2018-19

Department of Computer Science
Sri Y.N.College (Autonomous): Narsapur
(Affiliated to Adikavi Nannaya University)
Thrice Accredited by NAAC at 'A' Grade
Recognized by UGC as 'College with Potential for Excellence'
NARASAPUR-534275, W.G.Dist. AP

Board of studies meeting of Computer Science held on 23-06-2018 at 2.00 P.M in the Department of Computer Science.

Members Present: **Signatures**

1. **Sri B.China Veeraswamy**, M.Sc (C.S)., Chairman & In-Charge of Dept.
2. **Smt. G.Sowjanya**, M.Sc (C.S)., Lecturer in Computer Science
3. **Sub.Lt(NCC) Y.N.V.V.R.Rama Rao**, M.Sc(C.S)., Lecturer in Computer Science
4. **Sri Ch.S.V.Ravi Kumar**, M.C.A., Lecturer in Computer Science

University Representative:

5. **Dr. B.Kezia Rani, Asst.Professor**
   Dept of Computer Science & Engineering
   ANU-Rajahmundry, W.G.Dt., A.P., Cell No: 73965-44059

Not attended

Subject Experts:

6. **Sri D.S.V.Suryanarayana** M.Sc., M.Tech.,
   Head, Department of Computer Science,
   MVN JS & RVR College of Arts and Science,
   Malkipuram, E.G.Dt., 533253, Cell no: 96660-35667

7. **Smt.K.Raja Rajeswari** M.Sc., M.Tech.,
   Asst. Prof., Dept of Computer Science,
   B.V.Raju College, Vishnupur,
   Bhimavaram-534202. W.G.Dt., Cell no: 99497-78188

Alumni Member:

8. **Sri K.Trinadh Ravi Kumar** M.Sc., M.Tech.,
   Head, Dept. of Computer Science (U.G),
   SVKP & Dr.K.S.Raju Arts and Science College,
   Penugonda, W.G.Dt., Cell no: 94410-20934

Representative from Industry:

9. **Sri Ratnala RamaKrishna** M.Sc,
   Architect - Technology,
   Virtuasa Consulting Services Pvt. Ltd.,
   Survey No: 115/ Part, Plot No:10
   Special Economic Zone
   Nanal Ramguda Village, Serilingampalli Mandal
   Ranga Reddy Dt., Hyderabad - 500032
   Cellno: 99898-29292

Not attended.

Agenda:

1. Ratification of final year VI semester syllabus, model question papers for the academic year 2018-2019.
2. To prepare the syllabus (modified up to 10%) and model question papers (CBCS) for I, II & III years for the academic year 2017-18.
3. Suggest methodologies for innovative methods of teaching.
4. Research, Teaching, Extension and other academic activities in the department.
5. To send the proposal for conducting seminars, workshops, etc.,
6. To prepare the syllabi & model question papers for certificate courses/ add on courses.
7. To discuss the topics of study projects for final year students.
8. Allotment of internal marks for student assignments, mid semester examination for the continous internal assessment in CBCS pattern.
9. Any other matters with the permission of the chair.

1.

2.

3. K. R. Rajeswari

4.

5.

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B. China Chiranjeevulu

CHAIRMAN
BOARD OF STUDIES
DEPARTMENT OF COMPUTER SCIENCE
SRI Y.N. COLLEGE (AUTONOMOUS)
(NAAC ACCREDIATED 'A' GRADE COLLEGE)
NARSAPUR - 534 275, W.G.Dt.,

Resolutions:

1. Approved and ratified the final year VI semester syllabus (Theory, Practical & Model question papers) i.e., **Elective-I:** Paper-VII(C): Web Technologies; **Elective-II (Cluster-B)**: Paper-VIII-CE-1: **Distributed Systems**; Paper-VIII-CE-2: **Cloud computing** and Paper-VIII-CE-3: **Project-2;**
2.
   i. It is resolved to continue the approved syllabus (Theory, Practical and Model Question papers) in the BOS meeting held on 01.07.2017 of I B.Sc., Computer Science, Semester-I, Paper-I i.e., "**Computer Fundamentals and Photoshop**" w.e.f. the academic year 2016-17, and Semester-II, Paper-II i.e., "**Programming in C**" w.e.f. academic year 2016-17 as Prescribed by the APSCHE and ANUR.
   ii. It is resolved to continue the approved syllabus (Theory, Practical and Model Question paper) in the BOS meeting held on 01.07.2017 of II B.Sc., Computer Science subject, Semester-III, Paper-III i.e., "**Object Oriented Programming using Java**" w.e.f the academic year 2016-17, and Semester-IV, Paper-IV i.e., "**Data Structures**" w.e.f. academic year 2016-17 as Prescribed by APSCHE and ANUR.
   iii. It is resolved to continue the approved the syllabus (Theory & Practical, model Question paper) in the BOS meeting held on 01.07.2017 of III B.Sc., Computer Science subject, Semester-V, Paper-V i.e., "**Database Management System**" and Paper-VI i.e., "**Software Engineering**" w.e.f. the academic year 2017-18, as Prescribed by APSCHE and ANUR.
   iv. It is resolved to continue the approved syllabus of ICT-1 & ICT-2 (Theory and model question papers) in the BOS meeting held on 01.07.2017 w.e.f. the academic year 2016-17.
3. It is resolved to implement the modern methodologies in teaching by using PPT and smart boards.
4. To encourage and guide students to prepare simple Projects & PPTs on their interesting topics using Internet (ICT) and give seminar in the class room. Also to send them to other colleges for paper presentations, quiz programs, symposium etc.,
5. It is resolved to prepare proposal for conduct one day Seminar/Workshop.
6. It is resolved to continue the approved Certificate Course Syllabus & Model question paper i.e., **"Operating System & Diagnosting tools"** for all I year Degree programs with Computer Science subject as Core and **"Programming in C"** for all I year Degree programs with no Computer Science subject as Core, during I semester w.e.f. the academic year 2016-17.
7. To suggest some study projects to be prepared by final year students independently and to guide them to complete the proposed projects.
8. Approved and ratified to allot 5 marks for assignments in each Mid Semester and also to conduct two Mid Semester examinations for 20 Marks, i.e., total 25 marks for internal assessment.
9. Any further guidelines/instructions from APSCHE/ University to be adopted as communicated.
10. It is resolved to authorize the Chairman, Board of Studies to strengthen the syllabus and model papers of theory and practical examinations keeping in view the latest developments in consultation with other members of the department.
11. It is resolved to start an additional section M.P.Cs (E.M) (Mathematics, Physics and Computer Science) with strength 50 from the academic year 2019-2020, as there is demand for the said course and also resolved to increase laboratory facilities for the additional section.

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1. [signature]

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K. R. Rajeswari

[signature]

G. Sowjanya

Ravi

B. China Chocabusemmya

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NARSAPUR - 534 275, W.G.Dt.,

Batch 2018-2021

SRI Y.N.COLLEGE (AUTONOMOUS): NARSAPUR

I B.Sc. (Computer Science): I Semester under CBCS w.e.f. 2016-2017

PAPER – I

COMPUTER FUNDAMENTALS AND PHOTOSHOP

SEMESTER-I

MID-1

UNIT-I:

Introduction to computers: Characteristics and limitations of computer, Block diagram of computer, types of computers, uses of computers, computer generations.

Number systems: working with binary, octal, decimal and Hexa decimal numbering system.

UNIT-II:

Input and Output devices: Keyboard and mouse, inputting data in other ways, Pointing Devices, Handheld Devices, Optical Devices, Audio-Visual Input Devices, Output Devices: Monitors, Projectors, Speakers, Printers, Plotters.

Types of Software: system software, Application software, commercial, open source, domain and free ware software.

Memories: Primary, Secondary and cache memory. Secondary Storage Devices: Magnetic Tapes, Floppy Disks, Hard Disks.

Windows basics: Start menu, icons, MS-Windows-Desktop, My Computer, My Documents, Pictures, Music, Videos, Recycle Bin, and Task Bar - Control Panel.

MID-II

Unit –III

Introduction to Adobe Photoshop: Getting started with Photoshop, creating and saving a document in Photoshop, page layout and back ground, Photoshop program window-title bar, menu bar, option bar, image window, image title bar, status bar, ruler, palettes, tool box, screen modes, saving files, reverting files, closing files.

Unit –IV

Images: working with images, image size and resolution, image editing, colour modes and adjustments, Zooming & Panning an Image, Rulers, Guides & Grids- Cropping & Straightening an Image, image backgrounds, making selections.

Working with tool box: working with pen tool, save and load selection-working with erasers-working with text and brushes-Colour manipulations: colour modes- Levels – Curves - Seeing Colour accurately - Patch tool – Cropping-Reading your palettes - Dust and scratches- Advanced Retouching- smoothing skin.

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Unit-V

Layers: Working with layers- layer styles- opacity-adjustment layers

Filters: The filter menu, Working with filters- Editing your photo shoot, presentation –how to create adds, artistic filter, blur filter, brush store filter, distort filters, noice filters, pixelate filters, light effects, difference clouds, sharpen filters, printing.

Menus: purpose of menus – new file- open file- print file – copying data – cut data- paste data- saving custom shape- working with modes- define brushes.

Reference Books:

1. Fundamentals of Computers by Reema Thareja from Oxford University Press
2. Adobe Photoshop Class Room in a Book by Adobe Creative Team.
3. Photoshop: Beginner's Guide for Photoshop - Digital Photography, Photo Editing, Color Grading & Graphic...19 February 2016 by David Maxwell.

GUIDELINES TO THE PAPER SETTER

Unit No.	Essay Questions	Short Answer Questions
I	2 (Section-**A**)	2(Section-**C**)
II	3 (Section-**A**)	1(Section-**C**)
III	1 (Section-**B**)	2(Section-**C**)
IV	2 (Section-**B**)	2(Section-**C**)
V	2 (Section-**B**)	1(Section-**C**)

K. R. Rajeswari

G. Sanjay

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PAPER – I

COMPUTER FUNDAMENTALS AND PHOTOSHOP

SEMESTER-I

Time: 3 Hours **Max.Marks: 75**

Note: 1.Answer Any Five Questions by choosing at least two from Section-A and Section-B.

2. Each one carries 10 marks.

5 x 10 =50M

SECTION-A

1. Explain different types of computers.
2. What is an octal number system? Explain the procedure to convert an octal number into its binary.
3. Explain different output devices of computer.
4. Explain various options in Start menu.
5. Explain different secondary storage devices.

SECTION-B

6. Explain how to create, and save and close a document in Photoshop.
7. Explain how to change the image size and resolution in Photoshop.
8. Explain how to crop and straighten an image in Photoshop.
9. Explain how to create, hide and delete layers in Photoshop.
10. Explain how to create ads in Photoshop.

