

GUIDELINE NOTES FOR STUDENTS

of

WBSU :: B.Com Part II (Honours & General)

Paper 2.1 cg

(ITBG)

**INFORMATION TECHNOLOGY
& ITS APPLICATIONS IN BUSINESS
& E-COMMERCE
(PRACTICAL)**

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**SYLLABUS (THEORY & PRACTICAL)
SUGGESTED TOPICS FOR ITBG (PRACTICAL)
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PROJECT WORK ASSIGNMENTS 2018**

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:: WBSU :: B.Com Part II (Honours & General) ::

Paper 2.1 cg : (ITBG) INFORMATION TECHNOLOGY & ITS APPLICATIONS IN BUSINESS & E-COMMERCE

SYLLABUS

MODULE I (THEORY): Marks: 40

Unit 1. Information Technology and Business – An Overview

[4 marks]

- (a) Definition of Information Technology, Features of IT, Components of IT, and Concepts of data, information and computer based information system, Impact of information technology on business and social fabric.
- (b) Types of Information System - Transaction Processing System (TPS), Management Information System (MIS), Decision Support System (DSS), Knowledge Management System (KMS) - and their implementation at managerial levels (operational, tactical and strategic).

Unit 2. Number System and Representation of Data in Computing System.

[8 marks]

- (a) Data representation – bits, bytes, KB, MB, GB, TB.
- (b) Concept of Number systems [Positional - Decimal, Binary, Octal and Hexadecimal].
- (c) Binary arithmetic [addition, subtraction using 1's & 2's complement method, Multiplication.
- (d) Computer Codes – BCD, EBCDIC, ASCII, GRAY.
- (e) Logic Gates – (AND, OR, NOT, NAND, NOR) (basic idea only).

Unit 3. Fundamentals of Computer

[8 marks]

- (a) Classification of computers, generation of computers, block diagram of digital computer system, basics of computer hardware components – micro-processor, registers, CPU, I/O devices, storage devices. Translator – Assembler, Compiler and Interpreter, Relationship between hardware and software.
- (b) Computer Memory Hierarchy – primary, secondary and others.
- (c) Basic concept of software. Types of software: System software – Operating systems [characteristics & functions, uses of GUI based O.S.], Application/ Utilities/ General purpose software. Language levels.

Unit 4. Data organization and Data Base Management System

[6 marks]

- (a) *Data organization*: Character, field, record, file and database. Types of Data Processing Systems [Serial, Batch, Real-time, Online, Centralized, Distributed], File Organizations [Sequential, Direct, Indexed-Sequential, Relative], Traditional file organization Vs. Database File organization.
- (b) *Data Base Management System*: Concept of Data Base Management System, Important terms of Database [including Entity, Attribute, Primary Key, Foreign Key, Candidate Key, Referential integrity, Table, Views, Data Dictionary]. Types of database [hierarchical, network and relational], Concept of Query and Reports.

Unit 5. Data Communication and Computer Network

[8 marks]

- (a) *Data Communication* : Concept, Communication media & channels- Cable Media [twisted-pair wire, coaxial cable (baseband, broadband), optic-fiber], Broadcast media [Wireless/Satellite transmission, microwave transmission], WAP, Mobile communication.
- (b) Transmission Modes [Simplex, Half-Duplex, Full Duplex, Serial, Parallel, Synchronous, Asynchronous],
- (c) Network components – Repeater, Bridge, Switch, Router, Gateway
- (d) *Computer Networks*: Network concept, Types: LAN, WAN, MAN, VAN, SAN, Various Topologies: Bus, Star, Ring, Mesh, Tree. Models : Client Server, Peer-to-peer.

Unit 6. Introduction to Internet

[4 marks]

- (a) Concepts of Internet, Intranet and Extranet, IP Address (IPv4, IPv6), URL, DNS, www.
- (b) Internet Protocols - TCP/IP, UDP, FTP, TELNET, (brief ideas only).
- (c) Language - HTML, DHTML AND XML. (concepts only).
- (d) Email, Creation of email ID, sending and receiving of group mails, surfing of net, search engines, saving and printing of emails.

Unit 7. Security Issues

[2 marks]

- (α) Network security need , Security threats - Virus, Trojan, Hacking, Spam.
- (β) Security Measures - Firewall, Antivirus software.

MODULE II (E-COMMERCE) - MARKS: 20

Unit 1. Overview of e-commerce

[4 marks]

Meaning. Importance in the context of today's business. Advantages of e-commerce (as compared with traditional system of commerce). E-commerce and e-business. Internet and its relation to e-business. Mobile Commerce-Basic Idea.

Unit 2. E-commerce - models

[8 marks]

Business to Consumer (B to C) model – Basic idea, major activities, major challenges. Models of B to C [portals, e-tailer, content provider, transaction broker] Business to Business (B to B) model – Basic idea, major activities, types of B to B market [independent, buyer oriented, supplier oriented, vertical and horizontal e-market place]. Other models – Business to Government (B to G), Consumer to Consumer (C to C), Consumer to Business (C to B).

Unit 3. E-Payments

[8 marks]

Types of E-Payment – Payment card [credit card and debit card], Electronic or digital cash, Electronic or digital wallet. Stored value card [smart card], Basic idea of online banking, NEFT, RTGS, IFSC, core banking solution or CBS, Security issues relating to e-payment, Digital Signature, Concept of Data Encryption & Decryption, Symmetric and Asymmetric Encryption, Digital Envelope, CIBIL.

MODULE III (PRACTICAL) - MARKS: 40

Unit 1: Introduction to GUI based operating system – DOS/WINDOWS/LINUX

[5 marks]

Unit 2: Word Processing

[5 marks]

Unit 3: Electronic Spreadsheet

[8 marks]

Unit 4: Data Base Management System

[8 Marks]

Unit 5 : PowerPoint Presentation

[4 Marks]

Unit 6: Computerized Accounting

[10 Marks]

For ITBG (Practical) - Activities in the College (Home Center) :

- **PROJECT WORK / WORK BOOK**
- **PRACTICAL TEST**

ITBG (PRACTICAL) – Suggested Topics

Basics of Hardware – Input /Output Devices
Operating Systems – MS-DOS, WINDOWS
Word Processing

Spreadsheet Applications
DBMS – MS-Access / Foxpro / Foxbase / dBase
Concept of Computerized Accounting

Basics of Hardware

The Monitor, Keyboard & Mouse, Motherboard, CPU, Memory (RAM & ROM), Storage Device, Power supply, Monitor, Keyboard, Mouse, Printer, Scanner, Modem

MS-DOS

- Concepts of Drive, Directory and Files – drawing directory structure through Tree Diagram
- Warm Booting & Cold Booting
- Prepare a disk for use with DOS – FORMAT/ V; / Q
- Check of available disk space and display memory – CHKDSK
- Examining disk – VOL, MEM, VER, TIME, DATE, CLS, DIR
- Filenames and Directory commands – MD, CD, RD, DEL, PATH, PROMPT
- Deleting Directories and Files
- Copying Files from hard disk to hard disk and floppy disk, and vice versa, using DOS command
- Creating text file, saving it and view the contents – COPY CON, TYPE
- Merge two files; display the content of the merged file without using 'Type' command; rename the file (REN)
- Batch Files – creation of batch file that ask for date, time, pause, display directory, in echo off mode;

WINDOWS

- Disk Cleanup
- Checking and fixing errors through ScanDisk
- Display Desktop Background, Screen Saver and Appearance Tab
- Add New Hardware – to install Plug-&-Play and Non-Plug-&-Play Device
- Add / Remove Programs
- Adding a New Font to your computer
- Enabling Users' Password and changing the password
- Backup of folder and file
- Creating New Folder and File, FIND Files and Folders, Renaming File or Folder, Deleting File and Folder
- Copying Files and Folders – from hard disk to hard disk, floppy disk, CD and vice versa
- Calculator Window – performing standard arithmetic and scientific calculations
- Capturing a Screen Image
- Creating graphics
- My Briefcase – its use, how to create a new My Briefcase, copying a file to the Briefcase and synchronizing files in the briefcase
- Outlook Express – Read e-mail, Download All, Creating and sending a message through Compose Message, Attaching a file to an e-mail message

