IMCA 3rd Semester Examination

Subject-Python Programming

Paper-3.4

Full Mark-70

Answer all questions. **Duration: 2 Hours**

1.a) What is the difference between local and global variables in python? Differentiate with example? [7]

b) What do you mean by default arguments in function? Explain through example. [7]

Or

a) Find the difference between keyword and identifier? [7]

b) What are the different types of errors are present in python programming? [7]

2. a) What are the different methodologies for solving a problem? [7]

b) What are the relevant procedures to define the problem? [7]

Or

a) What is the difference between program design and documentation? [7]

b) What are the processes involved for debugging a problem? Explain the brute force approach to debug a problem. [7]

3. **a)** Design the step-by-step flowchart process for finding the area of triangle. [7]

b) Write down the step-by-step algorithm to swap two numbers without using third variable. [7]

Or

a) Design the flowchart for finding the largest among three numbers using relevant symbols. [7]

b) Write down the step-by-step algorithm to find the factorial of a number. [7]

4. a) WAP to convert the entered seconds value into their corresponding hour, minute and seconds. [7]

b) Enter two numbers and find the cube of the largest number using conditional operator. [7]

Or

a) WAP to calculate the gross salary of an employee by giving input basic salary. Also calculate DA (60%) HRA (15%), Conveyance (15%), Medical (10%).
Gross salary = Basic + DA + Conveyance + Medical [7]

b) WAP to enter the two sides of a rectangle and calculate the radius of the circle whose area is same as the rectangle. [7]

5. a) WAP to find the LCM and GCD of two numbers. [7]

c) WAP to find all the prime numbers between a given pair of ranges. The ranges will be passed as an argument to the function definition named as “Calculate_Prime()”. [7]

Or

a) WAP to print the nth Fibonacci number where n is inputted from the keyboard. [7]

b) WAP to find all the Armstrong numbers between a given pair of ranges. The ranges will be passed as an argument to the function definition named as “Calculate_Armstrong()”. [7]