Assignment no – 1

Roll no-27

1) Write a program to calculate a simple message

**Code:**

using System;

namespace Journal

{

class SimpleMessage

{

static void Main(String [] args)

{

Console.WriteLine("Hello World...");

Console.ReadKey();

}

}

}

**Output**

Hello World...

Roll no -27

2) Write a program to calculate all arithmetic operations.

**Code:**

using System;

namespace Journal

{

class Arithmatic

{

static void Main(string[] args)

{

int x, y, z;

Console.WriteLine("Enter first number");

x = int.Parse(Console.ReadLine());

Console.WriteLine("Enter second number");

y = int.Parse(Console.ReadLine());

z = x + y;

Console.WriteLine("Sum of {0} and {1} is {2}", x, y, z);

z = x - y;

Console.WriteLine("Substraction of {0} and {1} is {2}", x, y, z);

z = x \* y;

Console.WriteLine("Multiplication of {0} and {1} is {2}", x, y, z);

z = x / y;

Console.WriteLine("Division of {0} and {1} is {2}", x, y, z);

z = x % y;

Console.WriteLine("Modulus of {0} and {1} is {2}", x, y, z);

Console.ReadLine();

}

}

}

**Output:**

Enter first number

67

Enter second number

4

Sum of 67 and 4 is 71

Substraction of 67 and 4 is 63

Multiplication of 67 and 4 is 268

Division of 67 and 4 is 16

Modulus of 67 and 4 is 3

Roll no-27

3) Write a program to calculate compound interest.

**Code:**

using System;

namespace Journal

{

class CompoundInterest

{

static void Main (String[] args)

{

double p, n, r, i;

Console.WriteLine("Enter principle amount");

p = double.Parse(Console.ReadLine());

Console.WriteLine("Enter number of years");

n = double.Parse(Console.ReadLine());

Console.WriteLine("Enter rate");

r = double.Parse(Console.ReadLine());

i = p \* Math.Pow((1 + (r / 100)), n) - p;

Console.WriteLine("Interest is {0}", i);

Console.ReadKey();

}

}

}

**Output:**

Enter principle amount

500000

Enter number of years

3

Enter rate

12

Interest is 202464

Roll no-27

4) Write a program to calculate area and circumference of circle.

**Code:**

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace Journal

{

class Class2

{

static void Main(String[] args)

{

double radius, circum, area;

Console.WriteLine("Enter radius");

radius = double.Parse(Console.ReadLine());

circum = 2 \* 3.1415 \* radius;

area = 3.1415 \* Math.Pow(radius, 2);

Console.WriteLine("The circumference and area of circle with radius {0} unit are {1} unit and {2} sq unit", radius, circum, area);

Console.ReadKey();

}

}

}

**Output-**

Enter radius

5

The circumference and area of circle with radius 5 unit are 31.415 unit and 78.5375 sq unit

Roll no -27

5) Write a program to convert centigrade of temperature.

**Code:**

Using system;

namespace ConsoleApplication1

{

class Temperature

{

static void Main(string[] args)

{

float c, f;

Console.WriteLine("Enter celcius temperature");

c = float.Parse(Console.ReadLine());

f = (9 \* c)/5 + 32;

Console.WriteLine("The farenheit temp is {0}", f);

Console.ReadKey();

}

}

}

**Output:**

Enter celcius temperature

34

The farenheit temp is 93.2

Roll No:27

6) Write a program to calculate gross salary if HRA 20% and DA= 500 of basic salary

**Code-**

using System;

namespace ConsoleApplication

{

class Salary

{

static void Main(String[] args)

{

double basicSalary, da, hra, grossSalary;

Console.Write("Enter Basic Salary:");

basicSalary = Convert.ToDouble(Console.ReadLine());

hra = (basicSalary \* 20) / 100;

da = 500;

grossSalary = basicSalary + da + hra;

Console.WriteLine("\nDearness allowance = {0}", da);

Console.WriteLine("\nHouse Rent 20% of basicSalary = {0}", hra);

Console.WriteLine("Gross Salary = {0}", grossSalary);

