Mark as done

Opened: Thursday, 14 March 2024, 6:00 PM
Due: Thursday, 14 March 2024, 7:00 PM

SUNBEAM INSTITUTE OF INFORMATION TECHNOLOGY ,Hinjewadi

Module End Mock Lab Examination – C++ Programming

Course Name :- PG-DAC   **Batch - March 2023**
Date :- 14-3-2024   **Duration :- 1 hours**
                                                   Marks:- 40

Instructions :
1. Create Workspace (folder) by the name CPP<digit PRN> in home directory
2. Create new Project and save it in above folder.
3. You can use all necessary documents for help .

Question :

Q. A Vehicle Service station has 2 types of servicing. One is Maintenance/Re-paring and other is Engine/Gear oil change. Your task is to generate bill for servicing of vehicle.

i. if vehicle comes for maintenance/repairing
        - ask to enter vehicle number.
        - ask to enter vehicle part to be replace and its price.
        - ask to enter labour charge.
        - add 5% GST on purchased part.
        - add 5% GST on labour charges.
        - Calculate total bill to be paid.

ii. if vehicle comes for Engine/gear oil change
        - ask to enter vehicle number.
        - ask for oil brand name and price
        - add 12% GST on oil brand price.
        - Calculate total bill to be paid.
Note: Use of Inheritance and run-time polymorphism is expected(override calculateTotalBill()).

 I. Base class → Servicing
        data members→ customerName, vehicleNo, mobileNo,totalBill
II. derived classes→
        i. Maintenance→
         data members → partName, partPrice, labourCharge.
        ii. oil change→
         data members→ OilName, oilPrice.
III. Write appropriate user defined exception class
     - if price is negative then throw exception and show appropriate message.

Sr.No	Points to Cover	Max Marks
1	Classes using inheritance, Getter and Setter	5+5+5
2	virtual function and it's implementation	6
3	User defined exception class	6
4	Menudriven +Multiple files + Comments	5+5+3
	Total	40

Grading summary

Hidden from students	Yes
Participants	233
Time remaining	Assignment is due