SARDAR PATEL UNIVERSITY
Vallabh Vidyanagar
Programme & Subject : B.Sc. CA & IT
Semester – VI
US06DIIT29 : Simulation

(Syllabus Effective from June 2020)

Credits : 2   **External : 50 Marks**
Contact Hrs per Week : 2   **University Examination Duration: 2 Hrs**
All units carry equal weightage

Unit	Description in Detail
I	**Introduction to simulation** Introduction Continuous and discrete system System simulation When to use simulation Phase of simulation study Advantages of simulation Limitations of Simulation Technique Areas of application
II	**System Models** Concept of a system System Environment System Modeling Types of Models Static Physical Model Dynamic Physical Model Static Mathematical Model Dynamic Mathematical Model Principles Used in Modeling
III	**System Study** Subsystems A Corporate model Environments Segment Production Segment Management Segment The Full Corporate Model System Analysis System Design System Postulation
IV	**System Simulation** The Technique of Simulation Monte Carlo Method Types of system Simulation NCT for continues Model NCT for discrete Model Distributed Lag Models Cobweb Models Progress of system simulation

Basic Text and Reference Books:

1. D.s.hira.system simulation by s.Chand and company Ltd
2. Geoffrey Gordon.System simulation 2nd Edition by PHI