KAKARAPARTI BHAVANARAYANA COLLEGE (Autonomous)
Department Of Computer Science & Applications

Class:	Semester	Title of The Paper	Paper Code:	W.E.F
B.Voc [Web Technology & Software Development] & B.Voc[IT&ITeS]	I	Computer Fundamentals& MS Office	R20WSCSC101 / R20ITCSC101	2020-21

Syllabus

Total No of Hours for Teaching - Learning	Instructional Hours for Week		Duration of Semester End Examination in Hours	Max Marks		Credits
	Theory	Practical		CIA	SEE	
60 Hours	4	3	3 Hours	25	75	5

Course Objectives: The objective of the course is how to use MS Office applications to carry out office work such as creating professional-quality documents; store, organize and analyze information; arithmetic operations and functions; and create dynamic slide presentations with animation, narration, images, videos, and much more, digitally and effectively.

Course Outcomes:

❖ **Microsoft Word 2010:**
  ✓ Creating and managing documents, Format Text, Paragraphs
  ✓ Creating Tables-it's operations,
  ✓ Apply Links, Insert and Format objects,
  ✓ To know the views of the document and Macros,

❖ **Microsoft PowerPoint 2010:**
  ✓ To Creating and Managing Presentations
  ✓ To Inserting and Formatting Shapes and Slideshows
  ✓ Creating Slide content
  ✓ To Apply Transitions and Animations
  ✓ Managing multiple presentations

❖ **Microsoft Excel 2010:**
  ✓ Creating Workbooks and worksheets
  ✓ Creating Cells and Ranges
  ✓ Creating Tables, Formatting
  ✓ Apply Formula and Functions
  ✓ Creating Charts and Objects
  ✓ To understand the pivot table creation, what-if Analysis

❖ **Microsoft Access**
  ✓ To understand database creation
  ✓ Objects creation and data maintenance
  ✓ Establish relationships between table

UNIT-I: **(10hr's)**

Word Basics: Creating a new document, Opening preexisting document, P a r t s of a word window, Undo, Redo, Repeat, Inserting text, Editing text, Formatting text, Cut, Copy, Paste – Printing, Finding and Replacing

Formatting Your Text and Documents: Auto format, Line spacing, Margins, Borders and Shading.

Working with Headers and Footers: Definition of headers and footers, creating basic headers and footers, creating different headers and footers for odd and even pages.

Tables: Creating a simple table, Creating a table using the table menu, Entering and editing text in a table, selecting in table, adding rows, changing row heights, Deleting rows, Inserting columns, changing column width, Deleting columns.

Graphics: Importing graphics, Clipart, Insert picture, Clip Art Gallery, using word's drawing features, drawing objects.

Unit II: **(8hr's)**

Charts: Chart parts and terminology ; Creating charts, Editing charts, Printing charts, Deleting charts; Types of Charts.

Links: Bookmark, Hyperlink, Cross-reference

Mail Merge: Mail Merge concept, Main document, data sources, merging data source and main document.

Document views: Print Layout, Full Screen Reading, Web Layout, Outline, Draft

Macros: Macro, Recording macros, editing macros, running a macro.

Unit III: MS Power Point   **(8hr's)**

Introduction, Building a presentation, Creating the text and chart slides, Formatting charts, Customizing presentation, creating slide shows.

Creating Presentations: Creating a Blank presentation, Adding slides, Deleting a slide, Importing   Images from the outside world, Transition and build effects, Deleting a slide, Numbering a Slide, Saving presentation, Closing presentation, Printing presentation elements.

Unit IV: MS Excel   **(12hr's)**

Excel Features, Creating New worksheet, entering and editing Formulas, Referencing cells, Moving cells, Copying Cells, Sorting cells, Data inserting rows, Inserting columns, Inserting cells, Deleting parts of worksheet, clearing parts of worksheet, Number formatting, Conditional formatting, cell referencing techniques.

Formatting: Page set-up, changing Column widths and Row heights, auto format, changing font sizes and attributes, centering text across columns, using border buttons and Commands, changing colors and shading, hiding rows and columns.

