TDC VOCATIONAL COURSE IN INFORMATION TECHNOLOGY (SEMESTER BASED)
GAUHATI UNIVERSITY

Semester - 1

Paper Code	Paper Name	Marks	Classes / week	Credit
E101	Fundamentals of IT	75 marks	6 (5 lectures + 1 tutorial)	6

Semester - 2

Paper Code	Paper Name	Marks	Classes / week	Credit
E201	Introduction to Programming in C	75 marks	6 (5 lectures + 1 tutorial)	6

Semester - 3

Paper Code	Paper Name / Topics	Marks	Classes / week	Credit
E301	ICT Hardware	50 marks	4 (3 lectures + 1 tutorial)	4
E302	Practical Programming in C ICT Hardware	Total Marks 50 20 marks 30 marks	4 practical sessions	4

Semester - 4

Paper Code	Paper Name / Topics	Marks	Classes / week	Credit
E401	Introduction to Database Management System	50 marks	4 (3 lectures + 1 tutorial)	4
E402	Practical DBMS	50 marks	4 practical sessions	4

Semester - 5

Paper Code	Paper Name	Marks	Classes / week	Credit
E501	Web Technology and Computer Oriented Financial Accounting	100 marks	8 (6 lectures + 2 tutorials)	8
E502	Practical Web Technologies Computer Oriented Financial Accounting	Total Marks 100 50 marks 50 marks	8 (2 tutorials + 6 practical sessions)	8

Semester - 6

Paper Code	Paper Name / Topics	Marks	Classes / week	Credit
E601	Office Automation & Desktop Publishing and Fundamentals of E-Commerce and E-Governance	100 marks	8 (6 lectures + 2 tutorials)	8
E602	Practical Office Automation DTP	Total 100 marks 64 marks 36 marks	8 (2 tutorials + 6 practical sessions)	8

E101 FUNDAMENTALS OF INFORMATION TECHNOLOGY

Full Marks: 75 (Internal 15)

Fundamentals   **Marks: 15**

Major components of a computer (A brief introduction of CPU, Main Memory, I/O units). Keyboard, display, mouse, printers etc. Secondary storage devices (hard disks, optical disks, flash memory), backup devices .Computer Software. Bootstrapping.

Representation of information: Number system-Binary, Octal, Decimal & Hexadecimal numbers. Characters, ASCII, EBCDIC, BCD, Gray code, Unicode. Conversion of bases.

Information Technology Basics   **Marks: 5**

Introduction, Information, Technology, Information Technology (IT), Role in present scenario.

Algorithms   **Marks: 10**

Concept of algorithm and flow chart. Writing simple algorithms and drawing flow charts for simple problems like finding sum, max, min, average of a list of numbers etc.

Operating System   **Marks: 6**

Evolution of OS, types of OS, functions of OS.

DOS- Internal & external commands.

Case study on any OS. [No questions on theory paper will be set on these topics]

System features, Software features, File structure, File handling, Installation of OS, Hardware & software requirements.

Computer Networks   **Marks: 7**

Data communication, Transmission Media- Coaxial, UTP, Optical-Fiber, Wireless, Components of Computer Networks, Types of wireless communication (mobile, WiFi, WiMAX, Bluetooth, Infrared – concept and def only)

Internet   **Marks: 7**

Internet-Evolution of Internet, Basic Internet terms(Client, Server, MODEM, Web page, Web site, Home page, Browser, URL, ISP, Web server, Download & Upload, Online & offline), Internet applications(e-mail, search engines, ftp, VOIP, Video Conferencing, Audio-Video streaming, Chatting).

Computer Security Marks: 5

Definition, Viruses and Worms, Antivirus, Digital Signature, Software Piracy, Firewall. Hacking and Cracking (basic concepts only for these topics).

Applications of IT Marks: 5

Railways, Airlines, Banking, Inventory Control, Education and Information Kiosks.

Suggested reading:

1. Introduction to Information Technology, ITL solutions Ltd, Pearson Education
2. A Text Book of Information Technology by V. Rajaraman.

E201 INTRODUCTION TO PROGRAMMING IN C

Total Marks: 75 (Internal 15)

Unit - 1

Fundamentals of C   marks: 20

Elementary data types, variables, constants and identifiers. Integer, character floating point and string constants. Variable declarations. Syntax and semantics. Reserved words. Initialization of variable during declaration. Constant data types. Expressions in C- Operator precedence and associativity. Unary, binary and ternary operators. C arithmetic operators, assignment operators, relational operators, logical operators and bit-wise operators. L-value and R-value. Side effects of operators. Expression statement.

Conditional statements – if, if – else, switch

Iterative statements –while, do –while, for

Other statements- break, continue, goto, return, null statement , block statement.

Simple programs like programs to compute – an arithmetic expression, unit conversion, the sum of a series (like trigonometrical series), gcd, factorial, fibonacci number, generation of prime numbers, reversing digits of an integer, finding the square root of a number, generation of pseudo random numbers, prime factors of an integer, base conversion of numbers. Test if three points form a triangle and classify the triangle to right angled, isosceles, equilateral etc. Roots of a quadratic equation. Generating simple patterns of characters on screen.

Unit – 2

Functions   marks: 10

Declaration and definition of functions. Calling a function. Parameters- call by value, call by reference and its absence in C.

Cast and size of operator. Automatic type conversion.

Unit – 3   marks: 20

Arrarys and pointers

Different types of variables- local, global, register, static extern. Scope and lifetime of variable.

Arrays and pointers and corresponding operators. Pointer arithmetic.

Programs using arrays and pointers like sum, average, minimum, maximum of an array of numbers. Add and delete an element of an array. Merge two sorted arrays. String manipulation programs-like reverse, test for palindrom, copy, concatenate, find length etc. Matrix manipulation programs like addition, subtraction, multiplication and their combinations. Sum rows, columns, and diagonal elements of a matrix. Transpose a matrix.

Selection and bubble sort. Linear search and binary search.

Unit – 4   **marks: 10**

Structures

Structure –Declaration and use. Structure de reference and structure pointer dereference operators.

Programs to show the use of structures.

Array of structure.

Standard C library.

