# COMMON QUARTERLY EXAM SEP-2024
# COMPUTER SCIENCE

**STD: XI**

*Time Allowed : 3 Hours*          *Max. Marks : 70*

## PART – I

**Answer all the questions.**        **15 x 1 = 15**

1. Which of the following is the exit control loop?
   (a) for    (b) while    (c) do...while   (d) if...else

2. 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

3. If i = 10 before the assignment i := i-1 ; after the assignment, the value of i is ,
   (a) 8        (b) 10        (c) 9        (d) 7

4. The File management system used by Linux is
   (a) ext2        (b) NTFS        (c) FAT        (d) TAN

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

6. Who developed C++?
   (a) Charles Babbage        (b) Bjarne Stroustrup
   (c) Bill Gates        (d) Sundar Pichai

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

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

9. Which is the fastest memory?
   (a) Hard disk        (b) Main memory
   (c) Cache memory        (d) Blue-Ray disc

10. Name the volatile memory
    (a) ROM    (b) PROM    (c) RAM    (d) EPROM

11. $2^{70}$ is referred as
    (a) Kilo        (b) Tera        (c) Peta        (d) Zetta

12. This can be used as alternate to endl command:
    (a) \t    (b) \b    (c) \0    (c) \n

13. Who is the father of computer?
    (a) Charles babbage        (b) Engelbart
    (c) Billgates        (d) George Boole

14. Which option used for to permanently delete a file (or) a Folder in windows?
    (a) Ctrl + Delete    (b) Shift + Delete    (c) Backspace    (d) Delete

15. Which is not a jump statement?
    (a) goto        (b) break    (c) continue   (d) while      *11-CS-EM-P-1*

## PART – II

Answer any **six** questions(Question No. **24** is compulsory) 6 x 2 = 12

16. What is a computer?
17. Write a short note on const keyword with an example?
18. Define a loop invariant.
19. What is the difference between an algorithm and a program?
20. What is abstraction?
21. Differentiate Files and Folders.
22. What are the different Operating Systems used in computer?
23. Write the De Morgan's law.
24. Write the types of RAM?

## PART – III

Answer any six questions(Question No. 33 is compulsory).  6 x 3 = 18

25. Convert $(255)_{10}$ into Binary, Octal and Hexadecimal number.
26. Write down the classifications of microprocessors based on the instruction set.
27. List out the key features of Operating system.
28. Differentiate copy and move.
29. What is the difference between assignment operator (=) and equality operator (==)?
30. What is case analysis?
31. Write a program to print following series:

   1  4  7  10 ...... 40

32. Differentiate break and continue statement.
33. What do you mean by fundamental data types? List out it's types.

## PART – IV

Answer *all* the questions.  5 x 5 = 25

34. Discuss the various generations of computers. *(or)*
  Explain the Derived gates with expression and truth table.
35. Explain the types of ROM. *(or)*
  Explain the process management algorithms in Operating System.
36. Explain the versions of Windows Operating System. *(or)*
  Trace the step-by-step execution of the algorithm for factorial(4).
    factorial(n)
    -- inputs : n is an integer , n $\geq$ 0
    -- outputs : f = n!
    f, i := 1 ,1
    while i $\leq$ n
    f, i := f × i, i+1
37. Define Tokens and explain it's types with examples. *(or)*
  Explain for statement with example.
38. Find 1's Complement and 2's Complement for the following Decimal number
    (a) – 76  (b) – 127 *(or)*
  Arrange the memory devices in ascending order based on the access time.

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