**Assignment-7 on Structures**
**Due Date: March 12, 2021**

*Note: For Q1 and Q2 use . operator, For Q3,Q4,Q5 use -> operator to access structure members.*

**Use dot (.) operator to access structure members.**

1)A railway employee is paid 1200/- (rupees) per day for regular 8 hours of work. Any hours over that are paid overtime rate of 100/- per hour. From the employee's gross pay (total pay per month), 2% is deducted for professional tax, 10% for provident fund and 5% for income tax. However, the employee will get 2% (of the gross pay) for the education of a child. Write a program to create a structure of employee and read data of 'N' employees as follows:
i)the number of extra hours (which the employee worked during a month)
ii)the number of children the employee has.
The program should output the ' N' employees gross pay (total pay earned by the employee by working) and net take-home pay (after deductions and earning for child education). Assume all months have 30 days.

2) Consider a structure with the members: Roll_No, Section, Marks_in_PSCP. Write a program to read the details of six sections (G, H, K, L, M, N and Q) students where each section contains 80 students. Write a program to calculate the average marks for each section and also the average of all the seven sections.

**Use arrow (->) operator to access structure members.**

3) Write a program to create a *structure 'student'* with the member variable number, name, marks and branch. Read sixty students details. Then your program should display the names of the students who got more than 60 marks of CSE branch with name 'Aditya'.

4) A Point on the 2-D plane can be represented by two numbers: an X-coordinate and Y-Coordinate. For example, (2, 3) represents a point 2 units to the right of the origin along the x-axis and 3-units up the y-axis. Write a program that uses a structure called Point to model a point. Define two points, the user have to input values of two points. The Program should calculate the Euclidean distance between the two input points and display it.

5) Write a program to create a structure called BankDeposit with members amoun (amount to deposit in bank), tenure (No. of years deposit to be maintained). Create another structure called Dates with members date, month, year (date, month, year of int type). The program should read DOB of a person, and Date of deposit using Dates structure variables and calculate present age of the person. If the person is senior citizen (age >=60 yrs) then rate of interest is 9% else 8%. Calculate the total amount that person receives after date of maturity (date of deposit+ tenure).