Suggested Readings:

1. Programming with C, B.S. Gottfried, Tata Mc-Graw Hill.
2. Programming in ANSI C, E.Balagurusamy, Tata McGraw – Hill
3. The C Programming Language, B.W. Kernighan and D.M.Ritchie, PHI

E301 ICT HARDWARE

Full Marks 50 (Internal 10)
Each unit carries 8 marks

UNIT I
Evolution of computer system, Modern computer, Classification of computer, Personal Computer hardware: Monitor, Keyboard, Mouse, Scanner, printer, speaker

UNIT II
Hard Disk Drive: logical structure and file system, FAT, NTFS. Hard disk tools: Disk cleanup, error checking, de fragmentation, scanning for virus, formatting, installing additional HDD. New trends in HDD. Floppy Disk Drive

UNIT III
Optical Media, CDROM, theory of operation, drive speed, buffer, cache, CD-r, CD-RW, DVD ROM, DVD technology, preventive maintenance for DVD and CD drives, New Technologies. Driver installation, Writing and cleaning Cd and DVD.

UNIT I V
Processor: Intel processor family. Latest trends in processor, Motherboard, Sockets and slots, power connectors. Peripheral connectors. Bus slots, USB, pin connectors. Different kinds of motherboards. RAM, different kinds of RAM. RAM up gradation. Cache and Virtual Memory concept.

UNIT V
SMPS. BIOS. Network Interface Card, network cabling, I/O Box, Switches, RJ 45 connectors, Patch panel, Patch cord, racks, IP address.

Suggested Readings:

Vikas Gupta; Comdex' Hardware and Networking Course Kit; DreamTech press.

Ron Gilster; PC hardware: A beginners Guide; Tata McGraw Hill. (First edition

E302 PRACTICAL

Total marks: 50 (Internal 10)

Part - I Programming in C
Marks: 25 (Internal 5 marks)

At least 15 programming assignments have to be done by each student from the following list. The assignments should be selected in such a way that all the features of C language are included.

1. Write a program to convert a given temperature value from Fahrenheit scale to Centigrade scale and vice versa.
2. Write a program to display ASCII value of a character.
3. Write a program to check whether a number is perfect or not.
4. Write a program to find out the biggest of three numbers using nested if.
5. A company insures its drivers if either of the following conditions are satisfied
   - Driver is married.
   - Driver is an unmarried, male and above 30 years of age.
   - Driver is unmarried, female and above 25 years of age.
   Write a program to decide if a driver is to be insured using logical operators.
6. Write a program to read a list of positive integers terminated by -1 and display the odd and even numbers separately and also their respective counts.
7. Write a program to read values of n and x and print the value of y using switch case where
   a. y=n+x   when n=1
   b. y=1+x/n   when n=2
   c. y= n+3x   when n=3
   d. y=1+nx   when n>3 or n<1.
8. Write a program to n values of sales and then calculate the commission on sales amount where the commission is calculated as follows:
   a. If sales <= Rs.500, commission is 5%.
   b. If sales > 500 but <= 2000, commission is Rs 35 plus 10% above Rs 500.
   c. If sales > 2000 but <= 5000,commission is Rs 185 plus 12% above Rs.2000.
   d. If sales > 5000 ,commission is 12.5%.
9. Write a program to find out minimum, maximum, sum and average of n numbers without using array.
10. Program to find mean and standard deviation (SD) for a set of n numbers without using array.
11. Write a program to find out the roots of a quadratic equation. Use proper testing to find checks for real and complex roots.
12. Write a program to print the digits of a number in words. (eg. if a number 841 is entered through the keyboard your program should print "Eight Four One".)
13. Write a program to print the PASCAL Triangle up to the n-th row where n is an input to the program.

14. Write a function to return the HCF of two positive integers. Write a main function to read two positive integers and print their HCF and LCM by using the above function.
15. Write a program to convert a decimal number into binary number using function.
16. Write a program to display the result of sine series using function.
17. Write a program to find the sum of the following series

$$1+x-x^3/3!+x^5/5!-x^7/7!+\ldots\ldots$$ corrected up to the 3 decimal place.

18. Write a program to read n numbers in a sorted array and insert a given element in a particular position

19. Write functions to compute the factorial of a number using both recursive and non-recursive procedure.
20. Write a program to print the values of ^nc_r and ^np_r for given positive integers $n \geq r > 0$. Use a function fact(n) to return the factorial of a non-negative integer.n.
$$^nc_r=n!/r!*(n-r)! \qquad ^np_r=n!/(n-r)!$$
21. Write a program to display the first n Fibonacci numbers using function.
22. Write a program to display the prime numbers within a given range. Write a function to check whether a given integer is prime or not and use it.
23. Write a program to Multiply two matrices using function
24. Write a program to display the upper Triangle and lower Triangle of a given square matrix using function.
25. Write a function to check if a given square matrix is symmetric or not. Write a main function to implement it.
26. Write a program to read a m X n matrix and calculate the Row sum and Column Sum of the matrix
27. Write a function to read in an integer and print the representation of the number using the sign and magnitude representation scheme using 8 bits. The program should check for overflow/under flow conditions. The left most bit is to be used as the sign bit.
28. Write a program to merge two sorted arrays.
29. Write a program to implement selection sort using function.
30. Write a program to count the number of vowels in a string.
31. Write a program to concatenate two strings using function (without using library function).
32. Write a program to convert a string from upper case to lower case and vice versa.
33. Write a program to swap two numbers using function (pass the pointers).
34. Write a program to sort n number of strings in ascending order using pointer.
35. Write a program using pointers to copy a string to another string variable (without using library function).
36. Declare a structure of a student with details like roll number, student name and total marks. Using this, declare an array with 50 elements. Write a program to read details of n students and print the list of students who have scored 75 marks and above.
37. Create a structure to store the following information of employees.
    a. Employee's number, name, pay and date of joining.
    It has been decided to increase the pay as per the following rules:

<div align="center">

Pay <= Rs.3000   : 20% increase

Pay <= Rs.6000 but > Rs.3000   :15%   increase

Pay > Rs.6000   : no increase

</div>

Write a program to implement the above structure.

38. Write a program to read a text file and count the number of vowels in the text file.
39. Write a program to copy a text file to another file.

Part II ICT Hardware and Software
Marks: 25 (Internal 5)

Objectives:
The Practical introduces the students to a personal computer and its basic peripherals, the process of assembling a personal computer, installation of system software like Windows OS, LINUX OS, device drivers. Basic system administration in Linux which includes: Basic Linux commands in bash, Create hard and symbolic links, Text processing, using wildcards In addition hardware and software level troubleshooting process, tips and tricks would be covered.
Different ways of hooking the PC on to the network and internet from home and workplace and effectively usage of the internet. Configuring the TCP/IP setting. Usage of web browsers, email, newsgroups and discussion forums would be covered. In addition, awareness of cyber hygiene, i.e., protecting the personal computer from getting infected with the viruses, worms and other cyber attacks would be introduced.

Task 1: Identify the peripherals of a computer, components in a CPU and its functions. Draw the block diagram of the CPU along with the configuration of each peripheral and submit to your instructor.

