Seat No.:	Enrolment No.
Jean 110	Linding it ito

GUJARAT TECHNOLOGICAL UNIVERSITY

ME - SEMESTER- II(New course) • EXAMINATION (Remedial) - WINTER- 2015 Subject Code: 2725010 Date: 08/12/2015

Subject Name: SIMULATION MODELING OF MANUFACTURING SYSTEM

Time: 2:	_	m to 5:00 pm Total Marks: 70	
		ment all questions	
1.		mpt all questions. Make suitable assumptions wherever necessary.	
		Figures to the right indicate full marks.	
Que-1	(a)	What is simulation and mention different types of simulation models and explain about numerical computation technique for continuous model.	07
	(b)	Enlist various application areas of simulation and explain any two with suitable example.	07
Que-2	(a)	How the simulation of output data analysis be done in practice?	07
	(b)	How the mathematical solutions of queuing problems be done? OR	07
	(b)	Enlist the possible validation techniques in order of increasing cost-to value ratios.	07
Que-3	(a)	Explain the model-building process with need for verification and validation.	07
	(b)	Differentiate between simulation languages with general purpose languages and mention their application.	07
		OR	
Que-3	(a)	Enlist the techniques for increasing the validity and credibility of a simulation model. Explain any one with suitable example.	07
	(b)	Describe about modeling and various techniques for verification.	07
Que-4	(a)	Explain Inverse Transform techniques for random variate generation with suitable example.	07
	(b)	Describe about arrival patterns and service times.	07
	. ,	OR	
Que-4	(a)	Enlist the advantages and disadvantages of using a simulation packages over general purpose programming languages.	07
	(b)	How the simple fixed period inventory system is simulated?	07
Que-5	(a)	What are the desirable software features? Explain any two of them.	07
	(b)	Define the following components found in discrete event simulation models. (i)Simulation clock (ii) Event routine (iii) Report generator OR	07
Que-5	(a)	Explain about statistical procedures for developing credible model and cobwel model.	07
	(b)	Differentiate between static and dynamic models and explain the principles used in modeling.	07
		OR	
	(a)	Describe the criteria for evaluation and selection of simulation software.	07
	(b)	Explain about Flow Shop System and Job Shop System.	07