

Unit 02 - Introduction to Computer

MCQ Questions

01. Who invented the Analytical Engine?

- (1) Blaise Pascal
- (2) Charles Babbage
- (3) John V. Neumann
- (4) John V. Atanasoff
- (5) John Presper Eckert

(2011)

02. Which of the following technologies is used in the Second-Generation Computers?

- (1) Integrated circuits (ICs)
- (2) Large Scale Integration (LSI)
- (3) Microprocessors
- (4) Transistors
- (5) Vacuum tubes

(2011)

03. Consider the following properties:

- A - Density
- B - Capacity
- C - Security
- D - Cost
- E - Access time

Which of the above are being used as the main properties to classify different types of memory?

- (1) B and D only.
- (2) A, B and C only.
- (3) B, D and E only.
- (4) A, B, C and D only.
- (5) A, B, D and E only.

(2011)

04. Consider the following memory types:

- A - Read Only Memory
- B - Secondary storage
- C - Cache memory
- D - Flash memory
- E - Random Access Memory



Which of the above can be considered as Volatile Memories?

- (1) A and B only.
- (2) A and C only.
- (3) C and D only.
- (4) C and E only.
- (5) D and E only.

(2011)

05. Who is considered as the first computer programmer?

- (1) John Von Neumann
- (2) Blaise Pascal
- (3) Charles Babbage
- (4) Ada Augusta Lovelace
- (5) John Presper Eckert

(2012)

06. Which of the following technologies has been used in the Third Generation Computers?

- (1) Integrated Circuits (ICs)
- (2) Large Scale Integration
- (3) Micro Processor
- (4) Transistors
- (5) Vacuum Tubes

(2012)

07. "The data in is read by using the Laser technology."

- (1) Floppy Disk
- (2) Magnetic Tape
- (3) Compact Disk
- (4) Magnetic Hard Disk
- (5) Flash Memory

(2012)

08. The component that decodes the instructions fetched into the CPU is called the

- (1) Primary Memory.
- (2) Register Unit.
- (3) Control unit.
- (4) ALU.
- (5) Program Counter.

(2012)

09. Which of the following data storage devices provides the fastest random access?

- (1) Main memory
- (2) Magnetic disk
- (3) CD / DVD
- (4) Flash drive
- (5) Hard disk

(2012)



10. A high-speed temporary storage, which is a part of the microprocessor that holds data and instructions during the execution, is called.....

- (1) Registers
- (2) RAM
- (3) Virtual Memory
- (4) EPROM
- (5) Flash Memory

(2013)

11. Microprocessors are usually compared by their clock speed, measured in or by their word size, measured in that can be processed in a single clock. Which of the following is most appropriate to fill the blanks in the above statement?

- (1) Bits, Megahertz
- (2) Bytes, Gigahertz
- (3) Gigahertz, Bytes
- (4) Megahertz, Bits
- (5) Seconds, Bits

(2013)

12. Typically, the cache memory is used to store

- (1) a large volume of data temporarily.
- (2) the least frequently accessed data permanently.
- (3) the least frequently accessed data temporarily.
- (4) the most frequently accessed data temporarily.
- (5) the most frequently accessed data permanently.

(2013)

13. Babbage's Difference Engine is based on

- (1) mechanical technology.
- (2) vacuum tube technology.
- (3) transistor technology.
- (4) Integrated Circuit (IC) technology.
- (5) Very Large Scale Integrated (VLSI) Circuit technology.

(2013)

14. Which of the following components is located outside the microprocessor?

- (1) Arithmetic Logic Unit (ALU)
- (2) RAM
- (3) Control unit
- (4) Registers
- (5) Level 1 cache memory

(2013)



15. Consider the following statements about Firmware:

A - Firmware is the program required to boot up a computer system.

B - Firmware is the incorporated in washing machines.

C - Firmware can be easily changed later on.

Which of the above statements is/are correct?

(1) A only.

(2) B only.

(3) A and B only.

(4) A and C only.

(5) B and C only.

(2013)

16. One of the principal inventors of the Electronic Numerical Integrator and Computer (ENIAC) was,

(1) Blaise Pascal

(2) Charles Babbage

(3) John Von Neumann

(4) Ada Augusta Lovelace

(5) John Presper Eckert

(2014)

17. Which of the following statements is correct with respect to the evolution of computing devices?

(1) Vacuum tubes were used by Blaise Pascal to build the Pascaline.

