CLASS-11
COMPUTER SYSTEM OVERVIEW & EMERGING TRENDS

MCQ **[Sumita Arora]**

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

2. 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

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

4. A disk fragmentation is an example of
   (a) Application Software (b) System Software (c) Utility Software (d) None of these

5. Flash memory is a type of_____memory.
   (a) RAM (b) Cache (c) Secondary (d) All of these

6. Operating System is an example of
   (a) Application Software (b) System Software (c) Utility Software (d) None of these

7. The process of encrypting and decrypting information.
   (a) Decentralized Application (b) Cryptocurrency (c) Block (d) Cryptography

8. Which of these is an example of cloud storage?
   (a) Google Drive (b) Microsoft Azure (c) iCloud (d) All of these

9. which of the following is not a cloud service?
   (a) IaaS (b) PaaS (c) SaaS (d)DaaS

10. Intelligent sensor that can convert and process quantities digital are_____sensor.
    (a) Cloud (b)AI (c) Grid (d) Smart

11. A blockchain is secured by_____.
    (a) PIN Code (b) 'hash' code (c) password (d)login

12. Which is not one of the features of IoT devices?
    (a) Remotely controllable (b) Programmable
    (c) Can turn themselves off if necessary (d) All of the above

Fill IN THE BLANKS [Sumita Arora]

13. The small memory providing units inside the CPU are called the_____.

14. Utility programs are a type of _____.

15. The power unit of a mobile system is called_____.

16. _____refers to the logical structure of a computer describing their interconnections and dependency.

17. The_____of the CPU controls or supervises the processing taking places.

18. A secured data chunk that stores encrypted details of a valid transaction is called a_____.

19. Group of linked blocks in a proper linear chronological order is called a_____.

20. The cloud used by multiple organizations on a shared basis are_____clouds.

ASSERTION AND REASONING BASED QUESTIONS: [V.K.Pandey]

In the following questions a statement of Assertion (A) is followed by a statement of Reason(R). Mark the correct choice as:

(a) Both A and R are true and R is the correct explanation of A.
(b) Both A and R are true but R is not the correct explanation of A.
(c) A is true but R is false.
(d) A is false but R is true.

21. **Assertion (A):** The system software is a set of programs which takes care of all the activities of a computer system.
Reason (R): The system software is designed by the manufactures in low level languages to serve as an interface between the user and the computer. It controls the various hardware and software components of a computer system.

22. **Assertion (A):** An operating System is system software that manages various resources and the overall operations of a computer system.
Reason (R): An operating system can be classified into two categories: single user and multiuser operating system. A single user operating system allows only one user whereas, the multi user operating system allows more than one user to interact with the computer at a time.

SAQ [Sumita Arora]

23. What is the role of CPU of a mobile System?

24. What is Cache memory? Why is it considered crucial of a microprocessor's performance?
25. Give examples of each System and Application software. Explain the function of each type.

26. Why is primary memory termed as 'destructive write' memory but 'non-destructive read' memory?

27. Indentify the category (System, application, programming tool) of the following software:
    (a) Compiler
    (b) Assembler
    (c) Ubuntu
    (d) Text editor

28. Find the difference between followings:
    (a) Application and System software
    (b) Static and Dynamic RAM
    (c) Disk fragmentor and backup software
    (d) Internal and External Memory
    (e) RAM and ROM
    (f) Compiler and Interpreter
    (g) PROM and EPROM
    (h) ASCII and UNICODE

29. What does Assembler do?

30. What is IoT?

31. What is Artificial Intelligence? What are the some applications of AI?

32. What is Machine learning? What are the some applications of ML?

33. What is Cloud Computing?

34. What is the difference between public cloud and private cloud?

35. How IaaS is different from PaaS?

36. List some advantages of blockchain technology?

CASE BASED QUESTIONS: [Sumita Arora & V.K.Pandey]

37. 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.

    (a) takes one statement at a time and executes it.
    (b) generates an error report at the end of translation of the whole program.
    (c) stops the translation process as soon as the first error is encountered.
    (d) slow speed of execution of program loops.
    (e) translate the entire program in one go.

38. If Government plans to make a smart school by applying IoT concepts, how can each of the following be implemented in order to transform a school into IoT enabled smart school?
    (a) e-textbook
    (b) Smart boards
    (c) Online tests
    (d) Wifi sensors on classrooms doors
    (e) sensor in buses to monitor their location
    (f) Wearables (watches or smart belts) for attendance monitoring

39. Five friend plan to try a startup. However, they have a limited computer infrastructure. How can they avail the benefits of cloud services to launch their startup?

40. Governments provide various scholarships to students of different classes. Prepare a report on how blockchain technology can be used to promote accountability, transparency and efficiency distribution of scholarships?

41. Compiler and Interpreter are used to convert high level language programs into machine language. The only difference is that a compiler reads the whole program at a time to convert it into machine code whereas; interpreter does it line by line or statement by statement. The machine code received from compiler is stored in the hard disk. When you want to re-execute the compiled program, you need not recompile it again rather the same machine code is user for processing. On the other hand, on using the interpreter, the high level program need to be converted as many times as you want to execute it.

    Read the above description and answer the following questions:
    (a) Name the two language translator.
    (b) Which one is faster compiler or interpreter?
    (c) Why should you convert a high level language into machine language?
    (d) Which of the language processors execute the program line by line?