Console.ReadKey();

}

}

}

**Output**-

Enter Basic Salary:20000

Dearness allowance = 500

House Rent 20% of basicSalary = 4000

Gross Salary = 24500

Roll no-27

7. Write a program to calculate squre and cube of input number.

**Code**-

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace journal\_1

{

class Class5

{

static void Main(string [] args)

{

float no, sq, c;

Console.WriteLine("Enter values of number:");

no = float.Parse(Console.ReadLine());

sq = no \* no;

c = no \* no \* no;

Console.WriteLine("Square of number {0}", sq);

Console.WriteLine("cube of number {0}", c);

Console.ReadKey();

}

}

}

**Output**-

Enter values of number:

6

Square of number 36

cube of number 216

Roll no-27

8) Write a program to calculate addition using command line.

**Code:**

using System;

namespace ComLineArg

{

class CmdLine

{

static void Main(string[] args)

{

int sum = 0;

if (args.Length > 0)

{

foreach (String obj in args)

{

sum = sum + int.Parse(obj);

}

Console.WriteLine("sum of numbers is {0}", sum);

}

}

}

}

**Output:**

C:\Users\Suhag\Documents\Visual Studio 2015\WebProjects\journal 1\journal 1\bin\Debug>"journal 1.exe" 34 5 3 6 6 7 7 23

sum of numbers is 91

Roll No.:27

9) Write a program to input three subject marks print total marks and percentage using command argument.

**Code-**

using System;

namespace ConsoleApplication

{

class Per

{

static void Main(string[] args)

{

double rollno, Maths, Management, Account, total;

double per;

string name;

rollno = double.Parse(args[0]);

name = args[1];

Maths = double.Parse(args[2]);

Management = double.Parse(args[3]);

Account = double.Parse(args[4]);

total = Maths + Management + Account;

per = (total / 300) \* 100;

Console.Write("rollno: {0}\n name of student: {1}\n", rollno, name);

Console.Write("marks in Maths: {0}\n marks in Mangement: {1}\n marks in Account:{2}\n", Maths, Management, Account);

Console.Write("total marks {0} \n ", total);

Console.Write(" per = {0} ", per);

Console.ReadKey();

}

}

}

C:\Users\Suhag\Documents\Visual Studio 2015\WebProjects\journal 1\journal 1\bin\Debug>"journal 1.exe" 27 seema 56 60 64

rollno: 27

name of student: seema

marks in Maths: 56

marks in Mangement: 60

marks in Account:64

total marks 180

per = 60

Roll no-27

10.Write a program for multiple main function

**Code:**

using System;

namespace Journal

{

public class Classone

{

static void Main(String[] args)

{

Console.WriteLine("class no 1");

Console.ReadKey();

}

}

public class classtwo

{

static void Main(String[] args)

{

Console.WriteLine("class no 2");

Console.ReadKey();

}

}

}

**Output**

**Class 1**

class no 1

**Class 2**

class no 2

Assignment no – 2

Roll no 27

1) Write a program using if statement.

**Code:**

using System;

namespace ConsoleApplication1

{

class Program

{

static void Main(string[] args)

{

Console.WriteLine("Enter your age");

int age = int.Parse(Console.ReadLine());

if(age>= 18)

{

Console.WriteLine("You are eligible for voting");

}

Console.ReadKey();

}

}

}

**Output:**

Enter your age

20

You are eligible for voting

Roll no 27

2) Write a program using if\_else statement.

**Code:**

using System;

namespace ConsoleApplication1

{

class Program1

{

static void Main(string[] args)

{

Console.WriteLine("Enter a number");

int num = int.Parse(Console.ReadLine());

if (num % 2 == 0)

{

Console.WriteLine("{0} is even", num);

}

else

{

Console.WriteLine("{0} is odd", num);

}

Console.ReadKey();

}

}

}

Enter a number

3

3 is odd

Roll no 27

3) Write a program to calculate percentage & display grade using Nested if\_else statement.