MS-WORD

- Open a new folder, new WORD document, enter text, edit changes and close after saving.
- Create a Header and Footer
- Print the text document and letter envelope
- Protect the document

Formatting

- Fonts, paragraphs, bullets & numbers, border & shading, change case, add background color
- Column formatting and page setting

Inserting

- Page number, Symbol, Picture, Object/ artwork/ clip-art, Drop Cap, Draw a shape using Toolbar
- Creating Watermark

Tables

- Inserting table and deleting table, Sorting the text contents of a table, Merging cells, Inserting extra rows and columns
- Entering formulae, Adding numeric and calculated fields

Mail Merge

- Creating a data source, Entering data, Creating the form letter, Merging the data with the letter, Editing the data source, Internal and external data sources

Drawings & AutoShapes

- Grouping & Ungrouping, Order, Grid, Aligning, Rotate, Text Wrapping

MS-EXCEL

- *Opening new workbook and save it, Adding, deleting and naming sheets*
- *Inserting the same information in several worksheets at once*
- *Copy-Paste of cells between worksheets, Copying a worksheet*
- *Editing data of cells, Moving cell contents*
- *Viewing several worksheets simultaneously*
- *Copying sheets into a single workbook*
- *Printing selected areas of a worksheet*

Formatting

- *Adding and deleting rows and columns, Copying series, Headers & Footers*
- *Formatting numbers, headings, Adding borders and colours*

Writing formulae

- *Use of labels and editing formulae*
- *Writing formulae which refer to other sheets*
- *Using absolute addresses, relative addresses, mixed references in a formulae*
- *Detecting whether cells contain values or formulae*

Functions

- *Calculating the total, average and percentage marks*
- *IF function and nested IF statements*

Linking Workbooks

- *Organizing data in different workbooks*
- *Opening a group of files that share a common characteristic*
- *Built-in-data-form creation, Linking and updating links to other workbooks*

Presentations

- *Sorting data*
- *Summarizing data with sub-totals*
- *Pivot Table*
- *Creating Charts & Graphs*

Online Forms & User Interface

- *Creating form*
- *Data validation*
- *Protecting worksheet and editing a protected sheet*
- *Viewing the Database*
- *Creating a full screen menu*
- *Creating custom buttons and toolbars*

Data Base Management System

- *Create a table in design view, Field properties, Primary key, Indexes, Field validation rules*
- *Adding records, Editing records, Deleting records, Finding data in a table, Print a datasheet*
- *Table Relationships*
- *Sorting and Filtering*
- *Queries*
- *Adding records using a form, Editing forms*
- *Report*

Computerized Accounting

- *Creation of Company, Ledger creation and Group creation, Entries of opening balance of Balance sheet*
- *Defining Voucher Type*
- *Inventory Info - Create Unit of Measure*
 - *Stock Group creation (Single or Multiple)*
 - *Stock Item creation*
- *Configuration through 'Features' (F11)*
 - *(Integrate Acc. With Inventory, Cost Centre, Budgetary Control)*
- *Voucher Entry (including on-line creation of Ledger/s, if required)*
- *Report creation, Back-ups and security*

MODEL QUESTIONS

Q. MULTIPLE CHOICE

1. Which of the following will happen when data is entered into a memory location ?
 - (a) It will change the address of the memory location.
 - (b) It will add to the content of the location.
 - (c) It will erase the previous content.
 - (d) It will not be fruitful if there is already some data in that location.
2. Storage of 1 KB means the following number of bytes :
 - (a) 1000
 - (b) 964
 - (c) 1024
 - (d) 1064
3. Rearranging data in a sequence is known as :
 - (a) Updating
 - (b) Batching
 - (c) Sorting
 - (d) Summarizing
4. The purpose of an application program is to :
 - (a) Convert program written in high level language to machine language.
 - (b) Meet specific user needs.
 - (c) Allow the operating system to control resource better.
5. Data verification is a process of :
 - (a) Rechecking the data entered by one person through re-entry by another person.
 - (b) Checking the computer results with manual outputs.
 - (c) Entering data on two different media and comparing them.
6. Which of the following descriptions relate to a floppy diskette :
 - (a) 33 Mhz-zero-wait time
 - (b) double sided double density
 - (c) 40 MB capacity
7. A collection of data items with a specific organization is called ...
 - (a) database
 - (b) spreadsheet
 - (c) flat file
8. A bootstrap is :
 - (a) additional memory device
 - (b) flat cable from the disk controller card to the disk drive
 - (c) a small initialization program to start up the computer.
9. In a multi-user database, if two users wish to update the same record at the same time, they are prevented from doing so by
 - (a) jamming
 - (b) passwords
 - (c) record lock
10. String search in a word processor is restricted to a ...
 - (a) block
 - (b) page
 - (c) file
11. Word processing, electronic filing and electronic mail are part of –
 - (a) Office automation
 - (b) Electronic typewriting
 - (c) Electronic industry
12. A system in which activities are processed as and when they occur is called :
 - (a) Expert System
 - (b) Management Information System
 - (c) Transaction Processing System
13. Which of the following is an example of a volatile memory ?
 - (a) ROM
 - (b) RAM
 - (c) Hard Disk
14. Which of the following does *not* represent an I/O device ?
 - (a) Speaker
 - (b) Plotter
 - (c) Joystick
 - (d) ALU
15. What happens when you print a worksheet range that is wider than the printer page width?...
 - (a) It prints only those column that fits on the screen.
 - (b) It prints each worksheet page in two or more pages on printer.
 - (c) It automatically prints the worksheet in condensed mode.
16. In a mini floppy disk, track 00 is –
 - (a) the inner most
 - (b) the outer most
 - (c) the middle most

17. A computer can be defined as an electronic device that can :
- (a) carry out arithmetic operations.
 - (b) carry out logical functions.
 - (c) accept and process data using a set of stored instructions.
18. The Central Processing Unit :
- (a) is controlled by the input data entering the system.
 - (b) controls the auxiliary storage unit.
 - (c) controls all input, output and processing.
19. Computer follows a simple principle called GIGO which means :
- (a) great instructions great output
 - (b) garbage in garbage out
 - (c) good input good output
20. Which of the following is not a hardware :
- (a) assembler
 - (b) printer
 - (c) VDU terminal
21. Multiple choice examination answer sheets can be evaluated automatically by :
- (a) Optical Mark Reader
 - (b) Optical Character Reader
 - (c) Magnetic Ink Character Reader.
22. By word processing we mean :
- (a) string manipulation
 - (b) a method of providing facility of text processing
 - (c) processing only words and not numbers.
23. When a bank teller uses a computer terminal to know the balance in a customer's account, it represents :
- (a) On-line query
 - (b) On-line processing
 - (c) On-line updating
24. A dumb terminal signifies that :
- (a) It cannot be used as an independent computer.
 - (b) It does not have a keyboard connected to it.
 - (c) It has lower IQ compared to an intelligent terminal.
25. An application package is used to :
- (a) enable the operating system to control hardware better.
 - (b) Meet specific needs of a user
 - (c) Run the computer system better.
26. The part of the computer system which performs the house-keeping functions is called :
- (a) Operating System
 - (b) Interpreter
 - (c) Compiler
27. For creating and editing legal documents which application package would be most useful ?
- (a) Spreadsheet
 - (b) Word Processing
 - (c) DBMS
28. The concept of sending / receiving text, etc. on computer networks is called :
- (a) Electronic Mail
 - (b) Teleprinting
 - (c) Teleconferencing
29. A computer program written in a high level language is called a :
- (a) Source program
 - (b) Object program
 - (c) Machine language program
30. Object Program is :
- (a) A program written in machine language.
 - (b) A program to be translated into machine language.
 - (c) The translation of a high-level language into machine language.
31. In a floppy disk which is write-protected,
- (a) old data cannot be read.

- (b) new data cannot be written.
- (c) New data can be recorded over previously stored data.

