

COURSE CODE: 0013-121 COURSE TITLE: Structured programming

Course Teacher: Si

Level: 1

Term: 2

Batch: 39

Time: 35 min.

Marks: 15

Set: A

Answer ALL Questions

1	A man goes to a shopping mall to buy some clothes. He buys 2 shirts, 2 pants, and 5 caps. The price of one shirt is 1000 BDT, one pant is 2400 BDT, and one cap is 360 BDT. The shop gives a 40% discount only on the shirts. After applying the discount on the shirts, the total bill is calculated. Then 15% VAT is added to the total amount after discount. Write a C program to calculate and display the total price of shirts before discount, the discount amount, the subtotal after discount, the VAT amount, and the final payable amount.	[5]
2	A school is developing a simple typing practice software for students. When a student presses a key on the keyboard, the system needs to identify whether the entered character is an uppercase alphabet or a lowercase alphabet. This will help students understand the difference between capital letters and small letters while practicing typing. Write a C program that takes a character input from the user and checks whether the entered character is an uppercase alphabet or a lowercase alphabet using the if-else statement. The program should display an appropriate message based on the condition.	[5]
3	A digital attendance system in a school records weekly reports based on the week number entered by the user. The system accepts a number from 1 to 7, where each number represents a specific day of the week (1 for Sunday, 2 for Monday, and so on). To make the system user-friendly, it must display the correct day name according to the entered week number. Write a C program that takes a week number (1–7) as input from the user and prints the corresponding day name using the switch statement. If the user enters an invalid number, the program should display an appropriate message..	[5]