

C 5515

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Name.....

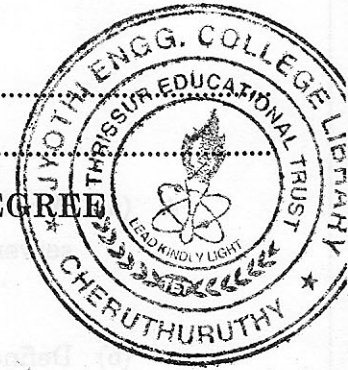
Reg. No.....

SEVENTH SEMESTER B.TECH. (ENGINEERING) DEGREE

EXAMINATION, JUNE 2010

CS 04 705 C—SIMULATION AND MODELLING

(2004 admissions)



Time : Three Hours

Maximum : 100 Marks

Part A

Answer all questions.

1. (a) Define system modelling. Explain it briefly.
- (b) Write briefly about Normal distribution.
- (c) What are the general features of SIMSCRIPT.
- (d) State few simulation languages. Give a sample program.
- (e) What are the parameters of queue ? Give its significance.
- (f) What is a service pattern ? Explain how is it generated ?
- (g) What is a stochastic network ? Explain it briefly.
- (h) Explain how a critical path is determined in a network ?

(8 × 5 = 40 marks)

Part B

Answer one question from each module.

MODULE I

2. (a) What is an exponential distribution ? Explain how random samples are generated using Exponential distribution.

Or

- (b) Describe in detail how a continuous system is simulated and also explain its modeling.

(15 marks)

MODULE II

3. (a) Define SIMSCRIPT and SIMULA. Explain in detail how SIMULA is executed in SIMSCRIPT.

Or

- (b) What is a GPSS ? Describe in detail the general features of GPSS.

(15 marks)

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MODULE III

4. (a) What is meant by single server queues ? Explain in detail the simulation of single server queues.

Or

- (b) Define tandom queues. Describe the simulation of tandon queues in detail.

(15 marks)

MODULE IV

5. (a) What is a PERT Network ? Explain in detail how PERT Networks are simulated ?

Or

- (b) What is known as Backward pass ? Write in detail about the simulation of Backward pass.

(15 marks)

[4 × 15 = 60 marks]