**M.E. DEGREE EXAMINATIONS: NOV/DEC 2010**
Third Semester
**COMPUTER SCIENCE AND ENGINEERING**
CSE555: Performance Evaluation of Computer Networks

**Time: Three Hours**                                                    **Maximum Marks: 100**

**Answer ALL Questions:-**
**PART A (10 x 2 = 20 Marks)**

1. List the modeling tools.
2. What do you mean by workloads?
3. Define markov process.
4. Explain Chebyshev's theorem.
5. Explain kendall notation
6. Explain G/M/1 system
7. What do you mean by timed Petri Net?
8. Explain the basic set notations used in Petri Nets.
9. What do you mean by burn-in test?
10. List the basic components of a LAN simulation model.

**PART B (5x16 =80 Marks)**

11. a) What is a model? Discuss in detail about model construction and modeling tools.
**(OR)**
    b) Explain in detail about fundamental concepts and performance measures.
12. a) Explain discrete and continuous probability distribution with examples.
**(OR)**
    b) Explain in detail about birth-death process.
13. a) Explain M/M/1 and M/M/1/K queuing systems.
**(OR)**
    b) Discuss in detail about classes of simulation modeling techniques.
14. a) Write a short note on the following:
       a. Classical Petri Net                                              (8)
       b. Priority based Petri Net                                          (8)
**(OR)**
    b) Explain the following
       a. Performance metrics                                              (8)
       b. Multiple server computer system                                  (8)
15. a) Explain in detail about experimental analysis and conclusion.
**(OR)**
    b) Explain the architectural structure of the following databases.
       a. Oracle database                                                  (8)
       b. Microsoft SQL server                                             (8)

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