**Assignment – 02**

1. **Java Program to Check Alphabet using ternary operator A is an alphabet.**

public class Alphabet {

public static void main(String[] args) {

char c = 'A';

String output = (c >= 'a' && c <= 'z') || (c >= 'A' && c <= 'Z')

? c + " is an alphabet."

: c + " is not an alphabet.";

System.out.println(output);

}

}

**Output:**

A is an alphabet.

**12) Java Program to Check Alphabet using isAlphabetic() Method a is an alphabet.**

class Main {

public static void main(String[] args) {

// declare a variable

char c = 'a';

// checks if c is an alphabet

if (Character.isAlphabetic(c)) {

System.out.println(c + " is an alphabet.");

}

else {

System.out.println(c + " is not an alphabet.");

}

}

}

**Output:**

a is an alphabet.

**13) Sum of Natural Numbers using for loop**

#include <stdio.h>

int main() {

int n, i, sum = 0;

printf("Enter a positive integer: ");

scanf("%d", &n);

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

sum += i;

}

printf("Sum = %d", sum);

return 0;

}

**Output:**

Enter a positive integer: 10013

Sum = 50135091

**14) Sum of Natural Numbers using for loop**

#include <stdio.h>

int main() {

int n, i, sum = 0;

printf("Enter a positive integer: ");

scanf("%d", &n);

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

sum += i;

}

printf("Sum = %d", sum);

return 0;

}

**Output:**

Enter a positive integer: 100

Sum = 5050

**15) Sum of Natural Numbers using while loop**

#include <stdio.h>

int main() {

int n, i, sum = 0;

printf("Enter a positive integer: ");

scanf("%d", &n);

i = 1;

while (i <= n) {

sum += i;

++i;

}

printf("Sum = %d", sum);

return 0;

}

**Output:**

Enter a positive integer: 100

Sum = 5050

**16) Find Factorial of a number using for loop**

#include<stdio.h>

int main()

{

int num, count, fact = 1;

printf("Enter a number to find its Factorial\n");

scanf("%d", &num);

for(count = 1; count <= num; count++)

{

fact = fact \* count;

}

printf("Factorial of %d is %d\n", num, fact);

return 0;

}

**Output:**

Enter a number to find its Factorial

10

Factorial of 10 is 3628800

**17) Find Factorial of a number using while loop**

#include <stdio.h>

int main()

{

int n,i,f;

f=i=1;

printf("Enter a Number to Find Factorial: ");

scanf("%d",&n);

while(i<=n)

{

f\*=i;

i++;

}

printf("The Factorial of %d is : %d",n,f);

return 0;

}

**Output:**

Enter a Number to Find Factorial: 10

The Factorial of 10 is : 3628800

**18) Generate Multiplication Table using for loop**

#include <stdio.h>

int main(){

int i, num;

/\* Input a number to print table \*/

printf("Enter number to print table: ");

scanf("%d", &num);

for(i=1; i<=10; i++){

printf("%d \* %d = %d\n", num, i, (num\*i));

}

return 0;

}

**Output:**

Enter number to print table: 5

5 \* 1 = 5

5 \* 2 = 10

5 \* 3 = 15

5 \* 4 = 20

5 \* 5 = 25

5 \* 6 = 30

5 \* 7 = 35

5 \* 8 = 40

5 \* 9 = 45

5 \* 10 = 50

**19) Display Fibonacci Series Using for Loop**

#include<stdio.h>

#include<conio.h>

int main ()

{

int first = 0, second = 1, third, i, n;

printf ("Enter the length of the fibonacci series \n");

scanf ("%d", &n);

printf ("The Fibonacci series is :\n");

printf ("%d%d", first, second);

for (i = 2; i <= n; i++)

{

third = first + second;

printf ("%d ", third);

first = second;

second = third;

}

return 0;

}

**Output:**

Enter the limit : 10Fibonacci Series till 10 terms: 0, 1, 1, 2, 3, 5, 8, 13, 21, 34,

**20) Generate Multiplication Table using while loop**

#include < stdio.h >

int main()

{

int num, count = 1;

printf("Enter a number\n");

scanf("%d", &num);

printf("\nMultiplication table for %d is:\n\n", num);

while(count <= 10)

{

printf("%d x %d = %d\n", num, count, (num\*count));

count++;

}

return 0;

}

**Output:**

Enter a number : 5

5\*1=5

5 \* 2 = 10

5 \* 3 = 15

5 \* 4 = 20

5 \* 5 = 25

5 \* 6 = 30

5 \* 7 = 35

5 \* 8 = 40

5 \* 9 = 45

5 \* 10 = 50