University of Asia Pacific

Semester: Spring 2024

CSE -102: Introduction to Computer Science & Programming Methodology Lab
Section: B2
Set : B

Time : 1.5 hours

Answer all the questions.

Q1.	Write a C program that takes input for the marks obtained in five subjects: Physics, Chemistry, Biology, Mathematics, and Computer. If your ID is 24101215, then the Physics mark should be the last two digits of your ID (15). The marks for the other subjects can be any integer numbers. The program should then: • Calculate the total marks. • Calculate the average marks. • Calculate the result using the following equation: result = (marks in Biology / marks in Chemistry) * (marks in Mathematics - marks in Computer). **Sample Input:** 15 80 72 92 48 **Sample Output :** Total marks: 307 Average marks: 61.400000 Result: 4,416.900000

Q2.	Imagine you are a high school teacher responsible for grading students in a science and math class. To make the grading process more efficient and transparent, you've decided to develop a C program that takes input for the marks obtained in five subjects: Physics, Chemistry, Biology, Mathematics, and Computer. The program will calculate the percentage and assign a grade according to the following conditions: If percentage >= 90% : Grade A If percentage >= 80%: Grade B If percentage >= 70% : Grade C If percentage >= 60% : Grade D If percentage >= 40% : Grade E If percentage < 40% : Grade F **Task:** Write a C program that takes input for marks in five subjects, calculates the percentage, and assigns a grade based on the specified conditions. If your calculated percentage is less than 70.0, add an extra 10.0 to your total percentage. **Sample Input:** 85 78 92 88 70 **Sample Output:** Percentage: 82.6% Percentage after adding 10.0: 92.6% Grade: A

Q3.	Write a C program that prints the EVEN numbers from 0 to 20 and prints '*' if the number is ODD. **Sample Output:** 0 * 2 * 4 * 6 * 8 * 10 * 12 * 14 * 16 * 18 * 20
Q4:	Take any integer as input. Sum all the integer numbers less than the input. If the sum is smaller than the input, print “Smaller”, if the sum is larger than the input, print “Bigger”, and if the sum is equal to the input, print “Equal”. If your input = 3, sum = 0+1+2 =3, output will be: Equal **Sample Input:** 3 **Sample Output:** Equal If your input = 7, sum = 0+1+2+3+4+5+6 =21, output will be: Bigger **Sample Input:** 7 **Sample Output:** Bigger