Answers : 1. (c) 2. (c) 3. (c) 4. (b) 5. (a) 6. (b) 7. (a) 8. (c) 9. (c) 10. (c) 11. (a)
12. (c) 13. (b) 14. (d) 15. (b) 16. (b) 17. (c) 18. (c) 19. (b) 20. (a) 21. (a) 22. (b)
23. (a) 24. (a) 25. (b) 26. (a) 27. (b) 28. (a) 29. (a) 30. (c) 31. (b)

Q. State whether TRUE or FALSE :

1. Updating a customer's account in a bank as soon as a deposit is made to the cashier is an example of on-line transaction processing.
2. Data stored in disks can be accessed in either direct or sequential way.
3. A data file cannot contain both numeric and alphanumeric data.
4. Modems are used for converting analog signals to digital signals and vice versa.
5. Read / write heads touch the surface of a floppy while reading / writing data.
6. Although a hard disk provides more storage capacity its access time is lower than that of a floppy disk of the same size.
7. A function key can be used for issuing a command consisting of several characters by a single keystroke of the function key.
8. A student preparing a statistics report would have no use for a computer graphics package.
9. The term data processing system refers to an overall grouping of all the activities involved in processing data in a logical order.
10. Operating System is an application software.
11. Telephone lines are used in analog data transmission.
12. A set of instructions which perform a task is called information.
13. In a disk, the information is stored on a track by bits serially.
14. Interface is a device which makes two systems compatible so that both can communicate with each other.
15. Computers are automatic in the sense, that once the data and instruction are fed to it, human intervention is not required for processing.
16. A digital computer produces discrete data whereas analog computer produces continuous data.
17. A bar code reader is generally used for finding the price and name of a product.
18. An interactive system has to be on-line.
19. A computer is an electronic device capable of manipulating numbers but not text.
20. Collection of data is also known as data processing.
21. Batch processing involves processing a large number of transactions as a group.
22. A bug in computer terminology is a syntactical error in a program.
23. *CHKDSK* can check status of only the hard disk and not of a floppy disk.
24. The *TYPE* command displays the contents of standard text files only.

25. A numeric value is automatically incremented with the addition of every record in the counter data type.
26. One database file can have multiple index files but only one of them can be opened at a time.
27. Graphs can be included in a slide.
28. More than one document window can be opened in an application window.
29. The printing of a document cannot be paused when the document is getting printed.
30. The superscripted text in a document created with a word processor is printed slightly *below* the rest of the line.
31. We cannot save a file when disk is full (with zero bytes free).
32. More than one document window can be opened in an application window
33. Database can be created in the worksheet or external databases can also be used.
34. Label in a spreadsheet package is a string of characters.
35. Although an initial default column width is set in the spreadsheet, it can be changed.
36. A Worksheet can be divided in two separate horizontal or vertical windows.
37. Names can be given to a single cell and not to a range of cells in worksheet.
38. Data which has been entered can be searched and replaced.
39. The worksheet which has been created can be saved and you can also protect it from unauthorized users by giving passwords.
40. Records in the database cannot be added, deleted or edited.

Answers :	1. T	2. T	3. F	4. T	5. T	6. F	7. T	8. F	9. T	10. F	11. T	12. F
	13. T	14. T	15. T	16. T	17. T	18. T	19. F	20. F	21. T	22. T	23. F	24. T
	25. T	26. F	27. T	28. T	29. F	30. F	31. T	32. T	33. T	34. T	35. T	36. T
	37. F	38. T	39. T	40. F								

Q. Fill in the Blanks

1. For sending digital signals over public telephone lines, we use
2. The use of networking and word-processing in modernizing an office is called
3. A file contains such records such that they can be quickly accessed using a key value.
4. The process of storing the key values of records in a file as a separate file with pointers for quick access to records is called
5. Extra space created by the word-processor in order to align the right margin are calledspaces.
6. Files in relational database are called
7. Inserting a loop within another loop is called
8. The term bit is an abbreviation for the expression
9. A terminal usually has three components : communication cable, VDU and
10. A number of independent computers interconnected to one another are said to be in a
11. Printers can be sub-divided into two categories based on the technology used to produce the image; accordingly they are called impact printers and Printers.

12. Adjusting the word processing package to the hardware configuration is a process called
13. The clock speed of a computer is measured in terms of
14. Data stored on the magnetic disk in a number of concentric circles is called
15. Modern airline / train reservation systems are systems.
16. EGA stands for
17. The examination of alternate assumptions using a spreadsheet is called analysis.
18. The function enters a specified date in a cell of a worksheet.
19. For placing the cursor in the first column of the first line, the DOS command is
20. For displaying a list of folders, omitting file size, date, and time information, the DOS command is
21. The command in DOS is used to delete the whole directory structure with all its subdirectories and files.
22. The function can be used to create an empty character variable of a defined length.
23. A set of related data items is called a
24. A set of instructions is called a
25. A set of related files is called a
26. Is raw facts to be processed by a computer.
27. A printout on paper is also known as
28. A diskette is a storage device.
29. The Language is the only language that a computer can understand.
30. Discovering and correcting syntactical and logical errors in a program is called

Answers : 1. modem 2. office automation 3. random access 4. indexing 5. soft 6. tables 7. nesting
 8. binary digit 9. keyboard 10. network 11. non-impact 12. installation 13. mega-hertz 14. tracks
 15. online 16. extended graphic adapter 17. what-if 18. @date 19. CLS 20. DIR/W
 21. DELTREE 22. space 23. record 24. program 25. database 26. data 27. hardcopy
 28. secondary 29. machine 30. debugging

Q. Which field type will be the most appropriate to store the following information in a database file ?

Field Name	Type (Ans.)	Field Name	Type (Ans.)
Name of book	<i>Character</i>	Phone Number	<i>Character /Numeric</i>
Name of employee	<i>Character</i>	Bill/Voucher No.	<i>Character /Numeric</i>
Basic Salary	<i>Numeric</i>	Marital status	<i>Logical</i>
Employee Code in no.	<i>Numeric /Character</i>	Age	<i>Numeric</i>
Employee Code in alpha-numeric	<i>Character</i>	Date of Birth	<i>Date</i>
Project description	<i>Memo</i>	Net pay	<i>Numeric</i>
Sex	<i>Logical</i>	Voucher Narration	<i>Character</i>
Date of joining	<i>Date</i>	Student's Roll No.	<i>Character/Numeric</i>
Address	<i>Character</i>	Result (Pass/Fail)	<i>Logical</i>

Q. Prepare a sample configuration that constitute an assembled personal computer unit in stand alone mode for general office works. Describe each of the I/O Devices and hardware components in brief.

Ans. Main system unit : Motherboard Circuit Board D102
CPU : 3.2 GHz Intel Pentium IV
DDR-RAM 128 MB
ATX Cabinet with SMPS
Floppy Disk Drive 1.44 MB
Hard Disk Drive 80GB
CD-ROM / R/W / Combo Drive 15x32x52x
Monitor Color 15"
Keyboard Multimedia/Combo 110 keys
Optical/ Scroll Mouse/Combo
Additional : UPS
Printer – Dot Matrix/ Inkjet / LaserJet
Scanner
Pen Drive
Speakers with Sub-Woofer
Modem

Description of Hardware components

Motherboard is the main component inside the main system unit. This is the biggest electronic circuit board inside the computer system, on which many other boards are attached which are known as daughterboard or expansion board.

CPU or the Central Processing Unit is the brain of the computer. All the mathematical operations such as addition, subtraction etc. and the logical process such as comparing of two values are done by the CPU. CPU is also known as microprocessor.

Memory (RAM) : For any mathematical or logical operation, CPU requires some memory. This memory is used to store the initial values, intermediate results and the final results, during any operation.

Cabinet with Switch Mode Power Supply (SMPS) : The power supply provides various parts of the computer with clean DC power supply to keep the computer alive and functioning. The power supply converts high voltage AC power from the AC main supply to DC power required by the computer. A fan assembly is provided in the power supply to keep the computer cool.

Storage Devices : They are used by the computer for secondary/ external storage. Both input/ output devices.

1. Floppy Disk Drive :
2. Hard Disk Drive
3. CD-ROM / R/W / DVD / Combo Drive / Pen Drive

Monitor : VDU (visual display unit) is an output device. It is used to show the result of processing done by the computer. Monitor can be used to show text, numbers, or graphic image such as a charts, graphs, figures etc.

Keyboard : Keyboard is the main input device for computer.

Mouse (Scroll) : Basically a pointing device about the size of palm. It rolls on a small ball and one or more buttons on the top. When a user rolls the mouse across a flat surface, the screen "cursor" (a blinking underline) or mouse pointer moves in the direction of the mouse's movements. Optical Mouse do not need a rubber ball to roll on.