Task 2: Every student should disassemble and assemble the PC back to working condition. Lab instructors should verify the work and follow it up with a Viva.

Task 3: Every student should individually install MS windows on the personal computer. They should learn how to format and partition a hard disk.Lab instructor should verify the installation and follow it up with a Viva.

Task 4: Every student should install Linux on the computer. This computer should have windows installed. The system should be configured as dual boot with both windows and Linux. Lab instructors should verify the installation and follow it up with a Viva.

Task 5: Basic commands in Linux .

Task 6: Hardware Troubleshooting: Students have to be given a PC which does not boot due to improper assembly or defective peripherals. They should identify the problem and fix it to get the computer back to working condition. The work done should be verified by the instructor and followed up with a Viva.

Task 7: Software Troubleshooting: Students have to be given a malfunctioning CPU due to system software problems. They should identify the problem and fix it to get the computer back to working condition. The work done should be verified by the instructor and followed up with a Viva.

Task 8: The test consists of various systems with Hardware / Software related troubles, Formatted disks without operating systems. Installation of antivirus software, configure their personal firewall and windows update on their computer. Then they need to customize their browsers to block pop ups, block active x downloads to avoid viruses and/or worms.

E401 INTRODUCTION TO DATABASE MANAGEMENT SYSTEM

Total Marks: 50 (Internal 10 and semester end examination 40)

UNIT-1   **marks(10)**

Database, Traditional file approach (File management system) vs Database management system. Characteristics of DBMS Advantages & disadvantages of DBMS, DBMS users, DBMS Architecture& data independence.   Data model , Schemas & Instances .Three level architectural schema & Data -

independence. Relational model , RDBMS & its terminologies .Concept of keys (primary key, alternate key, candidate key, composite key , superkey and foreign key). Fundamental integrity constraints (entity integrity , domain integrity & referential integrity).

UNIT-2   **marks (15)**

Relational algebra (Set theoretic operations & select , project ,join (equi join, theta join , natural join, aggregate functions & grouping).

ANSI SQL -92 Standard: DDL, DML,SQL constructs (select ..from ... where ...Group by .. having ...order by), insert, delete, update. Definition & use of nested queries, constraints considers (NOT NULL, UNIQUE , CHECK , FOREIGN KEY).

UNIT-3   **marks (15)**

Database design :Phases of database design ,Entities & attributes , Entity type , Entity sets Relationship type, relationship sets & instances. Relationship degree , roles & recursive relationship. Constraints on relationship types (cardinality ratios for binary relationship, participation constraints). Dependency diagram and ER diagram, naming conventions & design issues .Conversion of ER diagram into relational table. Normalization: Informal design guidelines for relational schema, Functional dependencies, normal forms based on primary keys (1NF,2NF,3NF & BCNF). Functional dependency diagram and design of relational database from it.

Suggested Readings:

1. Fundamentals of Database Management System, Elmasri & Navathe
2. Introduction to Database Management System, C.J. Date
3. An introduction to Database Systems; Bipin C. Desai; Galgotia publications.
4. Database Systems - Concept, Design and Applications; S.K.Singh; Pearson Education.

Total marks: 50 (Internal 10 and semester end examination 40)

Each student should do at least 5 assignments from the following list.

1. Create a table *Employee* with the following columns:
    Emp_no (numeric) primary key
    Emp_name (string)
    Join_date (Date)
    Basic_pay_fixed_at (numeric)
    Date_of_birth (Date)

Insert the following data into the table.

-

Emp_no.	Emp_name	Join_date	Basic_pay_fixed_at	Date_of_birth
1001	Charles Babbage	01-Jun-2000	8000.00	03-10-1973
1002	George Boole	01-Jul-2001	5000.00	04-12-1972
1003	E.F. Codd	01-Jun-2001	8000.00	06-03-1969
1004	Bill Gates	01-Jul-2003	5000.00	09-10-1995
1005	Tony Greig	01-Aug-2004	8000.00	04-05-1985

 2. Create the following two tables and insert data into the tables.

Player (Roll no.→Primary Key)

Roll no.	Name
10	Vijay Amrithraj
20	Leander Paes
30	Mahesh Bhupathi
40	Sania Mirza

Match (Match_no→Primary key,Roll no→Foreign key)

Match_no	Roll_no.	Match_Date	Opponent

1	20	10-Jul-2008	Washington
2	30	12-Jan-2008	Sampras
3	20	12-Aug-2008	Borg
4	30	20-Mar-2008	Vijay

Perform the following two operations:

      (i) Perform EQUIJOIN operation to retrieve data from both the files.

      (ii) Perform OUTERJOIN operation to retrieve the unmatched records.

3. Design an ER diagram for a *BANK* database schema. To consider that each Bank can have multiple branches, and each branch can have multiple Accounts and Loans for customer. Also to -

specify the non weak & weak entity types, key attributes & key types, relationship types, instances, constraints and participations.

4. Create a table *Student* taking the attributes given bellow

        Roll_no, Student_name, Address, Date_of_addmission, Class

        Section and Contact_no.

Write appropriate queries to perform the following operations:

      a) To insert values in the Student table.

      b) To delete values from Student table

      c) To list the names of all students which roll_no > 20.

      d) To search for students who got admitted before 01-01-2006.

      e) To change the name of the student whose roll number is 10 to Amar.

5. Create tables *Department* and *Employee* with the attributes given bellow.

      Employee (EmpNo , Empname, Address, Dno)
      Department (Dno, Dname, Location)

Dno in Employee is a foreign key.

Write appropriate queries to perform the following operations:

      a) To insert values in the tables.

b) To retrieve the names and addresses of all Employees working in the Finance department.

c) To print the location where Administration department is located.

d) to delete all information regarding a particular employee.

6. Create table *Student* and *Course* taking the attributes given bellow.

   Student (Roll_no, Name, Semester, Course_no(Foreign key))

   Course (Course_no, Course_name)

Write appropriate queries for the following operations:

a) To retrieve names of all students who are admitted to the course 'BCA'.

b) To retrieve the names of all students whose course name is 'BCA' and who are in the 3rd semester.

c) To display details of all courses in which more than 100 students got admitted.

d) For course being offered, display the course name and number of students admitted to the course.

