[5931]-1007
F.E. (Semester - I)
PROGRAMMING AND PROBLEM SOLVING
(2019 Pattern) (110005)

Time : 1 Hour]

[Max. Marks : 30

Instructions to the candidates:

1) *Answer Q.1 or Q.2, Q.3 or Q.4.*

2) *Neat diagrams must be wherever necessary.*

Q1) a) List different program design tools? Explain an algorithm with example.
[3]

b) What are the characteristics of an algorithm? **[4]**

c) Explain brief history of python programming language and list different software developed in Python. **[3]**

d) Explain any five features of python programming language. **[5]**

OR

Q2) a) Write a pseudo code for factorial of a number. **[3]**

b) What are the different collection literals in Python? **[4]**

c) What do you mean by flow-chart? Explain different flowchart symbols.
[3]

d) Explain any five categories of operators in python with examples. **[5]**

Q3) a) Explain the following conditional branching statements with examples.
[3]

i) If   ii) if else   iii) if elif else

b) Explain different dictionary methods. **[4]**

c) What do you mean by nested loops? Explain with example. **[3]**

d) Write a program for prime number. **[5]**

OR

P.T.O.

Q4) a) Explain for loop with syntax, flow-chart and example. **[3]**

b) Explain else statement with for loop with flowchart and example. **[4]**

c) Explain following terms with examples. **[3]**

    i) break   ii) continue   iii) pass

d) Write a program for multiplication tables of numbers from 1 to 10.

                                                                        [5]

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