Answer all the questions. 5 x 2 = 10

1. a) List out the properties of an **algorithm**?

b) Draw a **flowchart** to indicate whether the person is eligible to cast his/her vote or not.

1. a) Give an example on **identity operators**.

b) Write a python program to read three **float** numbers in three variables and replace values of variables with the sum of first and second, subtraction of second and third, and multiplication of third and first number respectively.

1. a) State the differences between implicit and explicit **type conversion**?

b) SR University Coding Club Hackathon: In a hackathon organized by the Coding Club of SR University, a total of 30 teams participated in the grand finale. Each team consisted of exactly 6 students. The event lasted for 3 days, and the total expenditure incurred was Rs. 2,47,600.00. As an organizer of the event, you want to calculate the following:

The amount spent per day

The amount spent on each student per day

The amount spent on each student for all 3 days

Develop a Python program to calculate the above values and print the results in **integer form**.

1. a) Give a syntax of **if** **elif ladder**.

b) Assume that, you are working on an e-commerce platform and need to categorize items based on their prices:

Items with a price less than Rs.500 should be categorized as "Affordable".

Items with a price between Rs.500 and Rs.1000 should be categorized as "Mid-range".

Items with a price greater than Rs.1000 should be categorized as "Expensive".

If the price is negative, print an error message as "Invalid price".

Write a program using **match case** statement.

1. a) Differentiate between **break** and **continue** statements.

b) Develop a python program to check whether the given number is Strong or not.

1. Develop a python program to read a line of text (main **string**) from the keyboard, make very first character of each word to upper case and print the same on to screen.

Input:

I am observing each and every student while working in lab

Output:

I Am Observing Each And Every Student While Working In Lab