

Computer Fundamentals

Important Topics for Computer Fundamentals M.C.Q: Computer hardware, software, input/output devices and memory, virus, Antivirus, Number System etc.

What does the COMPUTER stand for?

- a) Commonly Operated Machines Used in Technical and Educational Research
- b) Commonly Occupied Machines Used in Technical and Educational Research
- c) Commonly Operated Machines Used in Technical and Environmental Research
- d) Commonly Oriented Machines Used in Technical and Educational Research

Ans.: a

Explanation:

The word “COMPUTER” is an abbreviation for the terms “Commonly Operated Machines Used in Technical and Educational Research”. Computer also related to Compute which means to calculate. So, a Computer is an electronic machine that can solve different problems, process data, store & retrieve data and perform calculations faster and efficiently than humans”

Functionalities of a Computer

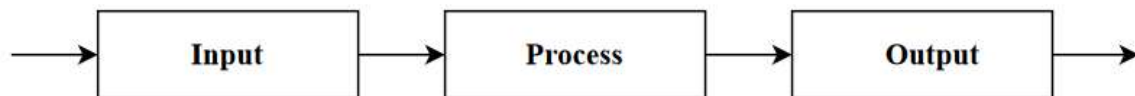
Step 1 - Takes data (data should be: Number, String, Audio, Video, Image etc.) as input.

Step 2 - Stores the data/instructions in its memory and uses them as required.

Step 3 - Processes the data and converts it into useful information.

Step 4 - Generates the output.

Step 5 - Controls all the above four steps.



Functionality of Computer

Advantages of Computers

- ✓ **High Speed:** It can perform millions of calculations in a few seconds as compared to man.
- ✓ **Accuracy:** Computers perform all jobs with 100% accuracy provided that the input is correct.
- ✓ **Storage Capability:** A computer has much more storage capacity than human beings. It can store any type of data such as images, videos, text, audio, etc.
- ✓ **Diligence:** It can work continuously without any error and boredom.
- ✓ **Versatility:** It may be solving a complex scientific problem
- ✓ **Reliability:** A computer is a reliable machine.
- ✓ **Automation:** Automation is the ability to perform a given task automatically. When a program is received it can execute without human interaction.
- ✓ **Reduction in Paper Work and Cost:** Reduce all cost of paper.

Disadvantages of Computers

- ✓ **No Intelligence:** A computer cannot take any decision on its own.
- ✓ **Dependency:** Fully depends on human.
- ✓ **Environment:** It produce some heat which is not good for environment.
- ✓ **No Feeling:** It cannot make judgment based on feeling, taste, experience, and knowledge unlike humans.

Which unit is responsible for converting the data received from the user into a computer understandable format?

- a) Memory Unit
- b) Arithmetic & Logic Unit
- c) Input Unit
- d) Output Unit

Ans.: c

Which of the following is not a function of the Input Unit?

- a) It reads instructions and data from the outside world
- b) It converts the data into computer acceptable format
- c) It makes the data into user understandable format
- d) It supplies the data and instructions to the computer for further processing

Ans.: c

Which was the most popular first-generation computer? [BB(AD-IT)-2016]

- a) IBM 650
- b) IBM 360
- c) IBM 1130
- d) IBM 2700

Ans. a

Explanation:

IBM 650 was the most popular first generation computer. The IBM 650 Magnetic Drum Data-Processing Machine is one of IBM's early computers, and the world's first mass-produced computer. It was announced in 1953 and in 1956 enhanced as the IBM 650 RAMAC with the addition of up to four disk storage units. Almost 2,000 systems were produced, the last in 1962.

Generation	Description
First Generation	The period of first generation: 1946-1959. Vacuum tube based.
Second Generation	The period of second generation: 1959-1965. Transistor based.
Third Generation	The period of third generation: 1965-1971. Integrated Circuit based.
Fourth Generation	The period of fourth generation: 1971-1980. VLSI microprocessor based.
Fifth Generation	The period of fifth generation: 1980-onwards. ULSI microprocessor based.

What difference does the 5th generation computer have from other generation computers?

- a) Technological advancement
- b) Object Oriented Programming
- c) Scientific code
- d) All of the above

Ans.: d

Explanation: The key technologies for the Fifth Generation Computer System (FGCS) seem to be VLSI architecture, parallel processing such as data flow control, logic programming, knowledge

base based on relational database, and applied artificial intelligence and pattern processing. Inference machines and relational algebra

Which of the following computer generation uses concept of artificial intelligence?

