**St. Xavier’s College (Autonomous), Ahmedabad - 380009**

**(Affiliated to Gujarat University)**

SEM III –BDA

1. Write a Scala function to find the Max of three numbers.

def test(x: Int, y: Int, z: Int): Int = { List(x, y, z).max }

test(5,10,2)

1. Write a Scala program to reverse a string

object RevProg extends App

{

val x = "scala is awesome"

println(x)

println(x.reverse)

}

1. Write a Scala program that accepts an integer (n) and computes the value of n+nn+nnn.

import java.util.Scanner;

object ESE\_Assignment {

def main(args: Array[String]) {

var scanner = new Scanner(System.in);

println("Enter the integer n : ");

var n = scanner.nextInt();

println("The Result is : "+(n+n\*n+n\*n\*n));

}

}

1. Write a Scala program to convert temperatures to and from celsius, fahrenheit. [ Formula : c/5 = f-32/9 [ where c = temperature in celsius and f = temperature in fahrenheit ] *Expected Output* : 60°C is 140 in Fahrenheit 45°F is 7 in Celsius

object MyClass {

def main(args: Array[String]) {

print(convert("C",36))

}

def convert(un:String,v:Double) {

if(un=="C"){

print((v \* 9 / 5 + 32).round)

}

else if(un=="F"){

print(((v - 32) \* 5 / 9).round)

}

else{

print()

}

}

}

1. Write a Scala program to get the volume of a sphere with radius 6.(V = 4/3 × π × r3)

object Q5 extends App{

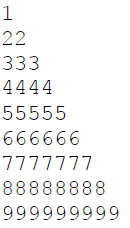
val radius = 6

val volume = (4\*22\*radius\*radius\*radius)/3\*7

println(" Volume is:" + volume)

}

1. Write a Scala program to construct the following pattern, using a nested loop number.



object MyClass {

def main(args: Array[String]) {

for(i <- 0 to 8){

for(j <- 0 to i){

print(i+1)

}

println("")

}

}

}

1. Write a Scala program to test whether a passed letter is a vowel or not.

object Q7 {

def main(args: Array[String]) {

var a:Char=0;

print("Enter character: ")

a=scala.io.StdIn.readChar()

a match{

case 'A'=>printf("%c is a VOWEL.\n",a);

case 'E'=>printf("%c is a VOWEL.\n",a);

case 'I'=>printf("%c is a VOWEL.\n",a);

case 'O'=>printf("%c is a VOWEL.\n",a);

case 'U'=>printf("%c is a VOWEL.\n",a);

case 'a'=>printf("%c is a VOWEL.\n",a);

case 'e'=>printf("%c is a VOWEL.\n",a);

case 'i'=>printf("%c is a VOWEL.\n",a);

case 'o'=>printf("%c is a VOWEL.\n",a);

case 'u'=>printf("%c is a VOWEL.\n",a);

case \_=>printf("%c is a CONSONANT.\n",a);

}

}

}

1. Write a Scala program to find numbers between 100 and 400 (both included) where each digit of a number is an even number. The numbers obtained should be printed in a comma-separated sequence.
2. Write a Scala program that accepts a number from the user and checks whether it is an amrstrong number or not. 13+53+33=153is an amrstrong number

object ArmstrongNumbers {

def main(args: Array[String]){

println(isArmstrongNumber(153))

}

def isArmstrongNumber(n: Long): Boolean = {

val power = n.toString.length

var sum = n

var number = n

while (number > 0) {

val d = number % 10

sum -= math.pow(d, power).longValue()

if (sum < 0) {

return false

}

number /= 10

}

sum == 0

}

}

1. Write a Scala program to get the Fibonacci series between 0 to 50. Note: The Fibonacci Sequence is the series of numbers: 0, 1, 1, 2, 3, 5, 8, 13, 21, ....

**object Q10 extends App {**

**def fibonacci(n: Int): List[Int] = {**

**def fibonacci(a: Int, b: Int): LazyList[Int] = a #:: fibonacci(b, a+b)**

**fibonacci(0,1).take(n).toList**

**}**

**print(fibonacci(50))**

**} ……………………………………………………………………..**