COMMON QUARTERLY EXAMINATION - 2024
STANDARD - XI
COMPUTER SCIENCE

TIME: 3.00 hrs

MARKS:70

PART - I

I Answer all the Questions   15x1=15

1. First generation Computers used _____
   a) Vacuum tubes b) Transistors c) Integrated circuits d) Microprocessors

2. 2^50 is referred as _____
   a) kilo   b) Tera   c) Peta   d) Zetta

3. NOR is a combination of?
   a) NOT(OR)   b) NOT(AND) c) NOT(NOT)   d) NOT(NOR)

4. Which is the fastest memory?
   a) Hard disk   b) main memory
   c) Cache memory   d) Blue-Ray disc

5. The shortcut key used to rename file in windows _____
   a) F2   b) F4   c) F5   d) F6

6. Operating system is a _____
   a) Application Software   b) Hardware
   c) System Software   d) Component

7. Stating the input property and the input - output relation a problem is known _____
   a) specification   b) statement   c) algorithm   d) definition

8. How many times the loop is iterated?
   ```
   i: = 0
   While i ≠ 5
       i: = i+1
   ```
   a) 4   b) 5   c) 6   d) 0

9. A loop invariant need not be true _____
   a) at the start of the loop   b) at the start of each iteration
   c) at the end of each iteration   d) at the start of the algorithm

10. If mxa + nxb is an invariant for the assignment a, b : = a+8, b+7, the values of m and n are
    a) m=8, n=7   b) m=7, n=-8   c) m=7, n=8   d) m=8, n=-7

11. Who coined C++?
    a) Rick Mascitti   b) Rick Bjarne c) Bill Gates   d) Dennis Ritchie

12. Which of the following operator is extraction operator in C++?
    a) >>   b) <<   c) <>   d) ^^

13. Which of the following operator returns the size of the data type?
    a) Size of ()   b) int()   c) long()   d) double ()

14. This can be used as alternate to endl Command _____
    a) \t   b) \b   c) \0   d) \n

15. How many types of iteration statements?
    a) 2   b) 3   c) 4   d) 5

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PART - II

II   Answer any six questions. (Question 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 microprocessor?
19. What is a GUI?
20. What is known as Multitasking?
21. Define an algorithm?
22. What is an invariant?
23. What is a null Statement and Compound Statement?
24. The following constants are of which types?
    i) 39   ii) 032   iii) OXCAFE   iv) 04.14

PART - III

III   Answer any six questions. (Question No.33 is compulsory)   6x3=18

25. Write the characteristics of Sixth generation?
26. Write the De Morgan's law?
27. Classify the microprocessor based on the size of the data?
28. List out the Key features of operating system.
29. Differentiate copy and move.
30. What is case analysis?
31. What is the use of a header file?
32. Write the Syntax and purpose of switch Statement?
33. Evaluate the following c++ expressions where x, y, z are integers and m, n are floating Point numbers. The value of x=5, y=4 and m=2.5;
    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) Write the specification of an algorithm hypotenuse whose inputs are the lengths of the two shorter sides of a right angled triangle, and the output is the length of the third side.

35. a) Find 1's complement and 2's complement for the following Decimal number.
        a) -98   b) -135
                              (OR)
    b) List out the points to be noted while creating a user interface for an operating system?

36. a) Explain the Types of ROM.
                              (OR)
    b) Write about Binary Operators used in c++?

37. a) Write the procedure to create shortcut in windows OS?
                              (OR)
    b) Explain the fundamental gates with expression and truth table?

38. a) What are the types of Errors?
                              (OR)
    b) What is an entry control loop? Explain any one of the entry controlled loop with suitable example.

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