UPS : The Uninterruptible Power Supply control panel provides uninterrupted power supply to the machine from its power storage unit in case of power-cut.

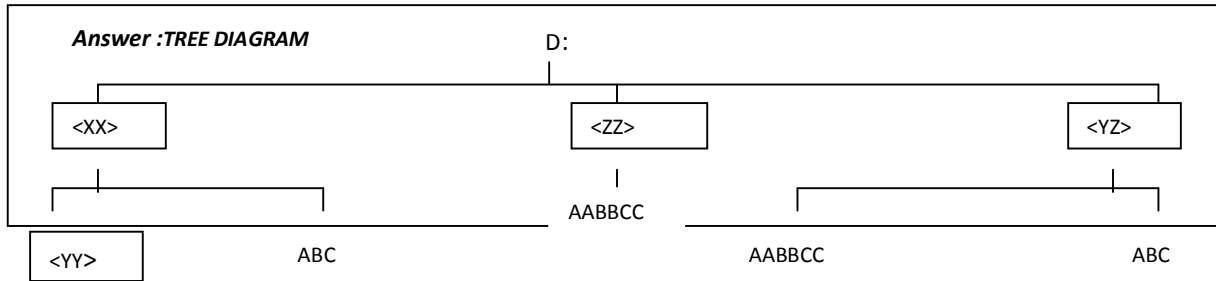
Printer : Printers are output devices that produce output in the form of graphics or the text documents on the paper. Impact printers like Dot Matrix printers hit inked ribbons against paper, whereas, non-impact printers use thermal, electrostatic or light as the means of forming images in the paper. Examples of non-impact printers are Inkjet and Laser Printers.

Scanner is used to convert existing textual data (text, photographs, etc.) in digital form. It is a device which scans the whole document and convert it as a digital file.

Speakers with Sub-Woofer : A plug-and-play component which produce audio outputs when connected with the audio port present on the cabinet.

Modem is device which helps to connect the computer by the help of telephone line with internet. It converts the analog telephone data into digital computer data. It is of two types, one is Internal modem and other is External modem.

Q. Draw a Tree Diagram that display the Directory Structure when the following DOS commands are executed from the D:\> prompt location :- md XX ; cd XX ; md YY ; cd \ ; md ZZ ; md YZ ; cd XX ; copy con ABC (with some text entered & then saved); DIR; copy ABC d:\yz\AABBCC ; copy ABC d:\yz ; cd . ; cd zz ; copy d:\yz\aabbcc .



Q. Create a batch file named TEST in C:\ prompt that ask for time, date, and display directory after giving a pause, and ensure that no commands are displayed on screen during its execution.

Answer : C:\> Copy con test.bat ↵
 @echo off ↵ time ↵ date ↵ pause ↵ dir ↵
 (F6 or (ctrl)Z to Save)
 (To view the batch file in running condition, just write the name of the file in c:\>)

Q. Narrate the steps to undertake the following activities in MS-DOS :

1. Check the Date and Time

- A. 1. Type: **date** and press **return**.
- 2. If the correct date is displayed, simply press return. If the date is incorrect, type the correct date and press return.
- 3. Type: **time** and press **return**
- 4. If the correct time is displayed, simply press return. If the time is incorrect, type the correct time and press return.

2. Scroll Through the Directory Listing

A. When you type the **DIR** command and press return, the files begin to scroll vertically on your screen. If you have a lot of files it is difficult to read each one. By holding down the **Control Key (CTRL)** and the letter **S** at the same time, you are able to freeze the listing to view your files. When you are finished, press the spacebar for the list to continue.

3. Pause a Directory Listing

- A. 1. Type: **dir/p** and press **return**.
- 2. The screen freezes after it fills the screen with the files that are listed first in the directory.
- 3. Press the **spacebar** to continue listing you files.
- 4. Continue to press the **spacebar** until you return back to the C:\> prompt.

4. View a Wide Listing of Files

- A. 1. Type: **dir/w** and press **return**.
- 2. DOS will list only the name of you file and the file extension on the screen.

5. Recall a DOS Command

A. The **F3** function key can be used to recall the last DOS command you typed in. If you would like to retrieve a previously entered command, you can also press the **up arrow key** continuously until you reach the desired command you were looking for.

6. Print a Directory Listing

- A. 1. Type: **dir>prn** and press **return**.
- (The > symbol stands for output. The PRN stands for printer. LaserJet printers and other sheet feeder printers will not eject the page after the dir>prn command. You must take the printer off-line and press the form feed button. Remember to press the on-line button when you are done, in order to continue using the printer.)

7. List Files with the Same Extensions

- A. You can also use the wildcard character ***** to look for a group of files with the same extension.
- 1. Type: **dir *.bat** and press **return**.

2. All files with the **.bat** extension are listed.
3. Press the **F3** key.

8. Clear the Screen

A. When the screen gets full of information, you may want to clear it. To do this, type **CLS** at the C:\> prompt and press **return**.

9. Create a File with DOS

- A.**
1. Type: **copy con Quick.ltr** and press **return**.
 2. Type a message.
 3. Press the **F6** function key (**^Z**) and press **return**.
 4. DOS gives you a message that **1 File(s) has been copied**.

10. Copy a File with a New Extension

- A.**
1. Type: **copy quick.ltr quick.bac** and press **return**.
 2. Type: **dir q*** and press **return**.
 3. Three files should be listed.

11. Type a File with DOS and check its contents

- A.**
1. Type: **type quick2.ltr** and press **return**.
 2. DOS prints the contents of the file.

NOTE: Never use the **TYPE** command with files that have the **.com**, **.exe**, **.sys**, and **.bas** extensions. These are program files and will only display junk on the screen.

12. Rename a File

- A.** The **RENAME** command lets you rename a previous file with a new name.
1. Type: **ren quick2.ltr sales.ltr** and press **return**.
 2. Type: **dir *.ltr** and press **return**.
 3. DOS lists only two files that have the **.ltr** extension: **quick.ltr** and **sales.ltr**.

13. Rename a Group of Files

- A.** With the wildcard character *****, you can also use the **RENAME** command to change a group of files.
1. Type: **ren *.ltr *.bob** and press **return**.
 2. Type: **dir *.bob** and press **return**.
 3. You should have two files listed with a **.bob** extension.
 4. Type: **dir *.ltr** and press **return**.
 5. There should be no files found with **.ltr** extensions.

NOTE: You can also rename a group of files that have the same name but different extensions. Type the **RENAME** command then the filename followed by the dot and the wildcard, space and then type the new filename followed by a dot and the wildcard character. It will look like this: **filename.* newfilename.***

14. Create a Subdirectory

- A.** To create a subdirectory, you will need to use the **MAKE DIRECTORY** command. The **MD** command is useful for organizing files on your hard drive. With subdirectories, you can create and store related files together. For example, one subdirectory could be used to store all word processing files and another for all spreadsheet files.
1. Type: **md \info** and press **return**.
 2. Type: **dir *** and press **return**.
 3. Notice the *****. will list only the subdirectories.

15. Move to a Subdirectory

- A.** Once you have created a subdirectory, to move to that directory, you will use the **CHANGE DIRECTORY** command.
1. Type: **cd \info** and press **return**.
 2. Type: **cd** and press **return**.
 3. The name of the directory is listed.

16. Set the DOS Prompt

- A.** You can set or change the standard system prompt to display the name of the directory or subdirectory you are currently working in.
1. Type: **prompt \$p \$g** and press **return**.
 2. The DOS prompt tells you that you are working in the C directory (drive) and in the Info subdirectory.

3. Type: **dir** and press **return**.
4. The single dot stands for the current directory. The double dots stand for the parent directory (root). The dots are often referred to as place markers.

17. Delete a Single File

A. Periodically it is a good idea to delete files from the hard disk which are no longer needed or used. DOS makes it easy to remove these files with the **DELETE** command, a.k.a. **DEL**.

1. Type: **cd..** and press **return**.
2. The prompt shows you that you are back in the root directory.
3. Type: **del sales.bob** and press **return**.
4. Type: **dir Sales.bob** and press **return**.
5. Sales.bob is no longer listed because it has been deleted.