- a) First Generation
- b) Second Generation
- c) Third Generation
- d) Forth Generation

Ans.: d

2. Which one can be used for read? [BREB(AJE)-2019]

- a)RAM b)ROM c)Both a & b d)none

Ans.: b

Memory

A memory is just like a human brain. It is used to store data and instructions. Computer memory is the storage space in the computer, where data is to be processed and instructions required for processing are stored. The memory is divided into large number of small parts called cells. Each location or cell has a unique address, which varies from zero to memory size minus one. For example, if the computer has 64k words, then this memory unit has $64 * 1024 = 65536$ memory locations. The address of these locations varies from 0 to 65535.

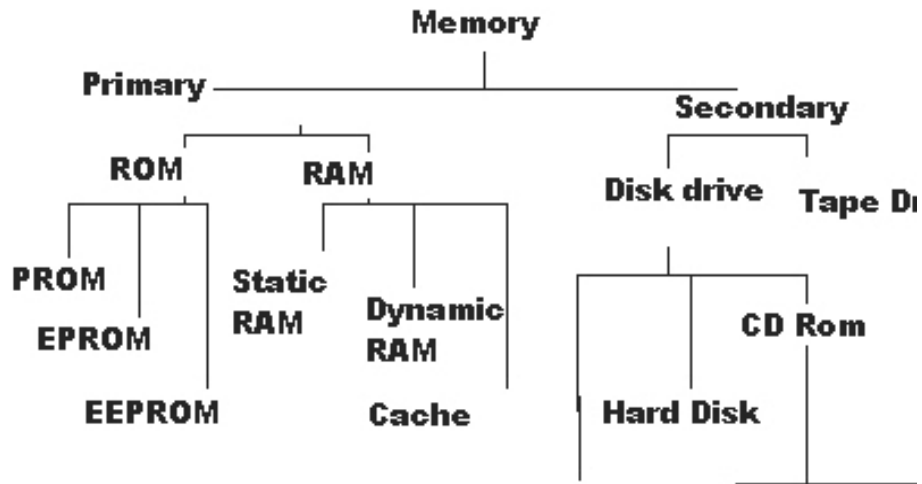
Memory is primarily of three types –

- ✓ Cache Memory
- ✓ Primary Memory/Main Memory
- ✓ Secondary Memory

26. Which of the following terms is the most closely related to main memory? [BB(IT)2016]

- a) Non-volatile b) Permanent c) Control unit d) Temporary

Ans. d

**RAM**

- ✓ Random Access Memory
- ✓ Volatile (*maintains its data while the device is powered*)
- ✓ Stores information temporary
- ✓ Requires flow of electricity to retain data
- ✓ Large size with higher capacity
- ✓ Used for both read and write
- ✓ Costlier
- ✓ Very fast but uses a lot of power
- ✓ Used in CPU cache, primary memory

ROM

- ✓ Read only Memory
- ✓ Non-Volatile (*does not lose content when power is lost*)
- ✓ Stores information permanently
- ✓ Does not require flow of electricity to retain data
- ✓ Small size with less capacity
- ✓ Used only for reading
- ✓ Cheaper than RAM
- ✓ Fast but uses very little power
- ✓ Used in firmware, microcontrollers

A 32 bit PC can have a maximum of 4 GB of RAM while a 64 bit PC can have 16 exabytes of RAM

Which of the following terms is the most closely related to main memory? [BB(IT)2016]

- a) Non-volatile b) Permanent c) Control unit d) Temporary

Ans. d

Types of RAM:

- ✓ DRAM -Dynamic RAM must be continuously refreshed, or otherwise, all contents are lost.
- ✓ SRAM - Static RAM is faster, needs less power but is more expensive. However, it does need to be refreshed like DRAM.
- ✓ Synchronous Dynamic RAM (SDRAM) - This type of RAM can run at very high clock speeds.
- ✓ DDR - Double Data Rate provide synchronous Random Access Memory

Which of the following is used in main memory?

