Study Material: Computer System - Question Bank
Subject: Informatics Practices (065)
Class XI
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Q1. Which of the following components is the main memory of computer ?
(a) DVD
(b) CD
(c) Internal hard drive
(d) RAM

Q2. Which component of a computer connects the processor to the other hardware?
(a) CPU
(b) System Bus
(c) Input Unit
(d) Memory

Q3. Which of the following is referred to as the brain of computer ?
(a) RAM
(b) Processor
(c) Hard drive
(d) ROM

Q4. What is the name of programs that control the computer system ?
(a) Keyboard
(b) Hardware
(c) Mouse
(d) Software

Q5. The physical components of a computer are called
(a) Hardware
(b) Software
(c) CPU
(d) ALU

Q6. Which of the following is the common measurement of unit of computer memory?
(a) Byte
(b) IQ
(c) Gigabyte
(d) Terabyte

Q7. What is the name of the component that used to both read and writes data ?
(a) ROM
(6) RAM
(d) Cache Memory
(c) Hard Drive

Q8. The CPU is also known as:
(a) The Processor
(b) The Brain
(c) The Central Processing Unit
(d) All of these

Q9. Which smaller unit of the CPU directs and coordinates all activities within it and determines the sequence in which instructions are executed, sending instructions sequence to other smaller unit.
(a) CU
(b) ALU
(c) PROCESSOR
(d) All of these

Q10. Which smaller unit of the CPU performs all arithmetic and logic functions in a computer?
(a) CU
(b) ALU
(c) PROCESSOR
(d) All of these

Q11. Component of CPU which is responsible for comparing the contents of two pieces of data is
(a) ALU
(b) CU
(c) memory
(d) register

Q12. In a computer, CU stands for
(a) control unit
(b) cache unit
(c) calculating unit
(d) communication unit

Q1: State the basic units of the computer, Name the subunits that make up the CPU, and give the function of each of the units.
Ans: The basic units of a computer are:

1. Central Processing Unit (CPU)
2. Input unit
3. Output Unit
4. Memory.

The CPU has too subunits : the control unit (CU) and the arithmetic logic unit (ALU).
The control unit controls the entire operation being carried out.
The ALU performs the arithmetic and logical operations.

Q2: What is the function of memory ? What are its measuring units ?
Ans: The memory temporarily holds the data and information during processing. The smallest unit of memory is a byte (8 bits). A byte can store one character in binary form. Other measuring units are kilobyte (KB) equal to 1024 (2°) bytes, Megabyte (MB)

equal to 1024 KB, Gigabyte (GB) equal to 1024 MB and Terabyte (TB) equal to 1024 GB.

Q3: Give examples for each of system software and application software. Explain the function of each type.
Ans: Examples of system software are
(i) Operating system
(ii) Language Processor
(iii) Application Software
Examples of Operation System are : Windows 10, Ubuntu Linux, MacOS etc.
Operating system governs functions of a computer system and acts as interface between the hardware and the user.
The examples of language processors are : (i) Interpreter (ii) Compiler (iii) Assembler
An interpreter converts and executes an HLL(High Level Language) program into object program line by line whereas a compiler converts an HLL program into object program in one go and once the program is error free, it can be executed later. An assembler converts an assembly language program into object program.
Examples of application software are : (i) Customised Software (ii) General software.
The customised software pertains to the requirements of a specific user for whom the software has been developed. General software is developed keeping in mind general specifications of a problem.

Q4. What is the difference between RAM and ROM ?
Ans: RAM refers to random access memory where both read and write operations can take place. But the RAM is a volatile memory ; its contents are lost when power is turned off. ROM refers to read only memory where only read operation can take place. The ROM is a non-volatile memory.
Both RAM and ROM are parts of the primary memory.

Q5: What is Cache memory? Why is it considered crucial for a microprocessor's performance?
Ans: Cache memory is a special high-speed memory that stores the most recently used data in order to speed up the process of instruction execution. A cache can speed up data retrieval because recently used data is likely to be used again by the computer.

Q6: What is access time of a storage device ? Name a storage device with faster access times,
Ans: The time taken to read data from a storage device and bring it to memory is called access time, the Solid State Drives (SSDS) have faster access times.

Q7: What is Data capturing
Ans: Obtaining data and converting it into digital form is called data capturing. It is done by the input devices.