SECTION-C

Note: 1. Answer any five questions from the following.

2. Each one carries 5 marks **5 x 5= 25M**

11. Explain about Hexa decimal number system.
12. Explain briefly about micro computers.
13. Explain briefly about Plotters.
14. Explain how to change background in Photoshop.
15. Explain how to revert files in Photoshop.
16. Explain briefly about patch tool in Photoshop.
17. Explain briefly about rulers in Photoshop.
18. Explain how to cut, copy and paste data in Photoshop.

Ravi

DSVullu

K. R. Rajeswari

G. Sanjay

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B. China Chowa Sreeswaya

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PAPER – I

COMPUTER FUNDAMENTALS AND PHOTOSHOP

SEMESTER-I

SYLLABUS DEVIATION

(INCLUDED/EXCLUDED - 2018-2019)

S.No	Topics Reviewed	Added Topics	Justification
1.	**Unit-V: Menus in Photoshop**	**Menus:** Purpose of menus – new file- open file- print file – copying data – cut data- paste data- saving custom shape- working with modes- define brushes.	For better Understanding and to impart in depth knowledge on the basic fundamentals.

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PRACTICAL SYLLABUS PAPER – I
PHOTOSHOP
SEMESTER-I

PHOTOSHOP LAB SYLLABUS

1. Create your Visiting card
2. Create Cover page for any text book
3. Create a Paper add for advertising of any commercial agency
4. Design a Passport photo
5. Create a Pamphlet for any program to be conducted by an organization
6. Create Broacher for you college
7. Create Titles for any forthcoming film
8. Custom shapes creation
9. Create a Web template for your college
10. Convert color photo to black and white photo
11. Enhance and reduce the given Image size
12. Background changes
13. Design Box package cover
14. Design Texture and patterns
15. Filter effects & Eraser effects

PRACTICAL BREAK UP OF MARKS:

1. Procedure/Steps -	10 Marks
2. Execution -	20 Marks
3. Practical Record -	10 Marks
4. Viva -	10 Marks

Total	50 Marks

K. R. Rajeswari

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I B.Sc. (Computer Science): II Semester under CBCS w.e.f 2016-2017
THEORY PAPER – II
PROGRAMMING IN "C"

MID-I

UNIT-I

Chapter 1:

INTRODUCTION TO ALGORITHMS AND PROGRAMMING LANGUAGES: Algorithm-Key features of Algorithms-Some more Algorithms- Flow Charts-Pseudo code-Programming Languages- Generation of Programming Languages-Structured Programming Language-Design and Implementation of Correct, Efficient and Maintainable Programs.

Chapter 2:

INTRODUCTION TO C: Introduction-Structure of C Program-Writing the first C Program-File used in C Program- Compiling and Executing C Programs-Using Comments- Keywords- Identifiers-Basic Data Types in C- Variables- Constants- I/O Statements in C-Operators in C- Programming Examples- Type Conversion and Type Casting.

UNIT-II

Chapter 3:

Decision Control and Looping Statements: Introduction to Decision Control Statements-Conditional Branching Statements- Iterative Statements- Nested Loops- Break and Continue Statement-Goto Statement.

Chapter 4:

FUNCTIONS: Introduction- Using Functions- Function Declaration/Prototype-Function definition-Function Call- Return Statement- Passing Parameters- Scope of Variables-Storage Classes- Recursive Functions- Types of Recursion-Towers of Hanoi- Recursion Vs. Iteration.

MID-II

UNIT-III

Chapter 5:

ARRAYS: Introduction- Declaration of Arrays- Accessing elements of the array- Storing values in Array- Calculating the length of the array- Operations that can be Performed on Array- One dimensional array for inter-function communication-Two dimensional Arrays-Operations on Two Dimensional Arrays- Two Dimensional Arrays for Inter function communication-Multi dimensional arrays- Sparse matrices.

Chapter 6:

STRINGS: Introduction- Suppressive Input- String Taxonomy- String Operations- Miscellaneous String and Character functions.

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UNIT-IV

Chapter 7:POINTERS: Understanding Computer Memory- Introduction to Pointers- Declaring Pointer Variables- Pointer Expressions and Pointer Arithmetic- Null Pointers- Generic Pointers- Passing arguments to Functions using Pointer- Pointer and Arrays- Passing Array to Function-

Difference between Array Name and Pointer- Pointers and Strings- Array of Pointers- Dynamic Memory Allocation- Drawbacks of Pointers.

Chapter 8:

STRUCTURE, UNION, AND ENUMERATED DATA TYPES: Introduction- Nested Structures- Arrays of Structures- Structures and Functions- Self referential Structures- Union- Arrays of Union Variables- Unions inside Structures- Enumerated Data types.

UNIT-V:

Chapter 9:

FILES: Introduction to Files- Using Files in C- Reading Data from Files- Writing Data from Files- Detecting the End-of-file- Error Handling during File Operations.

TEXT BOOK

1. Computer Fundamentals and Programming in C by REEMA THAREJA from OXFORD UNIVERSITY PRESS.

REFERENCE BOOKS

1. E.Balaguruswamy: COMPUTING FUNDAMENTALS & C PROGRAMMING—TMHl, Second Reprint 2008,
2. Ashok N Kamthane: Programming with ANSI and Turbo C, Pearson Edition Publ, 2002.
3. Henry Mullish & Huubert L.Cooper: The Sprit of C, Jaico Pub. House, 1996.

GUIDELINES TO THE PAPER SETTER

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Unit No.	Essay Questions	Short Answer Questions
I.	3 (Section-A)	1 (Section-C)
II.	2 (Section-A)	3 (Section-C)
III.	2 (Section-B)	2 (Section-C)
IV.	1 (Section-B)	1 (Section-C)
V.	2 (Section-B)	1 (Section-C)

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Ravi

K. R. Rajeswari

G. Sanjay

Batch 2018-2021

SRI Y.N.COLLEGE (AUTONOMOUS): NARSAPUR

I B.Sc. (Computer Science): II Semester under CBCS w.e.f 2016-17

THEORY PAPER – II

PROGRAMMING IN 'C'

SEMESTER-II

Time: 3Hrs **Max.Marks:75**

Note: 1. Answer Any Five Questions by choosing at least two from Section-A & B.

2. Each one carries 10 marks. **5x10=50M**

SECTION-A

1. Explain in detail about the generations of the programming languages.
2. Explain various types of I/O statements in 'C'.
3. Explain about the Structured programming language.
4. Explain about various Unconditional branching statements.
5. What is a function? Explain how to declare and define a function with example.

SECTION-B

6. What is an Array? Explain different types of Arrays.
7. What is a String? Explain various character manipulation functions.
8. What is a Structure? Explain about structure within the structure.
9. Explain how to use files in C.
10. Explain different types of streams in C.

SECTION-C

Note: 1. Answer any Five questions from the following.

2. Each one carries 5 marks **5 x 5= 25M**

11. Explain briefly about typecasting in 'C'.
12. What is a Conditional Operator? Explain.
13. Explain the differences between local and global variables.
14. Explain about Call by reference.
15. Explain briefly about Recursion.
16. Explain briefly about the operations that can be performed on arrays.
17. Explain briefly about Array of Structures.
18. Explain briefly about types of files in C.

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Ravi.

G. Sanjaya

B. China Choudary

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SRI Y.N.COLLEGE (AUTONOMOUS): NARSAPUR
I B.Sc. (Computer Science): II Semester under CBCS w.e.f 2016-17
PRACTICAL SYLLABUS – II
PROGRAMMING IN C LAB
SEMESTER-II

PROGRAMMING IN C LAB

1. Find out the given number is perfect number or not using c program.
2. Write a C program to check whether the given number is Armstrong or not.
3. Write a C program to find the sum of individual digits of a positive integer.
4. A Fibonacci sequence is defined as follows: the first and second terms in the sequence are 0 and 1. Subsequent terms are found by adding the preceding two terms in the sequence. Write a C program to print the Fibonacci series
5. Write a C program to generate the first n terms of the Fibonacci sequence.
6. Write a C program to generate all the prime numbers between 1 and n, where n is a value supplied by the user.
7. Write a C program to find both the largest and smallest number in a list of integers.
8. Write a C program that uses functions to perform the following:
    a. Addition of Two Matrices
    b. Multiplication of Two Matrices
9. Write a program to perform various string operations
10. Write C program that implements searching of given item in a given list
11. Write a C program to sort a given list of integers in ascending order

PRACTICAL BREAK UP OF MARKS:

1. Procedure/Steps -	10 Marks
2. Execution -	20 Marks
3. Practical Record -	10 Marks
4. Viva -	10 Marks

Total	50 Marks

Ravi

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Batch 2017-2020

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II B.Sc.(Computer Science): III Semester under CBCS w.e.f 2016-2017

THEORY PAPER – III

OBJECT ORIENTED PROGRAMMING USING JAVA

SEMESTER-III

MID-I

UNIT-I:

FUNDAMENTALS OF OBJECT – ORIENTED PROGRAMMING: Introduction, Object Oriented paradigm, Basic Concepts of OOP, Benefits of OOP, Application's of OOP.

OVERVIEW OF JAVA LANGUAGE: Introduction, java features Simple Java program structure, differences between C, C++ and java, java and internet, Java tokens, Java Statements, Implementing a Java Program, Java Virtual Machine, Command line arguments.

CONSTANTS, VARIABLES & DATA TYPES: Introduction, Constants, Variables, Data Types, Declaration of Variables, Giving Value to Variables, Scope of variables, Symbolic Constants, Type casting, Getting Value of Variables, Standard Default values.

UNIT-II:

OPERATORS AND EXPRESSIONS : Arithmetic operators Relational operators, logical operators, Assignment operators, Increment and decrement operators, Conditional operators, Bitwise operators, Special operators, Arithmetic operators, Precedence of Arithmetic operators.

DECISION MAKING & BRANCHING: Introduction, Decision making with if statement, Simple if statement, if Else statement, Nesting of if else statements, the else if ladder, the switch statement, the conditional operator.

DECISION MAKING & LOOPING: Introduction, The While statement, the do-while statement, the for statement, Jumps in loops.

CLASSES, OBJECTS & METHODS: Introduction, Defining a class, Adding variables, Adding methods, Creating objects, Accessing class members, Constructors, Method overloading, Static members, Nesting of methods, visibility controls.

MID-II

UNIT-III

INHERITANCE: inheritance and types of inheritances, Extending a class, Overloading methods, Final variables and methods, Final classes, Abstract methods and classes.

ARRAYS, STRINGS AND VECTORS: Arrays, One-dimensional arrays, Creating an array, Two – dimensional arrays, Strings, Vectors, Wrapper classes.