**Code:**

using System;

namespace ConsoleApplication1

{

class Class2

{

public static void Main()

{

Console.WriteLine("Enter 5 subject marks");

int ma, vp, db, net, ec;

ma = int.Parse(Console.ReadLine());

vp = int.Parse(Console.ReadLine());

db = int.Parse(Console.ReadLine());

net = int.Parse(Console.ReadLine());

ec = int.Parse(Console.ReadLine());

int max\_marks = 500;

int total = ma + vp + db + net + ec;

char grade = 'F';

double percentage = ((double)(total) / max\_marks) \* 100;

if (percentage >= 90)

{

grade = 'A';

}

else

{

if (percentage >= 80 && percentage <= 89)

{

grade = 'B';

}

else

{

if (percentage >= 60 && percentage <= 79)

{

grade = 'C';

}

else

{

if (percentage >= 33 && percentage <= 59)

{

grade = 'D';

}

else

{

grade = 'F';

}

}

}

}

Console.WriteLine("Percentage = {0}", percentage);

Console.WriteLine("Grade = {0}", grade);

Console.ReadKey();

}

}

}

**Output-**

Enter 5 subject marks

56

45

67

76

56

Percentage = 60

Grade = C

Roll no-27

4) Write a program to enter any character & frame it is capital Letter, small letter, digit or special symbol.

**Code:**

using System;

class ConsoleApp

{

public static void Main(String[] args)

{

char ch;

Console.WriteLine("Enter any character");

ch = char.Parse(Console.ReadLine());

if (ch >= '0' && ch <= '9')

{

Console.WriteLine("\n" + ch + " is an numeric character");

}

if (ch >= 'A' && ch <= 'Z')

{

Console.WriteLine("\n" + ch + " is an UpperCase character");

}

if (ch >= 'a' && ch <= 'z')

{

Console.WriteLine("\n" + ch + " is an LowerCase character");

}

if (ch >= 'A' && ch <= 'Z')

{

Console.WriteLine("\n" + ch + " is an UpperCase character");

}

if (ch >= 33 && ch <= 47 || ch >= 58 && ch <= 64)

{

Console.WriteLine("\n" + ch + " is an special character");

}

Console.ReadKey();

}

}

**Output-**

Enter any character

%

% is an special character

Roll no-27

5) Write a program using else\_ladder.

**Code:**

using System;

namespace ConsoleApplication1

{

class Class3

{

public static void Main()

{

Console.WriteLine("Enter 5 subject marks");

int ma, vp, db, net, ec;

ma = int.Parse(Console.ReadLine());

vp = int.Parse(Console.ReadLine());

db = int.Parse(Console.ReadLine());

net = int.Parse(Console.ReadLine());

ec = int.Parse(Console.ReadLine());

int max\_marks = 500;

int total = ma + vp + db + net + ec;

char grade = 'F';

double percentage = ((double)(total) / max\_marks) \* 100;

if (percentage >= 90)

{

grade = 'A';

}

else if (percentage >= 80 && percentage <= 89)

{

grade = 'B';

}

else if (percentage >= 60 && percentage <= 79)

{

grade = 'C';

}

else if (percentage >= 33 && percentage <= 59)

{

grade = 'D';

}

else

{

grade = 'F';

}

Console.WriteLine("Percentage = {0}", percentage);

Console.WriteLine("Grade = {0}", grade);

Console.ReadKey();

}

}

}

**Output-**

Enter 5 subject marks

45

65

67

76

55

Percentage = 61.6

Grade = C

Roll no-27

6) Write a program to calculate factorial of given number using For loop

**Code:**

using System;

public class FactorialExample

{

public static void Main(string[] args)

{

int i, fact = 1, number;

Console.Write("Enter any Number: ");

number = int.Parse(Console.ReadLine());

for (i = 1; i <= number; i++)

{

fact = fact \* i;

}

Console.Write("Factorial of " + number + " is: " + fact);

Console.ReadKey();

}

}

**Output-**

Enter any Number: 6

Factorial of 6 is: 720

Roll no-27

7) Write a program to input number & print sum of digit using While loop.

