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| **Course – 36 Title: Information System Analysis and Design** |  |
| **Course No.: CIT-221 Credit : 3 Contact Hours: 3** | **Total Marks: 100** |

**11.1 Rationale**

Systems are created to solve problems. We need to see all sides of a problem to come up with an acceptable solution. Analysis involves studying the system and seeing how they interact with the entities outside as well as inside the system. We then come out with detailed specifications of what the system will accomplish based on the user requirements.

**11.2 Objectives**

* Define and describe the five phases of the system development life cycle.
* State at least five expected benefits from systems projects.
* Explain at least three ways in which information systems support business requirements.
* Describe how systems analysts interact with users, management, and other information systems professionals.
* Develop data flow diagrams and decision tables.
* Perform a feasibility study.
* Evaluate systems development alternatives.
* Solve realistic systems analysis problems.

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| **11.3 Learning Outcomes** | **11.4 Course Content** | **11.5 Teaching  Learning Strategy** | **11.6 Assessment Strategy** |
| * Describe development policy and strategy. * Analyze and evaluate strategies for achieving information system goals. | Application Development Policy and Strategies: Planning of Information System, Policy in Information System Development, Strategies for Achieving Information System Goals. | * Lecture * Exercise | * Essay |
| * Describe application system development life cycle. * Explain inter-relationship among each phase of system development life cycle. * Determine the requirements of application development. | Application System Development Life Cycle: Phases in Application System Development, Inter-Relationship Among Each Phase. Problems and Needs in Information System Development, Preliminary Application Requirements Determination | * Lecture * Assignment * Exercise | * Assignment * Essay |
| * Determine feasibility for specific requirements. | Feasibility Assessment: Economic, Technical, Operational and Schedule Feasibility | * Lecture * Assignment | * Essay * Viva voce |
| * Describe various fact findings. * Explain the pros and cons of various types of fact findings. | Information Requirements Determination: Strategies for Obtaining Information Requirements, Techniques for Information Requirements Determination, Methods for Providing Assurance that  Requirements are Correct and Complete. | * Lecture * Exercise | * Essay |
| * Explain steps in structured system analysis. * Define data dictionary. * Draw activity diagram. | Structured Systems Analysis: Steps in Structured Systems Analysis, Activity Diagrams and Related Documentation, Data Dictionary, Problem Analysis, Structured Walk Through. | * Lecture * Assignment | * Assignment * Essay |
| * Explain process oriented methodology. * Describe application generator. * Differentiate between check list methodology and process-oriented methodology. | Systems Design Methodology: Check List Methodology, Process-Oriented Methodology, Application Generator, Structured Design. | * Lecture | * Essay |
| * Explain structured programming. * Determine efficiency for various method for testing. | Program Development and Testing: Structured Programming, Method for Testing. | * Lecture * Assignment | * Essay * Assignment |

**RECOMMENDED BOOKS AND PERIODICALS**

**Text Books**: