

*Total No. of Questions : 8]*

*[Total No. of Printed Pages : 2*

**Roll No** .....

**MCA-504 (A)**  
**M.C.A. V Semester**  
Examination, June 2020  
**Modeling and Simulation**  
**(Elective-II)**

***Time : Three Hours***

***Maximum Marks : 70***

**Note:** i) Attempt any five questions.

ii) All questions carry equal marks.

1. a) Discuss the advantage and disadvantage of simulation.  
b) Explain the different steps involved in a simulation study.
2. List and explain 5 typical applications each in supply chain and transportation system?
3. a) Differentiate between
  - i) Continuous and discrete system
  - ii) Deterministic and stochastic activities  
b) Explain growth and decay models.
4. a) Discuss the concept of continuous uniformly distributed random numbers.  
b) Explain discrete simulation language.
5. Define the following term
  - a) Delayed calls
  - b) Rejection method
  - c) Continuous system model

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6.
  - a) What do you mean by action time and choice of Paths?
  - b) Design a telephone system simulation model using GPSS symbols.
  
7.
  - a) Explain program control statements and numerical attributes.
  - b) What is distributed leg models?
  
8. Write a short notes on (Any three)
  - a) Simulation in C++
  - b) Classification of Simulation language
  - c) CSSLS
  - d) Cobweb models

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