- a) SRAM
b) DRAM
c) PRAM
d) DDR

Ans.: b

Note: A dynamic RAM consists of 1 transistor and 1 capacitor

30. Which unit holds data permanently? [BB(IT)2016]

- a) Input unit b) Secondary storage unit
c) Output unit d) Primary Memory unit

Ans. b

Which of the following is internal memory? [BB(IT)2016]

- a) Disks b) Pen Drives c) RAM d) CDs

Ans.: c

Which of the following memories needs refreshing? [BB(IT)2016]

- a) SRAM b) DRAM c) ROM d) All of them

Ans.: b

Explanation

DRAM stands for Dynamic RAM, and it is the most common type of RAM used in computers. The oldest type is known as single data rate (SDR) DRAM, but newer computers use faster dual data rate (DDR) DRAM. DDR comes in several versions including DDR2, DDR3, DDR4 and DDR5 which offer better performance and are more energy efficient than DDR. However different versions are incompatible, so it is not possible to mix DDR2 with DDR3 DRAM in a computer system. DRAM consists of a transistor and a capacitor in each cell.

KEY POINTS ON COMPUTER MEMORY:

- ✓ Computer memory is of two basic type – Primary memory/Volatile memory and Secondary memory/non-volatile memory. Random Access Memory (RAM) is volatile memory and Read Only Memory (ROM) is non-volatile memory.
- ✓ RAM is further classified into two types- SRAM and DRAM.
- ✓ ROM is further classified into 4 types- ROM, PROM, EPROM, and EEPROM.
- ✓ Only portions of the chip can be erased in EEPROM.

31. Locations in the main memory of a computer are called

- a) Alphabets b) Words c) Data d) Characters

Ans.: b

Explanation:

Main memory refers to physical memory that is internal to the computer. The word main is used to distinguish it from external mass storage devices such as disk drives.

32. Before a disk can be used to store data, it must be [BB(IT)2016]

- a) Formatted b) Reformatted c) Addressed d) None

Ans. a

33. An electronic circuit with about 20 transistors fabricated on a silicon chip is known as

- a) SSI b) MSI c) DPS d) RJE

Ans: a

Explanation:

SSI (Small-Scale Integration) A very early measurement of transistor density on a chip. SSI was less than 100 transistors.

34. Magnetic tape can serve as-- [BB(IT)2016]

- a) Secondary storage media b) Output media c) Input media d) All of them

Ans. a

35. Which input device is able to scan & interpret an entire page that is typed in a special font

- a) Floppy disk b) Page reader c) Paper tape punch d) Optical card readers

Ans.: b

- ✓ PROM: A read only memory that can be modified only once by a user
- ✓ EPROM: A Programmable ROM that can be erased and reused.
- ✓ EEPROM: A user-modifiable ROM that can be erased and reprogrammed repeatedly through a normal electrical voltage

Which of the following are types of ROMs?

- a) SRAM & DRAM
b) PROM & EPROM
c) Only one type there is no further classification
d) PROM & EROM

Ans.:b

36. Which technology is used in Compact disks? [BB(IT)2016]

- a) Mechanical b) Electrical c) Electromagnetic d) Laser

Ans. d

37. Which of the following is a storage device? [BB(IT)2016]

- a) Tape b) Hard Disk c) Floppy Disk d) All of them

Ans. d

Components that provide internal storage to the CPU are _____

- a) Registers
-

- b) Program Counters
- c) Controllers
- d) internal chips

Ans.: a

Explanation: A processor register (CPU register) is one of a small set of data holding places that are part of the computer processor. A register may hold an instruction, a storage address, or any kind of data (such as a bit sequence or individual characters). **A 64-bit computer, a register must be 64 bits in length.**

3. Which of the following would most likely NOT be a symptom of a virus?

- a) Existing program files and icons disappear.
- b) The CD-ROM stops functioning.
- c) The Web browser opens to an unusual home page.
- d) Odd messages or images are displayed on the screen.

Ans.: b

Explanation: Computer Virus is totally related with the software system. The CD-ROM is a part of hardware.

Which one is a web browser? [BREB(AJE)-2019]

- a) Google Chrome
- b) Mozilla Firefox
- c) Internet Explorer
- d) All

Ans.: d

Explanation:

- ✓ Google Chrome — Most common reliable
- ✓ Mozilla Firefox — 2nd most common and reliable
- ✓ Safari — Apples browser, as reliable as you see Apple to be, fairly nice
- ✓ Opera — Sort of rare, interesting features
- ✓ Other google browsers — Like chromium, test beds for future features and releases, UAYOR (Use At Your Own Risk browsers)
- ✓ Open Source Browsers — As reliable as you can read the code to be.

What's considered the 'backbone' of the World Wide Web?

