**Day-3 Morning Assessment**

**For loop with Numbers:**

1. for i in range(1, 11):

print(i)

o/p: 1

2

3

4

5

6

7

8

9

10

2. for i in range(1, 21):

if i%2==0:

print(i)

o/p: 2

4

6

8

10

12

14

16

18

20

3. for i in range(1, 21, 2):

print(i)

o/p:

1

3

5

7

9

11

13

15

17

19

4. for i in range(10, 0, -1):

print(i)

o/p:

10

9

8

7

6

5

4

3

2

1

5. for i in range(5, 51, 5):

print(i)

o/p:

5

10

15

20

25

30

35

40

45

50

6. for i in range(1, 6):

print(i \* i)

o/p:

1

4

9

16

25

7. for i in range(1, int(input()) +1):

print(i)

o/p:

1

2

3

4

5

8. for i in range(7, 101, 7):

print(i)

o/p:

7

14

21

28

35

42

49

56

63

70

77

84

91

98

9. for i in range(1, 51):

print(f"{i} Even" if i%2 == 0 else f"{i} Odd")

o/p:

1 Odd

2 Even

3 Odd

4 Even

5 Odd

6 Even

7 Odd

8 Even

9 Odd

10 Even

11 Odd

12 Even

13 Odd

14 Even

15 Odd

16 Even

17 Odd

18 Even

19 Odd

20 Even

21 Odd

22 Even

23 Odd

24 Even

25 Odd

26 Even

27 Odd

28 Even

29 Odd

30 Even

31 Odd

32 Even

33 Odd

34 Even

35 Odd

36 Even

37 Odd

38 Even

39 Odd

40 Even

41 Odd

42 Even

43 Odd

44 Even

45 Odd

46 Even

47 Odd

48 Even

49 Odd

50 Even

10. for i in range(1, 11):

print(f"{i} squared is {i\*i}")

o/p:

1 squared is 1

2 squared is 4

3 squared is 9

4 squared is 16

5 squared is 25

6 squared is 36

7 squared is 49

8 squared is 64

9 squared is 81

10 squared is 100

**For loop with lists:**

11. for i in [1,2,3,4,5]:

print(i)

o/p:

1

2

3

4

5

12. for i in [-2, 3, -1, 5, 0]:

print(i) if i>0 else None

o/p:

3

5

13. for i in [45, 47, 50, 52, 55]:

print(i) if i>50 else None

o/p:

52

55

14. for s in ["Apple", "Banana", "Avocado"]:

print(s) if s.startswith('A') else None

o/p:

Apple

Avocado

15. print(sum(1 for i in[2, 5, 8, 11, 14] if i%2 == 0))

o/p:

3

16. for i in [3, 5, 9, 12]:

print(i) if i%3 == 0 else None

o/p:

3

9

12

17. lst = [3, 7, 2, 9, 5]; max\_num = lst[0]

for i in lst:

if i > max\_num: max\_num = i

print(max\_num)

o/p:

9

18. lst = [3, 7, 2, 9, 5]; min\_num = lst[0]

for i in lst:

if i < min\_num: min\_num = i

print(min\_num)

o/p:

2

19. lst = [3, 7, 2, 9, 5]; total = 0

for i in lst: total += i

print(total)

o/p:

26

20. lst = [3, 7, 2, 9, 5];

print(sum(lst)/len(lst))

o/p:

5.2

**For loop with Ranges and Conditions:**

21. for n in range(2, 51):

if all(n%i!=0 for i in range(2, int(n\*\*0.5)+1)):

print(n)

o/p:

2

3

5

7

11

13

17

19

23

29

31

37

41

43

47

22. for i in range(1, 101):

print(i) if i % 10 == 0 else None

o/p:

10

20

30

40

50

60

70

80

90

100

23. for i in range(1, 31):

print("Fizz" if i % 3 == 0 else i)

o/p:

1

2

Fizz

4

5

Fizz

7

8

Fizz

10

11

Fizz

13

14

Fizz

16

17

Fizz

19

20

Fizz

22

23

Fizz

25

26

Fizz

28

29

Fizz

24. for i in range(5):

print("Hello")

o/p:

Hello

Hello

Hello

Hello

Hello

25. n = 5; f = 1

for i in range(1, n+1): f \*= i

print(f)

o/p:120

26. s = "Hello World"; c = 0

for i in s:

c += i.lower() in 'aeiou'

print(c)

o/p:3

27. s = "amitha"; rev = " "

for i in s: rev = i + rev

print(rev)

o/p: ahtima

28. n = 1234; s = 0

for d in str(n): s += int(d)

print(s)

o/p:10

29. n = 5

for i in range(1, 11):

print(f"{n} x {i} = {n\*i}")

o/p: 5 x 1 = 5

5 x 2 = 10

5 x 3 = 15

5 x 4 = 20

5 x 5 = 25

5 x 6 = 30

5 x 7 = 35

5 x 8 = 40

5 x 9 = 45

5 x 10 = 50

30. n = 121; s = str(n); rev = ""

for i in s: rev = i + rev

print("Palindrome" if s == rev else "Not Palindrome")

o/p: Palindrome

**If-Else with User Input:**

31. n = int(input())

print("Positive" if n > 0 else "Negative" if n < 0 else "Zero")

o/p:

Input: -3

Output: Negative

32. y = int(input())

print("Leap Year" if y%4==0 and (y%100!=0 or y%400==0) else "Not Leap Year")

o/p:

Input: 2024

o/p: Leap year

33. n = int(input())

print("Even" if n % 2 == 0 else "Odd")

input: 7

o/p:odd

34. n = int(input())

print("Divisible" if n % 5 == 0 and n % 11 == 0 else "Not Divisible")

input: 55

o/p:Divisible

35. ch = input().lower()

print("Vowel" if ch in 'aeiou' else "Consonant")

input:E

o/p:Vowel

36. n = int(input())

print("Three-digit" if 100 <= n <= 999 or -999 <= n <= -100 else "Not three-digit")

input:123

o/p:Three-digit

37. ch = input()

print("Uppercase" if ch.isupper() else "Lowercase")

input: A

o/p: Uppercase

38. age = int(input())

print("Eligible" if age >= 18 else "Not Eligible")

input: 20

o/p: Eligible

39. n = int(input())

print("Both" if n%2==0 and n%3==0 else "2" if n%2==0 else "3" if n%3==0 else "None")

input:6

o/p:Both

40. n = int(input())

print("Zero" if n == 0 else "Even" if n%2 == 0 else "Odd")

input:4

o/p:Even