



Shivaji University, Kolhapur

**Revise Syllabus of
Bachelor of Computer Application (BCA)
(Under the Faculty of Commerce)
w.e.f. Academic year 2014-15 and onwards
BCA Part - II
(Semester III & IV)**

Paper No.	Semester - III	Paper No.	Semester - IV
301	Cost Accounting	401	Entrepreneurship Development
302	HRM	402	Organizational Behaviour
303	System Analysis & Design	403	DBMS using MS-Access.
304	Object Oriented Programming with C++	404	Web Technology
305	Computer Oriented Statistical Methods	405	Computer Mathematics
306	Lab Course Based on Paper No. 304	406	Lab Course Based on Paper No. 403 & 404
307	Lab Course Based on Paper No. 305 (Using MS-Excel)	407	Mini Project.

Paper No. 301
Cost Accounting

Objectives: To gain the understanding of costing concepts and procedure in cost accounting system.

Unit - 1: Introduction to cost Accounting **(15)**

Concept of cost, costing, Cost Accounting and Cost Accountancy, Objectives, Advantages and Limitations of Cost Accounting, Difference between cost Accounting & Financial Accounting, Cost Unit and cost centre. Elements of Cost, Preparation of cost sheet.

Unit - 2: Accounting and control of Elements of Cost **(15)**

Methods of pricing of material issues FIFO, LIFO, Simple Average, weighted Average. Time keeping and Time Booking, ----- Time, over time, and Labour Turnover, Classification, allocation, apportionment and absorption of overheads (Labour and overhead only Theory)

Unit - 3: Methods of Costing - Process **(15)**

Costing excluding calculation of Equivalent production, contract costing, service costing (Transport Costing).

Unit - 4: Reconciliation of Cost and Financial Accounts- **(15)**

Reference Books -

1. Jawahar Lal, Cost Accounting - Tata-McGraw Hill Publishing Co, New Delhi.
2. M.N.Arora, Cost Accounting - principles and Practice, Vikas Publishing House New Delhi,
3. D.K. Mittal and Luv Mittal, Cost Accounting, Galgotia Publishing co. New Delhi.
4. Ravi M. Kishore - Cost Accounting, Taxman Allied services pvt. Ltd New Delhi.
5. B.M. Lall Nigam and I.C.Jain, Cost Accounting, Principles, Methods and Techniques, K.L. Malik & sons Pvt. Ltd., Daryaganj, New Delhi.
6. M.C. Shukla, T.S. Grewal and M.P.Gupta, Cost Accounting, Text and problems, S. Chand and Co. Ltd. New Delhi.
7. S.P. Jain and K.L. Narang, Cost Accounting, Principles and Methods, Kalyani Publishers, Jalandhar.
8. S.N. Maheshwari & S.N. Mittal, Cost Accounting, Theory and Problems. Shre Mahabir Book Depot, New Delhi.

HRM

Unit I: Introduction to HRM

Definition & concept of HRM, HRD, functions of HRM. Organization of HR Dept, Role of HRM, Limitations & challenges of HRM in I.T. Industry. Recent trends in I.T. Industry.

Unit II: Human resource Planning & Development

Concept of HRM, Process of HRP in I.T. Industry. Concept of Recruitment & selection Sources of recruitment followed in I.T. Industry selection procedure followed in I.T. industry. concept of Training & Development. Training & Development methods followed in industry.

Unit III: Administration practices

Defferent Administrative Practices folled in I.T. industry, virtual org. HRIS, stress mgt. practices in I.T. industry.

Unit IV : Employee Separation

Employee Separation practices in I.T. industry. Exit interview, external mobility, Retrenchment, Lay off.

Semester - III

Paper No.303

System Analysis and Design

Unit I: Introduction to System Concept

System Concept, elements, types of System, Characteristics of System, Program, Software System, Computer based System, SDLC,

Unit II: System Analysis-Role and Traits

Preliminary analysis - Problem Solving attitude, Analyzing user requirement, Fact Finding - Interviews, questionnaire, observation, historical documents, Preliminary report, detailed analysis-review and assignment - Preliminary report, authorization and notification. Feasibility study, DFD and ERD.

Unit III: System Design

Input design - Data entry methods, Controlling data entry, guidelines for designing data entry screens, Output design - Guidelines, selecting best media, Formatting reports, report types, Controlling output. File design - Data storage, Capabilities and methods, disks, tapes, CD, Sequential access files, indexed files, direct access files.

Unit IV: Testing and Maintenance -

Software testing strategies - Unit testing, integration, testing, Validation testing, System testing, debugging Maintenance - Problems with maintenance, Structured and unstructured maintenance, organizing for maintenance, maintenance side effects.

Reference Books:-

- 1) System analysis and design - Perry Edwards Mc Guraw Hill international Education.
- 2) Software Engineering - A practitioners approach - Roqerr pressman (Mc Graw Hill Series)
- 3) System Analysis and Design - Elias M. Awad
- 4) Engineering MIS for Strategic Business Process - Arpita Gopal
- 5) Analysis and Design of Information System - James A Sen.