7. Create tables *Employee*, *Department*, *Location*, *Works_on*, and *Project* taking the attributes given bellow.

   Employee (Fname, Lname, Empno, Bdate, Address, Salary, Dnumber)

   Department (Dname,Dnumber,Mgrno)

   Locations(Dnumber, DLocation)

   Works_on(Empno, Pnumber, Hours_per_day)

   Project(Pname, Pnumber, Location,Dnumber (Foreign))

   Dependent(Empno, Dependent_name, Sex, DOB, Relationship)

Write appropriate queries for the following operations:

a) Retrieve the names and addresses of all employees who work in the Finance department.

b) To retrieve the names of all employees who works on all the projects controlled by department number 6

c) For each department, print the name of the department and the name of the manager of the department.

d) Retrieve the location where the Administration department is located.

e) For every project located in Mumbai list the project number, the controlling department and department manger's name and address.
f) Find out how many employees are there in each department.
g) Find the total salary of all employees of the "Research" department, as well as the maximum, minimum and average salary in this department
h) Retrieve the name of all employees who have no dependent.
i) Alter the "Employee" table by deleting the coloumn Bdate.
j) Retrieve the Fname, Lname of all employees whose salary is higher than average salary.
k) For each department retrieve the department number, the number of employee in the department and their average salary.
l) Retrieve the name of all employees who have two or more dependent
m) Retrieve the details of all employees who works on project number 1,2,3

8. Create Table

Client_master (Client_no, name, address, Bdue)

Product_master(P_number,Description,saleprice,costprice)

Sales_master(Salesmno,Sname,Addres,Salamnt,Remarks)

Sales_order(O_no,Client_no,Odate,Delyaddr,Salesmno)

Sales_order_detail(Order_no,Product_no, Qtyorder, product_rate,Qty_dispatched)

Write appropriate queries to perform the following operations:
   i)   List name of all clients having 'a' as the second letter in their names.

   ii) Retrieve the description and total Qty sold for each product.

   iii) Find product no. and description of non moving products (i.e product not being sold).

   iv) For each product being sold, list the product number and the total amount (in Rs.) sold.

   v)   List all client who stay in 'Bangalore' or 'Mumbai'

   vi) List the clients who stay in a city whose First letter is 'M'

   vii) Find the names of clients who had purchased the item 'Trouser'.

viii) Find out if T-Shirt' has been ordered by any client and if so print the details of the client.

ix) List details of all products whose unit price is more than Rs. 5000.00.

x) Calculate the total amount (in Rs.) purchased by each client that has purchased items amounting more than Rs. 20000.

E501 WEB TECHNOLOGY AND COMPUTER ORIENTED FINANCIAL ACCOUNTING

Full Marks: 100 (Internal - 20 marks)

Part-I Web Technology
Marks: 50 (Internal - 10)

Web page design: Designing web pages with HTML- use of tags, hyperlinks, tables, text formatting, graphics & multimedia, imagemap, frames , forms and Cascading Style Sheet in web pages.   **Marks: 6**

Creating interactive and dynamic web pages with JavaScript : Client-side scripting languages, JavaScript overview; constants, variables, operators, expressions and statements; user-defined & built-in-functions; properties and methods of built-in objects, client-side form validation**.**   **Marks: 7**

Extensible Markup Language (XML) : Introduction to XML, need for XML, advantages, simple XML programs, XML DTDs.   **Marks: 5**

Web Browsers: Functions and working principle of web browsers; Web browsers-Netscape navigator and IE**.**   **Marks: 6**

Client/Server Computing : Client-Server computing basics; types of Client/Server systems; middleware; N-tiered systems: 2-tier/3-tier/4-tier systems ; Fat Clients Versus Fat Servers.
                                                                     Marks: 6
Web Servers : Functions, architecture of web servers.   **Marks: 6**

Introduction to Server-side scripting : Overview of CGI, ASP.   **Marks: 4**

Part - II Computer Oriented Financial Accounting
Marks: 50 (Internal - 10)

Unit 1   **12**
Meaning of Accountancy, Generally Accepted Accounting Principles (GAAP), Transaction, Rules of Debit and Credit, journal, Ledger, Trial Balance, Balance Sheet, Accounting Standard.

Unit 2   **12**
Role of Computer in Financial Accounting, Management Accounting and Cost Accounting. Accounting Information System, IT and Online accounting, Differences between manual Accounting and Computerized Accounting.

Unit 3   **16**
Introduction to Accounting Packages. TALLY, TALLY ERP- Features and configuration, Preparation of Ledger Account and Groups, Voucher types and their entry, Maintenance of

Accounting Books, Final Accounts, Generation of Financial Reports, Preparation of Accounting Reports, Day Book Summaries, Report Printing, TDS.

Suggested Readings

1. B.B. Dam, H.C. Gautam,Theory and Practice of Financial Accounting, Ashok Publication.
2.Sanjay Saxena, P. Chopra, Computer application in Management, Vikas Publishing House Pvt. Ltd., New Delhi.
3. Marshall Romeny & Steinbart, Accounting Information System, Perason Education, New Delhi.
4. K.K. Nadhani, Implementing Tally ERP 9, BPB Publications, New Delhi.

E502 PRACTICAL

Part-I Web Technology
Total Marks: 50 (Internal 10)

HTML

(At least 16 assignments has to be done from this group)

1.   Create a HTML document consisting of HTML heading, paragraphs and images.

2.   Create a HTML document and insert comments in the HTML source code and insert horizontal lines.

3.   Construct HTML document to set the font of a text , size of the font, style of the font.

4.   Create a HTML document to show how to create hyperlinks.

5.   Create a HTML document to use an image as a link.

6.   Create a HTML document to open link in a new browser window.

7.   Create a HTML document to jump to another part of a document (on the same page).

8.   Create a HTML document to insert images from another folder or another server.

9.   Create an image-map, with clickable regions.

10.   Create a HTML document with all table elements (Table, Caption, Table Row, Table Data element, Table Heading Element, THEAD, TFOOT, TBODY)

11.   Create HTML document to make an unordered list, an ordered list, different types of ordered lists, different types of unordered lists, Nested list, Definition list.

12.   Create HTML form with the all FORM elements (text fields, password field, Checkboxes, Radio buttons, Select elements, Drop-down list with a pre-selected value, Textarea (a multi-line text input field) and buttons.

13.   Create HTML document with all Frame elements (FRAMESET, FRAME, NOFRAMES, and INLINE FRAME).

14.   Create a HTML document to add AUDIO and VIDEO.
15.   Create a HTML document to aligning images
   (Let the image float to the left/right of a paragraph)

16. Create a HTML document to jump to a specified section within a frame

17. Construct a HTML document with CSS to Set the background colour of a page.
18. Construct a HTML document with CSS to set an image as the background of a page
19. Construct HTML document with CSS to Set the text color of different elements and align the text.