- a) Uniform resource locator (URL)
- b) Hypertext mark-up language (HTML)
- c) Hypertext transfer protocol (HTTP)
- d) File transfer protocol (FTP)

Ans.: c

5. A nibble is equal to: [BREB(AJE)-2019]

- a) 4 bits
- b) 6 bits
- c) 8 bits
- d) 16 bits

Ans.: a

Explanation:

Name	Equal to:	Size in Bytes
Bit	1 bit	1/8

Nibble	4 bits	1/2 (rare)
Byte	8 bits	1
Kilobyte	1,024 bytes	1,024
Megabyte	1,024 kilobytes	1,048,576
Gigabyte	1,024 megabytes	1,073,741,824
Terrabyte	1,024 gigabytes	1,099,511,627,776
Petabyte	1,024 terrabytes	1,125,899,906,842,624
Exabyte	1,024 petabytes	1,152,921,504,606,846,976
Zettabyte	1,024 exabytes	1,180,591,620,717,411,303,424
Yottabyte	1,024 zettabytes	1,208,925,819,614,629,174,706,176

6. Which of the following options is suitable, if A is "10110110", B is "11100000" and C is "10100000"? [Combined(SO-IT/ICT)-2018]

- a) $C=A \text{ or } B$ b) $C=\sim A$ c) $C=\sim B$ d) $C=A \text{ and } B$

Ans. d

Solution:

Inputs		Truth Table Outputs for Each Gate					
A	B	AND	NAND	OR	NOR	EX-OR	EX-NOR
0	0	0	1	0	1	0	1
0	1	0	1	1	0	1	0
1	0	0	1	1	0	1	0
1	1	1	0	1	0	0	1

7. 2019 in Binary is- [Combined(SO-IT/ICT)-2018]

- a) 0000011111100010 b) 0000001111110011
c) 0000001111110010 d) 0000011111100011

Ans. d

Solution:

Result of converting:

$$(2019)_{10} = (11111100011)_2$$

8. 11100010 has a decimal value of----- [Combined(SO-IT/ICT)-2018]

- a) 252 b) 225 c) 226 d) 220 Ans. c

9. Multiplication of 111_2 by 101_2 is

- a) 110011_2
b) 100011_2
c) 111100_2
d) 000101_2

Ans.: b

What could be the maximum value of a single digit in an octal number system?

- a) 8 b) 7 c) 6 d) 5

Ans.: b

Explanation: The maximum value in any number system is one less than the value of the base. The base in an octal number system is 8, therefore, the maximum value of the single digit is 7. It takes digits from 0 to 7.

The binary number 1110 in hexadecimal format is _____

- a) 6
- b) E
- c) 14
- d) 15

Ans.: b

Explanation: Certain binary to hexadecimal representations are :

1010=A 1011=B 1100=C 1101=D 1110=E 1111=F.

Convert $(52)_{16}$ into its decimal equivalent.

- a) 28
- b) 83
- c) 80
- d) 82

Ans.: d

Explanation: To convert a hexadecimal number to decimal number:

$16^1 * 5 + 16^0 * 2 = 80 + 2 = 82$ Hence, the decimal equivalent is 82.

10. When two variables are logically compared, the logic gate that tests the equivalence is-----

[Combined(SO-IT/ICT)-2018]

- a) XNOR
- b) XOR
- c) AND
- d) NOR

Ans.: a

11. A repository for data, usually covering specific topic is

- a) Database
- b) Data requisition
- c) Databank
- d) Data collection

Ans.: c

12. A wireless network uses waves to transmit signals.

- a) Mechanical
- b) Radio
- c) Sound
- d) Magnetic

Ans.: b

Explanation: A wireless network uses radio waves, just like cell phones, televisions and radios do. In fact, communication across a wireless network is a lot like two-way radio communication.

13. Which of the following is the smallest size in the list? [Combined(SO-IT/ICT)-2018]

- a) Zettabyte
- b) Gigabyte
- c) Petabyte
- d) Terabyte

Ans. b

14. Magnetic storage devices can represent binary 0 by the absence of?

- a) A magnetic field
- b) Magnetic tape
- c) Static electricity
- d) It cannot possible.