Sem-III

Paper No. 304

Object Oriented programming with C++

Lab Course based on paper No. 304

Unit 1: Programming with C++

Introduction, Data types, Constants & variables, arrays, Operators, Operator precedence, Control structures, (selective and iterative) inline function, function overloading.

Unit 2: Introduction to object oriented programming;

Basic concept of OOP, Benefits and futures, class-Def, syntax, member function and data members, Access specifies static data member, defining objects, array of object friend function, object as function argument friend class.

Unit 3 : Constructor, destructors, & inheritance constructor- Definition, syntax, rules, types of constructors- decant, parameterized, copy, multiple constructors, destructor- definition, syntax, use and working, inheritance: meaning, types- single, multi level multiple.

Unit 4: Polymorphism and file handling

Polymorphism: Meaning, compile Time and Run time, virtual functions, pure virtual function, file, classes for file stream operations, opening and classing files, modes, file pointers, input- output operations, get () Put (), read () Write ().

Computer Oriented Statistical Methods

Unit 1 – Introduction to Statistics (12)

- 1.1 Meaning and Scope of Statistics, Primary and Secondary data.
- 1.2 Frequency, Frequency distribution, Qualitative and quantitative data, Discrete and Continuous variables.
- 1.3 Representation of frequency distribution by graphs: Histogram, Frequency polygon, Frequency curve, Ogive curve. Representation of Statistical data by Bar diagram and Pie chart.
- 1.4 Numerical examples based on 1.2, 1.3.

Unit 2 – Measures of Central Tendency and Dispersion (18)

2.1 Measures of central Tendency (Averages)

- 2.1.1 Meaning of averages, Requirements of good average.
- 2.1.2 Definitions of Arithmetic mean (A.M.), Combined mean, Median, Quartiles Mode, Relation between mean, median and mode.
- 2.1.3 Merits and Demerits of Mean, Median and Mode.
- 2.1.4 Numerical examples based on 2.1.2.
- 2.1.5 Determination of Median and Mode by Graph.

2.2 Measures of Dispersion (Variability):

- 2.2.1 Meaning of Variability, Absolute and Relative measures of dispersion.
- 2.2.2 Definitions of Q.D., M.D., S.D. and Variance, Combined variance and their relative measures, Coefficient of Variation (C.V.).
- 2.2.3 Numerical examples based on 2.2.2.

Unit 3 – Analysis of Bivariate data (15)

3.1 Correlation:

- 3.1.1 Concept of Correlation, Types of correlation (Positive, Negative, Linear and Non-linear), Methods of studying correlation: Scatter diagram, Karl Pearson's Correlation Coefficient (r) and Spearman's Rank Correlation Coefficient (R).
- 3.1.2 Interpretation of $r = +1$, $r = -1$, $r = 0$.
- 3.1.3 Numerical examples on 3.1.1 and 3.1.2

3.2 Regression:

3.2.1. Concept of Regression, Definitions of regression coefficients and Equations of regression lines. Properties of regression coefficients. (Statements only)

3.2.2 Numerical examples on 3.2.1.

Unit 4 – Sampling Techniques and Time Series Analysis

(15)

4.1 Sampling Techniques:

4.1.1 Definitions of Sample, Population, Sampling, Sampling Method and Census method. Advantages of sampling method over census method.

4.1.2 Types of sampling: Simple Random Sampling (with and without replacement), Stratified Random Sampling, Merits and Demerits of S.R.S. and Stratified Sampling

4.1.3 Simple examples on Stratified Sampling.

4.2 Time Series: (Analysis and Forecasting)

4.2.1 Meaning and components of Time Series

4.2.2 Methods of determination of trend by

(I) Method of Moving Averages.

(II) Method of Progressive Averages.

(III) Method of Least Squares (St.Line only)

4.2.3 Numerical examples on 4.2.2.

Note: Use of Nonprogrammable calculator is allowed.

Reference Book

1) Mathematical Statistics by H.C. Saxena and J. N. Kapur

2) Business Statistics by G. V. Kumbhojkar

3) Fundamentals of Statistics by S. C. Gupta

4) Business Statistics by S. S. Desai

5) Business Statistics - SIM-Shivaji University, Kolhapur

Sem.III

Paper No. 306

Lab Course Based on paper No. 304

Unit 1: Simple C++ Programs without Class.

a) Using Control structures

b) Illustrating function and

c) Function Overloading

Unit 2: Programs based on Class

- a) Defining class & creating an object
- b) Using various accesses specifies
- c) Using static data members.
- d) Creating array of object
- e) Friend class and friend function.

Unit 3: Programs based on Constructor, destructor & inheritance

- a) Creating constructor, parameterized, copy, multiple constructors
- b) Program using destructor.
- c) Inheritance - Simple, Multiple, multilevel.

Unit 4: Programs on Polymorphism & file handling :-

- a) Programs based on following concepts
 - i) Compile Time
 - ii) Run Time
 - iii) Virtual Function
- b) Programs based on file handling
 - i) Opening, closing, reading, writing, file.
 - ii) Input - Output operations.