20. Construct HTML document to set different colours to visited/unvisited links, Specify a background colour for links

JAVAScript

(At least 10 assignments has to be done from this group)

21. Write a program in JavaScript to accept a name from the user and display the same name in an alert box.
22. Write a program in JavaScript to display a message in a confirm box.
23. Write a program in JavaScript to display the message 'time is running out' in the status bar.
24. Write a program in JavaScript to enter marks of a student and find his/her grade according to the following:
if marks>=90 then grade A
if marks>=80 then grade B
if marks>=70 then grade C
if marks>=60 then grade D
else fail.
25. Write a program in JavaScript to create a button and when the button is clicked the message 'Hello World' is displayed on an alert box..
26. Write a program in JavaScript to accept 2 nos from the user and show the working of all arithmetic operators.
27. Write a program in JavaScript to accept 2 strings and concatenate them.
28. Write a program in JavaScript to display the current date and time.

29. Write a program in JavaScript that responds to a mouse click anywhere on the page (using mouse click).
30. Write a program in JavaScript to display the contents of a check box in a alert box.
31. Write a program in JavaScript to validate a form containing the fields - user id and password .

XML

32. Construct an XML document that contain information about products of an organization.
33. Construct an XML document that contain information of 5 students (such as roll no., name , address, class).

34. Construct an XML document that contain details of 10 books.

ASP

35. Write a program in ASP to interact with a user in a form that uses the "get" method.
36. Write a program in ASP to interact with a user in a form that uses the "post" method.
37. Write a program in ASP to interact with a user in a form with radio buttons.

Part -II Computer Oriented Financial Accounting
Full Marks: 50 (Internal 10)

1. Create Multiple Ledger of the following Account Heads :

Bank Charges ; Salary ; Bonus Paid ; Business Promotion Expenses ; Commission Paid ; Conveyance ; Depreciation on Air Conditioner ; Depreciation on Building ; Depreciation on Computers ; Depreciation on Furniture & Fixtures ; Depreciation on Motor Car ; Depreciation on Plant & Machinery ; Discount ; Donation ; Electricity Charges ; Employers Contribution to Provident Fund ; Freight Outward ; Insurance Premium ; Interest Due ; Interest & Finance Charge ; Interest on Bank Overdraft ; Interest on Partner's Capital A/c ; Interest on Unsecured Loans ; Legal Fees ; Miscellaneous Expenses ; Office Rent ; Office Repairs & Maintenance ; Printing & Stationery ; Rent ; Rent Due ; Travelling Expenses .

2) Prepare a Trading and P & L A/C and Balance sheet by creating a company using TALLY from the following information-
1) April 1 2010 :   Started business with cash Rs. 10,00,000.00
2) April 2 2010 :   Brought furniture worth Rs. 20,000.00
3) April 3 2010 :   Deposited into bank Rs. 8,00,000.00
4) April 6 2010 :   Brought goods in cash Rs. 1,00,000.00
5) April 8 2010 :   Brought goods worth Rs. 12,00,000.00 from Ram Trading on credit
6) April 9 2010 :   Brought goods worth Rs. 5,00,000.00 from Shyam Trading on credit
7) April 10 2010 :   Paid Rs. 2,00,000.00 to Ram Trading from bank account.
8) April 14 2010 :   Sold goods worth Rs. 15,00,000.00 to Pradip & Co. and received Rs 5,00,000.00 in cash from them.
9) April 19 2010 :   Deposited Rs. 3,00,000.00 to the bank account.
10) April 25 2010 : Sold goods to Hari Brothers worth Rs. 7,00,000.00
11) April 26 2010 : Postage expenditure paid Rs. 700.00
12) April 26 2010 : Office general expanses Rs. 4,000.00
13) April 28 2010 : Bank charges Rs. 800.00
14) April 1 2010   : Paid for rent Rs. 8000.00
15) April 1 2010 : Paid salary to staff Rs. 15,000.00

3. Make necessary entries in Tally in the books of Galaxy Enterprise :

(a) Introduced Cash Rs 10,00,000 , Furniture worth Rs1,00,000 , Computer worth Rs 86,000 , Machinery Rs 1,20,000 into the business on 1st Jan,2010

(b) Opened a Current A/c with Bank of Baroda with Rs 1,00,000 on 2nd Jan,2011

(c) Purchased goods on 6th Jan,2010 from Sridhar Stores on credit Rs 2,25,000

(d) Sold goods for Cash Rs 1,20,000 to Maitree Stores on 7th Jan,2010

(e) Sold goods to Sankar on credit for Rs 34,000 on 9th Jan,2010

(f) Paid Rent advance Rs 25,000 by Cheque No 345671 on 10th Jan,2010

(g) Withdrew from bank Rs 5,000 for office expenses on 18th Jan,2010

(h) Purchased stationery items on 22nd Jan , 2010 for office use from Radhika Stationeries Rs 1,500

(i) Received Advance from Jagat for supply of goods worth Rs 12,000

(k) Paid salary to office staff Rs10,000 by Cheque 345672 on 31st Jan, 2010

4. Prepare a Cash Book from the books of ABC Enterprise :

(a) Cash Balance on 1st April 2010 Rs 4,00,000
(b) Opened a Current Account with UCO Bank on 5th April , 2010 with Rs16,000
(c) Purchased goods for Cash Rs 2,50,000 on 6th April , 2010
(d) Sold goods for Cash Rs 1,25,000 on 8th April , 2010
(e) Paid for Travelling Expenses Rs 2,300 on 10th April , 2010
(f) Paid for Staff Welfare Rs 1,200 on 16th April , 2010
(g) Introduced Additional Capital Rs 50,000 on 20th April , 2010
(h) Withdrew from Bank for Office Cash Rs 2,000 on 27th April , 2010
(i) Sold goods for Rs 65,000 on 28th April , 2010 and payment received by Cheque 15,000 and balance in Cash

5. Make Data Entries for the following transactions :

(a) Withdrew Rs 1,00,000 cash from SBI on 6th Jan ,2011

(b) Deposited Rs 40,000 in HDFC Bank on 9th jan ,2011

(c) Transferred Rs 20,000 from HDFC Bank to SBI on 12th jan , 2011

(d) Paid Rs 4,300 as Insurance charges through HDFC Bank on 18th Jan , 2011

(e) Received Rs 3,25,000 from ABC Co. Ltd. On 23rd Jan , 2011 against our sales through Cheque and it has been deposited in SBI

(f) Sales worth Rs 5,50,000 made on credit to Vikas Group on 29th jan,2011

(g) Provision towards Employers PF Contribution Rs 78,000 made on 31st jan,2011

(h) Purchased Machinery Rs 1,00,000 from Sunder Enterprise (INPUT VAT 12.5%)