INTERFACES: MULTIPLE INHERITANCE: Introduction, Defining interfaces, Extending interfaces, Implementing interfaces, Assessing interface variables;

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UNIT-IV

MULTI THREADED PROGRAMMING: Introduction, Creating Threads, Extending the Threads, Stopping and Blocking a Thread, Lifecycle of a Thread, Using Thread Methods, Thread Exceptions, Thread Priority, Synchronization, Implementing the 'Runnable' Interface.

MANAGING ERRORS AND EXCEPTIONS: Types of errors: Compile-time errors, Run-time errors, Exceptions, Exception handling, Multiple Catch Statements, Using finally statement.

UNIT-V

APPLET PROGRAMMING: local and remote applets, differences between Applets and Applications, Building Applet code, Applet Life cycle: Initialization state, Running state, Idle or stopped state, Dead state, Display state Designing web page, adding applet to HTML file, Running the Applet.

PACKAGES: Introduction, Java API Packages, Using System Packages, Naming conventions, Creating Packages, Accessing a Package, using a Package, Adding class to a package, Hiding classes, static Import.

Prescribed Book:

1. E .Balaguru swamy, Programming with JAVA, A primer, 3e, TATA McGraw-Hill Company.

Reference Books:

1. John R. Hubbard, Programming with Java, Second Edition, Schaum's outline Series, TMH.
2. Deitel &Deitel. Java TM: How to Program, PHI (2007)
3. Java Programming: From Problem Analysis to Program Design- D.S Mallik
4. Object Oriented Programming Through Java by P. Radha Krishna, Universities Press (2008)
5. Java complete reference

GUIDELINES TO THE PAPER SETTER

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Unit no	Essay Questions	Short Answer Questions
I	3 (Section-A)	2
II	2 (Section-A)	2
III	1 (Section-B)	1
IV	2 (Section-B)	1
V	2 (Section-B)	2

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B. Chiranjeevulu

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Batch 2017-2020
SRI Y.N COLLEGE (AUTONOMOUS): NARSAPUR
II B.Sc (Computer Science): III Semester under CBCS w.e.f 2016-17
PAPER-III
OBJECT ORIENTED PROGRAMMING USING JAVA
III SEMESTER

Time: 3 Hours **Max. Marks: 75**

NOTE:1. Answer Any FIVE Questions by choosing at least two from Section-A and Section-B

2. Each one carries 10 marks

5 X 10 = 50 M

SECTION-A

1. Essay Question From Unit-1
2. Essay Question From Unit-1
3. Essay Question From Unit-1
4. Essay Question From Unit-2
5. Essay Question From Unit-2

SECTION-B

6. Essay Question From Unit-3
7. Essay Question From Unit-4
8. Essay Question From Unit-4
9. Essay Question From Unit-5
10. Essay Question From Unit-5

SECTION-C

Note: 1. Answer any FIVE questions from the following
2. Each one Carries 5 Marks **5 X 5 = 25 M**

1. Short Answer Question from Unit-1
2. Short Answer Question from Unit-1
3. Short Answer Question from Unit-2
4. Short Answer Question from Unit-2
5. Short Answer Question from Unit-3
6. Short Answer Question from Unit-4
7. Short Answer Question from Unit-5
8. Short Answer Question from Unit-5

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Batch 2017-2020

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II B.Sc.,(Computer Science): III Semester under CBCS w.e.f 2016-2017

THEORY PAPER – III

OBJECT ORIENTED PROGRAMMING USING JAVA

SEMESTER-III

SYLLABUS DEVIATION

(INCLUDED/EXCLUDED - 2018-2019)

S.No	Topics Reviewed	Added Topics	Justification
1.	**Unit-I:**	Difference between C, C++ and Java	For better Understanding and to impart in depth knowledge on the basic fundamentals.
2.	**Unit-III:**	Inheritance and types of inheritances	
3.	**Unit-V:**	1. Difference between Applets and Applications 2. Display state designing web page, adding applet to HTML file, running the Applet. 3. Adding class to a package, Hiding classes, static Import.	

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II B.Sc.(Computer Science): III Semester under CBCS w.e.f 2016-2017
PRACTICAL SYLLABUS PAPER – III
OBJECT ORIENTED PROGRAMMING USING JAVA
SEMESTER-III

OBJECT ORIENTED PROGRAMMING USING JAVA LAB

1. Write a program to perform various String Operations
2. Write a program on class and object in java
3. Write a program to illustrate Function Overloading & Function Overriding methods in Java
4. Write a program to illustrate the implementation of abstract class
5. Write a program to implement Exception handling
6. Write a program to create packages in Java
7. Write a program on interface in java
8. Write a program to Create Multiple Threads in Java
9. Write a program to Write Applets to draw the various polygons
10. Write a program which illustrates the implementation of multiple Inheritance using interfaces in Java
11. Write a program to assign priorities to threads in java

PRACTICAL BREAK UP OF MARKS:

1.	Procedure/Steps -	10 Marks
2.	Execution -	20 Marks
3.	Practical Record -	10 Marks
4.	Viva -	10 Marks
	Total	50 Marks

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SRI Y.N COLLEGE (AUTONOMOUS): NARSAPUR
IIB.Sc (Computer Science): IV Semester under CBCS w.e.f 2018-19
Paper-IV: DATA STRUCTURES
II YEAR IV SEMESTER

MID-I

UNIT-I:

Concept of Abstract Data Types (ADTs): Data Types, Data Structures, Primitive and Non-primitive Data Structures, Linear and Non-linear Data Structures.

Linear Lists – ADT, Array and Linked representations, Pointers.

Arrays – One Dimensional – Two Dimensional – Multi Dimensional – operations- Sparse Matrices, Linked Lists: Single Linked List, Double Linked List, Circular Linked List, applications;

UNIT-II:

Stacks: Definition, ADT, Array and Linked representations, Implementations and Applications

Queues: Definition, ADT, Array and Linked representations, Circular Queues, Dequeues, Priority Queues.

MID-II

UNIT-III:

Trees: Binary Tree, Definition, Tree Terminology, Traversing the Tree, finding Maximum and Minimum values Properties, ADT, Array and Linked representations, Implementations and Applications. Binary Search Trees (BST) – Definition, ADT, Operations and Implementations, BST Applications. Threaded Binary Trees, Heap trees;

UNIT-IV:

Graphs – Graph and its Representation, Graph Traversals, Connected Components, Basic Searching Techniques, Minimal Spanning Trees

UNIT- V:

Sorting and Searching: Selection, Insertion, Bubble, Merge, Quick sort, Heap sort, Sequential and Binary Searching.

REFERENCE BOOKS:

1. D S Malik, Data Structures Using C++, Thomson, India Edition 2006.
2. Sahni S, Data Structures, Algorithms and Applications in C++, McGraw-Hill, 2002.
3. SamantaD, Classic Data Structures, Prentice-Hall of India, 2001.
4. Heilman G I,. Data Structures and Algorithms with Object-Oriented Programming, TMH.
5. Tremblay P and Sorenson P G, Introduction to Data structures and applications, TMH

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UNIT NO:	ESSAY QUESTIONS	SHORT ANSWER QUESTIONS
I	3 (SECTION-A)	1
II	2 (Section-A)	2
III	1 (Section-B)	2
IV	2 (Section-B)	1
V	2 (Section-B)	2

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DSVMMS

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Ravi

G. Sanjay

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II B.Sc (computer Science): IV Semester under CBCS w.e.f 2016-17
THEORY PAPER-IV
DATA STRUCTURES
MODEL PAPER

Time: 3 Hours **Max. Marks: 75**

Note: 1. Answer Any FIVE Questions by choosing at least two from Section-A and Section-B

2. Each one carries 10 marks **5X10=50**

SECTION-A

1. Essay Question From Unit-1
2. Essay Question From Unit-1
3. Essay Question From Unit-1
4. Essay Question From Unit-2
5. Essay Question From Unit-2

SECTION-B

6. Essay Question From Unit-3
7. Essay Question From Unit-4
8. Essay Question From Unit-4
9. Essay Question From Unit-5
10. Essay Question From Unit-5

SECTION-C

Note: 1. Answer any FIVE questions from the following
2. Each one Carries 5 Marks **5X5=25**

1. Short Answer Question from Unit-1
2. Short Answer Question from Unit-2
3. Short Answer Question from Unit-2
4. Short Answer Question from Unit-3
5. Short Answer Question from Unit-3
6. Short Answer Question from Unit-4
7. Short Answer Question from Unit-5
8. Short Answer Question from Unit-5

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Paper-IV: DATA STRUCTURES
II YEAR IV SEMESTER

DATA STRUCTURES USING JAVA LAB

1. Write a Program to implement the Linked List operations
2. Write a Program to implement the Stack operations using an array.
3. Write Programs to implement the Queue operations using an array.
4. Write Programs to implement the Stack operations using a singly linked list.
5. Write Programs to implement the Queue operations using a singly linked list.
6. Write a program for arithmetic expression evaluation
7. Write a program to implement Double Ended Queue using a doubly linked list.
8. Write a program to search an item in a given list using Linear Search and Binary Search
9. Write a program for Quick Sort
10. Write a program for Merge Sort
11. Write a program on Binary Search Tree operations(insertion, deletion and traversals)
12. Write a program for Graph traversals

PRACTICAL BREAK UP OF MARKS:

1.	Procedure/Steps -	10 Marks
2.	Execution -	20 Marks
3.	Practical Record -	10 Marks
4.	Viva -	10 Marks
	Total	50 Marks

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THEORY PAPER – V

DATABASE MANAGEMENT SYSTEM

SEMESTER-V

MID-I

UNIT I

Overview of Database Management System: Introduction, file-based system, Drawbacks of file-based System, Data and information, Database, Database management System, Objectives of DBMS, Classification of Database Management System, DBMS Approach, advantages of DBMS, ANSI/SPARK Data Model, data models, Components and Interfaces of Database Management System, Database Architecture, Situations where DBMS is not Necessary.

UNIT II

Entity-Relationship Model: Introduction, the building blocks of an entity relationship diagram, classification of entity sets, attribute classification, relationship degree, relationship classification, reducing ER diagram to tables, enhanced entity-relationship model (EER model), generalization and specialization, IS A relationship and attribute inheritance, multiple inheritance, constraints on specialization and generalization, aggregation and composition, entity clusters, connection trapes, advantages of ER modeling.

MID-II

UNIT III

Relational Model: Introduction, CODD Rules, relational data model, concept of key, relational integrity, relational algebra, relational algebra operations, advantages of relational algebra, limitations of relational algebra, relational calculus, tuple relational calculus, domain relational Calculus (DRC), QBE.

Normalization: Normalization, the need for Normalization, Normalization Process: Conversion in to First Normal Form, Conversion in to Second Normal form, Conversion into third Normal form.

