Object Oriented Concepts and Programming (Practical Assignment - I)

Q-1 Write a program that reads a character and prints out whether it is a vowel or a consonant or a number or any other character.

Q-2 WAP to add an 8% tax to a given amount and round the net amount to its positive nearest amount.

Q-3 A serial transmission line can transmit 960 characters per second. WAP that will calculate total time taken to send a file if the file's size is given. (Check it for 400 MB file size)

Q-4 WAP that takes a series of numbers and counts the frequency of positive values and negative values.

Q-5 WAP to convert the distance in meter to centimeter and feet to inches and vice versa using class DISTANCE. (1 meter = 100 centimeter and 1 feet = 12 inches).

Q-6 Create a class for Bank account with the following data members.

(1) Name of depositor

(2) Account number

(3) Type of account

(4) Balance member functions

a. To assign initial values

b. To deposit an amount in a particular account

c. To withdraw an amount after checking the balance

d. To display name and balance

WAP to manage at least 10 customers who can deal with deposit and withdraw amount and calculate the current balance.

Q-7 WAP to display taxi details, Customer name and total fare that must be calculated as:
 For first 5 km, fare is 50 rs., for next 10 kms, fare is 12 rs./km, for next 15 kms fare is 8 rs./km and 5 rs./km for more than 25 kms.

Q-8 Write a program to display time in hours, minutes and seconds after adding integer value to the time type object, show the use of constructors.

Q-9 Construct the class named person (Data member: age, name), Write member functions: detail(), display(). Write a program that will accept the detail of four persons and create function such that it will find the max age from the supplied detail.

Q-10 Create class STUDENT having rollno, name and age as data members, also create nested class SUBJECT with three subjects and initialize their value with minimum passing marks. Using member function, modify marks of student with specific rollno which is given by user.

Q-11 Create class DATE having date, month and year as data members. Update the date with user given days using friend function, and display new date.

Q-12 Create class VECTOR (int x, int y, int z). Using parameterized constructor with default arguments, initialize the data members. Also using member function add two objects of this class and display resultant value using member functions.

Q-13 Design an airline reservation data structure that contains the following data:

Flight number

Originating airport code (3 characters)
Destination airport code (3 characters)
Departure time
Arrival time
Write a program that lists all the planes that leave from two airports specified by the user.