

Sol:-

Question:-1.

Sol:-

```
1 |
2 | # include <stdio.h>
3 | int main()
4 | {
5 |     int r;
6 |     float area,pie=3.14;
7 |     printf("enter the radius of the circle:- ");
8 |     scanf("%d",&r);
9 |     area= r*r*pie;
10 |    printf("area of the circle is:- %.02f",area);
11 |    return 0;
12 | }
```

Question no.:-2

Sol:-

```
1 | # include <stdio.h>
2 | int main ()
3 | {
4 |     int h,b,area;
5 |     printf("enter the hight of the triangle:- ");
6 |     scanf("%d",&h);
7 |     printf("enter the breath of the triangle:- ");
8 |     scanf("%d",&b);
9 |     area= (h*b)/2;
10 |    printf("arae of the triangle is:- %d",area);
11 |    return 0;
12 |
13 | }
```

Question no.:-3

Sol:-

Sol:-

```
1 # include <stdio.h>
2 # include <math.h>
3 int main ()
4 {
5     int n;
6     printf("enter the number:- ");
7     scanf("%d",&n);
8     int sum=0,c,r;
9     c=n;
10    while (n>0)
11    {
12        r=n%10;
13        sum+=pow(r,3);
14        n=n/10;
15    }
16    if(sum==c)
17    {
18        printf("number is angrstrom");
19    }
20    }
21    else
22    {
23        printf("no is not armstroong");
24    }
25 }
```

Question no.:-4

Sol:-

```
# include <stdio.h>
# include <math.h>
int main ()
{
    float t,p,r,amount,interest;
    printf("enter the principle amount:- ");
    scanf("%f",&p);
    printf("enter the rate:- ");
    scanf("%f",&r);
    printf("enter the time period:- ");
    scanf("%f",&t);

    interest = p*pow(1+r/100,t);
    amount = interest-p;
    printf("interest:- %.02f",interest);
    printf("\ntotal amount:- %.02f",amount);
    return 0;
}
```

Question no.:-5

Sol:-

```
# include <stdio.h>
# include <math.h>
int main()
{
    float n;
    printf("enter your no:- ");
    scanf("%f",&n);
    float ans= pow(n,3);
    printf("cube of the number is:- %.02f",ans);
}
```

Question no.:-6

Sol:-

Sol:-

```
1 # include <stdio.h>
2 int main()
3 {
4     int n1,n2,n3;
5     printf("enter the marks of 1st student:- ");
6     scanf("%d",&n1);
7     printf("enter the marks of 2nd student:- ");
8     scanf("%d",&n2);
9     printf("enter the marks of 3rd student:- ");
10    scanf("%d",&n3);
11    if (n1<n2&& n1<n3)
12    {
13        printf("1st student have lowest marks");
14    }
15    if (n2<n1&& n2<n3)
16    {
17        printf("2nd student have lowest marks");
18    }
19    if (n3<n1&& n3<n2)
20    {
21        printf("3rd student have lowest marks");
22    }
23    return 0;
24 }
```

Question no:-7

Sol:-

Sol:-

```
1 # include <stdio.h>
2 int main() {
3     int a, b, x, y, t, gcd, lcm;
4
5     printf("Enter two integers\n");
6     scanf("%d%d", &x, &y);
7
8     a = x;
9     b = y;
10
11     while (b != 0) {
12         t = b;
13         b = a % b;
14         a = t;
15     }
16
17     gcd = a;
18     lcm = (x*y)/gcd;
19
20     printf("Greatest common divisor of %d and %d = %d\n",
21     printf("Least common multiple of %d and %d = %d\n", x,
22
23     return 0;
24 }
```

Week:-2

Sol:-

Question no:-1

Sol:-

```
1  # include <stdio.h>
2  int main ()
3  {
4      int n1,n2,c=0;
5      printf("enter the two numbers:- ");
6      scanf("%d%d",&n1,&n2);
7      c=n2;
8      n2=n1;
9      n1=c;
10     printf("now your interchange no is \n1- %d \n2- %d",
11     return 0;
12 }
```

