PAPER ID-310345

Subject Code: RCAE42

Roll No: | | | | | | | | | | | | | |

MCA

(SEM V) THEORY EXAMINATION 2020-21

SIMULATION AND MODELING

Time: 3 Hours ***Total Marks: 70***

Note: 1. Attempt all Sections. If require any missing data; then choose suitably.

SECTION A

1. Attempt *all* questions in brief. 2 x 7 = 14

a.	What is simulation and why it is needed?
b.	Give the difference between continuous and discrete-event Simulation?
c.	What do you meant by abstraction level for circuit simulation?
d.	Define cost analysis?
e.	Write down shot note on principle used in modeling?
f.	Define feedback system and its application?
g.	What do you meant by probability concept in simulation?

SECTION B

2. Attempt any *three* of the following: 7 x 3 = 21

a.	What do you meant by system and its component? Explain the various types of models in detailed?
b.	Write short notes on - Distributed lag model and Cobweb model
c.	Discuss Analog Vs Digital Simulation with example?
d.	What do you meant by logistic curves ?Explain exponential decay model with proper example?
e.	Explain CSMP-III and MODSIM-III with example?

SECTION C

3. Attempt any *one* part of the following: 7 x 1 = 7

(a)	Discuss principle and step in creating system models?
(b)	Explain the advantages and limitation of system modeling. Discuss the techniques used in capturing system environment?

4. Attempt any *one* part of the following: 7 x 1 = 7

(a)	Explain Monte- Carlo simulation technique with example?
(b)	Discuss the method of testing random number generation of non-uniformly distributed random number?

5. Attempt any *one* part of the following: 7 x 1 = 7

(a)	
(b)	Explain SIMSCRIPT? Discuss Object Oriented Simulation with example?

6. Attempt any *one* part of the following: 7 x 1 = 7

(a)	Explain Transfer Line Model and Inventory System Model
(b)	What are GOOD-OF-FIT test? Discuss one of the method with suitable example?

7. Attempt any *one* part of the following: 7 x 1 = 7

(a)	Discuss the continuous and discrete simulation language and expression based language?
(b)	Explain Simulation of PERT networks with example?