Introduction to Functions: Parts of Functions, Functions requiring Add-ins, Function Wizard – Functions by category: Date and time functions, Engineering functions, Math and Trig functions, Statistical functions, Text functions.

Data Validations, subtotals, Pivot table, What if Analysis, solver.

Unit V: MS Access   **(10hr's)**

Creating a Simple Database and Tables: Creating Database Tables: Table option, Table design, Field Names, Data Types and Properties, Adding, deleting, renaming the fields in a table.

Forms: Form, Form wizard, Blank Form, Form Design, Saving Forms, Modifying Forms.

Entering and Editing Data: Adding Records, Duplicating previous entries without Retyping, Undo, Correcting Entries, Global Replacements, Moving from Record to Record in a table.

Finding, Sorting and Displaying Data: Queries and Dynasets, Creating and using select queries, Returning to the Query Design, Multilevel Sorts, Showing all Records after a Query, Saving Queries, Crosstab Queries.

Reports: Introduction to Reports, Creating a report: using Report, Report Design, Blank Report, Report Wizard, printing mailing labels.

Relational Databases: Flat vs. Relational, Types of Relationships, Viewing Relationships, Creating and Deleting Relationships.

Text books:
1. Baja K K , Office Automation , MacMillan India Ltd, 1996.
2. Steve Sagman, Microsoft Office XP for Windows, Pearson Education Asia, 2002.
3. Jennifer Fulton, Microsoft Office 2000, Prentice-Hall of India, 1999.
4. Reema Thareja , Fundamentals Of Computers, Oxford University Press

Reference books:
1. Windows XP Home Edition Complete, BPB Publications, 2001.
2. Raghav Bahl , Exploring Microsoft Office XP, Cyber Tech, 2001 .
3. Sanjay Saxena , MS Office 2000 for Everyone, Vikas Publishing , 2001.

MODEL PAPER

Class:	Semester	Title of The Paper	Paper Code:	W.E.F
B.Voc [Web Technology & Software Development] & B.Voc[IT&ITeS]	**I**	Computer Fundamentals& MS Office	R20**WSCSC101** /**R20ITCSC101**	**2020-21**

SECTION-A

Answer any *five* of the following questions   5x5=25M

1. Explain Find and Replace options in MS-Word.
2. Explain Macros in MS-Word
3. Write the steps to set slide number.
4. Explain auto fill options in MS-Excel.
5. Explain about function wizard.
6. Explain different date/time functions in MS-Excel.
7. Write procedure to create data base in MS-Access.
8. What is a form, how can we create a form in MS-Access.

SECTION-B (Essay Questions)

Answer ALL of the following questions   5x10=50M

9. A) Explain Graphics in MS-Word.

    (OR)

    B) Write the procedure to insert table and its operations.

10. A) Write the procedure to create presentation in power point

    (OR)

    B) Explain graphics in power point.

11. A) Explain the features of excel.

    (OR)

    B) Write the procedure to insert charts in MS-Excel.

12. A) Explain different types of Charts in MS-Excel.

    (OR)

    B) Explain any 15 functions available in Excel

13. A) Explain different relationships in Access.

    (OR)

    B) Explain Report design view components.

KAKARAPARTI BHAVANARAYANA COLLEGE (Autonomous)
Department Of Computer Science & Applications

Class:	Semester	Title of The Paper	Paper Code:	W.E.F
B.Voc [Web Technology & Software Development] & B.Voc[IT&ITeS]	I	Computer Organization	R20**WSCO101** /**R20ITCO101**	2020-21

Syllabus

Total No of Hours for Teaching - Learning	Instructional Hours for Week		Duration of Semester End Examination in Hours	Max Marks		Credits
	Theory	Practical		CIA	SEE	
60 Hours	**5**	**0**	**3 Hours**	**25**	**75**	**5**

Course Objectives: This course will introduce students to the fundamental concepts underlying modern computer organization and architecture. Main objective of the course is to familiarize students about hardware design including logic design, basic structure and behavior of the various functional modules of the computer and how they interact to provide the processing needs of the user.