UNIT IV

Structured Query Language: Introduction, History of SQL Standard, Commands in SQL, Data Types in SQL, Data Definition Language, Selection Operation, Projection Operation, Aggregate functions, Data Manipulation Language, Table Modification Commands, Table Truncation, Imposition of Constraints, Join Operation, Set Operation,View, Sub Query, Embedded SQL,

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UNIT V

PL/SQL: Introduction, Shortcoming in SQL, Structure of PL/SQL, PL/SQL Language Elements, Data Types, Operators Precedence, Control Structure, Steps to Create a PL/SQL, Program, Iterative Control, Cursors, Steps to create a Cursors, Procedure, Function, Packages, Exceptions Handling, Database Triggers, Types of Triggers.

Precribed Book:

1. Fundamentals of Relational Database Management Systems by S. Sumathi, S. Esakkirajan, Springer Publications

Reference Books:

1. "Database System Concepts" by Abraham Silberschatz, Henry Korth, and S. Sudarshan, McGrawhill, 2010,
2. "Database Management Systems" by Raghu Ramakrishnan, McGrawhill, 2002,
3. "An Introduction to Database Systems" by Bipin C Desai
4. "Principles of Database Systems" by J. D. Ullman
5. "Fundamentals of Database Systems" by R. Elmasri and S. Navathe

Student Activity:

1. Create your college database for placement purpose.
2. Create faculty database of your college with their academic performance scores

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Unit no	Essay Questions	Short Answer Questions
I	3 (Section-A)	1
II	2 (Section-A)	2
III	2 (Section-B)	1
IV	2 (Section-B)	2
V	1 (Section-B)	2

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PAPER-V

DATABASE MANAGEMENT SYSTEM

V SEMESTER

Time: 3 Hours **Max. Marks: 75**

NOTE: 1. Answer Any FIVE Questions by choosing at least two from Section-A and Section-B

2. Each one carries 10 marks.

5X10=50

SECTION-A

1. What is File-based system? Explain the drawbacks of file-based system.
2. Explain the ANSI/SPARK data model.
3. Explain the Database Two-Tier architecture.
4. What is an attribute? Explain the classification of an attribute.
5. Explain various Constraints on Specialization and Generalization.

SECTION-B

6. Explain Relational Data model.
7. What is Relational Calculus? Explain Tuple and Domain relational calculus.
8. Explain Various Aggregate functions in SQL.
9. Explain various Integrity constraints in SQL.
10. What is Cursor? Explain the steps to create a Cursor with an example.

SECTION-C

Note: 1. Answer any FIVE questions from the following.

2. Each one Carries 5 Marks.

5X5=25

11. Define DBMS. Explain the classification of DBMS.
12. Explain IS A relationship and attribute inheritance.
13. What is Connection Trap? Explain about Fan trap with an example.
14. Explain briefly about Query By Example (QBE).
15. Explain the Table Truncation Commands in SQL.
16. What is Sub Query? Explain it with examples.
17. What is Procedure in PL/SQL? Explain it with syntax and example.
18. Explain the data types in PL/SQL.

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Ravi

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THEORY PAPER – V

DATABASE MANAGEMENT SYSTEM

SEMESTER-V

SYLLABUS DEVIATION

(INCLUDED/EXCLUDED - 2018-2019)

S.No	Topics Reviewed	Added Topics	Justification
1.	**UNIT - III:**	**Normalization:** Normalization, the need for Normalization, Normalization Process: Conversion in to First Normal Form, Conversion in to Second Normal form, Conversion into third Normal form.	For better Understanding and to impart in depth knowledge on the basic fundamentals.

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PRACTICAL SYLLABUS PAPER – V

DATABASE MANAGEMENT SYSTEM

SEMESTER-V

DATABASE MANAGEMENT SYSTEMS LAB

1. Draw ER diagrams for train services in a railway station.
2. Draw ER diagram for hospital administration.
3. Creation of college database and establish relationships between tables.
4. Write a view to extract details from two or more tables.
5. Write a stored procedure to process student's results.
6. Write a program to demonstrate a function.
7. Write a program to demonstrate blocks, cursors & database triggers.
8. Write a program to demonstrate Joins.
9. Write a program to demonstrate of Aggregate functions.
10. Creation of Reports based on different queries
11. Usage of file locking table locking, facilities in applications.

PRACTICAL BREAK UP OF MARKS:

1. Procedure/Steps -	10 Marks
2. Execution -	20 Marks
3. Practical Record -	10 Marks
4. Viva -	10 Marks
Total	50 Marks

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THEORY PAPER – VI

SOFTWARE ENGINEERING

MID-I

UNIT-I

INTRODUCTION: Software-Types of Software- Software Development Life Cycle- Software Engineering Process Paradigms-The Waterfall Model, The Spiral Model, The Iterative Model.

Project Management: The Management Spectrum-People, Product, Process, Project.

Process and Project Metrics: Metrics in the process and Project Domains-Metrics for Software Quality-Metrics for Small organizations.

Software Project Estimation: Resources-Empirical estimation Models- The COCOMO II Model-Planning.

Risk Analysis: Software Risks-Risk Identification-Risk Projection-Risk Refinement-Risk Mitigation, Monitoring and Management-The RMMM Plan.

Software Project Scheduling: Basic principles-The Relationship between People and Effort-Effort distribution-Scheduling.

UNIT-II

REQUIREMENT ANALYSIS: Requirement Engineering Processes- Feasibility Study-Problem of Requirements-Software Requirement Analysis-Analysis Concepts and Principles-Analysis Process-Analysis Model.

MID-II

UNIT-III

SOFTWARE DESIGN: Software Design Process- Abstraction-Modularity-Software Architecture-Effective Modular Design-Cohesion and Coupling-Architectural design and Procedural design- Data flow oriented design.

UNIT-IV

USER INTERFACE DESIGN AND REAL TIME SYSTEMS:

User Interface Design: User Interface Analysis and Design-Interface Analysis-Interface Design Steps-Human Factors-Human Computer interaction-Computer Interface design-Interface Standards.

UNIT-V

SOFTWARE QUALITY AND TESTING:

Software Quality Assurance: Elements of Software Quality Assurance- Quality metrics-Software Reliability.

Software testing-Path testing-Control Structures testing-Black Box testing-Integration, Validation and System testing.

Software Maintenance: Reverse Engineering and Re-Engineering.

Case Tools-Project Management Tools- Analysis and Design Tools-Programming Tools-Integration and Testing Tools-Case Studies.

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REFERENCE BOOKS:

1. Roger Pressman S., "Software Engineering: A Practitioner's Approach", 7th Edition, McGraw Hill, 2010.
2. Software Engineering Principles and Practice by Deepak Jain Oxford University Press
3. Sommerville, "Software Engineering", Eighth Edition, Pearson Education, 2007.
4. Pfleeger, "Software Engineering: Theory & Practice" 3rd Edition, Pearson Education, 2009.
5. Carlo Ghazi,Mehdi Jazayari, Dino Mandrioli, " Fundamentals Of Software Engineering", Pearson Education,2003.

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Unit No.	Essay Questions	Short Answer Questions
I.	03 (Section-**A**)	01 (Section-**C**)
II.	02 (Section-**A**)	01 (Section-**C**)
III.	02 (Section-**B**)	02 (Section-**C**)
IV.	01 (Section-**B**)	02 (Section-**C**)
V.	02 (Section-**B**)	02 (Section-**C**)

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G. Deepthi

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SRI Y.N.COLLEGE (AUTONOMOUS): NARSAPUR

III B.Sc. (Computer Science): V Semester Model Paper under CBCS w.e.f 2017-18

THEORY PAPER – VI

SOFTWARE ENGINEERING

SEMESTER-V

Time: 3 Hours Max.Marks: 75

Note: 1.Answer Any Five Questions by choosing at least two from Section-A and Section-B.

2. Each one carries 10 marks. **5 X10 =50M**

SECTION-A

1. Explain in detail about various phases in Software Development.
2. Explain about Software Estimation techniques.
3. Explain in detail about Project Metrics.
4. Explain about Software Requirement Engineering Processes.
5. Explain in detail about Requirement Analysis Concepts.

SECTION-B

6. Define Software Design. Explain about Software Design Process.
7. Explain in detail about Software Architecture.
8. Explain in detail about User Interface standards.
9. Explain various Case tools in Software Engineering.
10. Explain various Software Quality Metrics.

SECTION-C

Note: 1. Answer any Five Questions from the following.

2. Each One carries 5 Marks. **5X5=25M**

11. Explain briefly about Planning.
12. What is Analysis Model? Explain.
13. Explain briefly about Effective Modular Design.
14. Explain briefly about Procedural design.
15. Explain about the Human Factors in User Interface Design.
16. Explain about Design issues in User Interface Design.
17. Explain briefly about Reverse Engineering.
18. Explain about System testing.

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Ravi

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III B.Sc. (Computer Science): V Semester under CBCS w.e.f 2017-2018
Software Engineering
Project-1

Follow SDLC process for real time applications and develop real time application project

The objective of the project is to motivate them to work in emerging/latest technologies, help the students to develop ability, to apply theoretical and practical tools/techniques to solve real life problems related to industry, academic institutions and research laboratories. The project is of 2 hours/week for one (semester V) semester duration and a student is expected to do planning, analyzing, designing, coding, and implementing the project. The initiation of project should be with the project proposal. The synopsis approval will be given by the project guides.

The project proposal should include the following:

Title
Objectives
Input and output
Details of modules and process logic
Limitations of the project
Tools/platforms, Languages to be used
Scope of future application

The Project work should be either an individual one or a group of not more than three members and submit a project report at the end of the semester. The students shall defend their dissertation in front of experts during viva-voce examinations.

PROJECT BREAK UP OF MARKS:

1.	Project submission	20 marks
2.	Abstract	10 Marks
3.	Viva	20 Marks
	Total	50 Marks

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THEORY PAPER – VII
Web Technologies
SEMESTER-VI

UNIT – I

HTML: Basic HTML, Document body, Text, Hyper links, adding more formatting, Lists, Tables using images. More HTML: Multimedia objects, Frames, Forms towards interactive, HTML document heading detail.

UNIT – II

Cascading Style Sheets: Introduction, using Styles, simple examples, your own styles, properties and values in styles, style sheet, formatting blocks of information, layers.

UNIT – III

Introduction to JavaScript: What is DHTML, JavaScript, basics, variables, string manipulations, mathematical functions, statements, operators, arrays, functions; Objects in JavaScript: Data and objects in JavaScript, regular expressions, Exception handling

UNIT – IV

DHTML with JavaScript: Data validation, opening a new window, messages and confirmations, the status bar, different frames, rollover buttons, moving images.

