**DECEMBER 2014** **P/ID 17527/PCE09**

Time : Three hours Maximum : 100 marks

PART A — (6 × 5 = 30 marks)

Answer any SIX questions.

1. Discuss the advantages of simulation.

2. Explain two basics approaches of discrete event simulation modeling.

3. Explain the simulation in GPSS.

4. Explain the linear congruential method for generating random numbers.

5. Discuss the Kolmogorov-Smirnov test.

6. Example the suggestions to enhance and facilitate data collection.

7. Discuss the validating Input-Output transformations.

8. Explain the confidence interval estimation for a fixed number of replications of output analysis.

PART B — (7 × 10 = 70 marks)

Answer any SEVEN questions.

9. Explain the simulation of a single server queuing system.

10. Discuss the steps involved in a simulation study.

11. Explain the characteristics of queuing systems.

12. Describe the simulation in FORTRAN.

13. Explain any two run tests with suitable examples.

14. Discuss the Acceptance-Rejection technique with a example of Poisson.

15. Explain the Quantile-Quantile plots with example.

16. Discuss the three-step approach for developing valid and credible simulation model.

17. Discuss the generation of correlated random variates.

18. Explain the analysis for steady-state parameters.

———————