

Total No. of Questions : 4]

SEAT No. :

**P6**

[Total No. of Pages : 2

**FE/INSEM/APR-6**

**F.E. (Semester - II)**

**110005 : PROGRAMMING AND PROBLEM SOLVING**

**(2019 Pattern)**

**Time : 1 Hour]**

**[Max. Marks : 30**

**Instructions to the candidates :**

- 1) Solve Q.1 or Q.2, Q.3 or Q.4.
- 2) Neat diagrams must be drawn wherever necessary.

**Q1) a) What is a problem? Explain six problem solving steps. [4]**

b) List down types of operators in Python. Explain relational operators. [5]

c) Explain flow-chart and algorithm with example. [6]

**OR**

**Q2) a) Explain following terms with suitable examples. [4]**

i) Comment

ii) Reserve Words

b) Write a program to swap two numbers. [5]

c) Explain any six features of Python programming. [6]

**Q3) a) Describe the following terms with examples (any two) : [4]**

i) break

ii) continue

iii) pass

iv) range

b) Write a program to test whether a number entered by the user is positive, negative or zero. [5]

c) Explain following selection/decision making statements in Python [6]

i) if statement

ii) if....else statement

iii) if..else..else statement

**P.T.O.**

OR

- Q4)** a) Explain for loop with flow chart. [4]  
b) What is a list? Explain any three operations of list. [5]  
c) Write a program to generate a Fibonacci series of 'n' numbers. [6]

