

PART – I (Programming in C++)

[5+5+5 Marks]

1. Write a program to read a number from user and display whether that is pallindrome or not.

PART – I (Programming in C++)

[5+5+5 Marks]

2. Write a program to input a number then print its reverse.

PART – I (Programming in C++)

[5+5+5 Marks]

3. Write a program to print the following output.

```
A
A B
A B C
A B C D
A B C D E
```

PART – I (Programming in C++)

[5+5+5 Marks]

4. Write a program to print the following output.

```
A
B B
C C C
D D D D
E E E E E
```

PART – I (Programming in C++)

[5+5+5 Marks]

5. Write a program to print the following output.

```
1
1 2
1 2 3
1 2 3 4
1 2 3 4 5
```

PART – I (Programming in C++)

[5+5+5 Marks]

6. Write a program to print the following output.

```
1
2 2
3 3 3
4 4 4 4
5 5 5 5 5
```

PART – I (Programming in C++)

[5+5+5 Marks]

7. Write a program to print the following output.

```
*
* *
* * *
* * * *
* * * * *
```

PART – I (Programming in C++)

[5+5+5 Marks]

8. Write a program to print the following output.

```
*
* *
* * *
* * * *
* * * * *
```

PART – I (Programming in C++)

[5+5+5 Marks]

9. Write a program to print the following output.

```
0
1 1
2 2 2
3 3 3 3
4 4 4 4 4
```

PART – I (Programming in C++)

[5+5+5 Marks]

10. Write a program to find the sum of following series.

$$a + ar + ar^2 + ar^3 + ar^4 + \dots + ar^n$$

PART – I (Programming in C++)

[5+5+5 Marks]

11. . Write a program to find the sum of following series.

$$x - \frac{x^2}{2!} + \frac{x^3}{3!} - \frac{x^4}{4!} + \dots + \frac{x^n}{n!}$$

PART – I (Programming in C++)

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12. . Write a program to find the sum of following series.

$$\frac{x}{2!} + \frac{x^2}{3!} + \frac{x^3}{4!} + \frac{x^4}{5!} + \dots + \frac{x^n}{(n+1)!}$$

PART – I (Programming in C++)

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13. . Write a program to find the sum of following series.

$$x + x^2 + x^3 + x^4 + \dots + x^n$$

PART – I (Programming in C++)

[5+5+5 Marks]

14. Write a program to print the following output.

```
      A
     B A B
    C B A B C
   D C B A B C D
  E D C B A B C D E
```

PART – I (Programming in C++)

[5+5+5 Marks]

15. Write a program to print the sum of all prime numbers in between 1 to 100.

PART – I (Programming in C++)

[5+5+5 Marks]

16. Write a program to print all Fibonacci numbers in between 0 to 100.

PART – I (Programming in C++)

[5+5+5 Marks]

17. Write a program to print all amstrong numbers in between 0 to 1000.

PART – I (Programming in C++)

[5+5+5 Marks]

18. Write a program to input a number then find its reverse. Check whether the reverse number and the original number are same or not, if same print it.

PART – I (Programming in C++)

[5+5+5 Marks]

19. Write a program to input 20 numbers then find how many of them are even and odd.

PART – I (Programming in C++)

[5+5+5 Marks]

20. Write a program to input 20 numbers then find how many of them are -ve and +ve.

PART – I (Programming in C++)

[5+5+5 Marks]

29. Write a program to sort an list of array containing characters.

PART – I (Programming in C++)

[5+5+5 Marks]

30. Write a program in c++ to merge two arrays given in ascending order to a third array.

PART – I (Programming in C++)

[5+5+5 Marks]

31. Write a C++ program to create two matrices of size M X N. Display the sum of two matrices.

PART – I (Programming in C++)

[5+5+5 Marks]

32. Write a program to read a string from user and display whether that is pallindrome or not.

PART – I (Programming in C++)

[5+5+5 Marks]

33. Write a C++ program to create a matrix of size M X N. Display the sum of each row and column.

PART – I (Programming in C++)

[5+5+5 Marks]

34. Write a program to input a line of text then count the no of vowels and consonants present in it.

PART – I (Programming in C++)

[5+5+5 Marks]

35. Write a program to create a matrix of order m then print the elements which are present in middle row and column.

PART – I (Programming in C++)

[5+5+5 Marks]

36. Write a function in C++ which accepts an integer array and its size as arguments and then assigns the elements into a two dimensional array of integers in the following format.

If the array is 1, 2, 3, 4, 5

```
1 0 0 0
1 2 0 0
1 2 3 0
1 2 3 4
1 2 3 4 5
```

PART – I (Programming in C++)

[5+5+5 Marks]

37. Write a function in C++ which accepts an integer array and its size as arguments and then assigns the elements into a two dimensional array of integers in the following format.

If the array is 1, 2, 3, 4, 5

```
0 0 0 1
0 0 2 1
0 0 3 2
0 4 3 2
5 4 3 2 1
```

PART – I (Programming in C++)

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38. Write a program to print the lower half of the given matrix.

e.g.

2	3	1	5
7	1	5	3

 The output will be

2
7 1
2 5 7
3 4 5 9

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39. Write a program to print the sum of both the diagonals of a given matrix.

PART – I (Programming in C++)

[5+5+5 Marks]

40. Given an array named A with the following elements:

3	-5	1	7	0	-15	-7	-8
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Write a C++ program to shift all negative numbers to the left and positive numbers to the right without changing their sequence.

PART – I (Programming in C++)

[5+5+5 Marks]

41. Write a program to insert an element to a single dimensional array containing integers.

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[5+5+5 Marks]

42. Write a program to search an element from a single dimensional array containing integers using binary search method.

PART – I (Programming in C++)

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43. Write a program to search an element from a single dimensional array containing integers using linear search method.

PART – I (Programming in C++)

[5+5+5 Marks]

44. Write a program to delete an element from a single dimensional array containing integers.

PART – I (Programming in C++)

[5+5+5 Marks]

45. Write a program to perform the bubble sort operation on array containing characters in descending order.

PART – I (Programming in C++)

[5+5+5 Marks]

46. Write a program to perform the bubble sort operation on array containing integers in ascending order.

PART – I (Programming in C++)

[5+5+5 Marks]

47. Write a program in c++ to merge two arrays given in ascending order to a third array which will be in ascending order .

PART – I (Programming in C++)

[5+5+5 Marks]

48. Write a program in c++ to merge two arrays given in descending order to a third array which will be in ascending order .

PART – I (Programming in C++)

[5+5+5 Marks]

49. Write a program in c++ to replace the duplicate characters to space in an array .

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[5+5+5 Marks]

50. Write a program in c++ to replace the repeating elements with 0 in matrix of order mxn.