6. Enter the following transactions in Tally in the books of Computer Solutions :

(a) Purchased on 8th April , 2009 HCL Celeron 15 Nos @ Rs 14,000 ; HCL PIV 15 Nos @ Rs 21,000 from Next Generation Systems (Input VAT @ 4%)

(b) Sold on 10th April , 2009 to Fortune Computer Services 10 Nos HP Laserjet Series 1010 @ Rs 12,000 (Output VAT @ 12.5%)

(c) Received from Fortune Computer Services Rs 80,000 on 25th April , 2009

(d) Paid to Next Generation System Rs 2,00,000 vide Cheque No 357602 of HDFC Bank

7. Prepare a Double Column Cash Book from the following transactions of XY Ltd :

(a) On 1st Jan, 2010 Cash in Hand Rs 5,00,000 and Cash at SBI Rs 2,30,000

(b) On 4th Jan, 2010 Goods purchased for cash Rs 1,24,000

(c) On 8th Jan, 2010 Goods sold for cash Rs 2,25,000

(d) Deposited into SBI an amount of Rs 1,10,500

(e) Paid rent to landlord Rs 24,000 by Cheque no 234675

(f) Withdrew from SBI Rs 30,000 for purchase of Furniture

(g) Received payment of Rs 30,000 from Amit Kothari, a customer by Cheque

(h) Withdrew from SBI Rs 23,000 for office cash

8. Make relevant Voucher Entries from the following transactions :

(a) On 1st April, 2010 India Infotech received a Bill (vide No. 001) from Pheonix Agencies for Rs. 5,00,000 towards the Advertisement services rendered.
(b) On April 8, 2010, payment of Rs. 4,95,000 is made towards bill no. Bill-001 to Pheonix Agencies for the purchase of Advertisement services, vide cheque no. 254781
(c) On May 6, 2010, Universal Infotech, paid TDS of Rs. 5,000 towards Advertisement Expenses, vide cheque no. 056330 for the month of April, 2010.

9. Show how would you deal with the following Bills in Tally :

(a) On 7th May, 2010, India Infotech received a bill (vide no. 911) from Gautam Bishnu & Associates for Rs. 1,12,360 inclusive of other charges of Rs. 12,360 towards the auditing services provided(TDS Rs10,000)

(b) On 8th May, 2010 India Infotech received a bill (vide No. 696) from Digitech Computers for Rs. 25,000 towards commission charges.

(c) On 12th May, 2010 India Infotech received a bill (vide No. 874) from Digitech Computers for Rs. 40,000 towards commission charges.

(d) On 14th May, 2010 India Infotech deducted tax Rs 2,500 towards Commission Expenses for the transaction dated 8th May and Rs 4,000 towards transaction dated 12th May.

10. BX Ltd purchased a machinery for Rs 5,00,000. To use this machine company requires a platform, pipe connections, electrical connections, fabrication works etc. at the cost of Rs. 1,00,000. On the expense of Rs. 1,00,000 tax to be deducted at source. The Company made a contract with Arun Contractors for electrical and fabrication work. On **10-8-2010** BX Ltd received bill for **Rs. 60,000** from Arun contractors towards electrical and fabrication work. *Record the above transaction in Tally.*

E601 OFFICE AUTOMATION, DTP AND FUNDAMENTALS OF E-COMMERCE AND E- GOVERNANCE

Full Marks: 100 (Internal 20 marks)

Word Processing   **Marks: 8**

Introduction to Word Processing , Features , Learning document window, Creating , Saving & Closing a document, Opening an Existing document , Editing a Document , Formatting Features (Paragraph Formats, Aligning text & paragraph, Border and Shading, Header & Footers, Bullet & Numbering) , Inserting & Editing a Table , Inserting Picture, Checking & Spelling Correction, Page Setup , Print Preview , Printing a document , Mail Merge , Document Template & Wizards.

Spreadsheet   **Marks: 8**

Introduction to Spreadsheet, creating, saving and editing a workbook, Inserting, deleting Worksheets, Opening & Moving around in an existing worksheets, Working with Formula
& Cell referencing. Functions, Working with ranges - creating, editing and selecting ranges. Format Feature :: AutoFormat Feature, Changing alignment, Character styles, Date Format, Border & Colors etc. Previewing & Printing a worksheet, Creating Charts & Graphs. Database in worksheet, macro, linking and embedding

Presentation Tools   **Marks: 6**

Creating & saving Presentations , Opening an existing Presentation, Working in different views, Working with slides, Adding and Formatting Text, Formatting Paragraphs, Checking Spelling and correcting typing mistakes , Adding clip art and other pictures, Inserting Animation, Designing slide shows, Running and controlling slide show, Printing Presentation.

Page Maker   **Marks: 6**

Introduction to Page maker as a word processor. menus and toolbars of Page maker. Creating a New Document. Using Rulers, Using Guides, Adding Guide lines to Master Pages, Locking Guidelines, entering text, details about text, saving your document.

Developing a Paragraph, Formatting Paragraph, Controlling How paragraphs break between pages and columns,

Creating a Frame, Selecting text & Dragging Text, Inserting & Removing pages, Adjusting Hyphenation, Adjusting Indents and Tabs, Settings the Leader Style, Adding Shapes, Changing lines and fill specifications, Changing Round Corner, Creating Header & Footer, Defining Style,

Developing a long Document, Using Color, Defining a custom colors, Printing your document, Setting paper options.

Corel Draw   **Marks: 6**

Introduction of CorelDraw, Menus, Using the Toolbox, Arranging Objects, Layering, Combining and Grouping Objects, Typeface or Font, Types of Typeface, Using and manipulate type in CorelDraw.

Colour Models, Using Colour in your document and presentations, Using Fills , Texture and patterns, using Envelops, Using extrude, Using blend, Using Lenses, Using perspective Rotating and skewing objects with transform Roll-up, Stretching and mirroring. Printing Your Document, Save file, Close and open file, Export file.

PhotoShop   **Marks: 6**

Introduction, Creating a New File, Main Selections, Filling a selection with color, Using the magic wand tool and applying a filter.

Color Mode, Foreground & background colors, Using the Eyedropper tool to sample Image color, Using Brushes, Creating a New Brush, Saving Brushes, Loading Brushes, Creating a Custom Brushes, Pencil Options. Rubber Stamp Options, Using line tools, Selection Tools, Lasso Features, Introduction of layers, Creating Layer Mask, Filters. Save file as a JPEG, TIFF, GIF, PNG.

E-Commerce   **Marks: 20**

An overview of E- Commerce, Types of E Commerce Solutions, Application of E Commerce, Future of E Commerce.

Information and Strategy, Seven dimensions of E-Commerce strategy, Website Goals and Objectives, Website development tools, Testing and maintaining websites.

