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
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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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