18. Delete a Group of Files

A. By using the wildcard character ***** you can delete a group of files from you hard drive.

1. Type: **del quick.*** and press **return**.
2. Type: **dir quick.*** and press **return**.
3. All Quick files have been deleted.

19. Delete all Files in a Subdirectory

A. There are two rules you will need to follow before removing a subdirectory.

RULE 1: All files in the subdirectory must be deleted.

NOTE: Never type DEL *.* when you are in the root directory. It will destroy all DOS files that are necessary to boot and operate the computer.

1. Type: **cd \info** and press **return**.
2. Type: **dir** and **press return**.
3. Three files should be listed.
4. Type: **del *.*** and press **return**.
5. DOS will ask you if you are sure? (Y/N)
6. Type: **Y** and **press enter**.

Now that your subdirectory is empty, you can delete the subdirectory (see rule 2 below).

Remove a Subdirectory.

RULE 2: You cannot be in the subdirectory that you wish to remove. You will need to return to the root directory (C:\> prompt).

1. Type: **cd..** and press **return**.
2. You should be back in the root directory.
3. Type: **rd \info** and press **return**.
4. Type: **dir *** and press **return**.
5. Notice that the Info subdirectory is no longer listed.

20. Format a Floppy Disk

A. Before you can use a disk, you must format it.

1. At the C:\> prompt type: **format a:**
2. The A drive will be the drive that you insert your disk into; hence, the a: after the Format command and press **return**.
3. You will be prompted with the message: "Insert new diskette for drive A: and press enter when ready."
4. Now insert the disk you wish to format and press **return**.
5. Once this formatting process is done, the following message will appear: "Format Completed." Then you will be prompted for a volume label. Simply **press return again**.
6. Now you will be asked if you would like to format another disk (Y/N)? Press **N**.

21. Change the Default Drive

A. To change from your hard drive to a floppy drive, you will need to indicate this change as follows:

1. Put a floppy disk into drive A.
2. Type: **a:** and press **return**.
3. Your prompt should change to **A:\>**
4. Type: **dir** and press **return**.
5. You are now able to see all the files on the floppy.
6. To change back to your hard drive, you will need to reverse this procedure.
7. Type: **c:** and press **return**. Now your prompt should be C:\>

22. Diskcopy Command

A. Sometimes there is a need to copy all the files on one floppy diskette to another floppy. First you will need a blank formatted disk (refer to section on formatting disks.)

1. Type: **diskcopy a: a:** and press **return**.

2. When asked to put in the source disk, put in the diskette that has the information you want to copy into drive **A** and press **return**.

3. Wait a few seconds. When asked to insert a target disk, take out the diskette from drive A and insert the blank floppy disk and press **return**.

4. Once this process is complete, you will be prompted to write to another duplicate diskette (Y/N). Press **N**.

5. Then you will be prompted to copy another disk (Y/N)? Press **N**.

23. Copying a File from the Hard Drive to a Floppy Disk

A. 1. Type: **copy <insert filename here> a:** and press **return**.

2. Wait for a few seconds; notice the red light on the floppy drive. Never attempt to remove a disk from the disk drive while this red light is on.

3. To check to see if the file was copied, type **a:** at the C:\> prompt and press **return**.

4. Type: **dir** and press **return**.

Q. Write down the steps to add a row of data or a column of data which was not entered earlier.

Answer : i) select the cell(s) where one want to insert the cell(s), row or column.

ii) From the insert menu,

Choose ENTIRE COLUMN to insert the column.

Choose ENTIRE ROW to insert the row.

Choose SHIFT CELLS RIGHT or SHIFT CELLS DOWN to insert the cell(s).

Q. Write the steps to create a new document for mail-merge.

The body of the letter is given below :

To,

<<Firstname>> <<Lastname>>

<<Address line 1>>

<<Address line 2>>

<<City>>

<<State>>

<<Pin>>

Dear <<Firstname>>

We are happy to inform you that, we are going to inaugurate our second centre at Kolkata on 25th Feb. 2001 at Nagerbazar. You are cordially invited at our Nagerbazar centre on 25th morning at 10:00 a.m.

Thanking you,

Mr. A. Kishore

(M.D.)

You are requested to mail the above letter to 10 different persons :

Q. Write down the steps to (i) Create a Workbook (ii) Insert a worksheet between two existing worksheets (iii) Create a copy of the existing worksheet in the workbook.

Answer : (i) File → New

(ii) Insert → Worksheet

(iii) Edit → Move or Copy Sheet

Q. How to create a hyperlink between two pages in the same document in Word ?

A. To link to a place in the current document, you can use either heading styles or bookmarks.

1. In the current document, do one of the following:

a) Insert a bookmark at the location you want to go to.

b) Apply one of Word's built-in heading styles to the text at the location you want to go to.

c) Select the text or object you want to represent the hyperlink.

2. On the Standard toolbar, click **Insert Hyperlink**.

3. Under **Link to**, click **Place in This Document**.

4. In the list, select the heading or bookmark you want to link to.

5. To assign a ScreenTip to be displayed when you rest the mouse over the hyperlink, click **ScreenTip**, and then type the text you want.

6. For links to headings, Word uses "Current document" as the tip if you do not specify one; for links to bookmarks, Word uses the bookmark name.

Q. Given below is a Spreadsheet showing the salary for 4 months of an employee.

	A	B	C	D	E	F	G	H
1	Month	Basic	DA	HRA	Gross	PFDedn.	NetPay	15%basic
2	Jan	10000	C2	D2	E2	F2	G2	H2
3	Feb	12000	C3	D3	E3	F3	G3	
4	Mar	12000						
5	Apr	14000	C5	D5	E5	F5	G5	
6	Total	B6	C6	D6	E6	F6	G6	

Write down the formulas in cells B6, C2, C3..C5, C6, D2, D3..D5, D6, E2, E3..E5, E6, F2, F3..F5, F6, G2, G3..G5, G6, that satisfy the following conditions : (i) DA is 45% of Basic (ii) HRA is 15% of Basic or Rs.2000 which- ever is less

(iii) Gross is sum total of Basic, DA and HRA (iv) PFDedn. is 10% of Basic (v) NetPay is Gross – PFDedn.

Answer :

B6 =sum(B2:B5)	C3..C5 /copy command by specifying C2 as the 'copy from' range and C3..C5 as the 'copy to' range.
C2 = 0.45*B2	C6,D6,E6,F6,G6 /copy command by specifying B6 as the 'copy from' range and C6,D6,E6,F6,G6 as the 'copy to' range.
D2 =IF{H2>2000,2000, H2} H2 =0.15*B2	D3..D5 /copy command by specifying D2 as the 'copy from' range and D3..D5 as the 'copy to' range. H3..H5 /copy command by specifying H2 as the 'copy from' range and H3..H5 as the 'copy to' range.
E2 =B2+C2+D2	E3..E5 /copy command by specifying E2 as the 'copy from' range and E3..E5 as the 'copy to' range.
F2 = 0.1*B2	F3..F5 /copy command by specifying E2 as the 'copy from' range and E3..E5 as the 'copy to' range.
G2 =E2-F2	G3..G5 /copy command by specifying E2 as the 'copy from' range and E3..E5 as the 'copy to' range.

Q. Consider the following Worksheet showing the P/ L Statement.

	A	B	C	D	E	F
1		Jan	Feb	Mar		
2	Mat.Cost	1000	800	900		
3	Overhead Cost	150	100	200		
4	Sales	1500	1300	1400		
5		-----	-----	-----		-----
6	Profit				Total Profit	

(a) Write down the formula in cell B6 to calculate Profit. [Profit = Sales-(Mat.Cost+Overhead Cost)]

(b) How would you copy the formula entered in cell B6 to cells C6 and D6 ?

(c) Calculate Total Profit for three months in cell F6 using formula.

Answer : (a) B6 =B4-B2-B3

(b) C6, D6 /copy command by specifying B6 as the 'copy from' range and C6..D6 as the 'copy to' range.

(c) F6 =SUM(B6:D6)

Q. Narrate the steps of --

(a) Creating a Table with 4 rows and 2 columns using the Table menu in WORD processing.

(b) Sorting the text contents of column1 of the table.

(c) Merging the cells of the top row.

(d) Inserting 3 rows and 2 columns in the end part of the table.