Overview of Electronic Payment Systems, Cybercash, Electronic Banking, Electronic Fund Transfers.

E-Governance   **Marks: 20**

Introduction, Needs of E-Governance, Issues in E-Governance applications and the Digital Divide, Evolution of E-Governance, Its scope and content.

Introduction to Model of Digital Governance, Broadcasting/ Wilder Dissemination Model, Critical Flow Model, Comparative Analysis Model, Mobilization and Lobbying Model, Interactive-service Model/Government-to-Citizen-to-Government Model (G2C2G), Five Maturity Levels, Characteristics of Maturity Levels, Key areas, Towards Good Governance through E-Governance Models.

Evolutionary Stages in E-Governance, National Data Warehouses, Census Data, Prices of Essential Commodities, Other areas for Data Warehousing and Data Mining, Agriculture, Rural Development, Health, Planning, Education, Commerce and Trade, Other Sectors.

==**Suggested Readings:**==

1. Learrning Pagemaker 6.5; Ramesh Bangia; Khanna Book Publishing Co. Pvt. Ltd.
2. Complete Pagemaker- BPB Publication.
3. CorelDRAW 8 Bible : by Deborah Miller.
4. CorelDRAW 8 Secrets: by William Harrel, Winston Steward.
5. Teach Yourself CorelDRAW 8 in 24 Hours: by David Karlins, Paul Mikulecky.
6. ADOBE PHOTOSHOP CS5 BIBLE: by BRAD DAYLEY LISA DANAE DAYLEY
7. Complete Reference Photoshop 7: by Laurie Ann Ulrich.

8. Adobe Photoshop CS5 Classroom in a Book: by Adobe Creative Team,(Publisher: Adobe Press).
9. Doing Business on the Internet E-COMMERCE : by S. (Publisher: Jaiswal Galgotia).
10. E-Commerce An Indian Perspective: by P.T.Joseph, S.J. (Publisher:PHI).
11. Electronic Commerce: Security, Risk Management And Control: by Marilyn Greenstein (Publisher: Tata Mcgraw Hill)

12. Digital Governance: New Technologies For Improving Public Service And Participation, by Michael Milakovich (Publisher: Routledge)
13. Compendium of e-Governance Initiatives in India, by Gupta, Piyush & Bagga, R.K. (Publisher: Universities Press).
14. IT and e-governance in India, by Kamalesh N. Agarwala, Murli D. Tiwari,(Publisher: Macmillan).
15. Public information technology and e-governance: managing the virtual state, by G.David Garson, (Publisher: Jones & Bartlett Publishers)

E602 PRACTICAL

Total Marks: 100 (Internal 20)

Part - I Word Processing
Total Marks 25 (Internal 5marks)

1. Create a document with the text given below and save it as XMU with appropriate extension.

The XMU of Health, Medical and Technological Science was established in 1995 to provide professional education in states of XYZ and surrounding states. Its constituent college, the XMU offers engineering degree courses in Computers, IT, Electronics and Communication and Electrical Engineering.

The university has also established a distance education wing, which is offering a wide spectrum of degree and diploma courses in IT at the national level.

Do the following

Count the occurrence of the word 'XMU' in the above document.
Replace 'IT' by 'Information Technology' in the entire document.

2.   Use either the above XMU or any other document of your choice to perform the following formatting operations.

a)
Left   1"
Right   2"
First line Indent 0.5"
Line spacing 1.5 lines

b)
Perform the page setting as follows:

Top Margin   1.5"
Bottom Margin   1.5"
Gutter Margin   1"
Left Margin   1.5"
Right Margin   1"
Page width   7.5"
Page Height   6.5"
Orentation   Portrait
Header   XMU Courses
Footer   Page number and Date

Preview the document using Print Preview
Print two copies of the document.

3.Rahul Roy
  Branch Manager
  April 2004

The above header with a font size of 15, formats as shown in the sample above with row height of 20 pt is to be included in a document

4.   (a) A shopkeeper maintains details of the stock received from a whole-seller and the stock in hand in a tabular format. The various columns headings are.

Item Code   Quantity in Hand   Quantity received   Total Quantity

The total quantity for any item at any point is the sum of Quantity in hand and the quantity received. Create a table for the shopkeeper to enter the data appropriately.

(b) Create a table with 10 classmates. One column for names, one column for their favorite activity (keep it clean please), and one column for the number of hours per week they spend doing that activity. Add an appropriate title to the table and include logical column headings. Choose a Table Auto format and center the table. Left align columns of text and right align columns of numbers. Change the page orientation to Landscape. Include footer with your name, the date and time. Check your print preview and then print this document.

5.   Through mail merge prepare an invitation letter to be sent to your class mates regarding a seminar.

6.   Centre for Advance Learning (CAL), is a professional organization which organizes seminars on latest IT Technologies on an ongoing basics. To invite participation for seminars, regular letters are dispatched to various organizations who are from the target segment.

One letter is sent on their letterhead, which has the following specifications:

Length & Width   :   8"
Margins (Left, Right, Top, Bottom):   1"

One standards contents of the letter is as follows:
Note: angular brackets denote that data has to be substituted, as mentioned in the description.

2nd -Apr-2002

<title>,<first name><last name>
<address><city> <pincode>

Dear<title>,<last name>

We are pleased to inform you about the seminar which would be conducted this month as per the following schedule:
Topic   :   ERP
Speaker   :   Mr. Joydeep Mann.
Venue   :   Hotel Clearks Amer, Jaipur
Date   :   14-Apr-2002
Time   :   10:00 hour.
Duration   :   1 hour
Charges   :   Rs. 1000/- per participent
Last date for   :   10-Apr-2002
Registration

The registration form is attached herewith. We also welcome your valuable suggestion for future seminars.

Anticipating a positive response,

Your's truly,

Lalit Bakshi
Manager (Mktg.)

Sample Data :

Title	First Name	Last Name	Address	City	Pin Code

| Mr. | Radhey Shyam | Sharma | A-68, Jawahar Nagar | Jaipur | 302004 |
| Mrs. | Lalita | Saxena | B-21, Shastri Nagar | Jaipur | 302012 |

7.   Use WordArt to type your name. Below your name, insert a ClipArt image with a Callout. Type a message in the Callout.

8.   Define a Macro Block which defines a block of the current paragraph starting from the current insertion point position to the end of the current paragraph. Assign a shortcut key Alt + B to the macro.

9.   Make a calendar of a particular month using MS Word. Insert a picture from a file. You can insert clip art also.

10.   More assignments should be prepared by the respective teachers in the Colleges to ensure that the students learn the basic features such as inserting symbols, inserting objects, mathematical formulae, changing fonts, the select cu/-copy-paste commands, using spelling checkers etc.