Question no:2

Sol:-

Sol:-

```
1  #include <stdio.h>
2  int main()
3  {
4      int n;
5      printf("enter the number:- ");
6      scanf("%d",&n);
7      if(n%2==0)
8      {
9          printf("%d is even no",n);
10     }
11     else
12     {
13         printf("%d is odd no",n);
14     }
15     return 0;
16 }
17
```

Que;-3

Sol:-

```
1  #include <stdio.h>
2
3  int main() {
4      printf("Size of Int Data Types in C = %2d bytes \n", sizeof(int));
5      printf("Size of Long Int Data Types in C = %2d bytes \n", sizeof(long));
6      printf("Size of Float Data Types in C = %2d bytes \n", sizeof(float));
7      printf("Size of Double Data Types in C = %2d bytes \n", sizeof(double));
8      printf("Size of Long Double Data Types in C = %2d bytes \n", sizeof(long double));
9      printf("Size of Char Data Types in C = %2d bytes \n", sizeof(char));
10     return 0;
11 }
```

Sol:-

Ques:-4

Sol:-

```
1 # include <stdio.h>
2 int main ()
3 {
4
5     int n1,n2;
6     printf("enter the two numbers:- ");
7     scanf("%d%d",&n1,&n2);
8     n1=n1-n2;
9     n2=n1+n2;
10    n1=n2-n1;
11    printf("now your interchange no is \n1- %d \n2- %d",
12    return 0;
13 }
```

Ques:-5

Sol:-

```
1 # include <stdio.h>
2 int main()
3 {
4     int n1,n2;
5     printf("enter the two numbers:- ");
6     scanf("%d%d",&n1,&n2);
7     n1=n1^n2;
8     n2=n1^n2;
9     n1=n2^n1;
10    printf("now your interchange no is \n1- %d \n2- %d",
11    return 0;
12 }
```



Sol:-

## Week:-3

Question no.:-1

Sol;-

Sol:-

```
1  # include <stdio.h>
2  int main()
3  {
4      char area;
5      int a;
6      printf("which area you want to calculate \n for area of rectangle type r\n for
7      scanf("%c",&area);
8      switch (area)
9      {
10         case 'r' :
11             int l,b;
12             printf("enter the length of the rectangle:- ");
13             scanf("%d",&l);
14             printf("enter the breath of the rectangle:- ");
15             scanf("%d",&b);
16             printf("area of the rectangle is:- %d",l*b);
17             break;
18         case 't' :
19             int h,c;
20             printf("enter the hight of the triangle:- ");
21             scanf("%d",&h);
22             printf("enter the base of the triangle:- ");
23             scanf("%d",&c);
24             printf("area of the triangle is:- %d",(h*c)/2);
25             break;
26         case 'c' :
27             float r,pie=3.14;
28             printf("enter the radius of the circle:- ");
29             scanf("%f",&r);
30
31             printf("area of the circle is:- %.02f",pie*r*r);
32             break;
33     }
34     return 0;
35 }
```

Question. No:2

Sol:-

Sol:-

```
1  #include <stdio.h>
2  #include <math.h>
3
4  int main()
5  {
6      int num, lastDigit, digits, sum, i, end;
7      printf("Enter upper limit: ");
8      scanf("%d", &end);
9
10     printf("Armstrong number between 1 to %d are: \n", end);
11
12     for(i=1; i<=end; i++)
13     {
14         sum = 0;
15         num = i;
16         digits = (int) log10(num) + 1;
17         while(num > 0)
18         {
19             lastDigit = num % 10;
20             sum = sum + ceil(pow(lastDigit, digits));
21             num = num / 10;
22         }
23         if(i == sum)
24         {
25             printf("%d, ", i);
26         }
27     }
28
29     return 0;
30 }
31
```

Question no:3

Sol:-

Sol:-

```
1  #include <stdio.h>
2
3  int main() {
4
5      char op;
6      double first, second;
7      printf("Enter an operator (+, -, *, /): ");
8      scanf("%c", &op);
9      printf("Enter two operands: ");
10     scanf("%lf %lf", &first, &second);
11
12     switch (op) {
13         case '+':
14             printf("%.11f + %.11f = %.11f", first, second, first + second);
15             break;
16         case '-':
17             printf("%.11f - %.11f = %.11f", first, second, first - second);
18             break;
19         case '*':
20             printf("%.11f * %.11f = %.11f", first, second, first * second);
21             break;
22         case '/':
23             printf("%.11f / %.11f = %.11f", first, second, first / second);
24             break;
25         default:
26             printf("Error! operator is not correct");
27     }
28
29     return 0;
30 }
31
```