UNIT – V

XML: defining data for web applications, basic XML, document type definition, presenting XML, document object model, Web Services.

Prescribed book:

1. Web programming: Building Internet Applications, by **Chris Bates**, Second Edition, Wiley Publications.

References:

1. Harvey M. Deitel and Paul J. Deitel, **"Internet & World Wide Web How to Program", 4/e,** Pearson Education.

2. Uttam Kumar Roy, **Web Technologies** from Oxford University Press

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Unit no	Essay Questions	Short Answer Questions
I	3 (Section-A)	1
II	2 (Section-A)	2
III	3 (Section-B)	1
IV	1 (Section-B)	2
V	1 (Section-B)	2

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G. Sanjanya

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THEORY PAPER – VII
Web Technologies

Time: 3 Hours **Max.Marks: 75**

Note: 1.Answer Any FIVE Questions by choosing at least two from Section-A and Section-B.
2. Each one carries 10 marks. **5X10 =50M**

SECTION-A

1. Essay Question From Unit-1
2. Essay Question From Unit-1
3. Essay Question From Unit-1
4. Essay Question From Unit-2
5. Essay Question From Unit-2

SECTION-B

6. Essay Question From Unit-3
7. Essay Question From Unit-3
8. Essay Question From Unit-3
9. Essay Question From Unit-4
10. Essay Question From Unit-5

SECTION-C

Answer any FIVE of the following. Each question carries 5Marks. **5x5=25M**

11. Short Answer Question from Unit-1
12. Short Answer Question from Unit-2
13. Short Answer Question from Unit-2
14. Short Answer Question from Unit-3
15. Short Answer Question from Unit-4
16. Short Answer Question from Unit-4
17. Short Answer Question from Unit-5
18. Short Answer Question from Unit-5

K. R. Rajeswari

G. Sreenivasulu

Ravi

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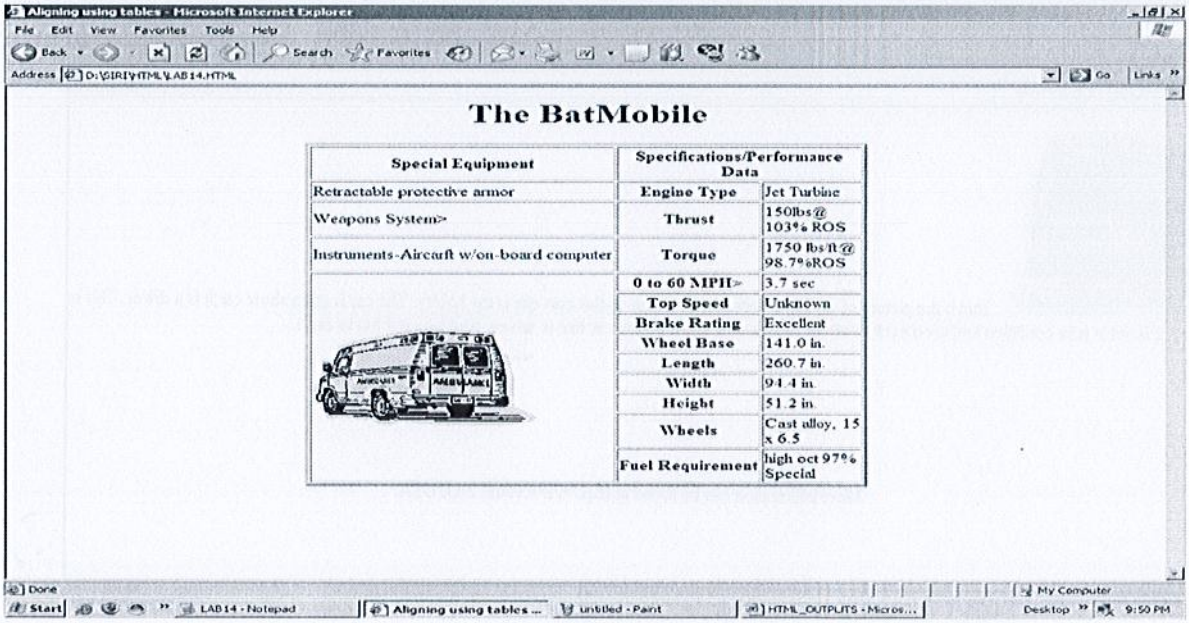
PRACTICAL SYLLABUS PAPER – VII
WEB TECHNOLOGIES LAB
SEMESTER-VI

PAPER-VII
WEB TECHNOLOGIES LAB

1. Write a HTML program illustrating text formatting.
2. Illustrate font variations in your HTML code.
3. Prepare a sample code to illustrate links between different sections of the page.
4. Create a simple HTML program to illustrate three types of lists.
5. Embed a calendar object in your web page.
6. Create an applet that accepts two numbers and perform all the arithmetic operations on them.
7. Create nested table to store your curriculum.
8. Create a form that accepts the information from the subscriber of a mailing system.
9. Design the page as follows:



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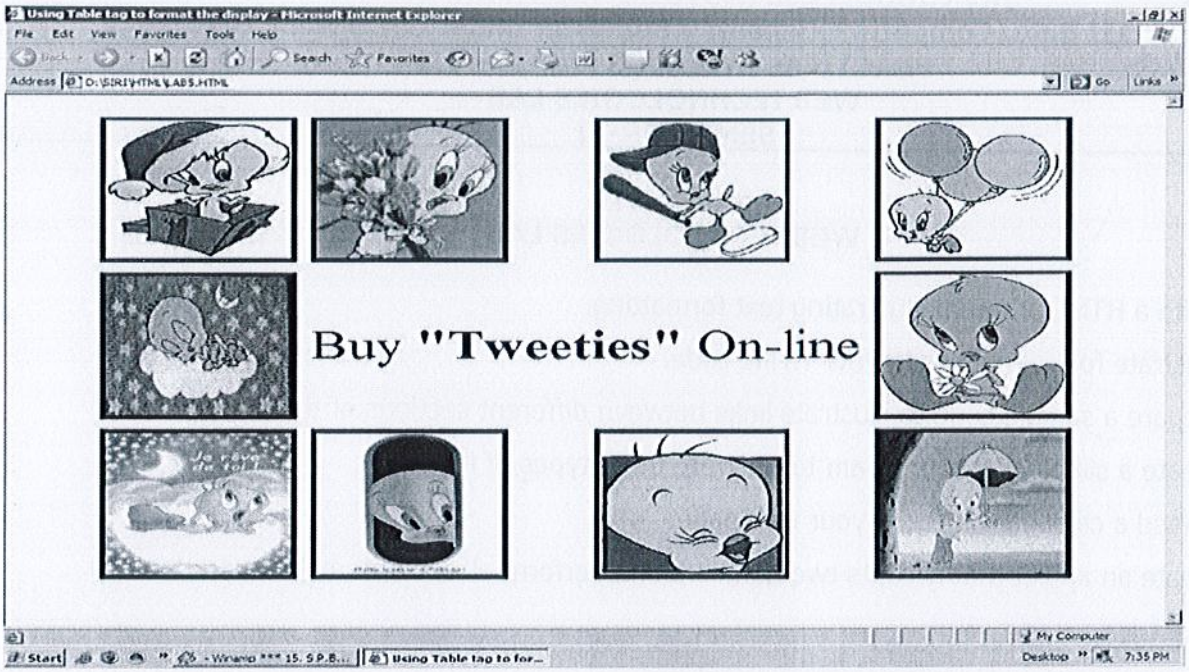
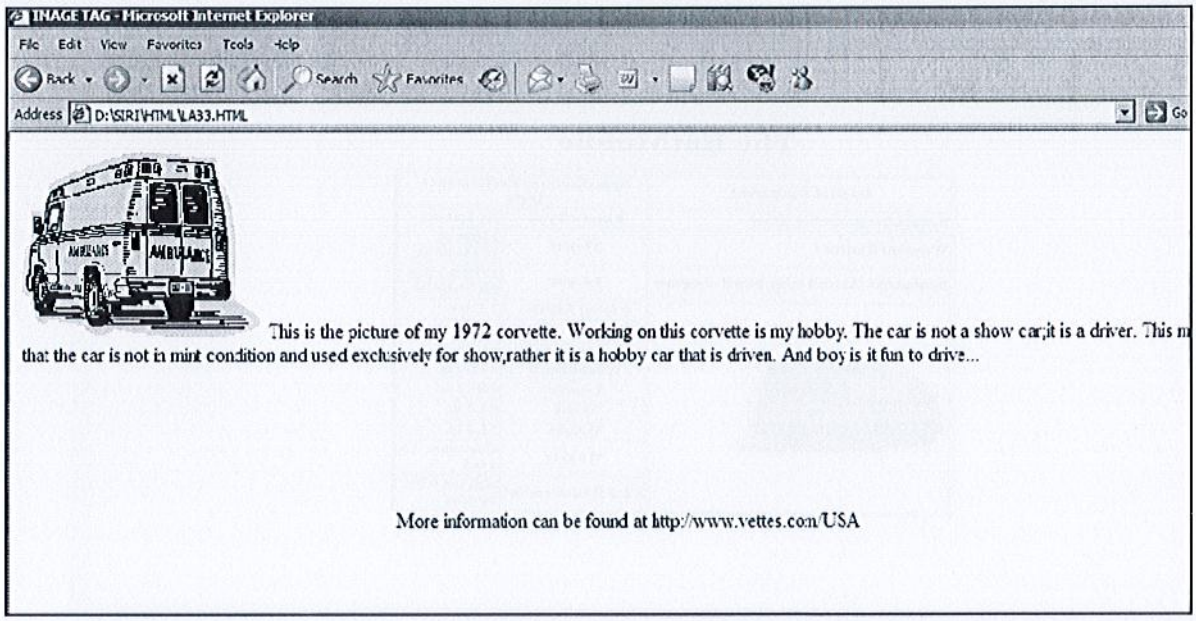
10. Using "table" tag, align the images as follows:



11. Design the page as follows:



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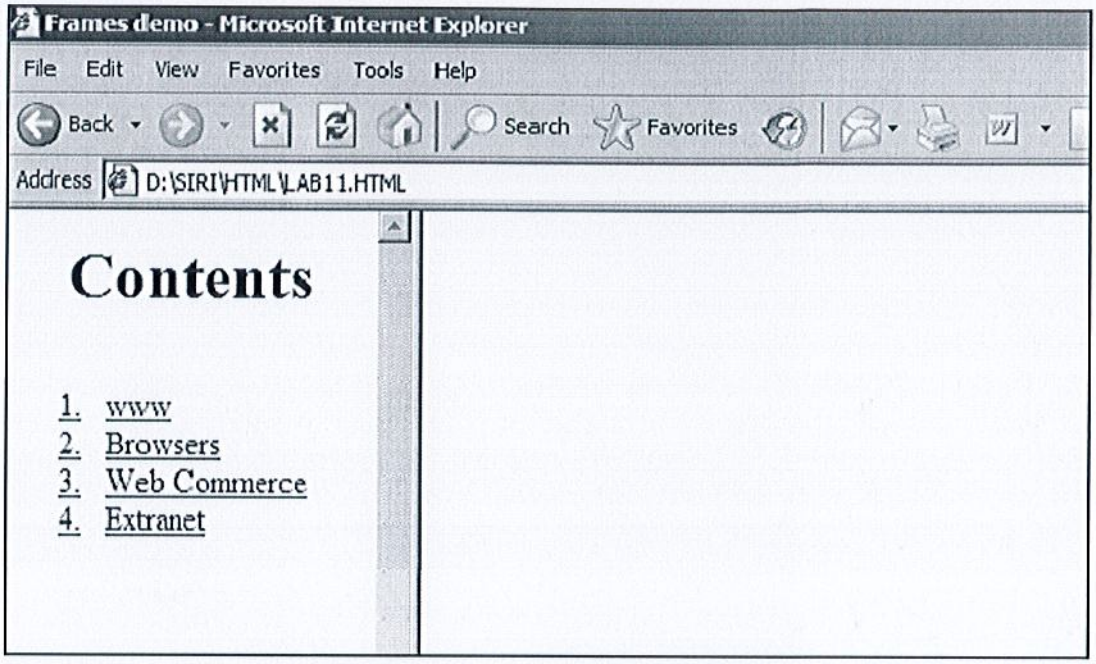
12. Illustrate the horizontal rulers in your page.

13. Create a help file as follows:



14. Create a form using form tags(assume the form and fields).

15. Create a webpage containing your biodata(assume the form and fields).

16. Write a html program including style sheets.

17. Write a html program to layers of information in web page.

18. Create a static webpage.

PRACTICAL BREAK UP OF MARKS:

1. Procedure/Steps -	10 Marks
2. Execution -	20 Marks
3. Practical Record -	10 Marks
4. Viva -	10 Marks
Total	50 Marks

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G. Sreenivasulu

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Batch 2016-2019
SRI Y.N.COLLEGE (AUTONOMOUS): NARSAPUR
III B.Sc. (Computer Science): VI Semester under CBCS w.e.f. 2017-2018
THEORY PAPER – VIII-CE-1
Distributed Systems
SEMESTER-VI

MID-I

UNIT- I:

Introduction to Distributed Computing Systems, System Models, and Issues in Designing a Distributed Operating System, Examples of distributed systems.

UNIT –II:

Features of Message Passing System, Synchronization and Buffering, Introduction to RPC and its models, Transparency of RPC, Implementation Mechanism, Stub Generation and RPC Messages, Server Management, Call Semantics, Communication Protocols and Client Server Binding.

MID-II

UNIT –III:

Introduction, Design and implementation of DSM system, Granularity and Consistency Model, Advantages of DSM, Clock Synchronization, Event Ordering, Mutual exclusion, Deadlock, Election Algorithms.

UNIT -IV:

Task Assignment Approach, Load Balancing Approach, Load Sharing Approach, Process Migration and Threads.

UNIT –V:

File Models, File Accessing Models, File Sharing Semantics, File Caching Schemes, File Replication, Atomic Transactions, Cryptography, Authentication, Access control and Digital Signatures.

Prescribed Book:

1. Pradeep. K. Sinha: " Distributed Operating Systems: Concepts and Design " , PHI, 2007.

Reference Books

1. George Coulouris, Jean Dollimore, Tim Kindberg: " Distributed Systems" , Concept and Design, 3rd Edition, Pearson Education, 2005.

GUIDELINES TO THE PAPER SETTER

BLUE PRINT

Unit no	Essay Questions	Short Answer Questions
I	3 (Section-A)	1
II	2 (Section-A)	3
III	2 (Section-B)	1
IV	2 (Section-B)	2
V	1 (Section-B)	1

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G. Sanjay

Ravi

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THEORY PAPER – VIII- CE-1

DISTRIBUTED SYSTEMS

Time: 3 Hours **Max.Marks: 75**

Note: 1.Answer Any FIVE Questions by choosing at least two from Section-A and Section-B.

2. Each one carries 10 marks. **5X10 =50M**

SECTION-A

1. What is Distributed Operating system? Distinguish between Network Operating system and Distributed Operating system.
2. Explain Workstation-Server model, Processor-Pool model of distributed computing system.
3. Explain various Issues in designing a distributed operating system.
4. Explain Synchronization and buffering issues in message passing system.
5. Explain various Communication protocols for RPC.

SECTION-B

6. What is Clock Synchronization? Explain Centralized algorithm for Clock Synchronization.
7. Explain about Event ordering in synchronization.
8. Explain various issues in designing Load Sharing algorithms.
9. What is Process Migration? Explain the desirable features of Process Migration Mechanism.
10. Explain File versions approach & Write a head log approach for recovery.

SECTION-C

Answer any FIVE of the following. Each question carries 5M. **5x5=25M**

11. Explain the Hybrid model of distributed computing system.
12. Explain about Inter process communication (IPC).
13. Explain Stub generation in RPC.
14. Explain Server management issue in RPC.
15. What is Distributed Shared Memory? Explain the advantages of Distributes Shared Memory.
16. Explain briefly about Task Assignment Approach.
17. Explain the advantages of Process Migration.
18. What is Cryptography? What are some of its common uses in a distributed system?

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PRACTICAL SYLLABUS PAPER – VIII: CE-1
DISTRIBUTED SYSTEMS LAB
SEMESTER-VI

III YEAR VI SEMESTER
(Cluster 2) Paper-VIII : CE-1
Distributed Systems Lab

Objective:

It covers all the aspects of distributed system. It introduce its readers to basic concepts of middleware, states of art middleware technology

Outcomes:

1. Students will get the concepts of Inter-process communication
2. Students will get the concepts of Distributed Mutual Exclusion and Distributed Deadlock Detection algorithm.

1. To study client server based program using RPC.
2. To study Client server based program using RMI.
3. To study Implementation of Clock Synchronization (Logical/Psysical)
4. To study Implementation of Election algorithm.
5. To study Implementation of Mutual Exclusion algorithms.
6. To write program multi-threaded client/server processes.
7. To write program to demonstrate process/code migration.

PRACTICAL BREAK UP OF MARKS:

1. Procedure/Steps -	10 Marks
2. Execution -	20 Marks
3. Practical Record -	10 Marks
4. Viva -	10 Marks
Total	50 Marks

K. R. Rajuvai

G. Sanjaya

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III B.Sc. (Computer Science): VI Semester under CBCS w.e.f 2017-2018

THEORY PAPER – VIII: CE-2

CLOUD COMPUTING

MID-I

UNIT-I

Cloud Computing Overview- Origins of Cloud Computing-Cloud components- Essential Characteristics-On demand self service-Broad network access-Location independent resource pooling- Rapid Elasticity-Measured Service.

UNIT-II

Cloud Scenarios: Compute Clouds, Cloud Storage, Cloud Applications.

Benefits: Scalability, Simplicity, Vendors, Security.

Limitations- Sensitive information- Application development.

Security concerns- Privacy concern with a third party- Security level of third party-security benefits.

Regulatory issues: Government policies.

MID-II

UNIT-III

Cloud architecture: Cloud delivery model- SPI framework, SPI evolution.

Software as a Service (SaaS): SaaS service providers- GoogleApp Engine, Salesforce.com and google platform- Benefits-Operational benefits- Economic benefits- Evaluating SaaS.

Platform as a Service(PaaS): PaaS service providers- Salesforce.com- Services and Benefits.

UNIT-IV

Infrastructure as a Service (IaaS): IaaS service providers- Amazon EC2, Go grid-Benefits.

Cloud deployment model: Public clouds- Private clouds- Community clouds- Hybrid Clouds- Advantages of Cloud Computing.

UNIT-V

Virtualization: Virtualization and Cloud Computing- Need of Virtualization- Cost, administration, fast deployment, reduce infrastructure cost- limitations.

Types of hardware virtualization: Full virtualization- partial virtualization- Para virtualization.

(P.T.O)

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Desktop Virtualization: Software virtualization- Memory virtualization- Storage virtualization- Data Virtualization- Network Virtualization.

Microsoft Implementation: Microsoft Hyper V- Vmware features and infrastructure- Virtual Box- Thin Client.

Reference Books:

1. Cloud Computing a practical approach- Anthony T.Velte, Toby J. Velte Robert Elsenpeter TATA McGraw- Hill, New Delhi-2010.
2. Cloud Computing: Web-based Applications That Change the way you Work and Collaborate Online-Michael Miller-Que 2008.
3. Cloud Computing, Theory and Practice, Dan C Marinescu, MK Elsevier.
4. Cloud Computing, A Hands on approach, Arshadeep Bahga, Vijay Madisetti, University Press.
5. Mastering Cloud Computing, Foundations and Application Programming, Raj Kumar Buyya, Christenvecctiola, S Tammarai selvi, TMH.

GUIDELINES TO THE PAPER SETTER

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Unit No.	Essay Questions	Short Answer Questions
I.	3 (Section-A)	2 (Section-C)
II.	2 (Section-A)	3 (Section-C)
III.	2 (Section-B)	1 (Section-C)
IV.	2 (Section-B)	1 (Section-C)
V.	1 (Section-B)	1 (Section-C)

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G. Sanjayu.

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THEORY PAPER – VIII: CE-2

CLOUD COMPUTING

Time: 3 Hours **Max.Marks: 75**

Note: 1.Answer Any FIVE Questions by choosing at least two from Section-A and Section-B

2. Each one carries 10 marks. **5 X10 =50M**

SECTION-A

1. What is Cloud Computing? Explain its Origins.
2. Give the Overview of Cloud Computing.
3. Explain various advantages of Cloud Computing.
4. Discuss the regulatory issues in Cloud Computing.
5. Explain how Scalability can be achieved in Cloud Computing.

SECTION-B

6. Explain about SPI framework.
7. Explain various services of Cloud Computing.
8. Explain about Infrastructure as a Service.
9. Explain the benefits of IaaS.
10. Explain in detail about Hardware Virtualization.

SECTION-C

Note: 1. Answer any Five questions from the following.

2. Each one carries 5 marks **5 x 5= 25M**

11. Explain briefly about Virtualization.
12. Explain about Rapid elasticity.
13. When you should not use Cloud Computing.
14. Explain various Security benefits in Cloud Computing.
15. Write any three limitations of Cloud Computing.
16. Write the benefits of SaaS.
17. Explain about public clouds.
18. Explain about Storage Virtualization.

