

Code: A-C223115-A

I SEMESTER EXAM - 2024-25

2 x 205

Std.: XI

Sub: Computer Science - I

Marks: 50

Date:

Roll No.: _____

Time: 3 Hrs.

Q1.A. Select the most appropriate option and rewrite the following statements.

[4 M]

1. What is this operator >> called as _____.
a) Insertion Operator b) Relational Operator c) Extraction Operator d) None of these
2. In C++, main() is _____.
a) Keyword b) Identifier c) function d) Data type
3. % operator cannot be used with _____ data type.
a) int b) float c) char d) None of these
4. Which of the following is used to terminate a C++ statement?
a); b)(c)] d):

Q1.B. Attempt any two of the following.

[6M]

1. Draw a flowchart to read three integer values from the user. The flowchart must calculate and print with a suitable message the sum and average of these numbers
2. Explain Program structure in C++
3. Enlist any three basic datatypes used in C++ along with its range and bytes it takes to get stored in memory

Q2. A. Attempt any two of the following.

[6m]

1. Define the following
a) Binary Operator b) Algorithm c) Operand
2. What is keyword? Write any 4 valid keyword used in C++
3. State whether the following statements are True or False.
a) [] can be used in C++ arithmetic statement
b) A unary operator works on one operand.
c) C++ is not a case sensitive language.

Q2. B. Attempt any ONE of the following.

[4M]

1. Write down any four characteristics of an algorithm
2. a) Explain any two escape sequences used in C++,
b) Write a single cout statement for the following output statements:
cout<<"\ area =";
cout<<a;
cout<<"\n circumference =";
cout<<c;

Q3.A. Attempt any TWO of the following.

[6M]

1. Define: Operator Associativity. Explain it with an example
2. Assume int n = 4, a = 1, t = 3, d; what will be the value of d after evaluating the following expression?
 $d = n * a / ((2 + 3) / 2 * a) + 2 ++;$
3. Write an Algorithm to read the length and breadth of a rectangle. The algorithm must calculate and print the area and perimeter of the rectangle..

Q3.B. Attempt any ONE of the following.

[4M]

1. What is Unary operator? Explain pre and post increment operator with an Example
2. Mention all the symbols with their usage for drawing a flowchart

P.T.O

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

- 1 Explain declaration and initialisation of a variable with example.
- 2 Identify the error in the following C++ program

```
#include<iostream.h>
```

```
VOID main()
```

```
{
```

```
    Int a;
```

```
    cout<<"Enter value of a",
```

```
    cin>>a;
```

- 3 Identify the error in the following C++ program.

```
#include<iostream.h>
```

```
#include<conio.h>
```

```
void main(
```

```
{
```

```
    clrscr{ };
```

```
    cout<<"\nhello world";
```

```
}
```

Q4.B. Attempt any ONE of the following.**[4M]**

1. Define Variable. Mention all the rules for naming a variable in C++
2. Write a C++ statement for the following:

a) $a = 1/2(b_1 + b_2)h$

b) $e = b^2 - 4ac/2a$

c) $p = 2(l + w)$

d) $d = a^2 + 2ab + b^2$

Q5. Attempt any two of the following.**[10M]**

1. Write a program in C++ to read a three digit number from the user. The program must calculate and print the sum of all digits present in that number.
2. Write a program in C++ to read temperature in Fahrenheit from the user. The program must convert and print the temperature to Celsius. [Note: $F = C * 9/5 + 32$]
3. Write a C++ program to read two integer values from the user and store it in say variable a and b . The program must swap the values of these two variables and print with a suitable message the values before and after swapping.