(2) The Pascaline is considered as a first-generation computing device.

(3) Computers built using vacuum tubes are considered second-generation computers.

(4) Electronic Numerical Integrator and Computer (ENIAC) was built using vacuum tubes.

(5) Apple I and Apple II are two examples of second-generation computers.

(2014)

18. Which of the following has the faster access speed?

(1) Extended Memory

(2) Register Memory

(3) Flash Memory

(4) Cache Memory

(5) Virtual Memory

(2014)

19. Consider the following statements on static Random Access Memory (SRAM):

A - SRAM needs periodic refreshing.

B - It is used for Cache memory

C - Registers are made of SRAMs.

Which of the above statement(s) is/are correct?



- (1) A only.
- (2) B only.
- (3) A and B only.
- (4) A and C only.
- (5) B and C only.

(2014)

20. Charles Babbage is considered as the “father of the computer” by some people. That is because he,

- (1) invented the mechanical calculator Pascaline.
- (2) invented the first re-programmable electronic computing machine.
- (3) took the leadership in building the first personal computer at IBM.
- (4) Introduced the concept of “Input, Process and Output” that is used in modern computers, for the first time.
- (5) is the founder of the first electronic digital computer ENIAC (Electronic Numerical Integrator and Computer).

(2015)

21. The first-generation computers were based on.

- (1) Very Large-Scale Integration (VLSI) technology.
- (2) Large-Scale Integration (LSI) technology.
- (3) Integrated Circuits (ICs)
- (4) Transistors.
- (5) Vacuum tubes.

(2015)

22. Random Access Memory (RAM) modules are often compared by their capacity, measured in..... and by their speed, measured in

Most suitable words to fill the blanks of the above statements are respectively.

- (1) Kilobytes, Gigabytes
- (2) Gigabytes, Megabits per second
- (3) Gigabytes, Megahertz
- (4) Megahertz, Kilohertz
- (5) Gigabits, Megabits per second

(2015)

23. Which of the following is not a typical use of the Random Access Memory (RAM) of a personal computer?

- (1) Keeping data for processing.
- (2) Holding instructions for operations.
- (3) Providing storage for operating systems.
- (4) Retaining information for output.
- (5) Keeping the BIOS program for boot- up.

(2015)



24. Consider the following statements on Dynamic Random Access Memory (DRAM) and Static Random Access Memory (SRAM):

- A - Registers are made of DRAM.
- B - DRAM is faster than SRAM.
- C - DRAM is more dense than SRAM.

Which of the above statement(s) is/are correct?

- (1) A only.
- (2) B only.
- (3) C only.
- (4) A and B only.
- (5) B and C only.

(2015)

25. Which of the following statements is true?

- (1) The first generation of computers were build using transistors.
- (2) Electronic Numerical Integrator and Computer (ENIAC) is a second-generation computer.
- (3) Ada Lovelace is the inventor of the Analytical Engine.
- (4) Alan Turing is considered as the first computer programmer.
- (5) The first calculating device is believed to the Abacus.

(2016)

26. Which of the following is a component of a Central Processing Unit (CPU)?

- (1) ROM
- (2) RAM
- (3) ALU
- (4) L3 Cache memory
- (5) Power supply unit

(2016)

27. The content stored in is read by suing the optical technology.

Which of the following answers is the most appropriate to fill the blank in the above statement?

- (1) Flash memory
- (2) Floppy disk
- (3) Magnetic tape
- (4) Compact disc
- (5) Hard disk

(2016)

28. In modern computers, multiple levels of cache memory is used to optimize the performance. Among them, the cache which is on/in is the fastest and most expensive cache memory.

Which of the following terms are correct to fill the blanks respectively in the above statement?



- (1) Level 1 (L_1), main memory
- (2) Level 3 (L_3), motherboard
- (3) Level 1 (L_1), microprocessor
- (4) Level 2 (L_2), microprocessor
- (5) Level 3 (L_3), microprocessor

(2016)

29. Consider the following statements about Dynamic Random Access Memory (DRAM):

- A - Periodic refreshing is required for DRAM.
- B - Registers in the processor are made of DRAMs.
- C - Memory density of DRAM is higher than that of static RAM.

Which of the above statements is/are correct?

- (1) A only.
- (2) B only.
- (3) A and B only.
- (4) A and C only.
- (5) B and C only.

