

Write Java programs for the following along with variable names.

All questions carry equal marks

Question 1

Define a class named **FruitJuice** with the following description:

Instance variables/data members:

int productCode: stores the product code number.

String flavour: stores the flavour of the juice (e.g. orange, apple, etc.).

String packType: stores the type of packaging (e.g. tetra-pack, PET bottle, etc.)

int packSize: stores package size (e.g. 200ml, 400ml, etc.).

int productPrice: stores the price of the product.

Member functions:

(i) void input(): to input and store the product code, flavour, pack type, pack size and product price.

(ii) void discount(): to reduce the product price by 10.

(iii) void display(): to display the product code, flavour, pack type, pack size and product price.

Write the main method to create an object of the class and call the above member methods

Question 2

Define a class called **Library** with the following description:

Instance variables/data members:

int acc_num : stores the accession number of books

String title : stores the title of book

String author : stores the name of author

int days : stores number of days late

Member methods:

void input() : to input and store the accession number, title, author and the number of days late

void compute(): , calculate the fine charged at the rate of Rs. 2.50 per day

void display(): to display the details in the following format:

Accession number Title Author Fine in Rs.

Write the main method to create an object of the class and call the above member methods .

Question 3

Define a class **Student** as given below:

Data members/instance variables:

String name:	to store the student's name.
int age	to store the age.
int m1, m2, m3	to store the marks in three subjects.
int max	to store the highest marks among three subjects.
double average	to store the average marks.

Member functions:

- (i) void accept() -To accept the details of a student.
- (ii) void compute(-To compute the average and the maximum out of three marks.
- (iii) void output() -To display all the details of the student.

Write a main() method to create an object of the class and call the above methods accordingly to enable the task.
