

SUBJECT CODE 8045
FACULTY OF ENGINEERING AND TECHNOLOGY
M.E.(CSE/SOFTWARE) Examination Nov/Dec 2015
Performance Analysis & Simulation
(Revised)

[Time: Three Hours]

[Max. Marks: 80]

“Please check whether you have got the right question paper.”

- N.B
- i) Solve any two questions from each section.
 - ii) Assume suitable data, if necessary and state its clearly.

SECTION-A

- Q1. a. Consider the problem of comparing two different congestion control Algorithms for Compute Network. Briefly describe the systems & List & Justify. 10
- i) Service
 - ii) Performance metrics
 - iii) system parameters
 - iv) Workload parameters
 - v) Factors and their range.
- b. Define Hardware monitor & software monitors. Discuss the issues in software monitor design. 10
- Q2. a. Explain in detail commonly used performance metrics .Give appropriate examples. 10
- b. With the neat diagram explain the basic structure of a LAN simulator. 10
- Q3. a. Explain the different types of test workloads used to compare computer systems. 10
- b. Compare and Evaluate the operating systems Linux and Windows based on 10
- (i) system Architecture
 - (ii) Design

SECTION-B

- Q4. a. With a neat diagram explain the steps in simulation study. 10
- b. List and explain important considerations for random number generators .Also with an appropriate example 10 explain the test for autocorrelation.
- Q5. a. Explain the process of validation and calibration of models. 10
- b. What is the level of significance (α) in testing for uniformity? 10
- For the given five numbers ,
- 0.44,0.81,0.14,0.05,0.93, perform the test for uniformity using the kolmogorov –smirnov test with $\alpha = 0.05$
- Q6 a. Explain in detail the verification of simulation models. 10
- b. What is a system? Explain different component of a system and state the components for the following 10

system

- i) Banking
- ii) A Hospital Emergency Room