

Code: A-C616113-M

I SEMESTER EXAM - 2025-26

3 x 210

Std.: XI

Sub: Computer Science - I

Marks: 50

Date:

Roll No.: _____

Time: 3 hrs

Q.1 A) Select the most appropriate option and rewrite the following statements.

[4]

- 1) When an algorithm is written using a programming language, it becomes a _____.
a) Program b) Flowchart c) Syntax
d) All of these
- 2) If `int a = 8, b = 3, c = 5, r;`
What will be the value of variable after the execution of the following statement?
`r = 2 * b + 3 * (a - c);`
a) 45 b) 15 c) error
d) None of these
- 3) Which of the following is a valid statement to store the value of `a+b` in `c`, in algorithm?
a) `a+b = c` b) `c = a + b` c) Both a) and b)
d) None of these
- 4) Predefined word is known as _____.
a) Compiler b) variables c) Keyword
d) All of these

B) Attempt any TWO of the following.

[6]

Identify the errors in the following codes and write the correct form

- 1)

```
#include<iostream.h>
#include<conio.h>;
voidmain (
{
Clrscr { };
cout<<"\n hello world
}
```
- 2)

```
#include<iostream.
VOID mainQ
{
Int a;
cout"\nenter value of a;
cin>>a
}
```
- 3)

```
#include<iostream.h>;
#include<conio.h>;
void main();
{} cout"\n enter an integer value;
cin>>a
```

P.T.O

Q.2 A) Attempt any TWO of the following.**[6]**

Assume the declarations as:

`int a = 8, b=3, c=-5, n1 = 50, n2 = 4, q, d, e, r;`

- 1) What will be the value of variables d and e after the execution of the following statements?

`d = (a*c)%b;``e = a*(c%b);`

- 2) What will be the value of variable r after the execution of the following statement?

`r = 2*b+3*(a-c);`

- 3) What will be the output of following code?

`q = n1/n2;``r = n1 - (q*n2);``cout<<<q<<r;`**B) Attempt any ONE of the following.****[4]**

- 1) Write C++Program structure.

Also write a program in C++ to print statement to give following output.

`Welcome to C++ programming`
`Hello World`

- 2) What will be the value of variables r1, r2, m1 and m2, if `int a=5, b=6;`

i) `r1 = ++a + b-;`

ii) `r2 = a++ + -b;`

iii) `m1 = ++a * 7;`

iv) `m2 = a++ * 7;`

Q.3 A) Attempt any TWO of the following.**[6]**

- 1) Mention any 3 basic data types used in C++ along with size in bytes they occupy in memory.
- 2) Explain the insertion and extraction operator used in C++.
- 3) Explain any 3 Arithmetic operators used in C++ with examples for each.

B) Attempt any ONE of the following.**[4]**

- 1) Mention and explain any 4 symbols used in flowchart.
- 2) Define Operator Precedence and Operator Associativity? Explain the concept with an example for each.

Q.4.A) Attempt any TWO of the following.**[6]**

- 1) Write the rules for naming of variable.
- 2) Explain the difference between / and % operator used in C++ with examples.
- 3) Explain the difference between = and == operator used in C++.

B) Attempt any ONE of the following.**[4]**

- 1) Draw a flowchart to read temperature in Fahrenheit from the user. The program must convert and print the temperature to Celsius. [Note: $F = C * 9/5 + 32$]
- 2) Write an Algorithm to read length and breadth of a rectangle. The algorithm must calculate and print the area and perimeter of the rectangle.

Q.5 Attempt any TWO of the following.**[10]**

- 1) Write a program in C++ to read a three digit number from the user. The program must calculate and print sum of all digits present in that number.
 - 2) Write a program in C++ to read three integer values from the user. The program must find and print sum and average of three integer values.
 - 3) Write a program in C++ to read two integer values from the user and store it in variable say 'n1' and 'n2'. The program must swap the values stored in these variables without using third variable. The program must also print values before and after swapping with a suitable message.
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