Course Outcomes:

- Understand the basics of computer hardware and how software interacts with computer hardware
- Analyze and evaluate computer performance
- Understand how computers represent and manipulate data
- Understand computer arithmetic and convert between different number systems
- Assemble a simple computer with hardware design including data format, instruction format, instruction set, addressing modes, bus structure, input/output, memory, arithmetic/logic unit, control unit, and data, instruction and address flow
- Use Boolean algebra as related to designing computer logic, through simple combinational and sequential logic circuits
- The course emphasizes performance and cost analysis, memory technology, memory hierarchy, virtual memory management, and i/o systems.

UNIT –I   Data representation: (12 Hours)

Number Systems: Binary Number System, Octal Number System, Decimal Number System, and Hexa-Decimal Number System.

Conversions: Decimal Number System to Binary Number System, Decimal Number System to Octal Number System, Decimal Number System to Hexa-Decimal Number System, Binary Number System to

Decimal Number System, Octal Number System to Decimal Number System, Hexa-decimal Number System to Decimal Number System.

 Complements: (r-1)'s Complement, (r's) Complement

Fixed point representation: Integer Representation, Arithmetic addition, Arithmetic subtraction, Float point representation

UNIT-II   (12 Hours)

Logic gates: AND Gate, OR Gate, INVERTER Gate, BUFFER Gate, NAND Gate, NOR Gate, EXCLUSIVE-OR (XOR) Gate, EXCLUSIVE-NOR Gate.

 Boolean algebra, **Map simplification**

UNIT-III (Flip-Flops)   (10 Hours)

Flip-flops: SR flip-flop, D flip-flop, JK flip-flop, T flip-flop

UNIT-IV   (12 Hours)

Combinational Circuits: Half adder, full adder

Digital Components: Integrated Circuits, decoder, encoder, multiplexers.

UNIT-V(Memory Organization)   (14 Hours)

Memory hierarchy, main memory: RAM and ROM,

Auxiliary memory, Associative Memory, Cache memory.

Prescribed Text Book: Computer System Architecture

Third Edition, Author: M. Morris Mano. PHI publisher

Reference Book: Computer Organization and Architecture

Authors: V. Rajaraman, T.Radhakrishnan. PHI publisher

Model Question Paper

Class:	Semester	Title of The Paper	Paper Code:	W.E.F
B.Voc [Web Technology & Software Development] & B.Voc[IT&ITeS]	**I**	**Computer Organization**	R20**WSCO101** / **R20ITCO101**	**2020-21**

SECTION-A

Answer any Five of the following   **5 X 5=25 M**

1. Write a procedure for converting decimal to binary number system with an example   (unit-I)
2. Explain about 1's complement (unit-I)
3. Explain about Arithmetic addition(unit-I)
4. Explain about XOR Gate with Truth Table (unit-II)
5. Explain about T flip-flop (unit-III)
6. Explain about Full Adder (unit-IV)
7. Write the difference between Ram And ROM (unit-V)
8. Explain about Memory hierarchy (unit-V)

SECTION-B

Answer All of the following Questions   **5 X 10=50 M**

9. A) Explain about Number System (unit-I)
    (OR)
    B) Write the following Conversions (unit-I)
        i) $(1000)_2 \rightarrow (?)_{10}$
        ii) $(128)_8 \rightarrow (?)_{10}$

10. A) Explain AND Gate and OR Gate with truth Table (unit-II)
    (OR)
    B)   Explain about Karnaugh Map with an Example. (unit-II)

11. A) Explain about SR Flip-flop (unit-III)
    (OR)
    B) Explain about D Flip-flop (unit-III)

12. A) Briefly Discuss about Decoders (unit-IV)
    (OR)
    B) Explain about 4 X 1 Multiplexer. (unit- IV)

13. A) Explain About Memory Connection for 1024x8 (unit-V)
    (OR)
    B) Explain about Cache Memory (unit-V)

KAKARAPARTI BHAVANARAYANA COLLEGE (Autonomous)
Department Of Computer Science & Applications

Class:	Semester:	Title of The Paper:	Paper Code:	W.E.F
B.VOC[IT&ITeS]	I	Introduction to 'C' Language	R20ITCP101	2020-21

Syllabus

Total No of Hours for Teaching - Learning	Instructional Hours for Week		Duration of Semester End Examination in Hours	Max Marks		Credits
60 Hours	**Theory**	**Practical**	**3 Hours**	**CIA**	**SEE**	**5**
	4	**3**		**25**	**75**	

Course Objectives: The objective of the course is to learn programming in 'C'.