Ans.: b

15. The XOR of this string 01010101 with 11111111 is ----- [Combined(AP)-2018]

- a) 10101010
- b) 00110100
- c) 01010101
- d) 10101001

Ans. a

17. What is the binary of 68? [SBL,JBL (SO-IT/ICT)-2018]

- a) 01000100
 - b) 10000100
 - c) 00100100
 - d) 00010100
-

Ans. a

18. Which of the following is spreadsheet software? [SBL, JBL (SO-IT/ICT)-2018]

- a) Adobe Acrobat b) MS Excel c) Fox Pro d) Power Point

Ans.: b

Explanation:

Note : MS Excel 2003 66536 Rows and 256 columns per sheet
Microsoft Excel 2007, 2010, 2013 and 2016 1,048,576 Rows and 16384 Columns per sheet

The sum of products expansion for the function $F(x, y, z) = (x + y)z$ is given as

- a) $-x -yz + xy -z + -x y -z$
 b) $xyz + xy -z + x -y -z$
 c) $x -y -z + -x -y -z + xy -z$
 d) $x y -z + x -y -z + -x y -z$

Ans.: d

$$F(x, y, z) = (x + y)z$$

$$= xz + yz \text{ Distributive law}$$

$$= x1z + 1yz \text{ Identity law}$$

$$= x(y + y')z + (x + x')yz \text{ Unit property}$$

$$= xyz + xy'z + x'yz + x'yz \text{ Distributive law}$$

$$= xyz + xy'z + x'yz \text{ Idempotent law}$$

19. Which of the following is not antivirus software? [SBL, JBL (SO-IT/ICT)-2018]

- a) WinPro b) AVG c) McAfee d) Symantec

Ans.: a

Explanation:

Among all the options, WinPro is not an antivirus software. WinPro is a powerful access control management software which supports up to 1,024 doors. It is a class above from E.Win, developed around the robust SQL database that supports multi-workstations.

Avast Antivirus, Norton, McAfee, Avira, kaspersky, AVG etc

Which of the following is designed to control the operations of a computer?

- a) Application Software
 b) System Software
 c) Utility Software
 d) User

Ans.: b

Which of the following is not an example of system software?

- a) Language Translator
 b) Utility Software
 c) Communication Software
 d) Word Processors
-

Ans.: d

TYPES OF SOFTWARE

Although, the range of software available today is vast and varied; most software can be divided into two major categories

- ✓ System software
- ✓ Application software

System Software

System software is a set of one or more programs, designed to control the operation and extend the processing capability of a computer system. In general, a computer's system software performs one or more of the following

Functions:

- ✓ Supports the development of other application software.
- ✓ Supports the execution of other application software.
- ✓ Monitors the effective use of various hardware resources, such as CPU, memory, peripherals, etc.
- ✓ Communicates with and controls the operation of peripheral devices, such as printer, disk, tape, etc.

Some of the most commonly known types of system software are:

- ✓ **Operating Systems:** Windows, Linux, Mac OS etc.
- ✓ **Programming Language Translators:** Compiler, Linker, Loader etc.
- ✓ **Communications Software:**
- ✓ **Utility Programs.**

Application Software

Application software is a set of one or more programs, designed to solve a specific problem, or do a specific task. For example, application software for payroll processing produces pay slips as the major output, and application software for processing examination results produces mark sheets as the major output along with some other statistical reports.

- ✓ Word-Processing Software
- ✓ Spreadsheet Software
- ✓ Database Software
- ✓ Media Player

Assembler is used as a translator for?

- a) Low level language
- b) High Level Language
- c) COBOL
- d) C

Ans.: a

Note: Interpreter is used to translate high level language

Which of the following is spreadsheet software? [SBL,JBL (SO-IT/ICT)-2018]

- a) Adobe Acrobat
 - b) MS Excel
 - c) Fax Pro
 - d) Power Point
- Ans. b
-

The software designed to perform a specific task:

- a) Synchronous Software
- b) Package Software
- c) Application Software
- d) System Software

Ans.: c

Bubble memory is a

- a) Sequential access device only
- b) Direct access device only
- c) Combination of sequential and direct access devices
- d) All of above

Ans.: c

How many numbers could ENIAC store in its internal memory? [BB(IT)2016]

- a) 100
 - b) 20
 - c) 80
 - d) 40
- Ans. b

Binary circuit elements have [BB(IT)2016]

- a) One stable state
- b) two stable state
- c) Three stable state
- d) None of these

Ans.: b

In computer terminology a compiler means

- a) a person who computes source programs
- b) the same thing as a programmer
- c) key punch operator
- d) a program which translates source program into object program

Ans.: d

Explanation:

A compiler is a software program that transforms high-level source code that is written by a developer in a high-level programming language into a low-level object code (binary code) in machine language, which can be understood by the processor. The process of converting high-level programming into machine language is known as compilation.

Interpreter: Translates program one statement at a time. No intermediate object code is generated, hence are memory efficient.

