

Code No: RT41055

R13

Set No. 1

IV B.Tech I Semester Supplementary Examinations, February/March - 2018

SIMULATION MODELING
(Computer Science and Engineering)

Time: 3 hours

Max. Marks: 70

Question paper consists of Part-A and Part-B

Answer ALL sub questions from Part-A

Answer any THREE questions from Part-B

PART-A (22 Marks)

1. a) Define entity, attribute and activity. [3]
- b) Mention the different types of system simulation. [4]
- c) Write about the system simulation language. [4]
- d) Write short notes on system dynamics. [4]
- e) List out the types of simulation queues. [3]
- f) What do you mean by event scanning? Explain. [4]

PART-B (3x16 = 48 Marks)

2. a) Briefly describe the concept of a system and models used in the system. [8]
- b) Describe the simulation of an inventory system with a neat diagram. [8]
3. a) Mention the guide lines for determining the various levels of model in detail. [8]
- b) Compare the simulation and analytical method of system simulation. [8]
4. a) Write short notes on system dynamic growth models. [8]
- b) Simulate a queue with single queue, single server. Make your own assumption about the arrival patterns of customers. [8]
5. a) Explain Monte Carlo technique for simulation. [8]
- b) Write short notes on logistics curves. [8]
6. a) Explain the queueing theory and types of queues. [8]
- b) Write short notes on numerical experimentation. [8]
7. Write short notes on
 - a) Data structures used in GPSS and SIMSCRIPT [8]
 - b) Simulation algorithms in GPSS and SIMSCRIPT [8]