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BR—500—2016

FACULTY OF COMPUTER STUDIES

M.Sc. (C.S.) (First Year) (Second Semester) EXAMINATION

OCTOBER/NOVEMBER, 2016

COMPUTER SCIENCE

Paper CS-205

(Elective-I)

(Discrete Event System Simulation)

(Saturday, 26-11-2016)

Time : 10.00 a.m. to 1.00 p.m.

Time—Three Hours

Maximum Marks—75

N.B. :— (i) All questions are compulsory.

(ii) Figures to the right indicate full marks.

1. Attempt the following (any *three*) : 3×5=15
 - (a) Define System. Explain the system environment.
 - (b) Describe simulation of queuing systems.
 - (c) Explain the simulation packages in detail.
 - (d) Explain the useful statistical model.
 - (e) Explain the characteristics of queuing systems.
2. Attempt the following (any *three*) : 3×5=15
 - (a) Explain the components of system.
 - (b) Describe the concept of list processing.
 - (c) Explain the continuous distribution.
 - (d) What do you mean by network of queues.
 - (e) Explain the tests for random numbers.
3. Attempt the following (any *three*) : 3×5=15
 - (a) Describe advantages and disadvantage of Simulation.
 - (b) Explain the history of simulation software.
 - (c) Discuss on “Poison Process”.
 - (d) Explain the Queuing Notations.
 - (e) Explain the concept of data collection.

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4. Attempt the following (any *three*) : 3×5=15
- (a) Describe the steps in simulation study.
 - (b) Explain the trends in simulation software.
 - (c) Explain the empirical distribution.
 - (d) Describe the generation of pseudo random number.
 - (e) Explain the goodness of fit tests.
5. Write short notes on (any *three*) : 3×5=15
- (a) Types of system
 - (b) Discrete distribution
 - (c) Techniques for generating random number
 - (d) Multivariate and time series input models
 - (e) Properties of random number.