Total No. of Questions—4]

[Total No. of Printed Pages—1

Seat No.

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## M.C.A. (Commerce Faculty) (SEMESTER V) EXAMINATION, 2016 507: SYSTEM SIMULATION & MODELING (CREDIT SYSTEM) (2013 PATTERN)

Time: Three Hours

Maximum Marks: 50

- N.B. := (i) Attempt All the questions.
  - (ii) Figures to the right indicate full marks.
- **1.** Attempt any two:

 $[2 \times 7 = 14]$ 

- (a) What are advantages and disadvantages of simulation?
- (b) What is list processing? Explain.
- (c) Explain the properties of random number and its consequences.
- **2.** Attempt any two:

 $[2 \times 6 = 12]$ 

- (a) Explain the linear congruential method for random number generation.
- (b) Explain different acceptance rejection techniques.
- (c) With example explain the various types of discrete distributions.
- **3.** Attempt any two:

 $[2 \times 6 = 12]$ 

- (a) Explain data collection with example.
- (b) Explain stochastic nature of output data with example.
- (c) Explain characteristics of queuing system.
- **4.** Attempt any two:

 $[2 \times 6 = 12]$ 

- (a) List types of models. Explain static mathematical model.
- (b) Explain briefly the various steps of input modeling.
- (c) Explain the output analysis for Terminating simulation.

[4966]-5006