Answer : (a) Table → Insert Table ; Specify the no. of columns as 2 and no. of rows as 4 ; Fix column width (auto or number specified).

(b) Select the text of column 1; Table → Sort Table ; specify sorting order – ascending or descending ; sorted by Column 1

(c) Table → Select → row (top row specified) ; Merge Cell.

(d) Table → Insert → Rows below (3 times after placing cursor on the lowest end of the table) ;

(e) Table → Insert → Columns Right (2 times after placing the cursor on the right end of the table).

Q. Narrate the steps of creating a basic data entry form for entering new data into the Spreadsheet.

EmpCode	Name	Age	Department	Salary
A001	Abbbb	20	Marketing	5000
B003	Bbbbb	21	Accounts	6000

- Answer : 1. With the cursor anywhere in the table, from the DATA menu, select FORM.
 2. A data form appears
 3. Click NEW and a blank form appears for new data entry.
 4. After data entry, click CLOSE. The new record is inserted.

Q. Narrate the steps of inserting a Chart on the worksheet from the information as below :

	A	B	C	D
1	Year	'2010	'2011	'2012
2	Sales	10000	12000	20000
3	Profit	2000	5000	12000

- Answer : i) Select the entire range A1..D3
 ii) From INSERT menu, select CHART (Insert → Chart)
 iii) Select Chart Type, next...
 iv) Give Data Range, next...
 v) Give Chart Options, like Chart Title, Legend, Data Levels, Data Table, etc., next...
 vi) Assign Chart Location, Finish.

Q. Relative, Absolute, and Mixed Referencing in Spreadsheet applications - a note.

A. Calling cells by just their column and row labels (such as "A1") is called relative referencing. When a formula contains relative referencing and it is copied from one cell to another, Excel does not create an exact copy of the formula. It will change cell addresses relative to the row and column they are moved to. For example, if a simple addition formula in cell C1 "=(A1+B1)" is copied to cell C2, the formula would change to "=(A2+B2)" to reflect the new row. To prevent this change, cells must be called by absolute referencing and this is accomplished by placing dollar signs "\$" within the cell addresses in the formula. Continuing the previous example, the formula in cell C1 would read "=(A\$1+\$B\$1)" if the value of cell C2 should be the sum of cells A1 and B1. Both the column and row of both cells are absolute and will not change when copied. Mixed referencing can also be used where only the row OR column fixed. For example, in the formula "=(A\$1+\$B2)", the row of cell A1 is fixed and the column of cell B2 is fixed.

Q. Describe the results that generate for using the following functions in EXCEL.

Example	Function	Result
=SUM(A1:100)	SUM	finds the sum of cells A1 through A100
=AVERAGE(B1:B10)	AVERAGE	finds the average of cells B1 through B10
=MAX(C1:C100)	MAX	returns the highest number from cells C1 through C100
=MIN(D1:D100)	MIN	returns the lowest number from cells D1 through D100
=SQRT(D10)	SQRT	finds the square root of the value in cell D10
=TODAY()	TODAY	returns the current date (leave the parentheses empty)

Additional Studies on Spreadsheet

Data Validation: Data validation in Excel to make sure that users enter certain values into a cell. Drop-down lists in Excel are helpful if you want to be sure that users select an item from a list, instead of typing their own values.

Formulas and Functions

1 Count and Sum: The most used functions in Excel are the functions that count and sum. You can count and sum based on one criteria or multiple criteria.

2 Logical: Learn how to use Excel's logical functions such as the IF, AND and OR function. The IF function can be nested, when you have multiple conditions to meet.

3 **Cell References:** Cell references in Excel are very important. Understand the difference between relative, absolute and mixed reference, and you are on your way to success.

4 **Date & Time:** To enter a date in Excel, use the "/" or "-" characters. To enter a time, use the ":" (colon). Once you understand how they work, date & time functions are easy.

5 **Text:** Excel has many functions to offer when it comes to manipulating text strings.

6 **Lookup & Reference:** Learn all about Excel's lookup & reference functions such as the VLOOKUP, HLOOKUP, MATCH, INDEX and CHOOSE function.

7 **Financial:** This illustrates Excel's most popular financial functions. Learn more about loans, investments, annuities, compound interest and loan amortization schedules.

8 **Statistical:** An overview of some very useful statistical functions. Also, find out how to create random numbers in Excel.

9 **Round:** This illustrates three functions to round numbers in Excel. The ROUND, ROUNDUP and ROUNDDOWN function.

Analyze data.

1 **Sort:** You can sort your Excel data on one column or multiple columns. You can sort in ascending or descending order.

2 **Filter:** Filter your Excel data if you only want to display records that meet certain criteria.

3 **Conditional Formatting:** Conditional formatting in Excel enables you to highlight cells with a certain color, depending on the cell's value.

4 **Charts:** A simple Excel chart can say more than a sheet full of numbers. As you'll see, creating charts is very easy.

5 **Pivot Tables:** Pivot tables are one of Excel's most powerful features. A pivot table allows you to extract the significance from a large, detailed data set.

6 **Tables:** Tables (or lists in Excel 2003) allow you to analyze your data quickly and easily.

7 **What-If Analysis:** What-If Analysis in Excel allows you to try out different values (scenarios) for formulas. The following example helps you master what-if analysis quickly and easily.

8 **Solver:** Excel includes a tool called solver that uses techniques from the operations research to find optimal solutions for all kind of decision problems.

9 **Analysis ToolPak:** The Analysis ToolPak is an Excel add-in program that provides data analysis tools for financial, statistical and engineering data analysis.

Q. Explain the concepts of database, table, field, and record in relation to DBMS

A. A **database** is a collection of related information.

A **table** is a grouping of related data organized in fields (columns) and records (rows) on a datasheet. By using a common field in two tables, the data can be combined. Many tables can be stored in a single database.

A **field** is a column on a datasheet and defines a data type for a set of values in a table. For a mailing list table might include fields for first name, last name, address, city, state, zip code, and telephone number.

A **record** in a row on a datasheet and is a set of values defined by fields. In a mailing list table, each record would contain the data for one person as specified by the intersecting fields.

Q. How to find Data in a Table

A. Data in a datasheet can be quickly located by using the Find command.

Steps : 1. Open the table in datasheet view.

2. Place the cursor in any record in the field that you want to search and select Edit|Find... from the menu bar.

3. Enter the value criteria in the Find What: box.

4. From the Look In: drop-down menu, define the area of the search by selecting the entire table or just the field in the table you placed your cursor in during step 2.

5. Select the matching criteria from Match: to and click the More >> button for additional search parameters.

6. When all of the search criteria is set, click the Find Next button. If more than one record meets the criteria, keep clicking Find Next until you reach the correct record.

Q. How to establish Table Relationships in DBMS?

A. To prevent the duplication of information in a database by repeating fields in more than one table, table relationships can be established to link fields of tables together.

Follow the steps below to set up a relational database:

1. Click the Relationships button on the toolbar.
2. From the Show Table window (click the Show Table button on the toolbar to make it appear), double click on the names of the tables you would like to include in the relationships. When you have finished adding tables, click Close.
3. To link fields in two different tables, click and drag a field from one table to the corresponding field on the other table and release the mouse button. The Edit Relationships window will appear. From this window, select different fields if necessary and select an option from Enforce Referential Integrity if necessary. These options give Access permission to automatically make changes to referential tables if key records in one of the tables is deleted. Check the Enforce Referential Integrity box to ensure that the relationships are valid and that the data is not accidentally deleted when data is added, edited, or deleted. Click Create to create the link.
4. A line now connects the two fields in the Relationships window.

Q. How to Create a Query in Design View?

- A. 1. From the Queries page on the Database Window, click the New button.
2. Select Design View and click OK.
3. Select tables and existing queries from the Tables and Queries tabs and click the Add button to add each one to the new query.
4. Click Close when all of the tables and queries have been selected.
5. Add fields from the tables to the new query by double-clicking the field name in the table boxes or selecting the field from the Field: and Table: drop-down menus on the query form. Specify sort orders if necessary.
6. Enter the criteria for the query in the Criteria: field. The following table provides examples for some of the wildcard symbols and arithmetic operators that may be used. The Expression Builder can also be used to assist in writing the expressions.
7. After you have selected all of the fields and tables, click the Run button on the toolbar.
8. Save the query by clicking the Save button.

