Printed Page 1 of 1 Sub Code: RCAE42

Paper Id: 214513 Roll No:

MCA

(SEM V) THEORY EXAMINATION 2019-20

SIMULATION AND MODELING

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

Notes:

- *Attempt all Sections. Assume any missing data.*

SECTION A

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

a.	Define system environment.
b.	Define the system components with example?
c.	Comparison of simulation and analytical method?
d.	Define Monte Carlo method?
e.	What is a testing feature for a random nnmber?
f.	What is probability density function?
g.	Define cumulative distribution function?

SECTION B

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

a.	Define the following: (i) Entity (ii) Activity (iii) Endogenous event
b.	Discuss Cobweb model with example?
c.	of single queuing system.
d.	What are the steps in the validation of a simulation system?
e.	Explain the Simulation of PERT network.

SECTION C

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

(a)	What is the simulation of the inventory system? Explain spreadsheet simulation?
(b)	Discuss about a simulation of a automated warehouse system?

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

(a)	Explain the following terms used in discrete event simulation: (i) List (ii) Event notice (iii) Delay
(b)	What is list processing? Explain the basic operations of list processing.

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

(a)	Explain simulation in GPSS with block diagram for single server queue simulation.
(b)	What do you mean by numerical computation techniques for continuous and discrete model. Discuss in detail.

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

(a)	What do you mean by "world view"? Discuss the various types of world views.
(b)	Explain the difference between Analog and hybrid simulation?

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

(a)	Define critical path. Why the critical path is important? Explain with an example.
(b)	

www.aktuonline.com