

D-C-190150**B. Tech. EXAMINATION, 2019**

Semester VI (CBS)

MODELLING AND SIMULATION

CS-606

Time : 3 Hours

Maximum Marks : 60

The candidates shall limit their answers precisely within the answer-book (40 pages) issued to them and no supplementary/continuation sheet will be issued.

Note : Attempt Five questions in all, selecting one question from each Section A, B, C and D. Q. No. 9 is compulsory.

Section A

1. Discuss the different types of Simulation. 10
2. Explain the different steps involved in Simulation Study. 10

Section B

3. Explain Monte-Carlo method. 10
4. Discuss the concept of Probability in Simulation Process Also give difference between discrete probability and continuous probability. 10

Section C

5. Briefly explain the various test used for testing the random number for their desirable properties. 10
6. Discuss the flow chart for arrival and departure routine of queuing model. 10

Section D

7. Explain the Simulation process of components of operating systems. 10
8. Explain LRU stack evolution technique in simulation of computer memory. 10

Section E**(Compulsory Question)**

9. Short answer type question :
(i) Write down the name of Simulation Language. 2

- (ii) Differentiate analytical solution with simulation. 3
- (iii) Define Stochastic Variable. 3
- (iv) Define Goodness-of-Fit Tests. 3
- (v) Write down the disadvantage of Simulation. 3
- (vi) Write down the application of Queuing theory. 3
- (vii) Write down the differences between normally distributed number and uniformly distributed number. 3