(2016)

30. Which of the following is not an application of artificial intelligence?

- (1) Self - learning robots
- (2) Expert advisory systems for professionals
- (3) Smartphones
- (4) Recommender systems on e-commerce platforms
- (5) Handwriting recognition systems

(2016)

31. Who proposed the stored program concept first?

- (1) Lady Ada Augusta
- (2) Charles Babbage
- (3) Howard Aiken
- (4) Blaise Pascal
- (5) Von Neumann

(2017)

32. Which of the following components is generally seen outside the Central Processing Unit (CPU) of a computer?

- (1) RAM
- (2) Control unit
- (3) ALU
- (4) General purpose registers
- (5) L1 cache memory

(2017)



33. Which of the following secondary storage devices is generally considered to provide the fastest access to data?

(1) Compact Disk

(2) Digital Versatile Disk

(3) Internal hard disk

(4) Magnetic tape

(5) Floppy disk

(2017)

34. Which of the followings is a main use of Complementary Metal –Oxide Semiconductor (CMOS) memory of a personal computer?

(1) Keeping computer inputs for processing

(2) Holding instructions for operations

(3) Providing space for loading operating system

(4) Retaining information for output

(5) Keeping Basic Input Output System settings for the booting procedure

(2017)

35. A..... on motherboard is used to expand the functionality of a computer.

Which of the followings is the most appropriate to fill the blank in the above statement?

(1) Bus

(2) Clock

(3) RAM

(4) Slot

(5) ROM

(2017)

36. Consider the following data input devices:

A - On screen keyboard (virtual keyboard)

B - Bar code reader

C - Magnetic card reader

Which of the above devices can be used to input data more efficiently?

(1) A only

(2) B only

(3) C only

(4) A and B only

(5) B and C only

(2017)

37. Consider the following statements.

A - Word size is the number of bits processed by the CPU of a computer in a single action (instance).

B - Data bus width and register width are directly related to word size of a computer.

C - Word size of modern general-purpose computer is either 32 or 64 bits.



Which of the above statements is/are correct?

- (1) A only.
- (2) B only.
- (3) C only.
- (4) B and C only.
- (5) All A, B and C

(2018)

38. Which of the following correctly lists the given computer storage components in the descending order of access speed?

- (1) cache memory > main memory > magnetic disk > register
- (2) magnetic disk > main memory > cache memory > register
- (3) magnetic disk > main memory > register > cache memory
- (4) register > cache memory > main memory > magnetic disk
- (5) register > main memory > magnetic disk > cache memory

(2018)

39. Consider the following computer memory types.

- A - CMOS memory
- B - cache memory
- C - flash memory
- D - hard disk
- E - RAM
- F - registers

Which of the above are *volatile* memory types?

- (1) A, C and D only
- (2) A, D and E only
- (3) A, E and F only
- (4) B, E and F only
- (5) C, E and F only

(2018)

40. Consider the following statements related to the development of computers over time.

- A - Both processing speed and power consumption of computers have increased.
- B - The processing speed of a computer has increased while the physical size of a computer has decreased.
- C - Both power consumption and the physical size of a computer have been reduced.

Which of the above statements is/are correct?



- (1) A only
- (2) B only
- (3) A and B only
- (4) B and C only
- (5) All A, B and C

(2018)

41. Which of the following made a significant contribution to the growth of Information and Communication Technology (ICT) usage?

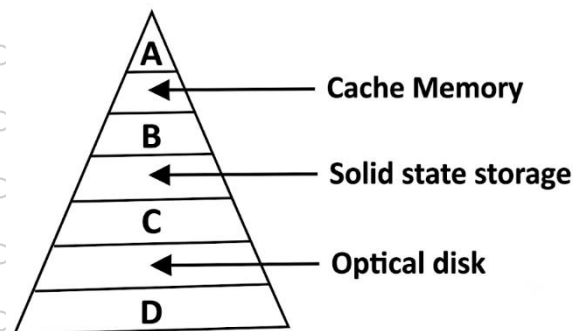
- A - Exponential progress of the semiconductor technology paving the way for low hardware
- B - Introduction of user - friendly software and interfaces to computers
- C - Merge of computer and communication technologies to produce smart and mobile devices.

Which of the above statements is/are correct?