Q8: What is data retrieval ? Which aspect of data retrieval affects the system performance ?
Ans. Obtaining captured data from storage device is called data retrieval. Access time of the storage device affects the performance of a computer system, in data retrieval.

Q9: What are various categories of software ?
Ans: There are broadly two categories of software
1. System Software. This type of software controls internal computer operations. The system software can further be classified in these categories :
(i) Operating System an interface between a user and the hardware.
(ii) Language Processor responsible for converting an HLL code into machine code.
(iii) System Utilities carry out housekeeping functions fora computer.
(iv) Device Drivers store instructions to drive and use different hardware devices.
2. Application Software. An application software is the set of programs necessary to carry out operations for a specified application.

Q10: What is the difference between an interpreter and a compiler ?
Ans: An interpreter converts an HLL program into machine language line by line and simultaneously executes the converted line. If an error occurs in a line, the line is displayed and interpreter does not proceed unless the error is rectified. A compiler converts an HLL program in machine language in one go. If there are errors in the program, it gives the error list along with the line numbers. Once the errors are removed, error-free object code is made available and after this compiler is no more needed in the memory.

Q11: What is application software ? Why is it required ?
Ans: Application software is a software that pertains to one application.
Application software is required because system software cannot carry out the routine jobs performed by the user which application software can easily do. To perform various kinds of activities, the application software comes in various categories :
(i) Customised Software
(ii) General purpose software

Q12: Five statements about interpreters and compilers are given below. Study each statement and determine which of them hold true for a compiler or for an interpreter.
(i) takes one statement at a time and executes it.
(ii) generates an error report at the end of translation of the whole program,
(iii) stops the translation process as soon as the first error is encountered
(iv) slows speed of execution of program loops.
(v) translates the entire program in one go.
Ans: Interpreter : (i), (iii), (iv) ; Compiler: (ii), (V)

Q13: Describe the terms free software and open source software.
Ans: Free software is the software free of cost, which can be copied, modified and redistributed as well but whose source code is not available. Open source software, on the other hand, is the software, whose source code is available and which can be copied, modified and redistributed as there may or may not be charges payable for open source software well.

Q14: Write one advantage & one disadvantage of Open Source software over Proprietary software.
Ans: Advantage of open source software over proprietary software is that open source software can be modified according to one's needs as source code is available.

Disadvantage of open source software over proprietary software is that proprietary software provide good customer support as well user friendly interface which is a major drawback of open software.

Q15: Write examples of one Proprietary and one Open Source Software.
Ans: Open source software : Linux; Proprietary software : Microsoft Windows 10.

Q16: Name one open source Indian operating system.
Ans: BOSS Linux.

[NCERT]
Q1. Name the software required to mnake a comnputer functional. Write down its two primary services.
Ans. Operating System. Two of its primary services are : managing CPU and managing primary memory.

Q2. What is the need of RAM ? How does it differ from ROM ?
Ans. The RAM is needed for the smooth running of a computer's operations as it provides memory for reading as well writing; its contents can be modified as and when required. ROM, on the other hand, stores some instructions which are permanent. ROM cannot be written onto. One can only read instructions from ROM.
Thus RAM along with ROM, is required for the smooth functioning of a computer system.

Q3. What is the need for secondary memory
Ans. The primary memory holds the data and instructions only during processing and after that, it gets erased. One cannot store data and instructions permanently on RAM. To permanently store data and instructions, the secondary memory is required.

Q5. Differentiate between proprietary software and freeware software. Name two software of each type.
Ans. Proprietary software is software that is owned by an individual or a company. It comes with a license for its use, and its source code is almost always kept secret. Freeware is software, most often proprietary, that is distributed at no monetary cost to the end user. However, its source code is not available and it comes with a license too.

Q6. Mention any browsers used for browsing the Internet.
Ans. Chrome, Safari, Firefox.

Q7. Name the input/output device used to do the followig
(a) To output audio
(b) To enter textual data
(c) To make hard copy of a text file
(d) To display the data information
(e) To enter audio-based command
(f) To build 3D models
(g) To assist a visually-impaired individual in entering data

Ans.
(a) speaker
(b) keyboard
(c) printer
(d) monitor
(e) MIC
(f) 3D printer
(g) Braille Keyboard