Course Name:- All Branches of Diploma in Engineering

Semester: First

Subject Title: Fundamental of Computer

Subject Code; 106/111

Teaching and Examination Scheme:

Teaching Scheme			Examination Scheme					
L	T	P	Full Marks.	External Exam Marks	Internal Exam Marks	External Pas Marks	Total Pass Marks	Duration of External Exams
02	0		50	40	10	13	20	3 Hrs
Sessional		2	50	30	20		25	

NOTE:

Internal marks will be allotted on the basis of two snap tests and 2 assignment of equal marks to be conducted

by the faculty teaching the subject.

RATIONALE:

In Engineering Education role of computers and its knowledge is day by day increasing and every documentation and analysis requires basic fundamentals of computers. The accessibility to internet and presentation techniques are essential elements these days which is fully dependent on knowhow of computers irrespective of branches or discipline.

OBJECTIVES:

Student will be able to:

1. Understand a computer system that has hardware and software components, which controls and makes them useful.
2. Understand the operating system as the interface to the computer system.
3. Use the basic function of an operating system.
4. Set the parameter required for effective use of hardware combined with and Application software's.
5. Compare major OS like Linux and MS- Windows.
6. Use file managers, word processors, spreadsheets, presentation software's and Internet.
7. Have hands on experience on operating system and different application software.
8. Use the Internet to send mail and surf the World Wide Web.

CONTENTS : Theory

Chapter	Name of Topic	Hr	Marks
1.	**Fundamentals of Computer** 1.1 Introduction 1.2 Type of Computer 1.3 Components of PC 1.4 Inputs & Output Devices 1.5 Computer Languages 1.6 Memory of Computer	4	6
2.	**Introduction to MS Office** 3.1 MS- Word : Introduction, Starting MS-Word Screen and its Components, Elementary Working with MS-Word 3.2 MS- Excel: Introduction, Starting MS-Excel, Basics of Spreadsheet, MS- Excel Screen and its Components, Elementary Working with MS-Excel. 3.3 MS –Power Point: Introduction, Starting MS-PowerPoint, Basics of PowerPoint, MS-PowerPoint Screen and Its Components, Elementary Working with MS-PowerPoint.	8	12
3.	**Introduction to Internet** 4.1 What is Internet? 4.2 Computer Communication and Internet. 4.3 WWW and Web Browsers. 4.4 Creating own Email Account. 4.5 Networking and types.	4	6
4.	**Introduction to HTML and Software** 5.1 Introduction to HTML. Working of HTML 5.2 Creating and loading HTML pages, tags. 5.3 Structure of on HTML, Document, Stand Alone Tags. 5.4 Formatting text, Adding Images, Creating hyper Links, Tables. 5.6 Cyber security. 5.7 Computer virus.	8	10
5.	**Information Technology** 6.1 Current IT Tools. 6.2 Social networking, mobile computing, cloud computing. 6.3 Introduction of IOT and IOE 6.4 Computer Application in various fields like Data analysis, database management, artificial intelligence.	6	6
	Total	30	40

List of Practical

Exp- 1

Identification of different part of computer system and peripherals

Exp – 2: Operations on operating system

1. Create a new folder and do the following:
    a. Make a new folder in it.
    b. Rename the initial folder.
    c. Opening a new file.
    d. Creating document in note pad.
    e. Move the initial folder.
    f. Copy the initial folder.
    g. Delete the initial folder
2. Implement the various well known features of Windows operating system such as Notepad, WordPad, Calculator, System tools etc. enclosed in Start→Programs→Accessories.
3. Implement various display properties by right clicking on the Windows Desktop.
4. Explore the taskbar of Windows.
5. Set the wall paper and screen saver.
6. Set the date /time.

