A. Python IF (Single Condition)

1. Write a Python program to check if a number is **positive**.
2. Print `"Eligible to vote"` if age is **18 or above**.
3. Check if a number is **divisible by 7**.
4. Print `"Pass"` if marks are **greater than 40**.
5. Check if a number is **greater than 100**.
6. Display a message if temperature exceeds **45°C**.
7. Check if a string length is **more than 8 characters**.
8. Print `"Logged In"` if password matches `"admin123"`.
9. Check if a number is a **multiple of 10**.
10. Print a warning if balance is **below minimum limit**.

B. Python IF–ELSE (Two Conditions)

11. Check whether a number is **even or odd**.
12. Find the **largest of two numbers**.
13. Check whether a person is **eligible for driving license**.
14. Print `"Pass"` or `"Fail"` based on marks.
15. Check whether a number is **positive or negative**.
16. Check whether a character is a **vowel or consonant**.
17. Check if a year is **leap or not**.
18. Print `"Valid Password"` or `"Invalid Password"`.
19. Determine whether salary is **taxable or not**.
20. Check whether a number is **greater than 50** or not.

C. Python NESTED IF–ELSE

21. Find the **largest of three numbers**.
22. Check whether a number is **positive, negative, or zero**.
23. Assign grades:

- A → marks ≥ 90
- B → marks ≥ 75
- C → marks ≥ 60
- Fail → below 60

24. Check whether a triangle is **equilateral, isosceles, or scalene**.
25. Check whether a character is **uppercase, lowercase, digit, or special character**.
26. Calculate electricity bill using **slab-wise rates**.
27. Validate login using **username and password**.
28. Check student result using **marks of 3 subjects**.
29. Find the **second largest number** among three numbers.
30. Check loan eligibility using **age, salary, and credit score**.

D. Python ELIF (Multiple Conditions)

31. Print **day name** using day number (1–7).
32. Print **month name** using month number.
33. Display grade based on **percentage**.
34. Display bonus percentage based on **experience years**.
35. Identify traffic signal meaning.
36. Categorize temperature as **Cold / Warm / Hot**.
37. Categorize employee based on **salary range**.
38. Print discount percentage based on **purchase amount**.
39. Identify number type: **single-digit / double-digit / multi-digit**.
40. Assign performance rating: **Poor / Average / Good / Excellent**.

E. Python COMPLEX CONDITIONS (AND / OR / NOT)

41. Check whether a number is **divisible by 5 and 11**.
42. Check if a person is eligible for loan:
- age ≥ 21
- salary ≥ 25,000
- credit score ≥ 700
43. Validate login using **username AND password**.
44. Check student pass condition:
- All subjects ≥ 40
- Average ≥ 50
45. Check if a number lies **between 10 and 100**.
46. Check exam eligibility:
- attendance ≥ 75% **OR**
- medical certificate available
47. Validate a **date** using conditions.
48. Check whether an email format is **valid**.
49. Determine insurance eligibility using **age, health status, and income**.
50. Check leap year using **complete leap year logic**.

F. INTERVIEW-LEVEL PYTHON LOGIC QUESTIONS

51. Write a Python program to calculate **income tax** using slabs.
52. Create an **ATM withdrawal program** with balance checks.
53. Check **promotion eligibility** using experience and performance.
54. Implement a **grading system** using nested if–else.
55. Validate **strong password** using multiple conditions.
56. Calculate **delivery charges** based on location and order amount.
57. Determine **online exam qualification**.
58. Create **movie ticket pricing logic** based on age & show time.
59. Determine **bank account type** based on balance.
60. Create a **menu-driven program** using if–elif–else.