# CHAPTER 10 CONTROL STATEMENTS

#### One mark questions:

- 1. What is compound statement? (K)
- 2. Name the fixed execution loop. (U)
- 3. What is iterative statement? (U)
- 4. What is the numerical equivalent of TRUE and FALSE? (U)
- 5. Name the multiple branch selection statement (U)
- 6. What is the purpose of else clause? (U)
- 7. What are the case labels? What type of labels must be used in case labels? (U)
- 8. Correct the following code fragment: (S/A)

if( x = 1 ) k = 100; else

k = 10;

Ans: if(x==1)

k=100;

else

k=10;

- 9. What is while loop also called as? (A)
- 10. What is do-while also called as? (A)
- 11. What is nested loop? (U)
- 12. What is the use of jump statement? (A)
- 13. Name the jump statement which terminates the loop. (A)
- 14. Name the jump statement which terminates the program. (A)
- 15. Why continue statement is used? (A)

### Two marks questions:

1. What will be the output of the following code fragment? (A)

)		
int year	Ans:	(a) LEAP YEAR
cin>>year;		(b) Not a LEAP YEAR
if(year%400==0)		(c) No Output
cout<<"LEAP YEAR";		
else		
cout<<"Not LEAP YEAR";		
If the input is (a)2000 (b)1900 (c) 1971?		
2.Rewrite the following program segment u comm=(sale>10000)? sale*0.05 : 0;	sing if else stater	ment (A)
3. Write the output of this program segmen	t (A)	
int ans=1,i=2;		
while(++i<6)		
ans*=i;		
cout< <ans;.< td=""><td></td><td></td></ans;.<>		

## Ans: output will be 60

4. What is the purpose of switch statement? (K) 5. How does the switch statement differ from if statement? (K) 6. What type of value can be taken by case labels? (K) 7. What is the significance of default clause in a switch statement? (K) 8. Define the term looping. (U) 9. Name the iteration statements provided by C++. (K) 10. What is pre-tested looping statement? (K)) 11. What is post-tested looping statement? (K) 12. Rewrite the following using ternary operator (A) if (income<=10000) tax=0; else tax=12: 13. Name any two jump statements in C++. (K) 14. What is the function of exit()? (K) 15. What are the nested statements? (U) 16. Write syntax of if- else statement. (K) 17. How many times will the following loop execute? what will be the output? (A) int x=2, y=50; do { ++x; y-=x++; }while(x<=10); cout<<y; Ans: loop will execute 5 times and y will be 15. 18. What will be the output of the following code? (A) int p = 200;while(true) { if(p<100) break; p=p-20; } cout<<p; Ans: Loop will execute 7 times and the output will be 80 19. Write a program to find the sum of odd 'N' numbers using while loop (A) 20. Compare break and continue statements. (U) Three marks questions: 1. What are control statements? How are they classified? (U) 2. Explain the working of if statement with syntax and suitable example. (U) 3. Explain if else if statement with general format and suitable example. (U) 4. Explain the working of switch statement with an example. (U) 5. Write general format of while loop with a suitable example. (U) 6. Explain working of do while statement with an example. (U)

- 7. Differentiate between while looping and do-while looping structure. (K)
- 8. Write a program to find largest of three numbers using IF ladder. (A)
- 9. What is the final value of ctr when the iteration process given below: (S)

```
int ctr=0;
for(int i =1;i<=5);i++)
for(j=1;j<=5;j+=2)
++ctr;
```

# Ans: The final value of ctr is 15.

10. Rewrite the program segment using while loop (S)

```
int i,f=1;
for(i=1;i<5;i++)
{
f*=i;
cout<<f;
}
```

- Write a program fragment to display numbers 2, 4, 6, 8, 10, ......18, 20 Using while loop. (A)
- 12. Write a program segment to find the sum of 1+2+3+......10 using do while loop. (A)
- 13. Explain the working of if statement with syntax and example program. (U)

### Five marks questions:

1. What are control statements? How are they classified? (U)

2. What is the purpose of if-else statement? (U)

- 3. What are the nested statements? (U)
- 4. Write syntax of if- else statement. (K)
- 5. What is the purpose of switch statement? How does it differ from other statements? (U)

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6. What are the case labels? What type of labels must be used in case labels? (U)
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7. How many times will the following loop execute? what will be the output? (S)

int x=2, y=50;do { ++x; y-=x++; } while (x<=10); cout<<y; Ans: loop will execute 5 times and y will be 15. 8. What will be the output of the following code? (S) int p = 200; while(true) { if(p<100) break; p=p-20; } cout<<p; Ans: Loop will execute 7 times and the output will be 80

- 9. Write a short program to test the given number is even or odd. (A)
- 10. Write a program to find the sum of odd 'N' numbers using while loop. (A)
- 11. Write a program segment to display the multiplication table of a particular number using do-while loop. (A)
- 12. Compare break and continue statements. (U)
- 13. Write a program to check whether a number is prime or not. (A)
- 14. Write a program to find the sum of the series 1+1/3!+1/5!+......1/n! using while loop. (A)
- 15 Write a program to find sum of 1+ 1/2 + 1/3+ .....+1/n. (A)
- 16. Write a program to check whether the number is a special number or not. (A number is said to be a special, if the sum of the factorial of the digits of the number is same as the original number. (Eg,145 is special number because 1!+4!+5!=145)(A)
- 17. Write a program to find sum of digits of a given number using while loop. (A)
- 18. Write a program to find the sum of x/2 + x/5 + x/8..... x/20 using do while. (A)
- 19. Write a program to find all the integer divisors of a given number using for loop. (A)
- 20. Write a program to check whether the number is Armstrong or not using for loop. (A)
- 21. Write a program to print Fibonacci series of N number. (A)
- 22. Write a program to check whether the number is palindrome or not. (A number is a palindrome which when read in reverse order is same as read in the right order) (A)
- 23. Explain switch statement with syntax and example. (K)
- 24. Explain jump statements in C++. (U)
- 25. Explain working of FOR loop with flow-chart. (U)
- 26. Write a program to calculate the net amount according to the criteria given below:

Purchase amount	Discount		
0 to 5000	NIL		
5001 to 10000	5%		
>10001	10%.	(S)	