24. Which of the following is used for manufacturing chips? [BB(IT)2016]

- a) Control bus
- b) Control unit
- c) Parity unit
- d) Semiconductor

Ans.: d

25. A hand-held device for optically reading bar codes on goods, labels & shelves is:

- a) Wand
- b) Touch tablet
- c) Mouse
- d) Light pen

Ans.: a

27. What is the name of the display feature that highlights areas of the screen which require operator attention?

- a) Pixel
- b) Reverse video
- c) Touch screen
- d) Cursor

Ans.: b

28. What is the name given to the molecular-scale computer?

- a) Femtocomputer
 - b) Nanocomputer
 - c) Supercomputer
 - d) Microcomputer
-

Ans.: b

29. The word length of a computer is measured in [BB(IT)2016]

- a) Bytes b) Millimeters c) Meters d) Bits

Ans. d

38. Which of the following is a class of computers based on model? [BB(IT)2016]

- a) Digital Computers b) Hybrid Computers
c) Analog Computers d) AT Computers

Ans. d

39. A medium for transferring data between two locations is called

- a) Network b) Communication channel c) Modem d) Bus

Ans.: b

40. A machine associated with card-based data processing is

- a) Codomain b) Collator c) Cartridge d) Digitizer

Ans.: b

41. Central Processing Unit is combination of [BB(IT)2016]

- a) Control Storage b) Control and output unit
c) Arithmetic Logic and Input Unit d) Arithmetic logic and control unit

Ans. d

42. What does the disk drive of computer do? [BB(IT)2016]

- a) Rotate the Disk b) Read the disk
c) Load a program from the disk into the memory d) Both B and C

Ans. d

43. Which of the following is Not a characteristic of E-mail?

- a) Low cost b) Record maintenance in database c) High speed d) Wastereduction

Ans.: b

Explanation:

Characteristics/advantages of Email:

- ✓ **Cheap** - sending an email costs the same regardless of distance and the number of people you send it to
- ✓ **Fast** - an email should reach its recipient in minutes, or at the most within a few hours
- ✓ **Convenient** - your message will be stored until the recipient is ready to read it, and you can easily send the same message to a large number of people
- ✓ **Permanent** - you can keep a record of messages and replies, including details of when a message was received

44. Which of the following produces the best quality graphics reproduction? [BB(IT)2016]

- a) Laser printer b) InkJet printer c) Plotter d) Dot matrix printer

Ans. c

45. What type of device is computer keyboard? [BB(IT)2016]

- a) Memory b) Output c) Storage d) Input

Ans. d

Explanation:

Input/Output devices list:

Input	Output	Both
<ul style="list-style-type: none"> • Graphics Tablets • Video Capture Hardware • Trackballs • Barcode reader • Digital camera • MIDI keyboard • Gamepad • Joystick • Keyboard • Cameras • Microphone • Mouse (pointing device) • Scanner • Webcam • Touchpad's • Microphone • Electronic Whiteboard • OMR • OCR • Pen Input • Punch card reader • MICR (Magnetic Ink character reader) • Magnetic Tape Drive 	<ul style="list-style-type: none"> • LCD Projection Panels • Monitor (LED, LCD, CRT etc) • Printers (all types) • Plotters • Microfiche • Projector • Head Phone • Computer Output Microfilm (COM) • Speaker(s) • Visual Display Unit • Film Recorder 	<ul style="list-style-type: none"> • Touch Screen • Modems • Network cards • Audio Cards / Sound Card • Headsets (Headset consists of Speakers and Microphone. • Speaker act Output Device and Microphone act as Input device • Facsimile (FAX)

46. Which of the following is not true? [BB(IT)2016]

- a) Transistors Are Much Smaller
 - b) Transistors produce low heat
-

- c) Transistors Were Less Reliable
- d) Transistors were used in radios and other electronic devices

Ans.c

47. WQHD abbreviation:

- a) Wide Quick Highest Definition
- b) Wide Quad Highest Definition
- c) Wide Quad High Definition
- d) Wide Quick High Definition

Ans.: c

48. What is the resolution of WQHD display?

- a) 1140p
- b) 1440p
- c) 1404p
- d) 1040p

Ans.: b

Explanation:

1440p is also called QHD (quad high definition) or WQHD (wide quad high definition) and is a display resolution that measures 2560 x 1440 pixels. This resolution is also commonly referred to as 2K.

