

MOHANLAL SUKHADIA UNIVERSITY, UDAIPUR

BACHELOR OF COMPUTER APPLICATION (BCA Annual Scheme)

(To be offered in affiliated colleges from session 2016-17)

- 1. Duration of the Course :** The BCA (AnnualScheme)course will be of three years duration. Each year will be approximately 10 months (minimum 180 working days) duration.
- 2. Medium of Instruction :** The medium of instruction and examination shall be English.

Third Year B.C.A.

- (a) The minimum marks for passing III year shall be 40% in each paper and 40% marks in the aggregate of papers.

A candidate may be allowed to reappear in two papers of III year if he has/she secured at least 40% marks in at least six papers/practicals/project out of 8 theory/practical/project papers and more than 40% in aggregate. Such candidate shall be required to appear in papers in which he has secured less than 40% marks along with due papers of I & II year (if any) when these courses are offered again, so as to satisfy the passing criteria laid in III(a).

(c) A candidate fails to satisfy the criteria III(a), III(b) shall be required to rejoin the course in III year, if otherwise eligible in accordance with the University regulations laid in this regard.

No candidate shall be deemed to have satisfied examination requirement for the award of BCA degree unless he fulfills the criteria for passing I year, II year and III year examinations, as laid in I(a), II(a) and III(a).

Candidate will not be allowed to reappear in any papers of I,II & III year to improve the percentage.

At the end of final examination, the candidates eligible for the award of B.C.A. (Annual Scheme)degree shall be classified on the basis to the marks obtained in the I,II & III year examinations, taken together, as follows:

- (a) **I division with distinction :** 75% or more marks in the aggregate and provided the candidate has passed all the papers and examinations in the first attempt.
- (b) **I division :** 60% or more marks but fails to satisfy the criteria for being classified as first division with distinction laid in (a).
- (c) **II division :** 48% or more but less than 60%
- (d) **III division:** 40% or more but less than 48%

A candidate must pass the examinations within five years of the initial admission to the first year of the course.

BCA 304: System Analysis and Design

UNIT-I

Introduction: System Concept and the need for system approach, Definition of system and system analysis, Factoring into subsystems, Black box system, Introduction to the basic elements of the system, Different types and behaviour of the system.

UNIT-II

The System Development Life Cycle and System Analyst: Source and inspiration of a new system development, Recognition and need, Linear approach and prototype approach, Different phases in SDLC, Role of System Analyst.

UNIT-III

System Analysis: Importance of planning and control, Information Gathering: Various Methods, Tools of Structured Analysis: DFD, Decision Tree, Structured English, Decision Tables, Data Dictionary, Feasibility study. System Design: The Process of Design: Logical and Physical design, Methodologies: Structured, Form-Driven, IPO Charts etc., Input Output Form Design, File Organization: Sequential Indexed, inverted list, Database Design, Logical and Physical View of Data.

UNIT-IV

System Implementation: Need of Testing, Test Plan, Quality Assurance, Trends in Testing, Audit Trail, Post Implementation Review, Project Scheduling, Selection of Hardware and Software

UNIT-V

Security and Recovery in System Development: System Security: Definition, Threats to system security, Control measures, Disaster/ Recovery Planning, Ethics in System Development. Case Study.

Recommended books:

- 1. System Analysis and Design -E.M.Awad**
- 2. System Analysis and Design - DennisWixom**