DAY – 5

25. Write a c program to sum of digits using for loop.

Ans : Input:

#include <stdio.h>

Int main() {

Int num, sum = 0;

Printf(“Enter a number:”);

Scanf(“%d”, &num);

For (; num > 0; num /= 10) {

Sum += num % 10;

}

Printf(“Sum of digits: %d\n”, sum);

Return 0;

}

Output:

Enter a number: 123

Sum of digits: 6

26. Write a c program to reverse of no using for loop.

Ans : Input:

#include <stdio.h>

Int main() {

Int num, rev = 0;

Printf(“Enter a number:”);

Scanf(“%d”, &num);

For (; num > 0; num /= 10) {

Rev = rev \* 10 + (num % 10);

}

Printf(“Reversed number: %d\n”, rev);

Return 0;

}

Output:

Enter a number: 1234

Reversed number: 4321

27. Write a c program to find palindrome no using for loop.

Ans : Input:

#include <stdio.h>

Int main() {

Int num, p, rev = 0;

Printf(“Enter a number:”);

Scanf(“%d”, &num);

p = num;

For (; num > 0; num /= 10) {

Rev = rev \* 10 + (num % 10);

}

Printf(“%d”,rev);

If (p == rev)

Printf(“Palindrome no\n”);

Else

Printf(“Not palindrome no \n”);

Return 0;

}

Output:

Enter a number: 121

121

Palindrome no

28. Write a c program to find armstrong no using for loop.

Ans : Input:

#include <stdio.h>

Int main() {

Int num, p, s = 0, r;

Printf(“Enter a number:”);

Scanf(“%d”, &num);

p = num;

For (; temp > 0; temp /= 10) {

r = num % 10;

s = s+(r\* r \* r);

}

Printf(“%d”,s);

If (p == s)

Printf(“Armstrong no \n”);

Else

Printf(“Not Armstrong no \n”);

Return 0;

}

Output:

Enter a number: 153

153

Armstrong no

29. Write a c program to find factorial no of any no using while.

Ans : Input:

#include <stdio.h>

Int main() {

Int num, fact = 1,c;

Printf(“Enter a number:”);

Scanf(“%d”, &num);

C = num;

While (c > 1) {

Fact \*= c;

c--;

}

Printf(“Factorial of %d is %d\n”, num, fact);

Return 0;

}

Output:

Enter a number: 5

Factorial of 5 is : 120

30. Write a c program to find Fibonacci series using while.

Ans : Input:

#include <stdio.h>

Int main() {

Int n, c, a = 0, b = 1, S;

Printf(“Enter the number of terms:”);

Scanf(“%d”, &n);

Printf(“Fibonacci Series: %d %d”, a, b);

While (c < n) {

S = a + b;

Printf(“ %d”, S);

a = b;

b = S;

c++;

}

Printf(“\n”);

Return 0;

}

Output:

Enter the number of terms: 7

Fibonacci series: 0112358

31. Write a c program to print prime no using while.

Ans : Input:

#include <stdio.h>

Int main() {

Int num, i = 2, Prime = 1;

Printf(“Enter a number:”);

Scanf(“%d”, &num);

While (i < num) {

If (num % i == 0) {

Prime = 0;

}

i++;

}

If (num > 1 && Prime)

Printf(“%d is a prime number \n”, num);

Else

Printf(“%d is not a prime number \n”, num);

Return 0;

}

Output:

Enter a number: 7

7 is a prime number

32. Write a c program to print this pattern using while.

1

2 3

4 5 6

7 8 9 10

Ans : Input:

#include <stdio.h>

Int main() {

Int rows = 4, i = 1, j, num = 1, spaces;

While (i <= rows) {

Spaces = rows – i;

j = 0;

While (j < spaces) {

Printf(“ “);

j++;

}

j = 0;

While (j < i) {

Printf(“%d”, num);

num++;

j++;

}

Printf(“\n”);

i++;

}

Return 0;

}