

SARDAR PATEL UNIVERSITY
Programme: BCA Semester: III
Syllabus with effect from: June 2019

Paper Code : US03CBCA27	Total Credit: 4
Title of Paper: System Analysis and Design	

Lectures per week: 4
All units carry equal weightage.

Exam Duration: 3hrs

Unit	Description in detail	Weightage (%)
I	Concepts of System, System Analysis and System Design <ul style="list-style-type: none"> - Introduction of the System with examples - Elements and characteristics of the system - Types of system - Introduction of System Analysis and System Analyst - Role of a System Analyst - Introduction to System Design - Comparison between System Analysis and System Design 	25%
II	System Development Life Cycle (SDLC) and Structured System Analysis and Design method (SSADM) <ul style="list-style-type: none"> - Introduction to System Life Cycle (SDLC): <ol style="list-style-type: none"> 1. System Analysis: Problem Identifications, Feasibility study, System requirement analysis 2. System Design: System design specification and programming, System implementation, follow up and maintenance, Evaluation - Introduction and need of Structured Systems Analysis And Design(SSADM) - SSADM Methodology: System survey, Structured analysis, Structured design, Hardware study ,System Implementation and Maintenance - Advantages of SSADM 	25%
III	Input / Output Design & Fact Finding Techniques <ul style="list-style-type: none"> - Input Design: Introduction to Data Capture, Objectives of Data Capture, Steps for Data Capture, Data verification and validation - Output Design: Design Principles of Output, Output objectives, Types of Output, Various forms of Output - Introduction and need of Fact Finding Techniques - Fact Gathering Techniques : Interviewing, Questionnaires, Record Inspection and Observation techniques 	25%
IV	Data Flow Diagram and System Prototype Design <ul style="list-style-type: none"> - Meaning and Significance of Data flow diagram(DFDs) - Symbols used in DFDs - Rules for Constructing DFDs - Introduction and comparison between Physical and Logical DFDs - Introduction to System Prototype - Reasons for System Prototyping - Prototype Model: Diagram and Steps of Prototype Development Model - Merits and Demerits of Prototypes 	25%

Basic Text & Reference Books:-

1. S. Parthasarthy & B. W. Khalkar : System Analysis & Design, 1st Edition, Master Ed. Cons.,Nashik.
2. James A. Senn : Analysis & Design of Information System 2nd Edition, McGraw-Hill Int.
3. V.Rajaraman – Analysis & Design of I. S. Printice Hall of India Private Ltd.2003