

**SARDAR PATEL UNIVERSITY**  
**Vallabh Vidyanagar**  
**Programme & Subject : B.Sc. CA & IT**  
**Semester – VI**  
**PS06DIIT22 : 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	<b>Introduction to simulation</b> 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	<b>System Models</b> 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	<b>System Study</b> Subsystems A Corporate model Environments Segment Production Segment Management Segment The Full Corporate Model System Analysis System Design System Postulation
IV	<b>System Simulation</b> 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 2<sup>nd</sup> Edition by PHI