Assignment No. : NPSHSR/2022-23-S1/PRACTASSIGN/GR11/COMPUTER SCIENCE/AS03

Grade : 11   **ASSIGNMENT – 3**

Topics: Control Structures – If…Else

1. Write a python program to input Weight(Kg) and Height(m) and display the BMI status with the following calculations

$$BMI = \frac{weight\ in\ kg}{(height\ in\ m)^2}$$

BMI	Status
≤ 18.4	Underweight
18.5 - 24.9	Normal
25.0 - 39.9	Overweight
≥ 40.0	Obese

2. Write a python program to input date, month and year and to display Julian day
    The **Julian day** is the continuous count of days since the beginning of the year.
    Example: Julian day of 5 March 2004 is 31+29+5=65

3. Given an integer U denoting the amount of KWh units of electricity consumed, the task is to calculate the electricity bill with the help of the below charges:

BESCOM Domestic Electricity Changes - 2022
Rs 4.15 per unit for 0-50 units
Rs 5.60 per unit for 51 to 100 units
Rs 7.15 per unit for 101-200 units
Rs 8.20 per unit for above 200 units

4. Write a python program to input the age and annual taxable income of the person. Calculate the income tax and TDS to be paid by the person as per the given condition:

INCOME TAX SLAB	NEW TAX REGIME FOR ALL	OLD TAX REGIME < 60 yrs	OLD TAX REGIME 60 - 80 YRS	OLD TAX REGIME > 80 YRS
Up to ₹2,50,000	NIL	NIL	NIL	NIL
₹2,50,001 - ₹3,00,000	5%	5%	NIL	NIL
₹3,00,001 - ₹5,00,000	5%	5%	5%	NIL
₹5,00,001 - ₹7,50,000	10%	20%	20%	20%
₹7,50,001 - ₹10,00,000	15%	20%	20%	20%
₹10,00,001 - ₹12,50,000	20%	30%	30%	30%
₹12,50,001 - ₹15,00,000	25%	30%	30%	30%
Above ₹ 15,00,000	30%	30%	30%	30%

5. For sides of a triangle(a,b,c), check the triangle can be formed, if so, take the larger side as c
    Check whether the given triangle is
    $c^2 > a^2 + b^2$ - Obtuse
    $c^2 > a^2 + b^2$ - Acute
    $c^2 = a^2 + b^2$ - Right

    Also calculate the area of the triangle