**Assignment – 1**

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Class : TY CSE

PRN : 22510034 Batch : T-3

**(Variable and Constant declaration, Type Safety and Type Inference)**

//Q1

import Foundation

let pi : Double = 3.14159;

var radius : Double = 5.0;

let cir=2 \* pi \* radius;

print(cir);

//Q2

let birthYear : Int = 1990;

var currYear : Int = 2025;

let age = currYear - birthYear;

print(age);

//Q3

var marks = 85;

marks = 90;

let outOfMarks = 100

//outOfMarks = 120

//Q4

var score = 0;

print("Score is declared as var since during the match it will vary and hence needs to be changed")

//Q5

var currTemp : Double = 25.0

let freezingPoint : Double = 0.0

//Q6

var d1=3.14

var d2=2.71

//Q7

var firstDecimal  : Double = 4.56

var secondDecimal : Double = 7.89

//Q8

var trueOrFalse = true ;

var firsttDecimal : Double = 3.14

//firsttDecimal = trueOrFalse

//Q9

var myString = "Hello Word !"

var firstttDecimal :Double = 3.14

//firstttDecimal = myString

print ("Type Mismatch ");

//Q10

var whole = 5

var firstDeci : Double = 3.14

//firstDeci = whole

//Q11

var name : String

//It should be initialized before the usage

//print(name)

//Q12

//var distanceTravelled = 0;

//distanceTravelled=54.3

//Doesn't compile due to var was initially int but reassigned as double so basically a type mismatch

//Q13

var percentCompleted = 0;

print(percentCompleted);

//Q14

var percentCompletedd = 0;

//percentCompletedd = 34.67

//Type inferencing error

//Q15

print("Enter your name dude : ")

if let userName=readLine(){

    print("Hello,\(userName)")

}

//Q16

print("Enter numbers ")

if let f = readLine(), let fir = Int(f){

    print("Enter second number")

    if let sInput = readLine(), let secondNumber = Int(sInput) {

        let sum = fir + secondNumber

        print("Sum Of\(fir) and \(secondNumber) is \(sum)")

    } else {

        print("invalid second number")

    }

} else {

    print("invalid for first number");

}

//Q17

print("Enter temperature in C")

if let input = readLine(), let celcius = Double(input){

    let farhenheit = (celcius \* 9/5) + 32

    print("\(celcius) is equal to \(farhenheit)")

} else {

print("invalid input")

}