Question no:4

Sol:-

Sol:-

```
1  #include<stdio.h>
2  #include<conio.h>
3  int main(void)
4
5  {
6      clrscr();
7      int h = 0, m = 0, s = 0;
8      printf("Digi_Clock \n");
9      printf("Enter time (hh : mm : ss) \n");
10     scanf("%d %d %d", &h, &m, &s);
11
12     start:;
13
14     for (h; h <= 24; h++) {
15         for (m; m <= 60; m++) {
16             for (s; s <= 60; s++) {
17                 clrscr();
18
19                 printf(" %d : %d : %d \n", h, m, s);
20
21                 for (double i = 0; i <= 6699000; i++) {
22                     i++;
23                     i--;
24                 }
25             }
26             s = 0;
27         }
28         m = 0;
29     }
30
31     goto start;
32     getch();
```

Question no;5

Sol:-

Sol:-

```
1  # include <stdio.h>
2  int main()
3  {
4      int n1,n2,n3;
5      printf("enter first no:- ");
6      scanf("%d",&n1);
7      printf("enter second no:- ");
8      scanf("%d",&n2);
9      printf("enter third no:- ");
10     scanf("%d",&n3);
11     if(n1>n2&& n1>n3)
12     {
13         printf("%d is the largst no",n1);
14     }
15     if(n2>n1&& n2>n3)
16     {
17         printf("%d is the largst no",n2);
18     }
19     if(n3>n1&& n3>n2)
20     {
21         printf("%d is the largst no",n3);
22     }
23     return 0;
24 }
```

Question no:6

Sol:-

Sol:-

```
#include <stdio.h>
int main()
{
    int n;
    printf("enter the no of days in this year:- ");
    scanf("%d",&n);
    if(n==365)
    {
        printf("this year is not leap year",n);
    }
    else if(n==363)
    {
        printf("this is a leap year ",n);
    }
    else
    {
        printf("enter valid no of days in this year");
    }
    return 0;
}
```

Question no. 7

Sol;-

Sol:-

```
1  #include <stdio.h>
2
3  int main()
4  {
5      int n, num = 0;
6      printf("Enter any number to print in words: ");
7      scanf("%d", &n);
8      while(n != 0)
9      {
10         num = (num * 10) + (n % 10);
11         n /= 10;
12     }
13     while(num != 0)
14     {
15         switch(num % 10)
16         {
17             case 0:
18                 printf("Zero ");
19                 break;
20             case 1:
21                 printf("One ");
22                 break;
23             case 2:
24                 printf("Two ");
25                 break;
26             case 3:
27                 printf("Three ");
28                 break;
29             case 4:
30                 printf("Four ");
31                 break;
32             case 5:
33                 printf("Five ");
34                 break;
35             case 6:
36                 printf("Six ");
37                 break;
38             case 7:
39                 printf("Seven ");
40                 break;
41             case 8:
42                 printf("Eight ");
43                 break;
44             case 9:
45                 printf("Nine ");
46                 break;
47         }
48         num = num / 10;
49     }
50 }
51
52 return 0;
53 }
```

Question no:8

Sol:-



Sol:-

```
1  #include<stdio.h>
2  int main ()
3  {
4      int n;
5      printf("enetr the number:- ");
6      scanf("%d",&n);
7      int sum=0,c;
8      c=n;
9      for(int i=1;i<n;i++)
10     {
11         if(n%i==0)
12         {
13             sum+=i;
14         }
15     }
16     if(sum==c)
17     {
18         printf("%d number is perfect no",c);
19     }
20     else
21     {
22         printf("%d number is not perfect no.",c);
23     }
24 }
```

Question no:9

Sol;-

```
1  #include <stdio.h>
2  int main()
3  {
4      int n;
5      printf("enter the number:- ");
6      scanf("%d",&n);
7      if(n<0)
8      {
9          printf("%d is negative no",n);
10     }
11     else
12     {
13         printf("%d is positive no ",n);
14     }
15     return 0;
16 }
17
```

