P.G.D.C.A. Semester – I

DCA-104 : System Analysis And Design (SAD)

Teaching Scheme (per week)		Teaching Scheme (per semester)		Examination Scheme					
				Internal		External		Total	
Th. (Hours)	Pr. (Hours)	Total (Hours)	Credit	Th. (Marks)	Pr. (Marks)	Th. (Marks)	Pr. (Marks)	Th. (Marks)	Pr. (Marks)
4	---	40	4	30	----	70	---	100	---

Unit – I	[17 Marks]
System Analysis Fundaments: Introduction to System, System Analysis and Design,Types of System: TPS, MIS, DSS, Need for System Analysis and Design, Role of the System Analyst. **System Development Strategies:** SDLC, Structured Analysis Development Method,System Prototype Method. **Organizations as System:** Interrelatedness and Interdependence of System, System Process, Boundaries, System Feedback, Managing Project Review and Selection. **Fact-Fining Techniques:** Interview, Questionnaire, Record Review, Observation. **Data Flow Diagram:** Advantages, Notations, Rules, Leveling, Logical and Physical DFD. **Data Dictionary:** Importance, Data Elements, Describing Process Specification. **Structured Decisions:** Decision Tree, Decision Tables, Structured English	
Unit – II	**[18 Marks]**
The Essentials of Design **Designing Effective Output:** Objectives, Types of Output, Method, Factors to consider **Designing Effective Input:** Objectives, Guideline for Form design, Screen and Web Forms **Designing User Interface:** Objectives, Types of user interface Check Digits, Data Validation and Data Verification **Case Tools:** Benefits of Computer-Assisted Tools, Categories of Automated Tools, Case Components.	
Unit – III	**[17 Marks]**
Quality Assurance through Software Engineering Design of Software and Software Design Principles **Software design and documentation:** Structured Flowcharts, HIPO Chart, Warnier/Orr Diagrams **Managing Quality Assurance:** Level of Assurance, Level of Test **Implementation of Information System:** • Training Strategies, Conversion, Post Implementation Review	
Unit – IV	**[18 Marks]**
Case Studies: ▪ Financial Accounting System ▪ Payroll System ▪ Library System ▪ Inventory System ▪ Online Banking System ▪ Railway Reservation system (Entity,Input,Output,DFD)	

Text Books:
1. Analysis and Design of Information System,James A.Senn
2. System Analysis & Design, S. Parthasarthy & B.W. Khalkar

Reference Books:
1. Introduction to SAD by lee
2. System Analysis & Design by kendall and kendall

Question Paper Scheme:

University Examination Duration : 3 Hours.

Q.1   Descriptive / Long questions.   (12 Marks)

Q.2   Descriptive / Long questions.   (12 Marks)

Q.3   Descriptive / Long questions.   (12 Marks)

Q.4   Descriptive / Long questions.   (12 Marks)

Q.5 –
   A. Objective/Short Question (Unit-I and II) (12 Marks)
   B. Objective/Short Question (Unit-III and IV) (10 Marks)

Note: Options should be given in all questions.