Exam. Code : 208603
Subject Code : 5248

M.Sc. Information Tech. 3rd Semester

MIT-304 : SYSTEM SIMULATION

Time Allowed—3 Hours] [Maximum Marks—100

Note :— Attempt any ***five*** questions. All questions carry equal marks.

1. What is simulation ? Briefly discuss the concepts of simulation of continuous system with the help of an example.

2. (a) Discuss various steps of mathematical modeling.

   (b) Compare analytic and simulation models.

3. Briefly discuss various characteristics of a queuing system. Also explain the simulation of two-server queuing system with the help of suitable example.

4. Write short notes on the following :

   (a) General Queues

   (b) Block-structured continuous simulation languages.

5. Discuss the simulation of an inventory control system with the help of an example.

6. Explain the generation of Poisson and Erlang variants.

7. Discuss various features of continuous and discrete system simulation language.

8. Write short notes on :

   (a) Generation of non-uniformly distributed numbers

   (b) SIMULA

   (c) Simpack

   (d) CSIM.