

STD: XI

AUGUST MONTHLY TEST

Lessons: 7 to 10

Marks: 50 / Time: 1.30 Hrs.

COMPUTER SCIENCE

PART- I

I. Choose the correct answers.**10 X 1 = 10**

1. How many times the loop is iterated?

m: =0

while (m<5)

m:=m+1

(a) 10

(b) 4

(c) 5

(d) 6

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. Which of the following operator is extraction operator in C++?

(a) >>

(b) <<

(c) <>

(d) ^^

4. What is the output of the following snippet?

int num;

int &temp=num;

num=1000;

cout<<temp;

(a) 100

(b) 1000

(c) 1001

(d) 101

5. Which of the following data types is not a fundamental type?

(a) signed

(b) int

(c) float

(d) char

6. Which operator is used to access reference of a variable?

(a) \$

(b) #

(c) &

(d) !

7. In c++ _____ is used for pointer to a variable

(a) -

(b) +

(c) /

(d) *

8. A loop that contains another loop inside its body:

(a) Nested loop

(b) Inner loop

(c) Inline loop

(d) Nesting of loop

9. #include<iostream>

using namespace std;

int i,sum=5;

for(i=1; i<=5;i++)

{

sum=sum+i;

}

cout<<sum;

return 0;

}

The output for the above snippet is:

(a) 20

(b) 10

(c) 25

(d) 15

10. Which of the following is called exit control loop?

(a) for

(b) while

(c) do while

(d) if else

PART- II**II. Answer any five questions. Question No. 17 is compulsory:****5 X 2 = 10**

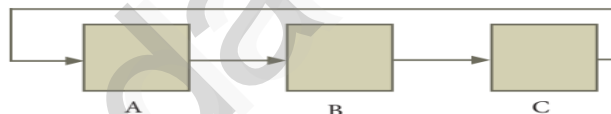
11. Both conditional statement and iterative statement have a condition and a statement. How do they differ?
12. Define factorial of a natural number recursively.
13. What is the use of setw() format manipulator?
14. What is difference between endl and \n?
15. What is modifier and list out the types of modifiers?
16. What is a null statement and compound statement?
17. What is a jump statement in c++? Write its types

PART- III**III. Answer any five questions. Question No. 24 is compulsory:****5 X 3 = 15**

18. What is case analysis?
19. What is iteration?
20. Differentiate “=” and “==”
21. What is type conversion? Write short note on implicit type conversion
22. Write a C++ program to print multiplication table of a given number.
23. Write the syntax of while, for loop
24. Write a c++ program to display the numbers from 1 to 10 .Except 5 using ‘for’ and ‘continue’ statement.

PART- IV**IV. Answer all the questions.****3 X 5 = 15**

25. a) Circulate the contents: Write the specification and construct an algorithm to circulate the contents of the variables A, B and C as shown below: The arrows indicate that B gets the value of A, C gets the value of B and A gets the value of C.

**(OR)**

- b) Power can also be defined recursively as Construct a recursive algorithm using this definition. How many multiplications are needed to calculate a^{10} ?

$$a^n = \begin{cases} 1 & \text{if } n = 0 \\ a \times a^{n-1} & \text{if } n \text{ is odd} \\ a^{n/2} \times a^{n/2} & \text{if } n \text{ is even} \end{cases}$$

26. a) What are the types of Errors?

(OR)

- b) (i) What are tokens in c++
(ii) Explain the types of tokens in c++ with suitable example.

27. a) What is Exit controlled loop? Explain it with example.

(OR)

- b) Explain control statement with suitable example.