SARDAR PATEL UNIVERSITY
Programme & Subject: B.Sc. (CA & IT) – M.Sc. (CA & IT) Dual Degree
Semester – II
Syllabus with Effect from: June-2016

Paper Code: PS02CIIT02	Total Credit: 3
Title Of Paper: Systems Analysis & Design	

Unit	Description in detail	Weightage (%)
I	**Systems Analysis and Systems Development Life Cycle (SDLC)** The concept of a system The elements and characteristics of a system Types of systems Meaning of systems analysis Role of a systems analyst Stages of systems analysis : Problem identification, Feasibility study and cost benefit analysis, System requirement analysis Stages of systems design : System design specification and programming, System implementation, follow up, maintenance, Evaluation of a system	25%
II	**Structured Systems Analysis and Design Method and Input/output Design** Structured Systems Analysis and Design (SSADM) – need and Meaning SSADM Methodology : System survey, Structured analysis, Structured Design, Hardware study, System Implementation, Maintenance Advantage s of SSADM. System design control Input : Data capture objectives, Data verification and validation Output : Design principles of output, Output objectives	25%
III	**Data Flow Diagrams & Fact Gathering Techniques** Fact finding techniques : Interviewing, Questionnaires, Record inspection, Observation Data Flow Diagrams (DFDs) – meaning and significance Symbols used in DFDs, constructing a DFD with illustration Illustration case study – 3 and 5 only Physical and logical DFDs Use of system flowcharts	25%
IV	**Computer Assisted System Engineering (CASE) Tools and Quality Assurance** CASE : An introduction CASE components : Diagramming Tools, Information repository, Interface generator, Code generator,Management tools Benefits of CASE, limitations of CASE Levels of Assurance Testing strategies	25%

Basic Text & Reference Books:-

- ➢ S. Parthasarthy & B. W. Khalkar : System Analysis & Design, 1st Edition, Master Ed. Cons., Nasik
- ➢ James A. Senn : Analysis & Design of Information System 2nd Edition, McGraw-Hill Int.