Part II Spread Sheet Package
Total Marks 25 (Internal 5 marks)

1.   The National Institute of Management Studies arranges for special lectures on certain topics on Sundays. Each Lecturer is assigned a time slot according to the topic. The Time Table is generated and displayed on the notice board.

It should have a heading "Time Table for Sundays – March 2004" in font size of 16 point and should be centered.

Date	Lectures 1	Duration	Lecture 2	Duration
3rd	Mr. Abhay	1.30	Ms. Monica	3.15
10th	Mr. Kamant	2.20	Mr. Tiwari	4.00
17th	Ms. Sanjana	5.00	Mr. Rajnikant	2.00
24th	Mr. A. Gupta	0.30	Mr. Prasad	0.45
31st	Ms. Gayatri	1.45	Mr. R. Singh	6.30

The duration in number of hours refers to the length of each lecture. If a lecturer is paid @ Rs. 45 per hour, then modify the table to include the following

a) Amount payable to each lecturer.
b) Total amount to be paid by the institute for the month of March.

2. Consider the worksheet given below

	A	B	C	D

1	Rate	12 %		
2				
3	Name	Principal	Duration (in years)	Interest
4				
5	Anand	16,000	5	
6	Abhishek	18,000	8	
7	Shweta	4,000	3	
8	Ritu	8,000	6	

Calculate the interest amount (Simple Interest) for the given persons. Write the formula first in cell D5. Copy the formula to other cells to compute interest for all.

3. USING FUNCTION IN WORKSHEET

ABC Institute of Information Technology offers several courses in the field of computers. Tests are conducted periodically to monitor the progress of students. The details of three tests conducted in batches over a period of six months are given below.

ABC IINSTITUTE OF INFORMATION TECHNOLOGY

NAME	EXAM1	EXAM2	EXAM3	AVERAGE MARKS	GRADE
ANISH	85	82	66		
ANUPAM	79	88	85		
NEHA	79	56	78		
PRERNA	5	30	24		
RUCHI	86	87	90		
SHWETA	92	76	93		

Enter the above data appropriately in a worksheet and save it. The above worksheet does not yet contain the average marks and grades of students.

a) Compute the average marks of each student by entering appropriate formula.
b) Compute the grades based on the following criteria

if Average >=80, then grade =A
else if Average >=60, then grade =B
else if Average >=40, then grade =C
else grade =F

Retrieve the worksheet and print it as per following specifications.

◆ Orientation – Landscape
◆ Space on left side – 1.5 inches
◆ Space on right side – 1.5 inches
◆ Heading – Result declared on <current date>
◆ Paper size – 8.5 by 14 inches

4. FORMATTING A WORKSHEET

Using the above worksheet perform the following formatting operations:

- ◆ Draw a border around the worksheet.
- ◆ Change the font of heading 12 points and underline it.
- ◆ Hide column C
- ◆ Increase the width of column A to 15 character
- ◆ Right align the value in column B, C and F

5. USING FORMULA AND CREATING CHARTS

A shopkeeper maintains a date-wise sale for four items. He then generates an average sales report as given below and computers sales with chart.

Average Sales

		Item1	Item2	Item3	Item4	Average
1	Date	Item1	Item2	Item3	Item4	Average
2	25/06/2000	356	460	320	28	
3	26/06/2000	760	220	118	11	
4	27/06/2000	12	980	137	55	
5	28/06/2000	360	450	86	88	
6	Total					

- A) Complete the report to calculate item-wise average in row 6
- B) Provide formula to calculate date-wise average in column G
- C) Provide matching result in cell G6.
- D) Generate a chart to compare data.

6. More assignments should be prepared by the respective teachers in the Colleges to ensure that the students learn the all the basic features of a spread sheet package that have been included in the course.

Part III Presentation Package
Total Marks: 14 (Internal 4 marks)

Make Power Point Presentations for the following:

1. Any social problem
2. Funny topics
3. Any topics from you text
4. Any international incident
5. Advertisement of any product. A salesman wants to present the company's information like its name, office details, branches, the management personnel, the products for sale

and the showrooms in the city. He has the photographs of the staff members and showrooms. Use them appropriately and keep the background fancy.

Part IV Page Maker
Total Marks: 12 (Internal 2 marks)

1. Create a document file by typing in one paragraph from any of your text books and also do the following tasks:

     Open a new page for typing and make the following setting.
     Top margin 1", Bottom margin 1", Right margin 1", Left margin 1"
     Make it single page
     Make the above paragraph in two columns.
     Insert a picture in first column.
     Type the following formulae
     $(a+b)^2$ (ii) H_2SO_4 (iii) $\sin^2\Theta + \cos^2\Theta$

2. Create a document with the following settings

     Page Size should be CUSTOM
     Dimension must be 8.5X 11 inches
     Margins in top 0.75, bottom 0.75, inside 1, outside 0.75 inches.
     Should select Double-Sided, Facing Pages & restart Page.

3. Format a text box document by using Bold, Italics, Underlined and Aligning and also apply the bullets and numbering to the text

4. Create a Visiting Card of V Soft Computer Education with address, e-mail and phone numbers.

Part V Corel Draw
Total Marks 12 (Internal 2 marks)

1. Make a logo of **Red Cross** in CorelDraw and paste it a PageMaker document through insert object.

2. A number of assignments should be prepared by the respective teachers in the Colleges to let the students learn the following techniques:

     i. Making a text rolling up, 3D-effects and also fitting text to path.

     ii. Creating a greeting card with the help of artistic media.
     iii. Creating a layer and then import an image from the bitmap file.
     iv. Applying 3D-effect, cropping, Art strokes and Power clip for a bitmapped image.

v.Extrude an object with vector extrusions, drop shadow and also apply uniform transparency.

vi.Heal the image at the spot it is imported.

Part VI Photoshop
Total Marks 12 (Internal 2 marks)

A number of assignments should be prepared by the respective teachers in the Colleges to let the students learn the following techniques:

1. Insert a Picture on your Photoshop document.
2. Insert a new Layer of "800 X 600" measurement.
3. Repair the defective area of a picture using by "Patch Tool"
4. Select a picture with polygon Lasso Tool and give 5 pixel Feather
5. Create a frame around the picture.
6. Crop an image and also rotate the cropped area of the image.
7. Change a well coloured image into gray scale or black and white color.
8. Push. Pull, rotate, reflect, pluck and bloat an image to make it liquify with the filter menu.
9. Apply the lighting effects to an image in a particular area.
10. Change the image into the glass effect and also diffuse the image which is imported.

---**x**--