

Vadodara Institute of Engineering
Diploma Engineering–Semester –1–Mid-Examination –Winter-2025
Subject Code:DI01016011
Date: 08-12-2025
Subject Name: Python Programming
Branch: IT
Time: 12:30 PM TO 03:00 PM
Total Marks:70

Q2. C Write a Menu Driven Program to generate calculator using match case statement.

```
print("---- CALCULATOR MENU ----")
print("1. Addition")
print("2. Subtraction")
print("3. Multiplication")
print("4. Division")
print("5. Exit")

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

if choice == 5:
    print("Exiting the program...")
else:
    num1 = float(input("Enter first number: "))
    num2 = float(input("Enter second number: "))

    match choice:
        case 1:
            print("Result =", num1 + num2)
        case 2:
            print("Result =", num1 - num2)
        case 3:
            print("Result =", num1 * num2)
        case 4:
            if num2 != 0:
                print("Result =", num1 / num2)
            else:
                print("Error: Division by zero is not allowed.")
        case _:
            print("Invalid choice! Please enter a valid option.")
```

Q5. A. Write a program to find the average of three numbers.

```
# Program to find average of three numbers
```

```
num1 = float(input("Enter first number: "))
num2 = float(input("Enter second number: "))
num3 = float(input("Enter third number: "))
average = (num1 + num2 + num3) / 3
print("Average =", average)
```

Q5. C Write a program to check whether a student is pass or fail. If student is pass then give him a grade.(more than 75:Distinction, 65-75:First Class, 50-65: Second Class, 40-50 Pass Class).

```
marks = float(input("Enter student's marks: "))
```

```
if marks < 40:
    print("Result: FAIL")
else:
    print("Result: PASS")

if marks > 75:
    print("Grade: Distinction")
elif 65 <= marks <= 75:
    print("Grade: First Class")
elif 50 <= marks < 65:
    print("Grade: Second Class")
elif 40 <= marks < 50:
    print("Grade: Pass Class")
```