- (1) A only
- (2) B only
- (3) A and C only
- (4) B and C only
- (5) All A, B and C

(2019)

42. In the memory hierarchy diagram given, which of the following represents (A), (B), (C) and (D) respectively?



- (1) Magnetic Tape, Magnetic (Hard) Disk, Random Access Memory (RAM), Processor Registers
- (2) Processor Registers, Magnetic (Hard) Disk, Random Access Memory (RAM), Magnetic Tape
- (3) Processor Registers, Random Access Memory (RAM), Magnetic (Hard) Disk, Magnetic Tape
- (4) Processor Registers, Random Access Memory (RAM), Magnetic Tape, Magnetic (Hard) Disk
- (5) Random Access Memory (RAM), Processor Registers, Magnetic (Hard) Disk, Magnetic Tape

(2019)



43. A computer processor will operate fastest when the data that it wants is in the

- (1) cache memory
- (2) hard disk
- (3) magnetic tape
- (4) main memory
- (5) optical disk

(2020)

44. Which of the following hardware components will lose data when the power to a computer is switched off?

- A - resistors
- B - cache memory
- C - main memory

- (1) A only
- (2) A and B only
- (3) A and C only
- (4) B and C only
- (5) All A, B and C

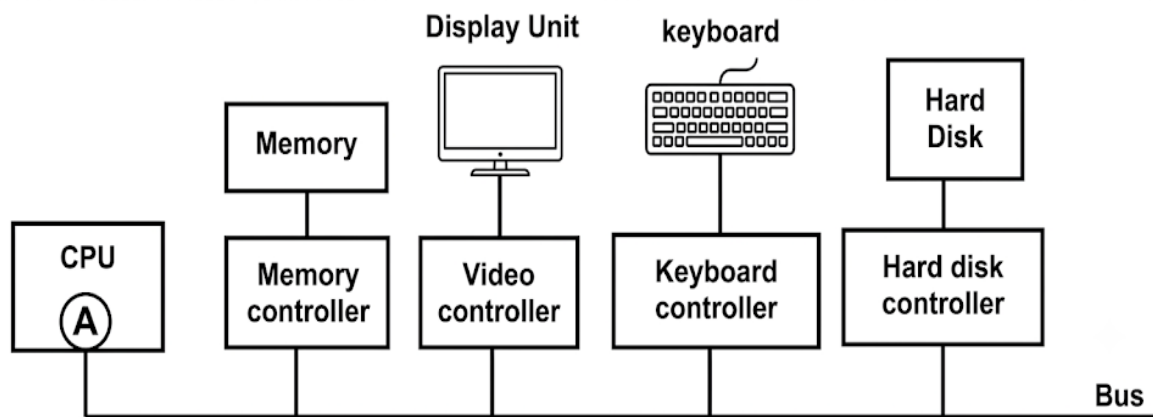
(2020)

45. The computer has evolved from the early main frames to the relatively small smart devices with high computing power used today. Which of the following inventions contributed to reducing the physical size of computers?

- (1) bus
- (2) integrated circuits
- (3) registers
- (4) solid state memory
- (5) vacuum tube

(2020)

46. Consider the following diagram showing some hardware component connections on a computer system:

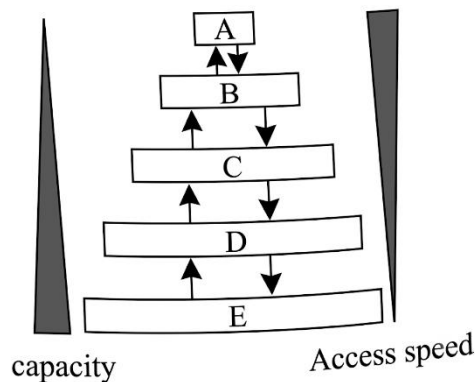


The **hardware** part within the CPU indicated by (A) in the above diagram has a set of registers that has the memory translation maps of the currently running process. When given an input *virtual address* of the current process it outputs the relevant *physical address*. (if any). The (A) in the above diagram denotes the

- (1) arithmetic and logic unit (ALU).
- (2) Control unit.
- (3) L1 cache memory.
- (4) Memory management unit.
- (5) Page table.

(2020)

47. There are different storage components which vary in capacity and access speed.



Consider that the shown diagram portrays capacity and access speed variation of the storage components *L1 cache*, *L2 cache*, *main memory*, *registers* and the *hard disk*. The capacity increases and access speed decreases from top to bottom, as shown.

Which is correct with respect to the A, B, C, D and E above?