Q. How to Create in Design View?

- A. 1. To create a report from scratch, select Design View from the Reports Database Window.
2. Click the New button on the Reports Database Window. Highlight "Design View" and choose the data source of the report from the drop-down menu and click OK. You will be presented with a blank grid with a Field Box and form element toolbar that looks similar to the Design View for forms. Design the report in much the same way you would create a form. For example, double-click the title bar of the Field Box to add all of the fields to the report at once. Then, use the handles on the elements to resize them, move them to different locations, and modify the look of the report by using options on the formatting toolbar. Click the Print View button at the top, left corner of the screen to preview the report.

ACCESS Sample Task 1

(a) Create two tables in a new database 'remuneration' as detailed below :

<u>Table : EmpMaster</u>	<u>FieldName & Datatype</u> (enter 3 records)
	emp_no text (3) primary key
	emp_name text (15)
	desg text (10)
	address text (50)
	dayrate number (decimal) (8)
<u>Table : EmpTransaction</u>	<u>FieldName & Datatype</u> (enter 6 records, 2 each for 3 employees)
	emp_no text (3) primary key
	job_no text (2)
	dayworked number (integer)

(b) Sort both the tables on emp_no in ascending order.

(c) Using Design-view, prepare a report as follows :

Employee's Remuneration Sheet

<u>Employee Details</u>	<u>Job Details</u>	<u>Remuneration (Rs)</u>
<emp_no> <emp_name>	<job_no>	<dayworked> * <dayrate>
<desg>		
<address>		

ACCESS Sample Task 2

Create the following table in Access and insert at least four different set of values. The structure of the table is as follows :

<i>Acc_no</i>	<i>Book_name</i>	<i>Author</i>	<i>Price</i>
---------------	------------------	---------------	--------------

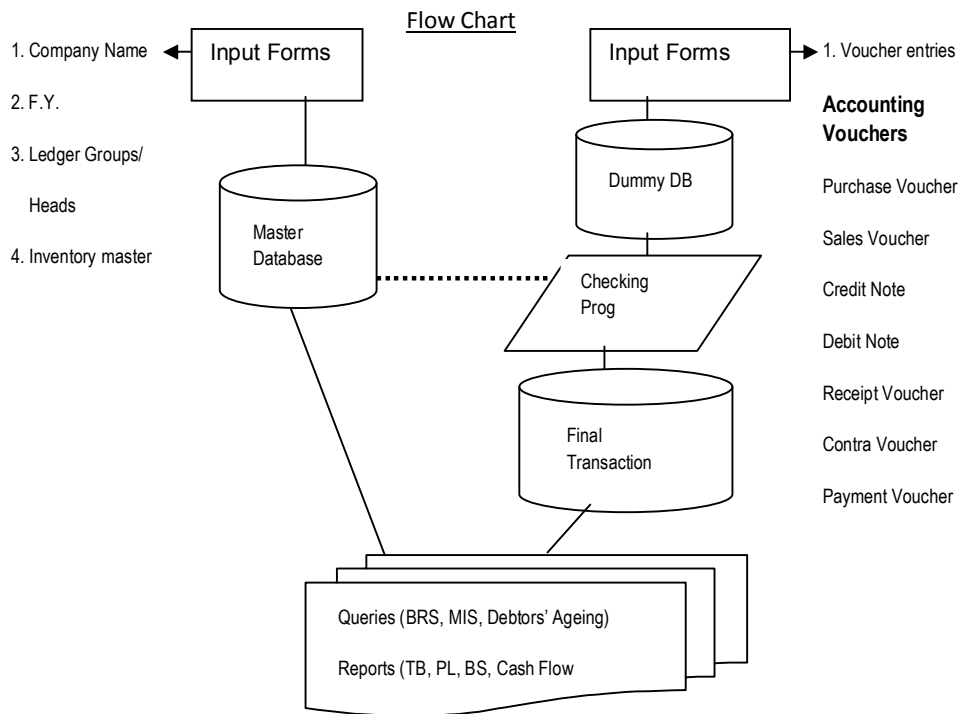
- Set the Acc_no as primary key and save the table with name 'LIBRARY'.
- Create Query in design view in such a way that the whole table will be shown.
- Sort the table according to price (in increasing order).
- Write a query to display the Acc_no, Book_name and Author of each book whose price is less than a particular amount (User's choice).

Q. Application of DBMS in Accounting Software

DBMS Principles : (1) Recording of data using file, table, record, field (2) Data Independence

(3) Normalization of database (4) Transaction processing (5) Data Integrity (6) Controlled Access (7) Multiple Interfaces.

Features of accounting software : (1) Multi-platform comparability (2) Grouping of accounts & ledger heads (3) records stored into master files and transaction files (4) Integration of Accounts with Inventory (5) Provisions of backup and restore data (6) Data sharing.



These words are used often in Access so you will want to become familiar with them before using the program and this tutorial.

- A **database** is a collection of related information.
- An **object** is a competition in the database such as a table, query, form, or macro.
- A **table** is a grouping of related data organized in fields (columns) and records (rows) on a datasheet. By using a common field in two tables, the data can be combined. Many tables can be stored in a single database.
- A **field** is a column on a datasheet and defines a data type for a set of values in a table. For a mailing list table might include fields for first name, last name, address, city, state, zip code, and telephone number.
- A **record** in a row on a datasheet and is a set of values defined by fields. In a mailing list table, each record would contain the data for one person as specified by the intersecting fields.
- Design View** provides the tools for creating fields in a table.
- Datasheet View** allows you to update, edit, and delete in formation from a table.

Computerized Accounting

Sample Task 1

Review the following features of a Computerized Accounting Software package :

- *Creation of Company*
- *Ledger creation and Group creation*
- *Entries of opening balance of Balance sheet*
- *Defining Voucher Type*
- *Inventory Info - Create Unit of Measure*
Stock Group creation (Single or Multiple)
Stock Item creation
- *Configuration through 'Features' (F11)*
(Integrate Acc. With Inventory, Cost Centre, Budgetary Control)
- *Voucher Entry (including on-line creation of Ledger/s, if required)*
- *Report creation*
- *Back-ups and security*

Sample Task 2

Diamond Merchant (P) Ltd. A whole seller of home appliances, wish you to maintain their newly introduced computerized accounting for the period 2011-2012. The company maintains their computerized accounting in parallel with manual accounting.

LIABILITIES	Amount(Rs.)	ASSETS	Amount(Rs.)
SHARE CAPITAL		FIXED ASSETS	
Equity Share Capital of Rs. 10 each.	31,00,000	Land & Building	17,40,000
RESERVE & SURPLUS		Furniture	3,20,000
General Reserve	290000	Computer & Accessories	3,00,000
SECURED LOAN		INVESTMENT	
Loan from SBI	250000	Fixed Deposit with SBI	6,00,000
UNSECURED LOAN		CURRENT ASSETS	
Loan from P. Rakshit (Directors)	40000	Stock-in-trade	2,20,000
SUNDRY CREDITORS		SUNDRY DEBTORS	
LG		Saha & co.(SB/10-11/206)	1,90,000
Bill No-(PB/10-11/89C) 250000		Capital (p)Lt.(SB/10-11/704)	1,50,000
Bill No-(PB/10-11/93C) 168000	418000	Greatestern(P)Ltd.(SB/10-11/515)	2,40,000
Whirlpool(PB/10-11/26D)	272000	BANK	
Samsung (PB/10-11/56D)	234000	SBI (A/C-1264890007)	2,50,000
OUTSTANDING EXPENSES		HSBC(A/C-67904555)	4,05,000
Salary	86000	BOI(A/C-5900235670)	2,75000
Warehouse rent	35000	CASH	1,60,000
Telephone bill	12000		
Profit & loss Account	113000		
	48,50,000		4850000

The Co has three warehouses in Behala, Barasat and Howrah, each branch has the following division- Air Conditioner and Refrigerator. The cost allocated in 3:3:4 proportions.

Transaction during the year:

April '11

2nd Brought furniture of Rs.20000.

