AMERICAN INTERNATIONAL UNIVERSITY-BANGLADESH
Faculty of Science and Information Technology Department of Computer Science
CSC 1102: Introduction to Programming
Midterm Lab Exam
Total Marks: 30

1. Write an account class with data members number, name, and type of account. A customer can deposit and withdraw amount in his account. The program will show the balance before and after withdraw/deposit.

2. Write a product class with data members product no, product name, price, qty, tax, discount. A customer can purchase product and his invoice generated. Define necessary methods to calculate tax, discount and total price. Create customer object and show customer's shopping bill.

3. Drivers are concerned with the mileage obtained by their automobiles. One driver has kept track of several trips by recording miles driven and gallons used for each trip. Develop a class DriveHistory that uses a while statement to input the miles driven and gallons used for each trip. The program should calculate and display the miles per gallon obtained for each trip.

4. A large company pays its salespeople on a commission basis. The salespeople each receive $200 per week plus 9% of their gross sales for that week. For example, a salesperson who sells $5000 worth of chemicals in a week receives $200 plus 9% of $5000, or a total of $650. Develop a class named as EmpSalary based on the above description and write necessary methods to input each salesperson's gross sales for last week and calculates and displays that salesperson's earnings.

5. An organization has Managers, Admin officers, Salesman. All types of Employee have different salaries. Write a simple C++ class to calculate their yearly salaries. You are expected to create necessary classes and a main function to print Employee information.

6. Write a class palindrome. A palindrome is a word that reads the same both forwards and backwards. Write a member function that takes a string as parameter and returns true if the word is a palindrome, false otherwise.