PA-1684

[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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