**Code:**

using System;

namespace sumofdigits

{

public class SumOfDigits

{

public static void Main(string[] args)

{

int n, sum = 0, m;

Console.Write("Enter one number: ");

n = int.Parse(Console.ReadLine());

while (n > 0)

{

m = n % 10;

sum = sum + m;

n = n / 10;

}

Console.Write("Sum is = " + sum);

Console.ReadKey();

}

}

}

**Output-**

Enter one number: 33445

Sum is = 19

Roll no-27

8) Write a program to print Fibonacci series using do\_while Loop.

**Code:**

using System;

namespace fibseries

{

public class ConsoleApp

{

public static void Main(string[] args)

{

int n1 = 0, n2 = 1, n3, i, number;

Console.Write("Enter the number of elements: ");

number = int.Parse(Console.ReadLine());

Console.Write(n1 + " " + n2 + " ");

i = 2;

do

{

++i;

n3 = n1 + n2;

Console.Write(n3 + " ");

n1 = n2;

n2 = n3;

}

while (i < number);

Console.ReadKey();

}

}

}

**Output**

Enter the number of elements: 22

0 1 1 2 3 5 8 13 21 34 55 89 144 233 377 610 987 1597 2584 4181 6765 10946

Roll no-27

9) Write a program to print following pattern

\*

\*\*

\*\*\*

\*\*\*\*

\*\*\*\*\*

**Code:**

using System.IO;

using System;

namespace pattern

{

class Program2

{

static void Main()

{

for (int i = 1; i <= 5; ++i)

{

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

{

Console.Write("\*");

}

Console.WriteLine();

}

Console.ReadKey();

}

}

}

**Output-**

\*

\*\*

\*\*\*

\*\*\*\*

\*\*\*\*\*

Roll no-27

10) Write a program using break & continue statement

**Code:**

using System;

class BreakContinue

{

static public void Main()

{

for (int i = 1; i < 15; i++)

{

if(i==6)

{

continue;

}

if (i == 10)

{

break;

}

Console.WriteLine(i);

}

Console.ReadKey();

}

}

**Output-**

1

2

3

4

5

7

8

9

Roll no-27

11) Write a program for menu driven using switch

1] Odd or Even

2] Armstrong or Not

3] Palindrome or Not

4] Prime or Not

5] Exit

**Code:**

using System;

public class SwitchSt

{

public static void Main(String[] args)

{

int temp, r, sum = 0;

while (true)

{

int op, num;

Console.WriteLine("1. Odd/Even \n 2. Armstrong \n 3. Palindrome \n 4. Prime \n 5. Exit \n Choose operation");

op = int.Parse(Console.ReadLine());

switch (op)

{

case 1:

Console.WriteLine("Enter num");

num = int.Parse(Console.ReadLine());

if (num % 2 == 0)

{

Console.WriteLine("{0} is even", num);

}

else

{

Console.WriteLine("{0} is odd", num);

}

break;

case 2:

Console.WriteLine("Enter num");

num = int.Parse(Console.ReadLine());

sum = 0;

temp = num;

while (num > 0)

{

r = num % 10;

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

num = num / 10;

}

if (temp == sum)

{

Console.Write("Armstrong Number.");

}

else

{

Console.Write("Not Armstrong Number.");

}

break;

case 3:

Console.WriteLine("Enter num");

num = int.Parse(Console.ReadLine());

sum = 0;

temp = num;

while (num > 0)

{

r = num % 10;

sum = (sum \* 10) + r;

num = num / 10;

}

if (temp == sum)

Console.Write("Number is Palindrome.");

else

Console.Write("Number is not Palindrome");

break;

case 4:

Console.WriteLine("Enter num");

num = int.Parse(Console.ReadLine());

int n = num, i, m = 0, flag = 0;

m = n / 2;

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

{

if (n % i == 0)

{

Console.Write("Number is not Prime.");

flag = 1;

break;

}

}

if (flag == 0)

Console.Write("Number is Prime.");

break;

case 5:

System.Environment.Exit(0);

break;

}

Console.ReadKey();

