

Reg. No.....

(Pages : 2)

L 5539

Name.....

**FOURTH SEMESTER M.C.A. DEGREE EXAMINATION
NOVEMBER/DECEMBER 2004**

MODELLING AND SIMULATION (Elective IV)

Time : Three Hours

Maximum : 75 Marks

Part A

Answer all questions.

Each question carries 3 marks.

1. What is a system ?
2. Define Model.
3. What are the components of a system ?
4. Give examples for real time system.
5. What do you mean by discrete-event simulation ?
6. List any *two* advantages of simulation.
7. How random numbers are generated ?
8. Name any *two* simulation languages.
9. What do you mean by block structured continuous system simulation language ?
10. What is an AI technique ?

(10 × 3 = 30 marks)

Part B

Answer six questions, taking not more than two questions from each unit.

Each question carries 7½ marks.

UNIT I

11. Compare discrete and continuous systems.
12. Discuss computer workload and preparation of its models.
13. Write a short note on calibration and validation of models.

UNIT II

14. When is simulation the appropriate tool ? Discuss.
15. List the areas of application of simulation.
16. With an example of your own discuss simulation of continuous systems.

Turn over

UNIT III

17. Write a short note on discrete-system simulation language.
18. Discuss the use of A.I. techniques in Modelling.
19. List the advantages and disadvantages of simulation languages.

(6 × 7½ = 45 marks)