Question no;-10

Sol;-

Sol:-

```
1  #include <stdio.h>
2  int main()
3  {
4      int n,sum=0,sum_n=0;
5      printf("enter your no:- ");
6      scanf("%d",&n);
7      while (n>0)
8      {
9          sum= sum+(n%10);
10         n= n/10;
11     }
12
13     while (sum>0)
14     {
15         sum_n=sum_n+(sum%10);
16         sum=sum/10;
17     }
18     printf("sum of the digits of the number is: - %d",sum_n);
19     return 0;
20
21 }
```

Question no.11

Sol;-

Sol:-

```
1  # include <stdio.h>
2  int main ()
3  {
4      int a;
5      printf("enter the temp:- ");
6      scanf("%d",&a);
7      if(a<0)
8      {
9          printf("Freezing weather");
10     }
11     else if(0<a&&a<10)
12     {
13         printf("very cold weather");
14     }
15     else if(10<a&&a<20)
16     {
17         printf("cold weather");
18     }
19     else if(20<a&&a<30)
20     {
21         printf("normal weather");
22     }
23     else if(30<a&&a<40)
24     {
25         printf("hot weather");
26     }
27     else if(a>=40)
28     {
29         printf("too hot weather");
30     }
31     return 0;
32 }
```

WEEK:-4

Question no:-1

Sol:-

Sol:-

```
1 #include<stdio.h>
2
3 int main(){
4
5     int x,fact=1,n;
6
7     printf("Enter a number to find factorial: ");
8
9     scanf("%d",&n);
10
11     for(x=1;x<=n;x++)
12     {
13         fact=fact*x;
14     }
15     printf("Factorial of %d is: %d",n,fact);
16
17     return 0;
18
19 }
```

Question no:-2

Sol;-

Sol:-

```
1 #include <stdio.h>
2 int main ()
3 {
4     int n1=0,n2=1,n3,n;
5     printf("enter the no of the terms of the series:- ");
6     scanf("%d",&n);
7     printf("%d %d ",n1,n2);
8     for(int i=2;i<n;i++)
9     {
10         n3=n1+n2;
11         printf("%d ",n3);
12         n1=n2;
13         n2=n3;
14     }
15     return 0;
16 }
```

Question no.:-3

Sol:-

```
1 #include <stdio.h>
2 int main ()
3 {
4     int n,count=0;
5     printf("enter the no :- ");
6     scanf("%d",&n);
7     do{
8         n/=10;
9         count++;
10    }while(n!=0);
11    printf("no of the digits is:- %d",count);
12    return 0;
13 }
```

Question no;-4

Sol:-

Sol:-

```
1  # include <stdio.h>
2  int main() {
3      int a, b, x, y, t, gcd, lcm;
4
5      printf("Enter two integers\n");
6      scanf("%d%d", &x, &y);
7
8      a = x;
9      b = y;
10
11     while (b != 0) {
12         t = b;
13         b = a % b;
14         a = t;
15     }
16
17     gcd = a;
18     lcm = (x*y)/gcd;
19
20     printf("Greatest common divisor of %d and %d = %d\n", x, y, gcd);
21     printf("Least common multiple of %d and %d = %d\n", x, y, lcm);
22
23     return 0;
24 }
```

Question no.:5

Sol;-

Sol:-

```
1  # include <stdio.h>
2  int main() {
3      int a, b, x, y, t, gcd, lcm;
4
5      printf("Enter two integers\n");
6      scanf("%d%d", &x, &y);
7
8      a = x;
9      b = y;
10
11     while (b != 0) {
12         t = b;
13         b = a % b;
14         a = t;
15     }
16
17     gcd = a;
18     lcm = (x*y)/gcd;
19
20     printf("Greatest common divisor of %d and %d = %d\n", x, y, gcd);
21     printf("Least common multiple of %d and %d = %d\n", x, y, lcm);
22
23     return 0;
24 }
```

Question no:6

Sol:-

Sol:-

```
1 #include <stdio.h>
2 int main() {
3     int n, reversed = 0, remainder, original;
4     printf("Enter an integer: ");
5     scanf("%d", &n);
6     original = n;
7     while (n != 0) {
8         remainder = n % 10;
9         reversed = reversed * 10 + remainder;
10        n /= 10;
11    }
12    if (original == reversed)
13        printf("%d is a palindrome.", original);
14    else
15        printf("%d is not a palindrome.", original);
16
17    return 0;
18 }
```

