NR/R09

Code No: B3305 / D3301 JAWAHARLAL NEHRU TECHNOLOGICAL UNIVERSITY HYDERABAD M.Tech II Semester Examinations, March/April 2011 SIMULATION MODELING OF MANUFACTURING SYSTEMS (ADVANCED MANUFACTURING SYSTEMS)

Time: 3hours

Max.Marks:60

Answer any five questions All questions carry equal marks

- 1. a) What is systems and explain different ways of analyzing the system?
 - b) Explain with an input output flow chart, the method of system design. [6+6]
- 2. a) What is simulation and mention different types of simulation models and explain about numerical computation technique for continuous model.
 - b) Describe about modeling and various techniques for verification. [6+6]
- 3. a) Explain about statistical procedures for developing credible model and cobwel model.
- b) Differentiate between static and dynamic models and explain the principles used in modeling. [6+6]
- 4. a) What are the various simulation languages used in practice and mention their relative advantages?
 - b) Differentiate between simulation languages with general purpose languages and mention their application. [6+6]
- 5. a) How the simulation of Non-uniform continuously distributed random numbers be made?b) How the simulation of output data analysis be done in practice? [6+6]
- 6. a) How the mathematical solutions of queuing problems be done?
 b) Describe about arrival patterns and service times. [6+6]
 7. a) Explain about Flow Shop System and Job Shop System.
 - b) How the simple fixed period inventory system is simulated? [6+6]
- 8. Answer the following:
 a. Newboy paper problem.
 b. Output data analysis.
 c. Simulation on languages to simulators. [12]

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