G. Ravi

K. R. Rajeswari

G. Sowjanya

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III B.Sc.(Computer Science): VI Semester under CBCS w.e.f 2017-2018
PRACTICAL SYLLABUS PAPER – VIII – CE-2
CLOUD COMPUTING LAB
SEMESTER-VI

Outcomes: Learner will be able to...

1. Appreciate cloud architecture
2. Create and run virtual machines on open source OS
3. Implement Infrastructure, storage as a Service.

Use Eucalyptus or Open Nebula or equivalent to set up the cloud and demonstrate.

1. Find procedure to run the virtual machine of different configuration. Check how many virtual machines can be utilized at particular time.
2. Find procedure to attach virtual block to the virtual machine and check whether it holds the data even after the release of the virtual machine.
3. Install a C compiler in the virtual machine and execute a sample program.
4. Show the virtual machine migration based on the certain condition from one node to the other.
5. Find procedure to install storage controller and interact with it.

1. Introduction to cloud computing.
2. Creating a Warehouse Application in Sales Force.com.
3. Creating an Application in Sales Force.com using Apex programming Language.
4. Implementation of SOAP web services in C#/ JAVA Applications.
5. Implementation of Para- Virtualization using VM ware's workstation/ Oracle's Virtual Box and Guest O.S.
6. Case study: PAAS (Face book, Google App Engine)
7. Case Study: Amazon web services.

PRACTICAL BREAK UP OF MARKS:

1. Procedure/Steps -	10 Marks
2. Execution -	20 Marks
3. Practical Record -	10 Marks
4. Viva -	10 Marks
Total	50 Marks

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THEORY PAPER – VIII-CE-3

PROJECT-2

SEMESTER-VI

PROJECT-2

Follow SDLC process for real time applications and develop real time application project

The objective of the project is to motivate them to work in emerging/latest technologies, help the students to develop ability, to apply theoretical and practical tools/techniques to solve real life problems related to industry, academic institutions and research laboratories.

The project is of 2 hours/week for one (semester VI) semester duration and a student is expected to do planning, analyzing, designing, coding, and implementing the project. The initiation of project should be with the project proposal. The synopsis approval will be given by the project guides.

The project proposal should include the following:

Title

Objectives

Input and output

Details of modules and process logic

Limitations of the project

Tools/platforms, Languages to be used

Scope of future application

The Project work should be either an individual one or a group of not more than three members and submit a project report at the end of the semester. The students shall defend their dissertation in front of experts during viva-voce examinations.

PROJECT BREAK UP OF MARKS:

1. Internal assessment - 25 Marks (Project abstract & Reviews)
2. External assessment - 75 Marks (Project submission and execution)
3. Viva -voce 50 Marks

Total 150 Marks

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Batch 2018-21
SRI Y.N.COLLEGE (AUTONOMOUS): NARSAPUR
INFORMATION & COMMUNICATION TECHNOLOGY –1 (ICT-1)
II Semester under CBCS w.e.f 2016-2017
Paper Title: Computer Fundamentals and Office Tools
(Common for all II SEMESTER B.A./B.Com./B.Sc. COURSES)

Unit-I: Basics of Computers:
Definition of a Computer-Characteristics and Applications of Computers–Block Diagram of a Digital Computer–Classification of Computers based on size and working – Central Processing Unit – I/O Devices.

Unit-II: Operating System Basics:
Primary, Auxiliary and Cache Memory – Memory Devices. Software, Hardware, Firmware and Peopleware – Definition and Types of Operating System – Functions of an Operating System – MS-DOS – MS Windows – Desktop, Computer, Documents, Pictures, Music, Videos, Recycle Bin, Task Bar – Control Panel.

Unit-III: MS-Word
Features of MS-Word – MS-Word Window Components – Creating, Editing, Formatting and Printing of Documents – Headers and Footers – Insert/Draw Tables, Table Auto format Page Borders and Shading – Inserting Symbols, Shapes, Word Art, Page Numbers, Equations – Spelling and Grammar – Thesaurus – Mail Merge

Unit-IV: MS-PowerPoint
Features of PowerPoint – Creating a Blank Presentation - Creating a Presentation using a Template - Inserting and Deleting Slides in a Presentation – Adding Clip Art/Pictures -Inserting Other Objects, Audio, Video - Resizing and Scaling of an Object – Slide Transition – Custom Animation.

Unit-V: MS-Excel
Overview of Excel features – Creating a new worksheet, Selecting cells, Entering and editing Text, Numbers, Formulae, Referencing cells – Inserting Rows/Columns –Changing column widths and row heights, auto format, changing font sizes, colors, shading.

Reference Books:

1. Fundamentals of Computers by ReemaThareja, Publishers: Oxford University Press,India
2. Fundamentals of Computers by V.Raja Raman, Publishers: PHI
3. Microsoft Office 2010 Bible by John Walkenbach, Herb Tyson, Michael R.Groh, Wiley publications

GUIDELINES TO THE PAPER SETTER
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UnitNo	Essay Questions	Short Answer Questions
I	2 (Section-A)	NIL(Section-B)
II	2 (Section-A)	NIL(Section-B)
III	NIL (Section-A)	3 (Section-B)
IV	1(Section-A)	2 (Section-B)
V	NIL (Section-A)	3(Section-B)

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SRI Y.N.COLLEGE (AUTONOMOUS): NARSAPUR
INFORMATION & COMMUNICATION TECHNOLOGY –1 (ICT-1)
Paper Title: Computer Fundamentals and Office Tools
(Common for B.A./B.Com./B.Sc.)
SEMESTER-II
MODEL PAPER

Time: 2Hrs **Max.Marks:50**

SECTION-A

Answer any THREE Questions from the following: **3x10=30M**

1. Classify and Explain the Computers based on size and working.
   Computers ను size మరియు పనిచేయు విధానము ఆధారంగా వర్గీకరించి వివరింపుము.
2. Explain different input and output devices of a computer.
   Computers యొక్క వివిధ ఇన్‌పుట్ మరియు అవుట్‌పుట్ పరికరాలను వివరింపుము.
3. Explain about Primary, Auxiliary and cache memory.
   Primary, Auxiliary మరియు Cache మెమొరీ లను వివరింపుము.
4. Explain various functions of Operating System.
   Operating System యొక్క విధులను వివరింపుము.
5. Explain various features of Ms PowerPoint.
   Ms PowerPoint యొక్క వివిధ లక్షణాలను వివరింపుము.

SECTION-B

Answer any FOUR questions from the following: **4x5=20M**

6. Explain the features of Ms Word.
   Ms Word యొక్క వివిధ లక్షణాలను వివరింపుము.
7. Explain how to create, edit, format and printing of Word document.
   Word document ను ఏవిధంగా క్రియేట్, ఎడిట్, ఫార్మేట్ మరియు ప్రింట్ చేయుదురో వివరింపుము.
8. Explain briefly about spell checking, grammar and thesaurus in Ms Word.
   Ms Word నుండి spell checking, grammar మరియు thesaurus ను వివరింపుము.
9. Explain how to insert and delete slides in PowerPoint presentation.
   PowerPoint లో slides ను insert, delete చేయు విధానమును వివరించండి.
10. Explain about Slide transition and Custom animation.
    PowerPoint లో Slide transition మరియు Custom animation ను వివరించండి.
11. Explain features of Ms Excel.
    Ms Excel యొక్క వివిధ లక్షణాలను వివరింపుము.
12. Explain how to insert and delete rows/columns and how to change row height and column width in Ms Excel.
    Ms Excel నందు rows/columns ను insert చేయు విధమును మరియు row height/column width ను మార్చు విధానమును వివరించండి.
13. Explain autoformat feature, changing fontsizes, colors and shading.
    Ms Excel నందు autoformat feature, changing fontsizes, colors మరియు shading features ను వివరింపుము.

Ravi

K. R. Rajuwari

G. Soufanyu

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Batch 2017-20
SRI Y.N.COLLEGE (AUTONOMOUS): NARSAPUR
INFORMATION & COMMUNICATION TECHNOLOGY –2 (ICT-2)
Paper Title: Internet Fundamentals and Web Tools
III Semester under CBCS w.e.f 2016-2017
(Common for all III SEMESTER B.A./B.Com./B.Sc. COURSES)

Unit-I: Fundamentals of Internet
Networking Concepts, Data Communication – Types of Networking, Internet and its Services, Internet Addressing – Internet Applications – Computer Viruses and its types – Browser - Types of Browsers.

Unit-II: Internet applications
Using Internet Explorer, Standard Internet Explorer Buttons, Entering a Web Site Address, Searching the Internet – Introduction to Social Networking: twitter, tumblr, Linkedin, facebook, flickr, skype, yelp, vimeo, yahoo!, google+, youtube,WhatsApp, etc.

Unit-III: E-mail
Definition of E-mail - Advantages and Disadvantages – UserIds, Passwords, Email Addresses, Domain Names, Mailers, Message Components, Message Composition, Mail Management, mail Inner Workings.

Unit IV: WWW
Web Applications, Web Terminologies, Web Browsers,URL – Components of URL, Searching WWW – Search Engines and Examples

Unit-V: Basic HTML
Basic HTML – Web Terminology – Structure of a HTML Document – HTML, Head and Body tags – Semantic and Syntactic Tags – HR, Heading, Font, Image and Anchor Tags –Different types of Lists using tags – Table Tags, Image formats – Creation of simple HTML Documents.

Reference Books :
1. In-line/On-line : Fundamentals of the Internet and the World Wide Web, 2/e - by Raymond Greenlaw and Ellen Hepp, Publishers : TMH

GUIDELINES TO THE PAPER SETTER
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UNIT NO:	ESSAY QUESTIONS	SHORT ANSWER QUESTIONS
I	2	NIL
II	NIL	3
III	2	NIL
IV	1	2
V	NIL	3

Ravi

K. R. Rajuswari

G. Sanjay

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INFORMATION & COMMUNICATION TECHNOLOGY –2 (ICT-2)
Paper Title: Internet Fundamentals and Web Tools
III Semester under CBCS w.e.f 2016-2017
(Common for all III SEMESTER B.A./B.Com./B.Sc. COURSES)

SECTION – A

NOTE: 1. Answer any Three of the following
2. Each one carries 10 marks **3X10=30M**

1. Explain various types of Networks.
   వివిధ రకాల నెట్ వర్కల గూర్చి వ్రాయండి?
2. What is Web Browser? Explain various types of Web Browsers.
   బ్రౌజర్ అనగా నేమి? వివిధ రకాల బ్రౌజర్ ల గూర్చి వివరించండి?
3. Define E-mail? Explain the advantages and disadvantages of E-mail.
   ఇ-మెయిల్ అనగా నేమి? ఇ-మెయిల్ వలన ఉపయోగాలు మరియు నష్టాలు వివరించండి?
4. Explain the steps involved in the creation of E-mail.
   ఇ-మెయిల్ ని ఏ విధంగా తయారు చేస్తారో వివరించండి.
5. What is Search Engine? Explain about the search Engine and give examples.
   సెర్చ్ ఇంజన్ అనగా నేమి? సెర్చ్ ఇంజన్ గూర్చి ఉదాహరణతో వివరించండి.