Question no.7

Sol:-



Sol:-

```
1  # include <stdio.h>
2  int main()
3  {
4      int n,m,l;
5      printf("enter the last no till which you want to print prime no:- ");
6      scanf("%d",&n);
7      printf("\n\n\t\t\t\t\tAll prime no between 1 to %d\t\t\t\t\t",n);
8      for(int i=1;i<=n;i++)
9      {
10         m=i;
11         l=0;
12         for(int j=2;j<m;j++)
13         {
14             if(m%j==0)
15             {
16                 l=1;
17                 break;
18             }
19         }
20
21         if(l==0)
22         {
23             printf("\n%d",i);
24         }
25     }
26     return 0;
27 }
```

Question no.8

Sol:-

Sol:-

```
1  #include <stdio.h>
2  int main()
3  {
4      int i, j, cur, lastDigit, end;
5      long long fact, sum;
6      printf("Enter upper limit: ");
7      scanf("%d", &end);
8      printf("All Strong numbers between 1 to %d are:\n", end);
9      for(i=1; i<=end; i++)
10     {
11         cur = i;
12         sum = 0;
13         while(cur > 0)
14         {
15             fact = 1;
16             lastDigit = cur % 10;
17             for( j=1; j<=lastDigit; j++)
18             {
19                 fact = fact * j;
20             }
21             sum += fact;
22             cur /= 10;
23         }
24         if(sum == i)
25         {
26             printf("%d, ", i);
27         }
28     }
29
30     return 0;
31 }
```

Question no.9

Sol;-

Sol:-

```
1  # include <stdio.h>
2  int main ()
3  {
4      int n;
5      printf("enter the no whose table you want :- ");
6      scanf("%d",&n);
7      for(int i=1;i<=10;i++)
8      {
9          printf("%d*%d=%d\n",n,i,n*i);
10     }
11     return 0;
12 }
```

WEEK NO:5

Question no.:1

Sol:-

Sol:-

```
1 #include <stdio.h>
2
3 int main() {
4     int votes[4] = {0, 0, 0, 0};
5     int option, i;
6     char candidates[4][20] = {"Candidate 1", "Candidate 2", "Candidate 3",
7
8     while(1) {
9         printf("\n**** Welcome to EVM Voting Machine ****\n");
10        printf("Please choose your candidate:\n");
11        for(i = 0; i < 4; i++) {
12            printf("%d. %s\n", i+1, candidates[i]);
13        }
14        printf("5. Exit\n");
15        printf("Enter your option: ");
16        scanf("%d", &option);
17
18        if(option >= 1 && option <= 4) {
19            votes[option-1]++;
20            printf("\nThank you for voting!\n");
21        } else if(option == 5) {
22            break;
23        } else {
24            printf("\nInvalid option! Please try again.\n");
25        }
26    }
27
28    printf("\n**** Voting Results ****\n");
29    for(i = 0; i < 4; i++) {
30        printf("%s: %d votes\n", candidates[i], votes[i]);
31    }
32
33    return 0;
34 }
35
```

Question no:2

Sol:-

Sol:-

```
1  #include <stdio.h>
2  int main ()
3  {
4      int n;
5      printf("enter the no of the rows and columns in triangle:- ");
6      scanf("%d",&n);
7      for(int i=1;i<=n;i++)
8      {
9          for(int j=1;j<=2*n-1;j++)
10         {
11             if(j>=n-(i-1)&&j<=n+(i-1))
12             {
13                 printf("*");
14             }
15             else
16             {
17                 printf(" ");
18             }
19         }
20         printf("\n");
21     }
22     return 0;
23 }
```

Question no.:3

Sol:-

Sol:-

```
1  #include <stdio.h>
2  int main ()
3  {
4      int n;
5      printf("enter the no of the rows and columns:- ");
6      scanf("%d",&n);
7      for(int i=1;i<=n;i++)
8      {
9          for(int j=1;j<2*n-1;j++)
10         if(j>=n+(i-1)&& j<=n+(i+1))
11         {
12             printf("%d",j);
13         }
14         else
15         {
16             printf(" ");
17         }
18     }
19     return 0;
20 }
```

