Assignment – 8

Problem Statement:

Write a program in **C** to accept marks of five courses of a student and compute the result. A student is considered **PASS** if he/she scores **40 marks or more in each course**. If the student passes, calculate the aggregate percentage and assign the grade as follows:

- Aggregate **≥ 75%** : **Distinction**
- Aggregate **≥ 60% and < 75%** : **First Division**
- Aggregate **≥ 50% and < 60%** : **Second Division**
- Aggregate **≥ 40% and < 50%** : **Third Division**

Code:

```c
#include <stdio.h>

int main()
{
    int m1, m2, m3, m4, m5;
    int total;
    float percentage;

    // Input marks
    printf("Enter marks of five subjects:\n");
    scanf("%d %d %d %d %d", &m1, &m2, &m3, &m4, &m5);

    // Check pass or fail
    if (m1 < 40 || m2 < 40 || m3 < 40 || m4 < 40 || m5 < 40)
    {
        printf("\nResult: FAIL\n");
    }
    else
    {
        total = m1 + m2 + m3 + m4 + m5;
        percentage = (total / 500.0) * 100;

        printf("\nTotal Marks: %d", total);
        printf("\nPercentage: %.2f%%", percentage);
        printf("\nResult: PASS");

        if (percentage >= 75)
            printf("\nGrade: Distinction");
        else if (percentage >= 60)
            printf("\nGrade: First Division");
        else if (percentage >= 50)
            printf("\nGrade: Second Division");
        else
            printf("\nGrade: Third Division");
    }

    return 0;
}
```

Input & Output:

```
Microsoft Visual Studio Debu
Enter marks of five subjects:
78 65 70 80 75

Total Marks: 368
Percentage: 73.60%
Result: PASS
Grade: First Division
D:\MIT\Sem2\FOP\Leap Year\x64\Debug\Leap Year.exe (process 16984) exited with code 0 (0x0).
To automatically close the console when debugging stops, enable Tools->Options->Debugging->Automatically close the conso
le when debugging stops.
Press any key to close this window . . .
```