

Day 9

Lab Assignment-9

Lab Assignments

1.	WAP to find out sum of series up to n terms $1+2^2+3^3+\dots+n^n$	Enter the value of n: 7	The sum of series is 873612.0
2.	WAP to find out sum of series up to n terms <u>$1 + \sqrt{2} + \sqrt{3} + \sqrt{4} + \sqrt{5} + \dots$</u>	Enter the value of n: 7	The sum of series is 13.477573
3.	WAP to print the following pattern for rows = 4 1 1 1 1 2 2 2 2 3 3 3 3 4 4 4 4	Enter Row Number: 4	1 1 1 1 2 2 2 2 3 3 3 3 4 4 4 4
4.	WAP to print the following pattern 1 1 2 1 2 3 1 2 3 4 1 2 3 4 5	Enter Row Number: 5	1 1 2 1 2 3 1 2 3 4 1 2 3 4 5
5.	WAP to print the following pattern 1 2 2 3 3 3 4 4 4 4 5 5 5 5 5	Enter Row Number: 5	1 2 2 3 3 3 4 4 4 4 5 5 5 5 5
6.	WAP to print the following pattern	Enter the	1 3 7 15 31

	1 3 7 15 31.....	value of n: 5	
7.	WAP to print the following pattern * * * * * * * * * * * * * * *	Enter the value of n: 5	* * * * * * * * * * * * * * *

Logic

1. WAP to find out sum of series up to n terms

$$1+2^2+3^3+\dots\dots\dots+n^n$$

2. WAP to find out sum of series up to n terms

$$1 + \sqrt{2} + \sqrt{3} + \sqrt{4} + \sqrt{5} \dots$$

Answer: Use sqrt(i) function of math.h

3. WAP to print the following pattern for rows = 4

1 1 1 1

2 2 2 2

3 3 3 3

4 4 4 4

Logic

```
int i,j=1;
```

```
for(i=1;i<=4;i++){
```

```

    for(j=1;j<=4;j++){

        printf("%d",i);

    }

    printf("\n");

}

```

4. WAP to print the following pattern

```

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

```

Logic:

```

printf("Enter the number of rows: ");

scanf("%d", &rows);

for (i = 1; i <= rows; ++i) {

    for (j = 1; j <= i; ++j) {

        printf("%d ", j);

    }

    printf("\n");

}

```

5. WAP to print the following pattern

```

1 3 7 15 31.....

```

Logic: 1 3 7 15 31 /* 0*2+1 1*2+1 3*2+1 7*2+1 15*2+1*/

```
for(i=1;i<=n;i++)
```

```
{
```

```
    pr=(pr*2)+1;
```

```
    printf("%d ",pr);
```

```
}
```

8.

A

B B

C C C

D D D D

E E E E E

```
char input, alphabet = 'A';
```

```
    printf("Enter an uppercase character you want to print in the last row: ");
```

```
    scanf("%c", &input);
```

```
    for (i = 1; i <= (input - 'A' + 1); ++i) {
```

```
        for (j = 1; j <= i; ++j) {
```

```
            printf("%c ", alphabet);
```

```
        }
```

```
        ++alphabet;
```

```
        printf("\n");
```

```
    }
```

