Class : 11

Register Number

COMMON QUARTERLY EXAMINATION - 2024 - 25

COMPUTER SCIENCE

Time Allowed : 3.00 Hours] [Max. Marks : 70

Instructions : (1) Check the question paper for fairness of printing. If there is any lack of fairness, inform the Hall Supervisor immediately.
(2) Use Blue or Black ink to write and underline and pencil to draw diagrams.

PART - I

Note : i) Answer All the questions. 15X1 = 15
ii) Choose the most appropriate answer from the given four alternatives and write the the corresponding answer.

1. Identify the output device
   (a) Keyboard (b) Memory (c) Monitor (d) Mouse
2. For $(1101)_2$ the equivalent Hexadecimal equivalent is?
   (a) F (b) E (c) D (d) B
3. Which of the following is a CISC processor?
   (a) Intel P6 (b) AMD K6 (c) Pentium III (d) Pentium IV
4. Which of the following OS is a commercially licensed Operating system?
   (a) Windows (b) UBUNTU (c) FEDORA (d) REDHAT
5. Which is the default folder for many Windows Applications to save your file?
   (a) My Document (b) My Pictures
   (c) Documents and Settings (d) My Computer
6. Omitting details inessential to the task and representing only the essential features of the task is known a
   (a) Specification (b) Abstraction (c) Composition (d) Decomposition
7. How many times the following loop is iterated:

```
i := 0
  while i '" 5
i := i + 1
```

   (a) 4 (b) 5 (c) 6 (d) 0
8. Which of the following is not an invariant of the assignment? m, n := m+2, n+3
   (a) m mod 2 (b) n mod 3 (c) 3 X m - 2 X n (d) 2 X m - 3 X n
9. Who coined C++?
   (a) Rick Mascitti (b) Rick Bjarne (c) Bill Gates (d) Dennis Ritchie
10. A program written in high-level language is called as
    (a) Object code (b) Source code (c) Executable code (d) All the above
11. This can be used as alternate to endl command:
    (a) \t (b) \b (c) \0 (d) \n
12. The multi way branch statement:
    (a) if (b) if ... else (c) switch (d) for
13. How many times the following loop will execute:

```
for(int i=0; i<=10; i++)
```

    (a) 0 (b) 10 (c) 9 (d) 11
14. An example for single task operating system is
    (a) Linux (b) Windows (c) MS - DOS (d) Unix

15. Which gate is called as the logical inverter?
(a) AND (b) OR (c) NOT (d) XNOR

PART - II

II. Answer any 6 Questions. Q.No 24 is compulsory **6x2=12**

16. What are the components of a CPU?
17. Convert $(46)_{10}$ into Binary number.
18. What are the parameters, which influence the characteristics of a Microprocessor?
19. What is Multi-user Operating system?
20. What are called Standard Icons?
21. What is the difference between assignment Operator and Equality Operator?
22. Define a Loop Invariant.
23. What is mean by a Token? Name the token available in C++.
24. **Subtract the following:** $(1110011)_2 - (11001)_2$

PART - III

III. Answer any 6 Questions. Q.No 33 is compulsory. **6x3=18**

25. What is an Input Device? Give two examples.
26. Classify the Microprocessor based on the Size of the Data.
27. Write a note on Recycle bin.
28. What is Abstraction?
29. What is Case Analysis?
30. What is the use of a Header file?
31. Write the syntax of if - else statement.
32. Write a short note on XNOR gate.
33. Evaluate the following C++ expression where x, y, z are integers and m,n are floating point numbers. The value of x=5, y=7 and m=3.5
(i) n=x+y/x; (ii) z=m*x+y; (iii) z*=x*m+x;

PART - IV

IV. Answer all the Questions. **5x5=25**

34. (a) Explain the basic Components of a Computer with a Neat diagram.

(OR)

(b)(i) Write the procedure to convert fractional Decimal to Binary.
(ii) Convert $(98.46)_{10}$ to Binary.

35. (a) Explain the types of ROM.

(OR)

(b) Explain the concept of a Distributed Operating System along with its advantages.

36. (a) Explain the different ways of Finding a File or Folder.

(OR)

(b) Explain the process Management Algorithms in Operating System.

37. (a) Write about Binary Operators used in C++.

(OR)

(b) Explain Switch Case Statement with an example.

38. (a) What are the types of Errors? Explain in detail.

(OR)

(b) What is an entry control loop? Explain any one of the entry-controlled loop with suitable example.