

II UNIT TEST QUESTION BANK (CS1)

1) Select the most appropriate option and rewrite the following statements:

- a) In C++, a condition can be formed using _____
i) assignment operators ii) relational operators
iii) arithmetic operators iv) unary operators
- b) the statement `x++` is equivalent to ____
i) `x=x+1` ii) `++x` iii) both i) and ii) iv) `x=x-1`
- c) what will be the value of a and b if: `int a,b; a=10; b=a++;`
i) 10,10 ii) 10,11 iii) 11,10 iv) 11,11
- d) which of the following backslash character is used to print a statement on a new line on output screen?
i) `\n` ii) `\N` iii) `\New` iv) `\new`
- e) which of the following is a decision control statement/ selection statement?
i) `if - else` iii) `main()` iii) `cout` iv) All of these
- f) Which of the following is a C++ arithmetic statement for an expression:

$$z = x^3 + y^3 - \frac{xy}{3}$$

- i) `z = x*x*x + y *y*y - x*y/3;`
ii) `z = x * x * x + y* y * y - xy/3;`
iii) `z= x^3 + y^3 - x*y/3;`
iv) None of these
- g) Which of the following is used to combine multiple conditions, In C++?
i) `&&` ii) `||` iii) `!` iv) Both i) and ii)
- h) What is the error in the following code?
`Ifnum==10;`
`cout<<" num is 10";`
`else`
`cout<<" num is not 10";`
i) there cannot a semicolon after if statement
ii) the condition `a==10` has to be in paranthesis
iii) the If keyword has to be in lower case alphabets
iv) all of these
- i) If `a=10;` then the expression `!(a<10)` will give us ____ value.
i) true ii) 1 iii) false iv) 0

2) Theory Questions:

- a) Construct a logical expression to represent each of the following conditions:
i) 'score is greater than or equal to 80 but less than 90
ii) 'n' is between 0 and 7 but not equal to 3
iii) 'answer' is either 'N' or 'n'
iv) 'n1' is divisible by 3 and 5
- b) Mention all the Relational operators used in C++
- c) Explain the 3 Logical Operators used in C++ .
- d) Write the syntax and working of if....else statement.
- e) Write a single C++ statement that prints "Too many" if the variable 'count' exceeds 100.
- f) Write the syntax of ternary / conditional in C++. Explain the working of the same.

g) Mention any two distinct differences between = and == operators.

3) State whether the following statements are True or False

- a) The 'equal to' condition in C++ can be written using the == operator.
- b) An 'else' statement cannot exist without an 'if' statement.
- c) The 'not equal to' condition in C++ can be written using the != operator
- d) If k=1, then j=++k will assign 2 to 'j'
- e) Character datatype values should be delimited by using the single quotation mark.
- f) The datatype 'double' is not a Valid C++ datatype.
- g) A block is a sequence of statements enclosed by braces{ }

4) What will be the output of the following programs

a) void main()

```
{
    int i=4,z=12;
    if(i=5 || z>50)
        cout<<"\n Welcome";
    else
        cout<<"\n Hello";
}
```

b) void main()

```
{
    int a=40;
    if(a>40 && a<45)
        cout<<"\n a is greater than 40 and less than 45";
    else
        cout<<a;
}
```

c) void main()

```
{
    int x=20,y=40,z=45;
    if(x>y && x>z)
        cout<<"Hii";
    else if(y>x && y>x)
        cout<<"HII";
    else if(z>x && z>y)
        cout<<"hii";
}
```

d) void main()

```
{
    int x=3;
    float y=3.0;
    if(x==y)
        cout<<"\n x and y are equal";
    else
        cout<<"\n x and y are not equal";
}
```

```

    }
e) void main()
    {
        int per=75;
        if(per >=60)
            cout<<"\n First class";
        else if(per>=50)
            cout<<"\n Second class";
        else if(per>=40)
            cout<<"\n Pass class";
        else
            cout<<"\n Fail";
    }

```

```

f) void main()
    {
        clrscr();
        int x=10, y=20;
        if ((x<y) || (x+5)>10)
            cout<<x;
        else
            cout<<y;
    }

```

```

g) void main()
    {
        clrscr();
        char spy='a', password='z';
        if (spy=='a' || password=='z')
            cout<<"\n Have a nice day";
        else
            cout<<"\n bye";
    }

```

5) Point out the errors in the following C++ programs

```

a) void main()
    {
        int x=30;y=40;
        if(x==y)
            cout<<"\n X is equal to Y";
        elseif (x>y)
            cout<<"\n X is greater than Y";
    }

```

```

b) Void main()
    {
        int x=10;
        If(x>=2)

```

```

        cout<<x;
    }
c) void Main()
    {
        Int i=10,j=20;
        if(i==5) && if(j==10)
            cout<<"\n HAVE A NICE DAY";
    }
d) void main()
    {
        int code, flag;
        if(code==1 & flag=0)
        {
            cout<<"\n Hello";
        }
    }

```

Program Questions:

- 1) Write a program in C++ to enter a number. Find and print whether the entered number is even or odd number
- 2) Write a program in C++ to enter a number. Find and print whether the entered number is even number .
- 3) Write a program in C++ to read an integer value from the user. The program must print the absolute value of the entered number using **conditional operator**.
- 4) Write a program in C++ to read an integer value from the user. The program must print the absolute value of the entered number.
- 5) Write a C++ program to read two integer value from the user. The program must find and print the greatest integer among the two integer values using **conditional operator**.
- 6) Write a program in C++ to read a character value from the user. The program must check whether the entered character is an alphabet or not.
- 7) Write a C++ program to read 3 integer values from the user. The program must find and print with a suitable message the greatest number among the 3 values.
- 8) Write a C++ program to read the marks of a student in 5 subjects. The program must calculate and print with a suitable message the total marks, percentage and grade class obtained by the student as mentioned below:
DISTINCT marks>=75
I-CLASS marks>=60
II-CLASS marks>=45
PASS CLASS marks>=35
DETAINED