Question no:4

Sol:-

Sol:-

```
1  #include <stdio.h>
2  int main()
3  {
4      int n;
5      printf("enter the no of the rows and cloumns:- ");
6      scanf("%d",&n);
7      for(int i=0;i<=n;i++)
8      {
9          for(int j=0;j<=n;j++)
10         {
11             printf("%d ",i+1);
12         }
13         printf("\n");
14     }
15     return 0;
16 }
```

Question no.5

Sol:-

Sol:-

```
1  #include <stdio.h>
2  int main ()
3  {
4      int n;
5      printf("enter the no of the rows and columns:- ");
6      scanf("%d",&n);
7      for(int i=1;i<=n;i++)
8      {
9          for(int j=1;j<2*n-1;j++)
10             if(j>=n+(i-1)&& j<=n+(i+1))
11             {
12                 printf("%d",j);
13             }
14             else
15             {
16                 printf(" ");
17             }
18         }
19         return 0;
20     }
```

Question no.6:-

Sol;-



Sol:-

```
1  #include<stdio.h>
2  void add();
3
4  int main()
5  {
6      add();
7      printf("hello\n");
8      add();
9
10 }
11 void add()
12 {
13     int a,b,c;
14     scanf("%d%d",&a,&b);
15     c=a+b;
16     printf("\n sum is =%d\n",c);
17 }
```

Question no.:7

Sol:-

```
1  #include <stdio.h>
2  int main()
3  {
4      int n;
5      printf("enter the no of stars:- ");
6      scanf("%d",&n);
7      for(int i=1;i<=n;i++)
8      {
9          for(int j=1;j<=n;j++)
10         {
11             printf("%d",i);
12         }
13         printf("\n");
14     }
15     return 0;
16 }
17 }
```

Sol:-

Question no:8

Sol:-

```
1  #include<stdio.h>
2  #include<string.h>
3  int main()
4  {
5      char a[50];
6      gets(a);
7      puts(a);
8      int i=0, len=0, flag=0;
9      while(a[i]!='\0')
10     {
11         len++;
12         i++;
13     }
14
15     for(int i=0; a[i]!='\0'; i++)
16     {
17         if(a[i]!=a[len-i-1])
18         {
19             flag++;
20             break;
21         }
22     }
23
24     if(flag==0)
25     {
26         printf("palidrome");
27     }
28     else
29     {
30         printf("Not Palidrome");
31     }
32 }
```

Question no;9

Sol:-

Sol;=

```
1  #include <stdio.h>
2  int main()
3  {
4      int n;
5      printf("enter the no of stars:- ");
6      scanf("%d",&n);
7      for(int i=0;i<=n;i++)
8      {
9          for(int j=0;j<=i;j++)
10         {
11             printf(" *");
12         }
13         printf("\n");
14     }
15     return 0;
16 }
```

Question no.:10

Sol:-

```
1  #include <stdio.h>
2  int main()
3  {
4      int n;
5      printf("enter the no of stars:- ");
6      scanf("%d",&n);
7      for(int i=0;i<n;i++)
8      {
9          for(int j=0;j<n;j++)
10         {
11             printf("*");
12         }
13         printf("\n");
14     }
15     return 0;
16 }
```

Sol:-

Question no;-11

Sol:-

```
#include <stdio.h>
int main()
{
    int n;
    printf("enter the no of stars:- ");
    scanf("%d",&n);
    for(int i=n;i>=0;i--)
    {
        for(int j=i;j>=0;j--)
        {
            printf(" *");
        }
        printf("\n");
    }
    return 0;
}
```

Questionno:-12

Sol;-

Sol:-

```
1  #include <stdio.h>
2  int main ()
3  {
4      int n;
5      printf("enter the no of the rows and columns in triangle:- ");
6      scanf("%d",&n);
7      for(int i=1;i<=n;i++)
8      {
9          for(int j=1;j<=2*n+1;j++)
10         {
11             if(j>=n-(i-1)&& j<=i+(i-1))
12             {
13                 printf("*");
14             }
15             else
16             {
17                 printf(" ");
18             }
19         }
20         printf("\n");
21     }
22     return 0;
23 }
```