Instructions:

- Write any five(05) questions out of seven(07) and each question carries 12 marks
- Write all the sub questions of each question together

1.

a. What is an operator? Explain types of operators with example? (8M)
b. Define error. Explain all types of errors? (4M)

2.

a. Explain selection/conditional control statements with syntax, flowchart and with an example? (8M)
b. Write a program to enter the marks of a student in four subjects. Then calculate the total and aggregate, and display the grade obtained by the student. If the student scores an aggregate greater than 75%, then the grade is Distinction. If aggregate is 60>= and <75, then the grade is First Division. If aggregate is 50>= and <60, then the grade is Second Division. If aggregate is 40>= and <50, then the grade is Third Division. Else the grade is fail. (4M)

3.

a. Explain types of Iterative statements with syntax, flowchart and example? Write short notes on for-else? (8M)
b. Write a program to find whether the given number is an Armstrong Number or not. (4M)

4.

a. What is recursion and write advantages and disadvantages of recursion? Write a program to calculates exp(x,y) using recursion functions. (8M)
b. Define module and explain any two functions from math module and random module? (4M)

5.

a. Explain types of arguments in function with example? (8M)
b. Write a program to print the following pattern. (4M)

```
1
1 2
1 2 3
1 2 3 4
1 2 3 4 5
```

6.

a. What is Python? Write notes on Python history, features and applications? (8M)
b. What is an Identifier? List out the rules of an Identifier? (4M)

7.

a. Explain Loop Control Statements with examples? (8M)
b. Write a Python function to check whether a number is perfect or not. (4M)

---ALL THE BEST---