

Question Bank(Commerce with Computer Application)

Chapter-1

1) Predict the output:

```
int b = 2;  
  
int c = ++b + b++;  
  
cout << b << "\n" << c;
```

2) When a C++ program is compiled, the following errors are reported:

- a) Undefined symbol cin
- b) Undefined symbol cout

(i) What can be the reason for these errors? (ii) How can it be solved?

3) Rewrite the following statement using while and do while loops.

```
for (i = 1; i<=10; i++)  
  
cout << i;
```

4) What will be the size of the following constants?

(i) '\a' (ii) "\a" (iii) "rema's" (iv) "\'"

5) Every statement in C++ is terminated by

6) What output will be produced by the following code fragment?

```
int val, res, n=1000;
```

```
cin>>val;
```

```
res = n+val > 1750 ? 400 : 200;
```

(a) If the input is 2000

(b) If the input is 500

7) A C++ programmer wishes to use the identifier PI in his program code wherever the value 3.14 appears. Write the C++ statement which is used for such declaration.

8) Write a program using nested loop that inputs a number n which generates an output as follows.

Hint: If the value of n is 5 the output will be as

25

25 16

25 16 9

25 16 9 4

9) Rewrite the following C++ code using a conditional operator.

```
if (a > b)
```

```
    L = a;
```

```
else
```

```
    L = b;
```

10. Write the output of the following C++ program.

```
#include <iostream>
```

```
using namespace std;
```

```
void main ( )
```

```
{
```

```
int a [3] = {4, 0, 20};
```

```
cout << a[2] / a[1];
```

```
return 0;
```

```
}

```

11) Rewrite the following C++ code using the switch statement.

```
if (choice== 'P')
    cout<<"In Pie Diagram";
else if (choice == ' B ')
    cout<< "In Bar Diagram";
    elseif (choice== 'L ')
cout<<"In Line Diagram";
else
cout<< "In Invalid Choice";
```

11) Write a C++ program to input a number and find the number of vowels (the alphabets a, e, i, o, u) in it.

12) Write a C++ program to input a number and display all of its factors. (For example, if the input is 28, the output should be 1, 2, 4, 7, 14, 28).

13) What is the output of the following code segment if the value of N is 10?

```
switch (N%2)
{
    case 0: cout<< "Even";
    case 1: cout<< "Odd";
}
```

14) Rewrite the following for statement using a do - while statement.

```
for (int N=125, S=0; N>0; S+=N% 10, N/= 10);
cout << S;
```

15) Read the following C++ statement:

```
int ar[] = {12, 34, 5, 25, 76};
```

a) How many bytes will be allocated for this array?

b) Write a C++ for loop to display the even numbers in the array.

16) Read the following program code segment:

```
if (num>0)
    cout<<num++;
else
    cout<<--num;
```

(a) What will be the output of this code, if the initial value of num is 10?

(b) What will be the output of this code, if the initial value of num is 0?

(c) What will be the output of this code, if the initial value of num is -5?

17) Predict the output of the following program code fragment for the two cases given below:

```
int val, res, n=1000;
cin>>val;
res = n+val > 1800 ? 400 : 200;
cout<<res;
```

(a) If the input value is 500

(b) If the input is 1000.

18) Predict the output of the following program code if we give

i) 0 as input ii) 2 as input

ii) 7 as input

Justify your answer.

```
int a;
cin>>a;
switch(a)
{
    case 0 : cout<<" Zero ";
```

```

        case 1 : cout<<" One ";
        case 2 : cout<<" Two ";

        break;

        default : cout<<"invalid number";

    }

```

19) Consider the following statements in C++. Re-write this using if else

```

switch(ch)
{
    case 'a' : cout<<"Apple";

        break;

    case 'b' : cout<<"Ball";

        break;

    case 'c' : cout<<"Cat";

        break;

    default : cout<<"Invalid choice";

}

```

20) Replace the following conditional statement with 'if' statement in C++.

```
min=(a<b) ? (a<c? a:c) : (b<c? b:c);
```

21) Consider the following program segment. How many times the text "welcome" will be printed on screen? State the reason.

```

for(i=0 ; i< 10; i=i+2) ;

    cout<<" welcome ";

```

22) Read the following program code:

```

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

cout<<i;

```

Which of the following statements are correct?

- (a) There is a syntax error in the loop. (b) The numbers 1, 2, 3,, 9 will be printed.
(c) The number 10 will be displayed. (d) Only the number 1 will be printed.

23) How many times the following loop will be executed?

```
int S = 0, i = 0;
```

```
do
```

```
{
```

```
S+= i;
```

```
i++;
```

```
} while(i <= 5);
```

24) Write down the code segment for the output given below:

1

3

5

7

9

The sum is 25

25) Rewrite the following code using while loop and do while loop.

```
for(int i=2, sum=0; i <= 20; i=i+2)
```

```
sum += i;
```

26) Rewrite the following code using do – while loop

```
for( s=0,i=1;i<=10; s+=i,++i) ;
```

```
cout<<s;
```

27) Predict the output of the following program code.

```
for( a=5; a<=7; ++a)
```

```

{
    for(b=1; b<=3; ++b)
    {
        cout<< "\n" << a << " X" <<b << "="<<a*b;
    }
}

```

28) Differentiate 'break' and 'continue' statements.

29) Predict the output for the following program code:

```

for (i=1;i<=10;++i)
{
    if (i==7)
        continue;
    cout<<"\t";
    cout<< "i;
}

```

30) Write a program to produce the following design:

```

A
B B
C C C
D D D D

```

31) Write a program to produce the following design

```

4
4 3
4 3 2
4 3 2 1

```

32) Write a program to find the sum of first N natural numbers using

a) Entry controlled loop

b) Exit controlled loop

33) Write a program to print even numbers upto 100 in C++.

34) Consider the following if elseif statement. Rewrite it using switch statement.

```
if (code==1)
```

```
    cout << "Science";
```

```
elseif (code==2)
```

```
    cout << "Commerce";
```

```
elseif (code==3)
```

```
    cout << "humanities";
```

```
else
```

```
    cout << "Error in code";
```

35) If a = 7 and b=2 are two int variables, then a/b will give you 3. Write the expression to get the result 3.5 without changing data types to float.

36) _____ statement in C++ can transfer control of the program to a named label.

37) Differentiate between break and exit.

38) predict the output of the following code segment (2)

```
int x=5,y;
```

```
y=++x + x++;
```

```
cout<<y<<"\t"<<x;
```

39) A C++ programmer wishes to use the identifier PI in his program code wherever the value 3.14 appears. Write the C++ statement which is used for such declaration.

40) Predict the output:

```
int b = 2;
```

```
int c = ++b + b++;
```

```
cout << b << "\n" << c;
```

41) When a C++ program is compiled, the following errors are reported:

1) Undefined symbol cin

2) Undefined symbol cout

(a) What can be the reason for these errors?

(b) How can it be solved?

42) Write the output

```
int a=5,b=6;
```

```
cout<<(a<b)?a:c;
```

43) Write the output

```
for(int i=1;i<10;i++)
```

```
{
```

```
    if(i==5)
```

```
        continue;
```

```
        cout<<i<<endl;
```

```
}
```

44)How many times the following loop will execute

```
int s=0,i=0;
```

```
do
```

```
{
```

```
    S+=i;
```

```
    i++;
```

```
}while(i<5);
```

45)Predict the output of the following code segment

```
for(i=0;i<=5;i++)  
{  
  
    if(i>5)  
        break;  
    else  
        cout<<i;  
}
```