**SRI RAMAKRISHNA MISSION VIDYALAYA**

**COLLEGE OF ARTS & SCIENCE- COIMBATORE - 641 020**

For candidates admitted from academic year 2013 – 2014 onwards under New CBCS

**MODERN STRUCTURED ANALYSIS AND DESIGN TECHNIQUES**

**Year : II Semester : IV**

**Hours / Week : 5 Subject Code : 4CT08**

 **Credits : 4**

**UNIT I**

**System**: Definition — Types — Systems development Lifecycle — Roles of Systems analyst.

System Analysis: Fact-Finding Techniques — Fact Analysis Techniques — Cost Benefit Analysis.

**UNIT II**

**Structured Analysis Tools**: Decision Tables — Decision tree - Structured English — pseudocode — Dataflow diagrams — Data Dictionary — Context Diagrams — System Structure Chart — E-R diagrams —2 examples per tool.

**UNIT III**

Structured Design — Principles and Tools Input (Form) design — Validation — Output (report) design — Database (File) Design— Procedure (Module) design -- Module cohesion — Module coupling — Size & span of control — Module transformation.

**UNIT IV**

**Documentation Tools:**NassiSchneidermann diagrams (Structured Flowchart) — HIPO charts — Warnier Orr diagrams.

**Modem Tools**: An Introduction: CASE tools(Any 1) -- Class diagrams — Interaction diagrams — Use Case Diagrams.

**UNIT V**

**System Implementation**: phases — Training — Testing — Types — Structured Walkthroughs — Quality Assurance Levels — Security of system — Applications.

**TEXT BOOK:**

1. Analysis and Design of Information Systems, James. A. Senn, McGraw-Hill, 1989. (All Units)

**REFERENCE BOOKS:**

1. Modern Structured Analysis, Edward Yourdon, Prentice Hall, 1996. (All Units)

2. Fundamentals of Systems Analysis: Using Structured Analysis & Design Techniques,

 Fitzgerald & F. Fitzgerald, John Wiley & sons, 1987. (Unit II)

3. UML Distilled, Martin Fowler, —, 2nd Edition, 2002. (Unit IV)

4. Systems Analysis & Design, Elias. M. Awad, Galgotia Publications, 1996. (All Units)