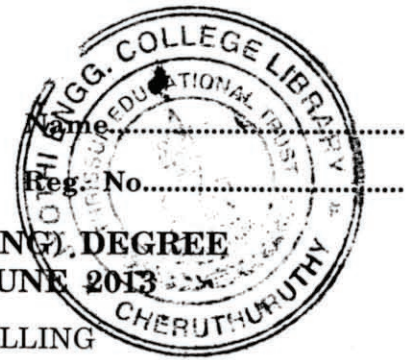


C 44811



**EIGHTH SEMESTER B.TECH. (ENGINEERING) DEGREE
[SUPPLEMENTARY] EXAMINATION, JUNE 2013**

IT04 804 (E)—SIMULATION AND MODELLING

Time : Three Hours

Maximum : 100 Marks

Part A

Answer all questions.

- I. (a) State the differences between digital simulation and analog simulation.
- (b) What is random number generation ? State its application.
- (c) List the programming considerations in simulation languages.
- (d) How to determine the confidence intervals for terminating simulation runs ?
- (e) What is simulation of queuing systems ? Explain.
- (f) Brief on simulation of single server queues.
- (g) What is critical path ? How to determine a critical path ?
- (h) List the merits of stochastic networks.

(8 × 5 = 40 marks)

Part B

- II. (a) Explain about event scheduling with an example.
Or
(b) State the application of uniform distribution and exponential distribution.
- III. (a) Discuss the features of GPSS.
Or
(b) Explain about the verification and validation of simulation experiments.
- IV. (a) Elaborate generation of service patterns.
Or
(b) Explain with an example about simulation of tandem queues.
- V. (a) Explain about simulation on backward pass with an example.
Or
(b) How to determine float and slack time ? When does zero float occur ?

(4 × 15 = 60 marks)