CONDITIONAL QUESTIONS LEVEL - 2

1. **Write a program to input an integer and check whether it is greater than 100, or less than 100 or equal to 100.**
2. **Write a program to input the Selling Price and Cost Price of a commodity and find the Profit or**
   Loss made upon selling the product.
   For example,
   INPUT:
   Enter the Selling Price of the commodity: 456
   Enter the Cost Price of the commodity: 400
   OUTPUT:
   Profit: 56
   INPUT:
   Enter the Selling Price of the commodity: 300
   Enter the Cost Price of the commodity: 310
   OUTPUT:
   Loss: 10.
3. **Write a program to check whether a int type number taken as input is a positive, negative or a zero.**
4. **Write a program to check whether a short type number taken as input is an even number or an odd number.**
5. **Write a program to accept an int type value as a parameter and print the square of it, if it is more than 120, otherwise print its cube.**
6. **Write a program to input 5 real numbers (floating point) and find their average. If the average is greater than 50 print good, otherwise print bad.**
7. **Write a program to check whether an int type number (taken as input) is a multiple of 5 or 3 or both or neither of them.**
8. **Write a program to check whether an int type number (taken as input) is a 2-digit number or not. (hint: 10 to 99)**
9. **Write a program to check whether an int type number (taken as input) is a 3-digit number divisible by three or not.**
10. **Write a program to input three integers and check whether all of them are unique (different) from each other or not.**
11. **Write a program to pass 2 integer numbers as parameters. If either of the two numbers is 0, display invalid entry and the program should end, if it is valid entry, divide the larger number with the smaller number and display the result.**
12. **Write a program to accept three sides of a triangle as parameter and check whether it can form a triangle or not. If it forms a triangle, check whether it is an acute angled, obtuse angled or right-angled triangle.**
    (Hint: To form a triangle, each side should be less the sum of the other two sides)

    To form an acute angled triangle the square of every side should be less than the sum of the squares of the other two sides.

To form an obtuse angled triangle the square of any side should be greater than the sum of the squares of the other two sides.

To form an right angled triangle the square of any side should be equal to the sum of the squares of the other two sides.)

13. **Write a program to accept a mark obtained by a student in computer science and print the grades accordingly:**

Marks	Grade
Above 90	A
70 to 89	B
50 o 69	C
below 50	D

14. **A cloth showroom has announced the following festival discounts on the purchase of items, based on the total cost of the items purchased:**

Total Cost	Discount (in Percentage)
Less than ₹ 2000	5%
₹ 2001 to ₹ 5000	25%
₹ 5001 to ₹ 10000	35%
Above ₹ 10000	50%

Write a program to input the total cost and compute and display the amount to be paid by the customer after availing the discount.

15. **An electricity company charges their consumers according to the units consumed per month according to the given traffic:**

Units Consumed	Charges
Up to 100 units	₹ 2 per unit
More than 100 units and up to 200 units	₹ 1.80 per unit
More than 200 units	₹ 1.50 per unit

In addition to the above, every consumer has to pay ₹ 200 as Service Charge per month. Write a program to input the amount of units consumed and calculate the total charges payable (Bill) by the consumer.

16. **Write a program to input an integer and check whether it is a 5-digit number or not. If it is extract the central digit and print it.**
Example
INPUT: Enter an integer: 76549
OUTPUT: Central digit: 5

INPUT: Enter an integer: 12976
OUTPUT: Central digit: 9

INPUT: Enter an integer: 126
OUTPUT: Not a 5 digit number

17. **Write a program to input an integer and check whether it is a 4-digit number or not. If it is find the sum of first and last digit.**

Example
INPUT: Enter an integer: 4765
OUTPUT: Sum of the first and last digit: 9 // (4 + 5)

INPUT: Enter an integer: 7839
OUTPUT: Sum of the first and last digit: 16 //(7 + 9)

INPUT: Enter an integer: 126
OUTPUT: Not a 4 digit number

18. **Write a program to input an integer and check whether it is a 3-digit number or not. If it is check whether the sum of first and last digit is Even or an Odd number.**
    Example
    INPUT: Enter an integer: 476
    OUTPUT: Sum of the first and last digit is an Even number

    INPUT: Enter an integer: 784
    OUTPUT: Sum of the first and last digit is an Odd number

    INPUT: Enter an integer: 12
    OUTPUT: Not a 3 digit number
19. **A special two-digit number is such that when the sum of its digits is added to the product of its digits, the result is equal to the original two-digit number.**

    Example:
    Consider the number 59.
    Sum of digits= 5 + 9 = 14
    Product of its digits = 5 x 9 =45
    Sum of the sum of digits and product of digits = 14 + 45 = 59

    Write a program to accept a two-digit number. Add the sum of its digits to the product of its
    digits. If the value is equal to the number input, output the message "Special 2-digit number" otherwise, output the message "Not a special 2-digit number".
20. **Write a program to input an integer and using ternary operator check whether it is an Even or an Odd number.**
21. **Using a switch statement, write a menu driven program to find the area and perimeter of a square or rectangle. For finding the area and perimeter of a square input the side length and for finding the area and perimeter of the rectangle input the length and breadth.**
22. **Write a menu driven program to input a day number between 1 to 7 and print the corresponding weekday. That is for 1 display Sunday, for 2 display Monday for 3 display Tuesday, etc.**

23. **Write a program to input an integer and check whether it is divisible by 3 or not using swich case only (no if-else statement).**
24. **Write a program to input three integers and check whether it forms a Pythagorean triplet or not. A set of three integers is said to be a Pythagoren triplet if the sum of the squares of any two integers is equal to square of the third integer. Example, (3, 4, 5), (5, 12, 13), and (7, 24, 25).**