49. Typical data transfer rates in LAN are of the order of [BB(IT)2016]

- a) Bits Per Sec
- b) Kilobits Per Sec
- c) Megabits per sec
- d) None of them

Ans.c

50. Which was the most popular first-generation computer? [BB(IT)2016]

- a) IBM 1650
- b) IBM 360
- c) IBM 1130
- d) IBM 2700

Ans.: a

51. VDU is also called

- a) Screen
- b) Monitor
- c) Both A and B
- d) Printer

Ans.: c

Explanation:

VDU. Stands for "Visual Display Unit" A VDU displays images generated by a computer or other electronic device. The term VDU is often used synonymously with "monitor," but it can also refer to another type of display, such as a digital projector.

52. A technique that enables light field which is generally the product of a light source scattered off objects:

- a) AES
- b) Holography
- c) Cryptography
- d) Gyrography

Ans.: b

Explanation:

Holography enables a light field. It is to be recorded and later reconstructed when the original light field is no longer present.

53. The computer code of the interchange of information between terminals is-- [BB(IT)2016]

- a) ASCII
- b) BCD
- c) EBCDIC
- d) All of them

Ans.: a

Explanation:

ASCII: ASCII is the American Standard Code for Information Interchange. The characters encoded are number 0-9, a-z, A-Z, basic punctuation symbols, control codes.

BCD:BCD stands for Binary Coded Decimal. It is represented by a 4-bit number and four bits we can represent sixteen numbers (0000 to 1111). But in BCD code only first ten of these are used (0000 to 1001).

EBCDIC:EBCDIC stands for Extended Binary-Coded Decimal Interchange Code. It has 8-bit code. It was used by IBM mainframes computers.

Unicode:Unicode is a standard for representing the characters of all the languages of the world, including Chinese, Japanese, and Korean. Unicode used 16-bits per character to represent $65,536(2^{16})$ unique characters.

The aspect ratio of an image is defined as

- (a) The ratio of width to its height measured in unit length.
- (b) The ratio of height to width measured in number of pixels.
- (c) The ratio of depth to width measured in unit length.
- (d) The ratio of width to depth measured in number of pixels.

Ans. a

Explanation

The aspect ration of an image describes the proportional relationship between its width and its height. It is commonly expressed as two numbers separated by a color, as in 16:9

Some Practice Questions for M.C.Q:

☞ **What are the basic units of data measurement?**

Bit, Nibble, Byte, Word.

☞ **Who are the popular manufacturers of motherboards?**

Intel, ASUS, AOpen, ABIT, Biostar, Gigabyte, MSI.

☞ **Write down some important types of ports.**

Serial Port, Parallel Port, PS/2 Port, USB, VGA, Power Connector, Fireware Port, Modem Port, Ethernet Port, Game Port, Digital Video Interface (DVI) Port, Socket.

☞ **What are the basic steps of data processing cycle?**

Input, Processing and Output.

☞ **What is Intranet?**

Intranet is the system in which multiple PCs are connected to each other. PCs in intranet are not available to the world outside the intranet. Usually each organization has its own Intranet network and members/employees of that organization can access the computers in their intranet.Each computer in Intranet is also identified by an IP Address which is unique among the computers in that Intranet.

☞ **Define the types of computer with details.**

Type	Specifications
PC (Personal Computer)	It is a single user computer system having moderately powerful microprocessor
Workstation	It is also a single user computer system, similar to personal computer however has a more powerful microprocessor.
Mini-Computer	It is a multi-user computer system, capable of supporting hundreds of users

	simultaneously.
Main Frame	It is a multi-user computer system, capable of supporting hundreds of users simultaneously. Software technology is different from minicomputer.
Supercomputer	It is an extremely fast computer, which can execute hundreds of millions of instructions per second.

☞ **Classify the keys of keyboard.**

Name	Description
Typing Keys	These keys include the letter keys (A-Z) and digit keys (0-9) which generally give the same layout as that of typewriters.
Numeric Keypad	It is used to enter the numeric data or cursor movement. Generally, it consists of a set of 17 keys that are laid out in the same configuration used by most adding machines and calculators.
Function Keys	The twelve function keys are present on the keyboard which are arranged in a row at the top of the keyboard. Each function key has a unique meaning and is used for some specific purpose.
Control keys	These keys provide cursor and screen control. It includes four directional arrow keys. Control keys also include Home, End, Insert, Delete, Page Up, Page Down, Control(Ctrl), Alternate(Alt), Escape(Esc).
Special Purpose Keys	Keyboard also contains some special purpose keys such as Enter, Shift, Caps Lock, Num Lock, Space bar, Tab, and Print Screen.