- (1) A - hard disk, B - registers, C - L2 cache, D - L1 Cache, E - main memory
 - (2) A - L1 cache, B - registers, C - registers, D - hard disk, E - main memory
 - (3) A - main memory, B - registers, C - hard disk, D - L1 cache, E - L2 cache
 - (4) A - registers, B - L1 cache, C - L2 cache, D - main memory, E - hard disk
 - (5) A - registers, B - main memory, C - L2 cache, D - L1 cache, E - hard disk
- (2021)

48. Consider the following paragraph.

To run a program, the program code is copied from ...A... into ...B... The Central Processing Units (CPU's) program counter register is set to the memory location where the first instruction of the program has been saved execution of the program starts. The ...C... implements the fetch – decode – execute cycle.

Which of the following is the correct combination for A, B and C?



- (1) A - CPU, B - primary memory, C - secondary storage
(2) A - CPU, B - secondary memory, C - primary memory
(3) A - primary memory, B - secondary storage, C - CPU
(4) A - secondary storage, B - CPU, C - primary memory
(5) A - secondary storage, B - primary memory, C - CPU (2021)

49. Which of the following statements is/are correct?

A - *Firmware* is a computer program that is usually embedded in the volatile memory of a computer.

B - *A printer driver* is an example for an application software.

C - *Linux* is an example for system software.

- (1) A only
(2) B only
(3) C only
(4) A and B only
(5) B and C only (2022)

50. Which of the following lists a computer memory hierarchy in the descending order of access speed?

- (1) hard disk, registers, L2 cache, L1 cache, main memory
(2) main memory, L1 cache, registers, L2 cache, hard disk
(3) registers, main memory, hard disk, L1 cache, L2 cache
(4) registers, L1 cache, L2 cache, main memory, hard disk
(5) L1 cache, L2 cache, registers, main memory, hard disk (2022)

51. The existing book management system in a school library is used with a computer, a monitor, a keyboard, and a mouse. The school management wants to minimize the time taken presently for book lending / returning. Which of the following is most suitable for this purpose?

- (1) Using a digitizer
(2) Using an external hard disk
(3) Using a touch screen
(4) Using a magnetic stripe reader
(5) Using bar code technology (2023)

52. Listed below are some phrases about the internal operation of three printers:

A - a moving print head striking an ink ribbon against the paper

B - toner attracting to what is printed on a cylinder which is then transferred to paper

C - nozzles spraying ink onto paper

Which of the following correctly matches dot matrix, inkjet, and laser printers to the above?



- (1) A - dot matrix, B - laser, C - inkjet
- (2) A - dot matrix, B - inkjet, C - laser
- (3) A - inkjet, B - dot matrix, C - laser
- (4) A - laser, B - dot matrix, C - inkjet
- (5) A - laser, B - inkjet, C - dot matrix

(2023)

53. A program runs fastest when the data it requires are in the

- (1) hard disk
- (2) L1 cache
- (3) L2 cache
- (4) magnetic tape
- (5) main memory

(2023)

Structured Essay Questions

- 01.(a) State the main technologies used in the first four generations of computers.
- (b) Draw a diagram to depict the fetch – execute cycle used in program execution. (2011)
02. What are the **three** steps in the FETCH – EXECUTION cycle of computers? (2020)
03. The steps in the fetch-executive cycle are as follows:
 1. TheP..... is loaded with the memory address of the relevant instruction of the program.
 2. The instruction is loaded into the instruction register.
 3. The instruction present in the instruction register is decoded.
 4. The control unit of the CPU passes the decoded instruction as a sequence of control signals to the relevant Q..... of the CPU.
 5. The program counter is changed to point to the next instruction.
 6. Steps from Step 2 are repeated.

Select the most suitable items to replace the labels **P** and **Q** from the following list.

List: {file, functional unit, instruction, memory, page, program counter} (2022)

Essay Questions

01. What are the three (3) main components of a Central Processing Unit (CPU) of a typical computer?
List the main functions of these three components. (2011)
- 02.(a) Explain **one (1)** way in which *bar code technology* can be beneficial to a library management system.
- (b) Most modern computers have multiple processors in them. Explain **one (1)** way in which the multiple processors in such computers can be beneficial.
- (c) Explain what is meant by *volatile memory* and write down **one (1)** example for such selecting from the list below.

List: (Dynamic RAM (DRAM), Hard disk, L1 cache, Registers) (2021)

