

Syllabus for B.Sc-IT Course

at S.P.College

SEMESTER -- III

COURSE TITLE :- SYSTEM ANALYSIS & DESIGN COURSE CODE --BIT-304

UNIT-I

System concepts and system analysis: Introduction: - System, characteristics of a system, elements of a system, types of a system. Software development life cycle (SDLC): requirements determination, logical design, Physical design, test planning, implementation and performance evaluation. Information gathering tools; review of literature, onsite observation, interviews and questionnaires.

UNIT-II

Feasibility study (technical feasibility, operation feasibility, economic Feasibility), cost-benefit analysis group based approaches JAD, structured walk-through The role and tasks of a system analyst attributes of a system analyst tools used by System analyst.

Process modeling with physical and logical data flow diagrams (DFDs), data modeling with logical entity relationship diagrams(E-R Diagrams). design of input and control, Design of output and control, file design /database design, prototyping and documentation.

UNIT-III

Case tools: use of computer aided software engineering (CASE) tools in the analysis, Design and implementation of information systems. Object oriented analysis and design through object modeling and functional modeling technique, object modeling, dynamic modeling and functional object oriented design and object oriented programming systems for implementation.

UNIT-IV

Introduction to software projects, planning of software projects, size and cost estimation. Projecting scheduling, process management and measurement of software quality and Productivity, system testing: introduction, test plan, nature of test data. Types of testing: unit testing, System Testing; alpha testing, beta testing.

Books Recommended:

1. Haryszkiewez, "Introduction to System Analysis and Design". PHI.
2. Senn, J.A., "Analysis and Design of information systems". Tata McGraw Hill
3. Elias M. Awed, "System Analysis and Design", Galgotia Publications
4. Rajaraman, V., "Analysis and Design of Information" .PHI.