}

}

}

**Output:**

1. Odd/Even

2. Armstrong

3. Palindrome

4. Prime

5. Exit

Choose operation

1

Enter num

4

4 is even

1. Odd/Even

2. Armstrong

3. Palindrome

4. Prime

5. Exit

Choose operation

1

Enter num

3

3 is odd

1. Odd/Even

2. Armstrong

3. Palindrome

4. Prime

5. Exit

Choose operation

2

Enter num

153

1. Odd/Even mber.

2. Armstrong

3. Palindrome

4. Prime

5. Exit

Choose operation

3

Enter num

343

1. Odd/Even lindrome.

2. Armstrong

3. Palindrome

4. Prime

5. Exit

Choose operation

4

Enter num

17

1. Odd/Even ime.

2. Armstrong

3. Palindrome

4. Prime

5. Exit

Choose operation

Assignment No 3

Roll no-27

1) Write a program for implicit casting.

**Code:**

using System;

namespace ConsoleApplication1

{

class Program

{

static void Main(string[] args)

{

int intNo = 23;

double doubleNo = intNo;

Console.WriteLine("intNo = {0}", intNo);

Console.WriteLine("doubleNo = {0}", doubleNo);

Console.ReadKey();

}

}

}

**Output-**

intNo = 23

doubleNo = 23

Roll no-27

2) Write a program for explicit casting.

**Code:**

using System;

namespace ConsoleApplication1

{

class Program

{

static void Main(string[] args)

{

double doubleNo = 34.67;

int intNo = (int)doubleNo;

Console.WriteLine("doubleNo = {0}", doubleNo);

Console.WriteLine("intNo = {0}", intNo);

Console.ReadKey();

}

}

}

**Output-**

doubleNo = 34.67

intNo = 34

Roll no-27

3) Write a program for pass by value.

**Code:**

using System;

namespace ConsoleApp

{

class PassByValue

{

public void swap(int x, int y)

{

Console.WriteLine("Before swap in swap, value of x : {0}", x);

Console.WriteLine("Before swap in swap, value of y : {0}", y);

int temp;

temp = x;

x = y;

y = temp;

Console.WriteLine("After swap in swap, value of x : {0}", x);

Console.WriteLine("After swap in swap, value of y : {0}", y);

}

static void Main(string[] args)

{

PassByValue n = new PassByValue();

int a = 100;

int b = 200;

Console.WriteLine("Before swap, value of a : {0}", a);

Console.WriteLine("Before swap, value of b : {0}", b);

n.swap(a, b);

Console.WriteLine("After swap, value of a : {0}", a);

Console.WriteLine("After swap, value of b : {0}", b);

Console.ReadLine();

}

}

}

**Output-**

Before swap, value of a : 100

Before swap, value of b : 200

Before swap in swap, value of x : 100

Before swap in swap, value of y : 200

After swap in swap, value of x : 200

After swap in swap, value of y : 100

After swap, value of a : 100

After swap, value of b : 200

Roll no-27

4) Write a program for pass by reference.

**Code:**

using System;

namespace ConsoleApp2

{

class PassByRef

{

public void swap(ref int x, ref int y)

{

Console.WriteLine("Before swap in swap, value of x : {0}", x);

Console.WriteLine("Before swap in swap, value of y : {0}", y);

int temp;

temp = x;

x = y;

y = temp;

Console.WriteLine("After swap in swap, value of x : {0}", x);

Console.WriteLine("After swap in swap, value of y : {0}", y);

}

static void Main(string[] args)

{

PassByRef n = new PassByRef();

int a = 100;

int b = 200;

Console.WriteLine("Before swap, value of a : {0}", a);

Console.WriteLine("Before swap, value of b : {0}", b);

n.swap(ref a, ref b);

Console.WriteLine("After swap, value of a : {0}", a);

Console.WriteLine("After swap, value of b : {0}", b);

Console.ReadLine();

}

}

}

**Output-**

Before swap, value of a : 100

Before swap, value of b : 200

Before swap in swap, value of x : 100

Before swap in swap, value of y : 200

After swap in swap, value of x : 200

After swap in swap, value of y : 100

After swap, value of a : 200

After swap, value of b : 100

Roll no-27

5) Write a program for out parameter.

