Exam. Code : 208603
Subject Code : 4721

M.Sc. Information Technology 3rd Semester
SYSTEM SIMULATION
Paper—MIT-304

Time Allowed—3 Hours] [Maximum Marks—100

Note :— Candidates are to attempt ***five*** questions, ***one*** from each Section. **Fifth** question may be attempted from any Section. All questions carry equal marks.

SECTION—A

1. Briefly discuss :
   (a) Concept of a system
   (b) Continuous vs discrete system.
2. Define the concepts used in discrete system simulation with the help of an example.

SECTION—B

3. Explain the characteristics of a queuing system. Discuss the simulation of two-server queuing system with the help of suitable illustrations.
4. Write short notes on :
   (a) Generation of Poisson and Erland variants
   (b) Forecasting and regression analysis.

SECTION—C

5. Briefly discuss the features of GPSS and SIMULA.
6. Discuss various factors in the selection of a discrete system simulation language.

SECTION—D

7. Write short notes on :
   (a) Analytical Vs simulation models
   (b) Application of simulation to operating systems.
8. Discuss the simulation of a water reservoir system.