PYTHON CONDITIONAL EXERCISE

1. Write a program to take input a number and tell whether it's a positive, negative or zero.

2. Write a program that checks whether the given input is an even number or an odd number.

3. Write a program to find the largest number out of two numbers excepted from user.

4. Write a program to find the lowest number out of two numbers excepted from user.

5. Get two numbers from the user using input prompt. If a is greater than b returns a is greater than b, if a is less b return a is smaller than b, else a is equal to b.

6. Write a code which gives grade to students according to their scores:

   80-100, A
   70-89, B
   60-69, C
   50-59, D
   0-49, F

7. Write a program to take input the marks obtained is three subjects and total marks. Compute and show the resulting percentage on your page. Take percentage and compute grade as per following table:

Percentage	Grade	Remarks
Greater than or equal to 80	A +	Excellent
Greater than or equal to 70	A	Good
Greater than or equal to 60	B	You need to improve
Less than 60	Fail	Sorry

Show the total marks, marks obtained, percentage, grade and remarks like:
Marks Sheet
Total Marks: 300
Marks Obtained: 219
Percentage: 73%
Grade: B
Remarks: You need to improve.

8. Write a program that takes a character (i.e. string of length 1) and returns true if it is a vowel, false otherwise.

9. Write a program to take input remaining fuel car (in liters) from user. If the current fuel is less than 0.25 liters, show the message "Please refill the fuel in your car."

10. Names and Total scores of two teams are taken as input. Write a program that shows which team has won the game or show if there is a tie. (Team A or Team B)

    Score of Team A: 90
    Score of Team B: 95
    Team B has won the game

11. Write an if/else statement with the following condition:
    If the variable age is greater than 18, output "Old enough", otherwise output "Too young".

12. Get user input using input ("Enter your age:"). If user is 18 or older, give feedback: You are old enough to drive. If below 18 give feedback to wait for the missing number of years.

    Output:
    Enter your age: 30
    You are old enough to learn to drive.
    Enter your age: 15
    You need 3 more years to learn to drive.

13. Compare the values of my_age and your_age using if ... else. Who is older (me or you)? Use input("Enter your age: ") to get the age as input. You can use a nested condition to print 'year' for 1 year difference in age, 'years' for bigger differences,

and a custom text if my_age = your_age.

14. Write a program to accept a number from 1 to 7 and display the name of the day like 1 for Sunday, 2 for Monday and so on.

15. Weather in Sylhet nowadays is cool, write a program that takes temperature as input and shows a message on following criteria:

    a. T > 40 then “It is too hot outside.”
    b. T > 30 then “The Weather today is Normal.”
    c. T > 20 then “Today’s Weather is cool.”
    d. T> 10 then “OMG! Toady’s weather is so cool.”

16. **Guess game:**
    Store a secret number (ranging from 1 to 10) in a variable.
    Prompt user to guess the secret number.

    a. If user guess the same number, show “Bingo! Correct answer”.
    b. IF the guessed number +1 is the secret number, show “Close enough to the correct answer”.

17. Write a program to check whether the given input number is divisible by 3 or else show a message “Number is not divisible by 3”.

18. Write a program to display "Hello" if a number entered by user is a multiple of five, otherwise print "Bye".

19. Check if the season is Autumn, Winter, Spring or Summer. If the user input is: September, October or November, the season is Autumn. December, January or February, the season is Winter. March, April or May, the season is Spring June, July or August, the season is Summer.

20. Write a program to take input color of road traffic signal from the user and show the message according to this table:

SIGNA LCOLOR	MESSAGE
RED	Vehicles must stop
YELLOW	Vehicles should get ready to move
GREEN	Vehicles can move now

21. Write a program that takes user input day name. If the day is Monday, Tuesday, Wednesday or Thursday, then show "It's a week day". If the day is Friday or Saturday then show "It's weekend".

22. Write a program to create calculator for +, -, *, / and % using if statements. Take the following input:
    a. First number.
    b. Second number.
    c. Operation (+, -, *, /, %)

    Compute and show the calculated result to user.

23. Write a program to take "gender" as input from user. If the user is male, give the message: Good Morning Sir. If the user is female, f=give the message: Good Morning Ma'am.

24. Write a program to check whether a year is leap year or not.

25. Write a program to accept the cost price of a bike and display the road tax to be paid according to the following criteria:

    Cost price (in Taka)
    Tax
    > 100000
    15%
    > 50000 and <= 100000
    10%
    <= 50000
    5%

26. **The Pluralizer:**
    Write a program that:

    a. takes 2 inputs, a noun and number.
    b. tells the number and pluralized from, like "5 cats" or "1 dog".
    Run the program for a few different inputs and show the result to make sure it works.

    Please enter a number: 4
    Please enter a noun: boat

4 boats

27. Write a program to display the last digit of a number. (hint: any number % 10 will return the last digit)

28. Write a program to check whether the last digit of a number (entered by user) is divisible by 3 or not.