Course Outcomes:

1. To understand the meaning and basic components of a programming language.
2. To learn about data types and operators.
3. To learn about decision making statements.
4. To Gain knowledge about functions.
5. To learn how to work with arrays.
6. To gain knowledge about strings.
7. To learn about structures.
8. To understand character arrays.
9. To understand the concept of pointers.
10. To understand the concept of files.

Unit I: Introduction to Algorithms and Programming Languages: **10hrs**

Compiling Programs, Language Interpreters, Compiling your first program, running your program, understanding your first program, comments, variables, Data types, and Arithmetic Expressions: working with variables. Understanding Datatypes and constants, working with Arithmetic Expressions. The Assignment operators, the print function, the scanf function.

Unit II: Decision making statements & Functions   **20hrs**

The if statement, if else, Nested if statements, else if, the switch statement. The conditional operator program looping: for statement, Relational operators. Nested for loops, while statement; do statement, the break statement. The continue statement.

Defining a Function-Arguments and Local variables, Returning Function Results, Function calling, Declaring Return Types and Argument types, Top Down programming, Functions and Arrays, The global variables, Automatic and static variables, recursive Functions.

Unit III: Arrays & Strings   **10hrs**

Defining an array, Initializing Arrays, Character Arrays, Multidimensional arrays- variable length Arrays, Array of characters, variable length character strings, Escape characters, character strings, structures and arrays - character operations.
Creating string variable, string functions.

Unit IV: Structures & Pointers   **15hrs**

      Defining structure, Functions and structures, Initializing structures, Array of structures, structures containing structures, structures containing Arrays, structure variants.

      Defining a pointer variable, Using pointers in Expressions, Pointers and structures (Exclude Linked List), Pointers and Functions, Pointers and Arrays, Operations on pointers. Pointers and Memory address.

Unit V: Files   **5hrs**

      File manipulating functions, file opening modes and file creating.

TEXT BOOK:

      "Computer Fundamentals and Programming in C" by REEMA THAREJA from OXFORD UNIVERSITY

      PRESS.

REFERENCE BOOK:

      1. E Balagurusamy: —COMPUTING FUNDAMENTALS & C PROGRAMMING – Tata McGraw- Hill,

      Second Reprint 2008, ISBN 978-0-07-066909-3.

      4. 1. Ashok N Kamthane: Programming with ANSI and Turbo C, Pearson Edition Publ, 2002.

      5. 2. Henry Mullish & Huubert L.Cooper: The Sprit of C, Jaico Pub. House,1996.

Model Question Paper

Class	Semester	Title of The Paper	Paper Code	W.E.F
B.VOC[IT&ITeS]	**I**	Introduction to 'C' Language	**R20ITCP101**	**2020-21**

SECTION-A

Answer any *five* of the following questions   **5 x 5 = 25M**

1. Explain different programming languages.
2. Explain data types in 'C'.
3. Explain different types of arrays with syntax.
4. Explain difference between while and do-while.
5. Explain I/O Functions.
6. What is recursion? Explain with example.
7. Write a program to swap two strings.
8. Explain different types of translators.

SECTION-B

Answer ALL of the following questions   **5 x 10 = 50M**

9. A) Explain the structure of C.

           (OR)

     B) Explain different operators available in C

10. A) Explain different decision making statements.

           (OR)

     B) Write the difference between call by value and call by reference with example.

11. A) Write a program for addition of two matrices.

           (OR)

     B) Write different string functions.

12. A) Explain malloc(), calloc() with example.

           (OR)

     B) Explain the difference between structure and union with an example.

