Q 1: Write a program that prints all numbers from 1 to 50 but skips numbers that are divisible by 3. Use the **continue** statement. **Example Output: 1 2 4 5 7 8 10 11 13 14 16 17 19 20.** (6 marks)

Sample Solution

for num in range(1, 51):

if num % 3 == 0:

continue

print(num, end=" ")

Q2: What is wrong with the following code? Identify the Problems. (4 Marks)

**start = int(input ("Enter the starting number: ")**

**end = int(input("Enter the ending number: "))**

**sum = 0**

**for i in range(start, end+1):**

**if i % 2 = 1:**

**sum + i**

**print("The sum of odd numbers from", start, "to", end, "is", sum)**

Sample Solution

1. Syntax Error – Missing closing parenthesis in input() function:
2. **Assignment Error in** if **condition:** The condition if i % 2 = 1 is using the **assignment operator** = instead of the **comparison operator** ==.
3. **Incorrect operation in the loop:** Inside the if block, the code sum + i does not actually update the sum variable. It should use the **assignment operator** = to add the value of i to sum.
4. Indentation error in the for loop
   1. Python requires the loop body to be indented.

Q3: Write a Python program that takes a **numerical score** as input from the user and assigns a letter grade based on the following grading scale: (4 Marks)

|  |  |
| --- | --- |
| **Score Range** | **Grade** |
| 90 and above | A |
| 80 - 89 | B |
| 70 - 79 | C |
| Below 70 | Fail |

Sample Solution:

score = int(input("Enter your score: "))

# Assign grade based on the score

if score >= 90:

grade = 'A'

elif score >= 80:

grade = 'B'

elif score >= 70:

grade = 'C'

else:

grade = 'Fail'

# Print the result

print("Your grade is:", grade)

Q4: What will be the output of each print statement. (6 Marks)

**a = 12**

**b = 5**

**c = 3**

**print("1.", a + b \* c)**

**print("2.", (a - b) / c)**

**print("3.", a - b + c \* 2)**

**print("4.", (a / c) \* (b - c))**

**print("5.", a / (b + c) + a / c)**

**print("6.", a \* c - b \* c + a / b)**

Sample Solution:

**1. 27**

**2. 2.3333333333333335**

**3. 13**

**4. 8**

**5. 5.5**

**6. 23.4**