SECTION – B

NOTE: 1. Answer any Four of the following
2. Each one carries 5 Marks. **4X5=20M**

6. Explain briefly about Internet Explorer.
   ఇంటర్ నెట్ ఎక్స్ ప్లోరర్ గూర్చి క్లుప్తంగా వ్రాయండి?
7. What are face book and twitter?
   ఫేస్ బుక్ మరియు ట్విట్టర్ గూర్చి వ్రాయండి?
8. What are Yahoo and Google+?
   యాహు మరియు గూగుల్+ గూర్చి వ్రాయండి?
9. What is URL? Explain the Components of URL?
   URL అనగా నేమి? URL లో గల కాంపోనెంట్స్ గూర్చి వ్రాయండి?
10. What is Web Application? Explain Web Application with example?
    అప్లికేషన్ అనగా నేమి? అప్లికేషన్ గూర్చి ఉదాహరణతో వివరించండి?
11. Explain formatting tags in HTML.
    HTML లో గల ఫార్మేటింగ్ టాగ్స్ గూర్చి వివరించండి?
12. Explain ordered and unordered list tags in HTML.
    ఆర్డర్డ్ మరియు ఆనార్డర్డ్ లిస్ట్ టాగ్స్ గూర్చి వ్రాయండి.
13. What is HTML? Explain the structure of HTML document.
    HTML అనగానేమి? HTML యొక్క structure గూర్చి వ్రాయండి?

Ravi

K. R. Rajeswari

G. Sowjanya

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B. China Chura Sreeramya

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Batch 2018-2021
SRI Y.N.COLLEGE (AUTONOMOUS): NARSAPUR
I SEMESTER
PAPER TITLE: PROGRAMMING IN "C"
CERTIFICATE COURSE
(For I SEMESTER B.A/B.Com./B.Sc. Courses with no computer subject as core subject w.e.f 2016-17)

UNIT-I: Introduction

Definition and Types of Operating System – MS-DOS – MS-Windows-Differences between DOS and Windows; Windows Basics: Desktop, My Computer, My Documents, Pictures, Music, Videos, Recycle Bin, Task Bar, Control Panel.

UNIT-II: "C" Fundamentals

'C' Fundamentals : Structure of a C Program, keywords, Data types,variables, constants,identifiers, Operators: arithmetic,relational,logical,increment/decrement, assignment, conditional operators , Input/output statements, Compiling your first program – Running your program – understanding your first program.

UNIT – III: Control Structures

Decision making: if statement – if else construct – Nested if statements – The else if construct – switch statement. Decision looping: for statement – Nested for loops – while statement – do..While statement – break statement – continue statement.

UNIT-IV: Working with Arrays: Defining an array – Initializing Arrays-entering elements into arrays –One dimensional arrays-two dimensional arrays-character arrays – string handling functions.

Prescribed Book:
1. Programming in "C" by E.Balagurusamy

GUIDELINES TO THE PAPER SETTER
BLUE PRINT

Unit No.	Essay Questions	Short Answer Questions
I.	1	2
II.	1	3
III.	2	1
IV.	1	2

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K. R. Rajuwari

G. Soufanya

B. China Chiranjeevi

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Batch 2018-2021
SRI Y.N.COLLEGE (AUTONOMOUS): NARSAPUR
I SEMESTER
CERTIFICATE COURSE PAPER TITLE: PROGRAMMING IN "C"
MODEL PAPER
(For I B.A. / I B.Com./ I B.Sc. Courses with no computer subject as core subject w.e.f 2016-17)

Time: 2 Hours **Max.Marks: 50**

Note: 1.Answer any Three of the following.
2. Each one carries 10 marks. **3X10=30**

SECTION-A

1. Explain MS DOS Internal commands?
2. Explain the structure of 'C' program?
3. Explain different type of control loops in 'C' Language?
4. Write a 'C' program to find the biggest numer of given three numbers?
5. Write a 'C' program to find the addition of given two matrices?

SECTION-B

Note: 1.Answer any FOUR of the following.
2. Each one carries 5 marks. **4X5=20**

6. What are the differences between MS DOS and Windows Operating systems?
7. Define the following.
   a) Desktop b) Recyclebin?
8. Explain Arithmatic operators in 'C' Language?
9. Explain various data types in 'C' Language?
10. Explain Printf () and scanf () functions with examples?
11. Write a 'C' program to print all the Even numbers upto 100?
12. Define an array with examples?
13. Explain string handling funtions in 'C 'Language?

DSVuuuu

K. R. Rajeswari

G. Sanjanya

Ravi

APPROVED

B. China Chara Suramuyo
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I SEMESTER
CERTIFICATE COURSE
(For I B.A. / I B.Com./ I B.Sc. Courses with no computer subject as core subject w.e.f 2016-17)
PAPER TITLE: PROGRAMMING IN "C"
LAB PROGRAMS

1. Write a C program to find addition of two numbers.
2. Write a C program to find the biggest of three numbers.
3. Write a C program to check whether the given number is Armstrong or not.
4. Write a C program to check the given number is perfect or not.
5. Write a C program to print the following format.

   1 2 3

   1 2

   1
6. Write a C program to find addition of two matrices.
7. Write a C program to print multiplication table up to n terms.
8. Write a C program to print even numbers up to n.
9. Write a C program to concatenate two strings using strcat() function.
10. Write a C program to find sum of individual numbers of a given integer.

PRACTICAL BREAK UP OF MARKS:

1.	Procedure/Steps -	10 Marks
2.	Execution -	10 Marks
3.	Viva -	5 Marks
	Total	25 Marks

K. R. Rajeswari

G. Sanjay

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B. Chitra Chitra Sreenivas

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2018-2021
SRI Y.N.COLLEGE (AUTONOMOUS): NARSAPUR
(W.e.f. 2016-17 Admitted Batches)
I Semester
CERTIFICATE COURSE SYLLABUS
Paper Title: Operating System & Diagnostics Tools

(for I B.A / I B.Com. /I B.Sc. Programs with Computer subject as Core subject)

Unit-I: Operating System Basics & Installation

Introduction to OS, Types of Operating systems, System files FAT and NTFS, Dos 6.22, Windows XP, Windows Vista, Windows 7 and Windows 8 and Multi Boot Operating System.

Unit-II: Various types of Software Installation

MS-Office2003, Office 2007, Photoshop 7 and CS5, PageMaker 6.5, Corel-Draw X3, Auto-CAD, Tally 7.0 and ERP, Acrobat Reader X, Java, Visual Studio, C & C++, Multimedia Software's, and Internet Browsers like- IE9, Google Chrome, and Mozilla Firefox etc.

Unit-III: Device Installation

Graphics Card, Sound Card, LAN Card, Wireless LAN Card, SCSI Card, External Drive, Flash Cards, Web Camera, CCTV Camera, Mobile Devices, Pen Drive, Firewire Cards, Modem, Plotter,Wireless LAN, Access Point etc.

Unit-IV: Diagnostic Tools & PC Maintenance

Introduction, Virus and its types, Effect of Virus for Computer System, Scanning and Antivirus Remover tools, Antivirus Utilities for Diagnostic, Safety and Preventive Maintenance Tools, Data Recovery, Concept of Fax and E-mail, PC care and Maintenance.

Unit-V: Basic Network Introduction& Installation.

Overview of Networking, Introduction to networks and networking, LAN, VLAN, CAN, MAN, WAN, Internet and Intranet etc. Uses and benefits of Network, Server-client based network, peer to peer networks. Internet Connection, E-Mail, Cloud Networking, Google Drive, SkyDrive, Dropbox etc.

REFRENCE BOOK:

(1) Windows 98 BPB Publication
(2) Windows XP Professional edition complete BPB Publication
(3) Office XP complete BPB publication
(4) Networking Complete BPB Publication

GUIDELINES TO THE PAPER SETTER
BLUE PRINT

Unit No.	Essay Questions	Short Answer Questions
I.	2 EQ'S	NIL
II.	NIL	3 SAQ'S
III.	NIL	3 SAQ'S
IV.	2 EQ'S	NIL
V.	1 EQ	2 SAQ'S

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K. R. Rajuwari

G. Sanjanya

Ravi

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2018-2021

SRI Y.N.COLLEGE (AUTONOMOUS): NARSAPUR

(W.e.f. 2016-17 Admitted Batches)

I Semester

CERTIFICATE COURSE MODEL PAPER

Paper Title: Operating System & Diagnostics Tools

(for I B.A /I B.Com. / I B.Sc. Programs with Computer subject as Core subject)

Time: 2 Hours **Max. Marks: 50**

SECTION-A

Note: 1.Answer any Three of the following.

2. Each one carries 10 marks. **3X10=30**

1. Explain how to install windows vista?
2. What is Operating system? Explain types of Operating systems?
3. What is Virus? Explain types of viruses?
4. Explain Scanning and Antivirus tools?
5. What is internet? Explain how to create an E-mail account?

SECTION-A

Note: 1.Answer any FOUR of the following.

2. Each one carries 5 marks. **4X5=20**

6. How to install the Browsers?
7. How to install the Photoshop?
8. How to install Ms-Office?
9. How to install the sound card?
10. What is Graphics card?
11. What is Modem?
12. Explain LAN, MAN, WAN?
13. What is the difference between internet and intranet?

K. R. Rajeswari

G. Durgamba

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B. China Chiranjeevi

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Batch 2018-2021
SRI Y.N.COLLEGE (AUTONOMOUS): NARSAPUR
I SEMESTER
CERTIFICATE COURSE
Operating System & Diagnostics Tools
(for I B.A /I B.Com. / I B.Sc. Programs with Computer subject as Core subject)
LAB PROGRAMS

1. Write the steps to install Windows 7 Operating System.
2. Write the steps to install Windows XP Operating System.
3. Write the steps to install C, C++ and Java softwares.
4. Write the steps to install Photoshop and Ms-Office.
5. Write the steps to install web browsers Google Chrome, Mozilla Firefox, Opera.
6. Write the steps to create e-mail account.
7. Write the steps to install LAN card, VGA card.

PRACTICAL BREAK UP OF MARKS:

1.	Procedure/Steps -	10 Marks
2.	Execution -	10 Marks
3.	Viva -	5 Marks
	Total	25 Marks

K. R. Rajiswari

Ravi

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B. China Chandrasekaran

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