13. A) Explain different file handling functions.

           (OR)

     B) Write an example program using fwrite(), fread().

KAKARAPARTI BHAVANARAYANA COLLEGE (Autonomous)

Department Of Computer Science & Applications

Class	Semester	Title of The Paper	PaperCode	W.E.F
B.VOC[IT&ITeS]	II	JAVA PROGRAMING	R20ITJP201	2020-2021

Syllabus

Total No of Hours for Teaching - Learning	Instructional Hours for Week		Duration of Semester End Examination in Hours	Max Marks		Credits
	Theory	Practical		CIA	SEE	
60 Hours	4	3	3 Hours	25	75	

Course Objectives: The objective of the course is to introduce the concepts of OOPS.

Course Outcomes:

   To learn Object-Oriented programming concepts and techniques using the Java programming language. To learn to write, test, and debug introductory level Object-Oriented programs using Java. In addition, the student will be introduced to the following concepts, which are important workforce activities:

- Design/Develop Program
- Design classes ,interfaces, packages
- Design the applet programs
- Understanding Inheritance.

Unit – I: Java Fundamentals

Fundamentals of Object Oriented programming*:*

 Java Features – How Java differs from C and C++ , Simple Java Program – Java Program Structure – Java Tokens, Implementing a Java Program – Java Virtual Machine – Command Line Arguments. Constants, Variables and Data types: Constants – Variables – Data types – Scope of Variables, Type Casting.

Operators and Expressions: Arithmetic Operators – Relational Operators -Logical Operators – Assignment Operators – Increment and Decrement Operators – Conditional Operators – Bitwise Operators – Special Operators – Arithmetic Expressions – Operator Precedence and Associativity.

Unit-II

Decision Making and looping: Decision Making with If statement – Simple If Statement- If else Statement- Nesting If Else Statement- the Else If Ladder,-The switch Statement – The ?: operator. The while statement – The do statement – The for statement

Classes : Objects and Methods: Defining a Class – Fields Declaration – Methods Declaration – Creating Objects – Accessing class members – Constructors – Methods Overloading – Static Members – Nesting of

Methods – Inheritance – Overriding Methods – Final Variables and Methods – Final Classes – Abstract Methods and Classes – Visibility Control.

Arrays, Strings and Vectors: One dimensional Arrays, creating an Array – Two dimensional Arrays – Strings – Vectors – Wrapper Classes – Enumerated Types.

Unit – III: Packages and Interfaces in Java

Interfaces: Multiple Inheritance : Defining Interfaces – Extending Interfaces – Implementing Interfaces – Accessing Interface Variables.

Packages: Java API Packages – Creating Packages – Accessing a Package – Using a Package – Adding a Class to a Package

Multithreaded Programming: Creating Threads – Extending the Thread Class – Stopping and Blocking a Thread – Life Cycle of a Thread – Using Thread Methods – Thread Exceptions – Thread Priority

Managing Errors and Exceptions: Types of Errors – Exceptions – Syntax of Exception Handling Code – Multiple Catch Statements – Using Finally Statement – Throwing our own Exceptions

Unit- IV

Applet Programming: How Applets differ from Applications – Preparing to write Applets – Building Applet Code – Applet Life Cycle – Creating an executable Applet – Designing a Web Page – Applet Tag – Adding Applet to HTML file – Running the Applet – Passing parameters to Applets – Aligning the display – Displaying Numerical Values – Getting Input from the user.

Prescribed text books:
 1.   E. Balaguruswamy, Programming with Java, A primer, 3e, TATA Mc Graw Hill Company (2008).
References:
1.   John R. Hubbard, Programming with Java, Second Edition, Schaum' soutline Series, Tata Mc Grawhill (2007).
2.   Timothy Budd, Understanding Object Oriented Programming with Java, Pearson Education (2007).

Model Question paper

Class:	Semester:	Title of The Paper:	PaperCode:	W.E.F
B.VOC[IT&ITeS]	II	JAVA PROGRAMING	R20ITJP201	2020-21

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

SECTION-A

Answer any five of the following question   **5 x 5 = 25M**

1. Difference between java and c?
2. Explain java program structure
3. Explain data types in java.
4. Explain different types of arrays
5. Explain Visibility Controls in Java.
6. How can we create a class and object in java with an example.
7. Explain polymorphism in java with an example.
8. Explain procedure to create and run applet.

