Roll No. ☐☐☐☐☐☐☐☐☐☐☐☐☐   Total No. of Pages : 02

Total No. of Questions : 09

MCA. (Sem.–5)
SYSTEM SIMULATION & MODELLING
Subject Code : MCA-504
M.Code : 90003

Time : 3 Hrs.   Max. Marks : 60

INSTRUCTIONS TO CANDIDATES :
 1. **SECTIONS-A, B, C & D contains TWO questions each carrying TEN marks each and students has to attempt any ONE question from each SECTION.**
 2. **SECTION-E is COMPULSORY consisting of TEN questions carrying TWENTY marks in all.**

SECTION-A

1) Write a detailed note on types of models.

2) What are the various models classified in simulation? Explain.

SECTION-B

3) What are random numbers? Explain any one method.

4) Differentiate between fixed time step and event-to-event model.

SECTION-C

5) Explain the concept of simulation queuing system.

6) Discuss the simulation of two server queue with example.

SECTION-D

7) Discuss the simulation of telephone system.

8) Explain in detail about GPSS.

9) **Write briefly :**

   a) Explain the term Stochastic Activities.

   b) System simulation

   c) System design

   d) Differentiate between Continuous and Discrete Systems.

   e) Probability

   f) Queuing system

   g) Service time

   h) Properties of model

   i) Open and closed system

   j) Polling

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.