☞ **What is monitor? How many types of monitor exist?**

Monitors, commonly called as **Visual Display Unit (VDU)**, are the main output device of a computer.

There are two kinds of viewing screen used for monitors.

- Cathode-Ray Tube (CRT)
- Flat-Panel Display (LCD, LED)

☞ **Which is the high-quality printer?**

Inkjet Printers.

☞ **Define Cache Memory.**

Cache memory is a very high-speed semiconductor memory which can speed up the CPU. It acts as a buffer between the CPU and the main memory. It is used to hold those parts of data and program which are most frequently used by the CPU.

☞ **What is SSD?**

An SSD (solid-state drive) is a type of nonvolatile storage media that stores persistent data on solid-state flash memory. Two key components make up an SSD: a flash controller and NAND flash memory chips. The architectural configuration of the SSD controller is optimized to deliver high read and write performance for both sequential and random data requests. SSDs are sometimes referred to as flash drives or solid-state disks.

Previous year questions:

- Which one is a Web Browser? [BREB(AJE)-2019]
 a)Google Chrome b)Mozilla Firefox c)Internet Explorer d)All Ans.d
- Which one can be used for read? [BREB(AJE)-2019]
 a)RAM b)ROM c)Both a & b d)none Ans.
- A nibble is equal to: [BREB(AJE)-2019]
 a)4 bits b)6 bits c)8 bits d)16 bits Ans.a
- Which of the following options is suitable, if A is "10110110", B is "11100000" and C is "10100000"? [Combined(SO-IT/ICT)-2018]
 a) C=A or B b) C=~A c) C=~B d) C=A and B Ans. d
- 2019 in Binary is----- [Combined(SO-IT/ICT)-2018]
 a) 0000011111100010 b) 0000001111110011
 c) 0000001111110010 d) 0000011111100011 Ans.d
- 11100010 has a decimal value of----- [Combined(SO-IT/ICT)-2018]
 a) 252 b) 225 c) 226 d) 220 Ans. c
- When two variables is logically compared, the logic gate that tests the equivalence is----
 -- [Combined(SO-IT/ICT)-2018]
 a) XNOR b) XOR c) AND d) NOR Ans.a
- Which of the following is the smallest size in the list? [Combined(SO-IT/ICT)-2018]
 a) Zettabyte b) Gigabyte c) Petabyte d) Terabyte Ans.b
- The Ex-OR of this string 01010101 with 11111111 is ----- [Combined(AP)-2018]
 a) 10101010 b) 00110100 c) 01010101 d) 10101001 Ans. a
12. If f is a function defined from R to R is given by $f(x)=3x-5$, then $f^{-1}(x)$ is given by -----
 -- [Combined(AP)-2018]
 a) $1/(3x-5)$ b) $(x+5)/3$
 c) does not exist since it is not a bijection d) $(3x-5)/3$ Ans. b
1. What is the binary of 68? [SBL,JBL (SO-IT/ICT)-2018]
 a) 01000100 b) 10000100 c) 00100100 d) 00010100 Ans. a
1. Which of the following is spreadsheet software? [SBL,JBL (SO-IT/ICT)-2018]
 a) Adobe Acrobat b) MS Excel c) Fax Pro d) Power Point Ans. b
1. Which of the following is not antivirus software? [SBL,JBL (SO-IT/ICT)-2018]
 a) Win-pro b)AVG c) MeAfee d) Symantec Ans. a
1. 1(one) nibble equal to-- [SBL,JBL (SO-IT/ICT)-2018]
 1 bit b) 2 bit c) 4 bit d) 8bit Ans. c
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4. Typical data transfer rates in LAN are of the order of *[BB(IT)2016]*
a) Bits Per Sec b) Kilobits Per Sec c) Megabits per sec d) None of them Ans.c
5. Which was the most popular first-generation computer? *[BB(IT)2016]*
a) IBM 1650 b) IBM 360 c) IBM 1130 d) IBM 2700 Ans.a
6. The computer code of the interchange of information between terminals is--
[BB(IT)2016]
a) ASCII b) BCD c) EBCDIC d) All of them Ans.a
7. Which of the following is internal memory? *[BB(IT)2016]*
a) Disks b) Pen Drives c) RAM d) CDs Ans.c
8. Which of the following memories needs refreshing? *[BB(IT)2016]*
a) SRAM b) DRAM c) ROM d) All of them Ans.b
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