata McGraw-Hill.

SKILLED-4

SKILL 4 :BSC IT : .NET LAB

1	Write a program to Detect Errors using Vertical Redundancy Check (VRC).
2	Write a program to Detect Errors using Longitudinal Redundancy Check (LRC).
3	Write a program to Detect Errors using Cyclic Redundancy Check (CRC).
4	Write a Socket program to implement Asynchronous Communication.
5	Write a Socket program to implement Isochronous Communication.
6	Write a program to implement Stop & Wait Protocol.
7	Write a program to implement Sliding Window Protocol.
8	Write a Socket Program to Perform file transfer from Server to the Client.
9	Write a program to implement the Shortest Path Routing using Dijkstra algorithm.
10	Write a Program to implement Remote Procedure call under Client / Server Environment

BHARATHIAR UNIVERSITY: COIMBATORE-641 046

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

(For the students admitted from the academic year **2011-2012** and onwards)

CBCS PATTERN

GUIDELINES FOR PROJECT WORK

The aim of the Project work is to acquire pratical 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.

The Project work should be **compulsorily done in the college only under the supervision of the Department staff concerned.**

- **The work has to be done in two parts.**
- **During V Semester - Up to Logical System design.**
- **During VI Semester – Physical System Design**

University Exam will be conducted as follows.

End Semester Viva

- An End- semester Viva-voce will be conducted at the end of V semester for 50 marks.
- There is no minimum or pass marks.
- Both the Internal (Respective Guides) and External Examiners (25+25)Should Conduct the Viva-Voce Examination at the last day of the practical session.
- Along with the mark sheet an ***Annexure report*** containing the candidate's Register no and Title of the Project work should be sent to the Controller of Examinations by the Examiners and a copy of the same has to be retained in the College.
- No candidate will be allowed to change the title of the Project work after the completion of End- semester Viva.
- For those absent on genuine grounds a common subliment End-Semester Viva-voce may be conducted at the University for All Colleges by obtaining prior permission from the COE on the recommendations from the HODs of respective colleges before the commencement of the next semester.

Final Viva

- Final Viva-Voce will be conducted at the end of VI semester by Both the Internal (Respective Guides) and External Examiners (75+75), after duly verifying the ***Annexure Report*** available in the College, for a total of 150 marks at the last day of the practical session.

- Out of 75 marks, 50 for Project Evaluation and 25 for Viva.

- For awarding a pass, a candidate should have obtained 40% of the Total 200 marks (End semester Viva + Final Viva).

GUIDELINES FOR PROJECT WORK (2013-14)

- 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 semester 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.

PROJECT WORK

TITLE OF THE DISSERTATION

Bonafide Work Done by
STUDENT NAME
REG. NO.

Dissertation submitted in partial
fulfillment of the requirements for the
award of Bachelor of Computer
Science…….
Of Bharathiar University, Coimbatore-46**.**

College emblem

GUIDE HOD

Submitted for the Viva-Voce Examination
held on _____

Internal Examiner External
Examiner

MONTH – YEAR

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