SECTION-B

Answer ALL of the following questions   **5 x 10 = 50M**

9. A) Explain different types of operators in Java
   (OR)
   B) Explain OOP concepts.

10. A) Explain Constructors with example.
    (OR)
    B) Explain Control structures in java

11. A) What is a vector? Explain vector class methods with an example.
    (OR)
    B) Explain different types of inheritances in java.

12. A) What is Thread? Explain thread life cycle methods with example.
    (OR)
    B) Explain procedure to create user defined packages in java.

13. A) What is Exception? How can we define user defined exception with an example?
    (OR)
    B) Explain applet life cycle with an example.

Class	Semester	Title of The Paper	Paper Code	W.E.F
I BVOC(IT&ITES)	**II**	**Introduction to Tally ERP 9 [Accounts Only]**	**R20ITERP201**	**2020-21**

Syllabus

Total No of Hours for Teaching - Learning	Instructional Hours for Week		Duration of Semester End Examination in Hours	Max Marks		Credits
	Theory	**Practical**		**CIA**	**SEE**	
60 Hours	**4**	**3**	**3 Hours**	**25**	**75**	

Objective of this paper: This paper is designed to impart knowledge regarding concepts of Financial Accounting Tally is an accounting package which is used for learning to maintain accounts. This course is useful for Students to get placements in different offices as well as companies in Accounts departments.

 Outcomes:

• Understanding the power and potential of Tally Accounting Software from the business perspective

• Company Setup & Configurations

• Recording Financial Transactions

• Financial Reports Analysis

UNIT - I:

Installation of Tally package – Various versions of Tally – Tally company types – Tally Accounting features -- Creation of Company Using Accounts Only.

UNIT - II:

Shutting a company – Alteration of Company – Deleting a Company – Quit Tally package with and without confirmation --– Splitting Company Data – Creation of Group Companies.

UNIT - III:

Creation of Groups and Ledgers – Single Ledger and Multi Ledger creation –Interest parameters setting - Cost categories and Cost centers – Budgets – Budget Types in Tally– Creation of budget types in Tally-- Voucher Entry – Types of Voucher Entry – Types of Vouchers – Contra – Payment – Receipt – Journal – Sales – Credit Note – Purchases – Debit Note.

UNIT - IV:

Interest calculations – Interest class voucher creation – Working with Bank Reconciliation Statement in Tally– Displaying Day Book -- Displaying Trial Balance – Displaying Profit and Loss Account -- Displaying Balance Sheet –

UNIT - V:

Security Control – Tally Vault Password – Change in Tally Vault Password Defining User levels – Types of Access - Creating users and Pass words.

Note: No Inventory related questions shall be given.

Class: I BVOC (IT&ITES)   **Code: ITERP201**
Title: Introduction to Tally ERP 9 [Accounts Only]   **Semester: II**
Time: 3Hrs   **Max Marks: 75**

Section-A

Answer any FIVE Questions   5x5=25M

1. Explain Tally company types.
2. Explain alter and deleting a company in Tally
3. Explain multi ledger creation in Tally
4. Write steps how to displaying balance sheet in tally.
5. How to create users and passwords in tally.
6. Write steps how to display day book in tally
7. Explain types of budgets in Tally
8. Explain about versions in Tally.

Section-B

Answer ALL Questions   5x10=50M

9. A) Explain accounting features.

(OR)

B) Write the Procedure to Create a Company.

10. A) Explain with neat diagram, the Company process of Splitting data in Tally?

(OR)

B) Explain group companies in Tally

11 A) Explain Single ledger creation with interest parameters settings?

(OR)

B) Explain Accounting Vouchers in Tally

12 A) How to create an Interest class voucher with neat diagram?

(OR)

B) Explain Bank Reconciliation in Tally?

13. A) Explain Tally Vault password

(OR)

B) Explain types of access in Tally