**Code:**

using System;

namespace ConsoleApp3

{

class OutParam

{

static public void Main()

{

int i;

Addition(out i);

Console.WriteLine("The addition of the value is: {0}", i);

Console.ReadKey();

}

public static void Addition(out int i)

{

i = 30;

i += i;

}

}

}

**Output-**

The addition of the value is: 60

Roll no-27

6) Write a program for input array & print the elements & sum of elements.

**Code:**

using System;

namespace ConsoleApplication1

{

class Class4

{

static void Main()

{

int[] arr = new int[10];

int i;

Console.WriteLine("Enter 10 numbers");

for (i = 0; i < 10; i++)

{

Console.Write("element - {0} : ", i);

arr[i] = Convert.ToInt32(Console.ReadLine());

}

int sum = 0;

Console.Write("\nElements in array are: ");

for (i = 0; i < 10; i++)

{

sum = sum + arr[i];

Console.WriteLine("{0} ", arr[i]);

}

Console.WriteLine("Sum : {0}", sum);

Console.ReadKey();

}

}

}

**Output-**

Enter 10 numbers

element - 0 : 1

element - 1 : 2

element - 2 : 3

element - 3 : 4

element - 4 : 5

element - 5 : 6

element - 6 : 7

element - 7 : 8

element - 8 : 5

element - 9 : 4

Elements in array are: 1

2

3

4

5

6

7

8

5

4

Sum : 45

Roll no-27

7) Write a program for boxing.

**Code:**

using System;

using System.Collections.Generic;

using System.Linq;

using System.Text;

using System.Threading.Tasks;

namespace ConsoleApplication1

{

class Class5

{

static void Main()

{

int no = 10;

object obj = no;

Console.WriteLine("no = {0}", no);

Console.WriteLine("int from obj = {0}", (int)obj);

Console.ReadKey();

}

}

}

**Output-**

no = 10

int from obj = 10

Roll no-27

8) Write a program for unboxing.

**Code:**

using System;

namespace ConsoleApplication3

{

class Class5

{

static void Main()

{

object obj = 10;

int no = (int)obj;

Console.WriteLine("int from obj = {0}", (int)obj);

Console.WriteLine("no = {0}", no);

Console.ReadKey();

}

}

}

**Output-**

int from obj = 10

no = 10

Roll no-27

9) Write a program for partial class.

**Code:**

using System;

namespace PartialClass

{

public partial class Employee

{

public int EmpId { get; set; }

public string FirstName { get; set; }

public string LastName { get; set; }

public int Age { get; set; }

}

public partial class Employee

{

public Employee(int Id, string FName, string LName)

{

this.EmpId = Id;

this.FirstName = FName;

this.LastName= LName;

}

static void Main()

{

Employee e = new Employee(7, "Seema", "Bhanuse");

e.DisplayEmployeeInfo();

Console.ReadKey();

}

public void DisplayEmployeeInfo()

{

Console.WriteLine("Employee Info: ");

Console.WriteLine(this.EmpId + " " + this.FirstName + " " + this.LastName);

}

public void Save(int id, string firstName, string lastName)

{

Console.WriteLine("Saved!");

}

}

}

**Output-**

Employee Info:

7 Seema Bhanuse

Roll no-27

10) Write a program for passing array to the function.

**Code:**

using System;

class PassArray

{

static void Main()

{

string[] weekDays = { "Sun", "Mon", "Tue", "Wed", "Thu", "Fri", "Sat" };

printArray(weekDays);

Console.ReadKey();

}

static void printArray(string[] arr)

{

Console.WriteLine("Elements are : ");

for (int i=0; i< arr.Length; i++)

{

Console.WriteLine("arr[{0}] = {1}", i, arr[i]);

}

}

}

**Output-**

Elements are :

arr[0] = Sun

arr[1] = Mon

arr[2] = Tue

arr[3] = Wed

arr[4] = Thu

arr[5] = Fri

arr[6] = Sat