

Total No. of Questions : 12]

P4943

SEAT No. :

[Total No. of Pages : 2

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F.Y. M.C.A. (Engineering)
PRINCIPLES OF PROGRAMMING
(2019 Pattern) (Semester - I)

Time : 2½ Hours]

Instructions to the candidates

- 1) All questions are compulsory.
- 2) Neat diagrams must be drawn wherever necessary.
- 3) Figures to the right indicate full marks.
- 4) Assume suitable data, if necessary.

[Max. Marks : 70

- Q1)** a) Explain programming language qualities. [4]
b) Write short note on Language processing. [4]
c) How do you create software development environment. [3]

OR

- Q2)** a) What is difference between syntax and semantics of a language. [6]
b) Explain the concept of binding with its types. [5]
Q3) a) Explain exception handling in C++. [6]
b) Explain Type checking and Type compatibility. [6]

OR

- Q4)** a) Explain User-defined types and abstract data types. [6]
b) Define the two types of parameters. How do they differ? [6]
Q5) a) Why is it important to maintain a naming convention within the company that is developing computer programs. [6]
b) Write a program which uses a recursive algorithm. Explain how Subroutines are generated? [6]

OR

- Q6)** a) Explain selection and iterative functions in details. [6]
b) What do you mean by cohesion and coupling? How are these important to programmers? [6]

P.T.O.

- Q7)** a) What is flowchart? Explain all the symbols used to draw a flowchart. [6]
b) Explain “Big oh” “Omega” and “Theta” notations. [5]

OR

- Q8)** a) Define space complexity & Time Complexity. [6]
b) Write a pseudo code for reverse number. [5]

- Q9)** a) Write a Pseudo algorithm to generate a Fibonacci series of number. [6]
b) Design pseudo algorithm that converts binary numbers to octal. [6]

OR

- Q10)** a) Explain Binary search with example. [6]
b) Explain Testing and Debugging. [6]

- Q11)** a) Write Pseudo algorithm to find minimum, maximum elements in an array of n elements. [6]
b) Write short note on Table Look-up technique and Pointer technique. [6]

OR

- Q12)** a) Explain standard methods of data organizing. [6]
b) Explain bubble sort Algorithm. Give the example. [6]



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