3rd Outstanding telephone bill is paid through cheque of SBI. (Cheque no.3030975762)

- 4th Purchase printer Rs. 15999 by cheque of SBI.(Ch. No. 345678932)
- 5th Paid Rs.4566 as Tiffin allowance to staff.
- 6th Purchase a new computer for Accounts Department Rs.34000 from Computer World.
Bill No.PB/11-12/560
- 6th Paid cash for local convenience Rs.200
- 7th Paid outstanding salary through cheque of BOI.
- 8th Paid transportation charges Rs.24,000 for their warehouses.
- 9th Transferred Rs.1, 00,000 from HSBC to BOI.
- 10th Purchase 20 pieces of Air Conditioner Samsung Refrigerator @ Rs. 10,500 and 27 pieces @Rs.34, 000.(order no: ORD/11-12/78,Challan no: CH/11-12/78,Bill no. PB/11-12/78)
- 12th Sold 5 pieces of Air Conditioner Samsung Refrigerator @ Rs. 11,500 and 10 pieces @Rs.35, 000.(order no: ORD/11-12/48,Challan no: CH/11-12/48,Bill no. SB/11-12/48)
VAT 4% extra.

Sample Task 3

- Create a company with your name and batch code.
- Create the following stock group:
 - Raw Material
 - Finished Goods
 - Television
 - Television 21" (under Television)
 - Television 20" (under Television)
 - Television 14" (under Television)
 - Raw-Electronics (under Raw Material)
 - Raw-Electrical (under Raw Material)
 - Fin-Electronics (under Finished Goods)
 - Fin-Electrical (under Finished Goods)

- Create the following items:

Item	UOM	Group
Transistor	PCS	Raw-Electronics
Capacitor	PCS	Raw-Electronics
CRT	PCS	Raw-Electronics
Transformer	PCS	Raw-Electronics
Cable	MTR	Raw-Electronics
Comp. Monitor	PCS	Finisher Goods
ONIDA KB23	PCS	Television 20"
ONIDA KB21	PCS	Television 21"
ONIDA KB14	PCS	Television 14"
PHILLIPS 76	PCS	Television 20"
PHILLIPS 65	PCS	Television 21"
PHILLIPS 54	PCS	Television 14"
VIDEOCON JU	PCS	Television 20"
VIDEOCON EU	PCS	Television 21"
VIDEOCON HU	PCS	Television 14"
SHARP 76HF	PCS	Television 20"
SHARP 6HEFI	PCS	Television 21"
SHARP 761UF	PCS	Television 14"

- Purchased the following materials from M/S Flatfooted Co. on 01/05/1988:
2000 pcs of Transistors @Rs.12/- per pc, 5000 pcs of Capacitors @3.23 per pc,
10 pcs of CRTs @Rs.1320/-, 10 pcs Transformer @Rs.120/- and 3000 mtrs of Cables @1.20 per mtr.
- On the 5th May purchased the following from M/S Maxell Pvt. Ltd.:

- | | | |
|-------------|--------|----------------|
| ONIDAKB23 | 10 PCS | @12500 per Pcs |
| ONIDA | 10 PCS | @17700 per Pcs |
| ONIDA KB14 | 10 PCS | @8500 per Pcs |
| PHILLIPS 76 | 10 PCS | @12400 per Pcs |
| PHILLIPS 65 | 10 PCS | @17800 per Pcs |
| PHILLIPS 54 | 10 PCS | @9500 per Pcs |
6. Returned 1 ONIDA KD23 to M/S Maxell Pvt. Ltd.
 7. On 6th May sold the following items:

ONIDA KB23	3 PCS	@13900 per Pcs (Cheque no. 1239439 for 1pc)
PHILLIPS 65	6 PCS	@18800 per Pcs (Cheque no. 8684847 1pc and 5684547 for 1pc)
 8. On 8th May sold the following:

PHILLIPS 54	3 PCS	@11400 per Pcs (Cheque no. 2136453 for 1pc)
PHILLIPS 65	4 PCS	@18800 per Pcs (Cheque no. 8705754 1pc and 8704564 for 2 pcs)
 9. Display the current stock position.
 10. On 15th May purchased the following from M/S Vision and Sound Pvt. Ltd.:
 11. VEDEOCON JU 10 PCS @12500 per Pcs
 12. VEDEOCON EU 10 PCS @17700 per Pcs
 13. VEDEOCON HU 10 PCS @8500 per Pcs
 14. PHILLIPS 76 10 PCS @17400 per Pcs
 15. PHILLIPS 65 10 PCS @12800 per Pcs
 16. PHILLIPS 54 10 PCS @9500 per Pcs
 11. 50% of the bill amount paid to M/S Maxell Pvt. Ltd. on 20/05/98.
 12. Cleared all the dues of M/S Flatfooted Co. on 21/05/98.
 13. Produced 10 computer monitors on 21/05/98. To produce one Computer Monitor following raw materials are produced:

Transistor	20 PCs	Raw-Electronics
Capacitor	50 PCs	Raw-Electronics
CRT	1PC	Raw-Electronics
Transformer	1PC	Raw-Electrical
Cable	2 MTRs	Raw Material
 14. Supplied all the monitors to M/S Das Informatics @6500 per pc on 01/06/98.
 15. M/S Das Informatics returned 2 Monitors on the next day and cleared the bill.
 16. Paid the outstanding amount of M/S Maxell Pvt. Ltd on 3rd June.
 17. Display the current stock status.
 18. Display the Debtors and Creditors status.
 19. Display the final accounts.

Sree Chaitanya Mahavidyalaya

ITBG Practical Test 2019

Part 1 : Project Work

(Last date of submission : 16-02-2019)

Special credit will be given on the originality and style of presentation. The project work should be submitted in **softcopy** (in CD) containing the output results, along with a **hardcopy** containing the literature with the description of the steps performed in the project work. You should present the Hard Copy in A4 size, neatly typed, preferably spaced, suitably formatted and designed with illustrations and diagrams to enhance explanations. Keep your page limit within 10 pages.

The softcopy file should be assigned the name in the form: <fname><lastname><Regn.No>. The front page of the hardcopy should contain the following :

Reference Code : **WBSU-SCM / B.Com2019 / ITBG (P)**

Project Title :

Student's Name :

College : **Sree Chaitanya Mahavidyalaya**

Course : **B.Com (Hons. / Gen.) Part II** WBSU Registration. No. of

Assignment 1 :

Design a web-compliant **E-Magazine** on any one of the subjects as given below :

- **Entrepreneurship Today**
- **Business Today**
- **Information Technology Digest**

Use Word Processor, Powerpoint or any other multimedia software/s . There must be navigating menus with hyper-linked features, containing at least FOUR menus that hyperlink articles. Insert diagrams, pictures, audio/videos in appropriate locations. Web-links may also be embedded on the front page as references for further reading.

Assignment 2 :

Create a Spreadsheet file named '**Payroll**' having two worksheets named '**StaffMaster**' and '**PayTransaction**'. The formats of the two worksheets are given below:

StaffMaster (data entered)

A	B	C	D	E
StaffID	Name	Designation	BasicPay	Spouse HRA

PayTransaction (auto-generated)

A	B	C	D	E	F	G
StaffID	BasicPay	DA	HRA	GrossPay	PFDedn	NetPay

(...Paste-linked from StaffMaster...) (.....formula generated.....)

Formulas:

DA is 80% of BasicPay

HRA is 15% of Basic or Rs.6000 whichever is less, subject to a maximum of Rs. 6000 of HRA of the employee and spouse together.

GrossPay is sum total of (Basic, DA and HRA)

PFDedn. is (20% of BasicPay)

NetPay is (GrossPay – PFDedn).

You are required to do the following activities, and narrate the steps/ formulae you follow/ use to undertake the task :

- Enter 25 master records in *StaffMaster*, entered through entry form. Take at least 4 categories of '*Designation*' with different BasicPays.
- Auto generate all the fields of the worksheet : *PayTransaction* applying suitable formulae.
- Generate the following query: Monthly Pay Bill of all employees for all 12 months.
- Auto-generate separate Pay Slip of each staff, using the tool of Mail-merge in MS-Word.
(The Pay Slip must contain the following information in a nicely designed format:
StaffID, Name, Designation, Spouse HRA, BasicPay, DA, HRA, GrossPay, PFDedn, NetPay).
- State your opinion about the limitations of using Spreadsheet and Word-processing software in the work of automation of Payroll projects. Can you suggest a better solution for this type of project ?