Exp.3Basic operations on MS Word

1. Create a document and
    a. Put Bullets and Numbers
    b. Apply various Font parameters.
    c. Apply Left, Right, and Centre alignments
    d. Apply Hyperlinks
    e. Insert pictures
    f. Insert ClipArt
    g. Show the use of Word Art
    h. Add Borders and shading
    i. Show the use of Find and Replace.
    j. Apply header/footers

Exp- 4 Advance operations on MS Word

2. Create any document and show the use of File→Versions.
3. Create any document and show the difference between paste and paste special.
4. Create any document and show the use of Washout/Watermark.
5. Implement the concept of mail merge.
6. Implement the concept of macros.
7. Implement the concept of importing a file/document.
8. Implement the concept of merging the documents.
9. Create a student table and do the following :
    a. Insert new row and fill data
    b. Delete any existing row.
    c. Resize rows and columns.
    d. Apply merging/ splitting of cells
    e. Apply sort.
    f. Apply various arithmetic and logical formulas.
    g. Apply various arithmetic and logical formulas.
10. Create your resume using General Templates.

Exp- 5 Basic operation on electronic spreadsheet/excel

Computer the division of each and every student of a class.

2. Generation of Electricity Bill
3. Generation of Telephone Bill
4. Generation of Salary statement of an employee
5. Generation of Mark Sheet of a student.
6. To compute mean / median / mode.
7. Generation graph to show the production of goods in a company during the last five years.
8. Compare the cost, overheads and sales figure of a company for last three years through appropriate chart.

Exp – 6 Advance operations on electronic spreadsheet

1. Generation the following worksheet

Roll No.	Marks
2050	67
2051	49
2052	40
2053	74
2054	61
2055	57
2056	45

and do the following:
   a. Create chart of the marks.
   b. Compute sum of marks using auto sum, auto calculate and sum function.
   c. Compute average of marks.
   d. Show pass or fail if marks are above 50 or less than 50
   e. Put header and footer in the spread sheet.

Importing and exporting data from other files.

Program development in excel using simple commands.

Exp – 7 Power Point Presentation preparation

1. Make a presentation of College Education System using
   a. Blank Presentation
   b. From Design Template
   c. From Auto Content Wizard

Exp – 8 Animation and various effect in Power Point Presentation, exporting and importing contents from word/excel

1. Make a presentation on "Wild Life " and apply the following:
   a. Add audio and video effects
   b. Apply various Color Schemes
   c. Apply various animation schemes.
   d. Apply slide show

Exp – 9 Simple program in HTML

1.   Create any webpage using following HTML tags:
   a.   Background Colour
   b.   Font (Colour, Size, Face)
   c.   Bold / Italic / Underline
   d.   Big / Small
   e.   H 1, H 2, etc.
   f.   Marquee
   g.   Ordered / Unordered List
   h.   Data list
2.   Create Employee Table and apply various operations on it using HTML. Also put Border around   the table.
3.   Create Internal and External Hyperlinks in a Webpage.
4.   Implement the concept of Frames in a Webpage.
5.   Insert an image in a Webpage.
6.   Design Home page of your Institute
7.   Design Web page for tourism spots in your area
8.   Prepare your CV and link on the web page
9.   Use animation of image in a web page
10.   Insert a table and perform table handling in web page

Exp – 10 Basics of Internet, surfing, email account opening and transactions through email account

Connect the Internet; open any website of your choice and save the Web Pages.
2.   Search any topic related to your syllabus using any search engine and download the relevant material.
3.   Create your E-Mail ID on any free E-Mail Server.
4.   Login your E-Mail ID and do the following:
   a.   Read your mail
   b.   Compose a new Mail
   c.   Send the Mail to one person
   d.   Send the same Mail to various persons
   e.   Forward the Mail
   f.   Delete the Mail
   g.   Send file as attachment
5.   Surf Internet using Google to find information about yours state college.
6.   Surf Internet using Google to find Tourism information about your state.
7.   Surf Internet using Yahoo to find Hotel around your state

Text Books:
   i)   C.S. French "Data processing and Information Technology ", BPB Publications.
   ii)   P.K Sinha Computer Fundamentals , BPB Publications
   iii)   Guy Hart-Davis "The ABCs of Microsoft Office Professional
           Edition", BPB Publication.
   iv)   Karl Schwartz, "Microsoft Windows 98 Training Guide"