(Note: At least ten experiments to be completed in prescribed times for the given subject.)

Semester -III

Paper No. 307

Lab Course based on Paper No. 305

Lab Assignments

1-Formation of frequency distribution

2-Construct following types of charts with the help of given data.

- a) Bar
- b) Pie
- c) Histogram
- d) Ogive curve

- 3- Calculate Mean, mode and Median of given series (without using in built functions for mean, Mode Median in MS-Excel)
- 4- Calculate S.D. and C.V. (without using in built functions for SD & CV in MS-Excel)
- 5- Computation of correlation coefficient and rank correlation coefficient using appropriate statistical formula-
- 6- Time series computation of trend values by- Moving average Method
 - Progressive average method
 - Least square Method

(Note- Provide required data for each pract. Assignment)

Nature of question paper- Given in Structure 7(b)

B.C.A. Part-II

Semester- IV

Paper No-401

Entrepreneurship Development

Objective:-

1. To impart theoretical knowledge & Entrepreneurship
2. To develop Entrepreneurship qualities and skills.

Unit-I –Entrepreneurship: Concept

Classification – Functions- Qualities of successful Entrepreneurship – Concept of Entrepreneur and Netpreneur. Changes before Entrepreneurship in modern Era.

Unit-II –Entrepreneurship

Concept- Importance. Theories of Entrepreneurship (Joseph Schumpeter's Innovation Theory, McClelland's Theory of Need of status withdrawal).

Entrepreneurship in service Industry- Factors stimulating Entrepreneurship obstacles in Entrepreneurship Growth.

Unit-III –Entrepreneurship Development

Concept-objectives –Process-problems and measures in Entrepreneurship development. Institutional support for Entrepreneurship development Entrepreneurship development – Institute of India (EDI) Ahmedabad National Institute for Entrepreneurship and small Business Development, (NIESBD) New Delhi, National Institute for Small Industry Extension Training (NISLET) Hyderabad, Small Industries Development Organization (SIDO) Small Industry Development Bank of India (SIDBI), Technical Consultancy Organizations (TCOS), District Industry centres (DIC)

Unit-IV – Project Management

Concept of project- classification of project- Stays of Project Management- Reasons for failure for project. Project for call centres, Retail stores, Hotel Hospital, Dairy.

Reference Books

- 1-Dynamics of Entrepreneurship Development - & Management –By Vasant Desai
- 2- Entrepreneurship Development in India- By C.B.Gupta and N.P.Srinivasan
- 3- Entrepreneurship Development-By S.S. Khanke
- 4- Entrepreneurship Development-By Godron E and Natarajan .
- 5-Udyojakata- By Prabhakar Deshmukhe project preparation appraisal,
- 6-Implementation –By Prasanna Chandra
- 7- Entrepreneurship Development –By S.L.Gupta & Arun Mittal

Semester- IV

Paper No-402

Organizational Behaviour

Objective:-

1. Time students should understand the impact that individual, group and structures have on their behavior within the organization.
2. They should identify the required behavioral model in the Organizational

Unit-I - Fundamentals of Organizational Behaviour

Definition, Nature, Scope and goals of Organizational Behaviour. Disciplines contributing to O.B, Evolution of O.B. Fundamental concept of organizational behavior

Unit-II - Attitude, Values and Motivation

Effects of employee attitudes, components of Attitude Personal and organizational Values. Nature and Importance of Motivation Motivation process- Motivation model. Maslow's Need Hierarchy Theory. Herzberg's Two Factor Theory McGregor's X and Y Theory

Unit-III- Personality and work stress

Definition of personality Determinants of personality Theories of personality: Trait Theory Yes Time big five model. Pe-Theory: Myers- Briggs type personality. Self Theory: house of control. Meaning and definition of stress. Sources of stress: Individual level Organizational level. Type A and Type B personality course of stress in Organizational

Unit-IV- Group Behaviour and Control

Nature of Group. Types of Groups. Team Building and Effective team works. Stages of group formation. Concept of conflict- Interpersonal, intrapersonal intergroup organizational, Johari window. Conflict management strategies.

Recommended Books

- 1- Organizational Behaviour Text, Course and Games- By K.Aswathappa. Himalaya publishing House, Mumbai.
- 2- Organizational Behaviour- By Final Luthans McGraw-Hill
- 3- Organizational Behaviour through Indian Philosophy- By M.N. Mishra, Himalaya Publication House.
- 4- Organizational Behaviour- By Steplen Robbins, Timotly Judge, Seema Sangli Peason Prentice Hall

Semester- IV

Paper No. 403

Database Management through MS-Access

Unit-I - Introduction of Database

Definition of Database, Needs, features Database Management Systems (DBMS): Definition, components, file system, comparison of file processing system with DBMS, functions of DBMS, advantages, disadvantages of DBMS, Structure of DBMS, Services provided by DBMS, schema, subschema, data abstraction, data independence, architecture of database system, data dictionary, database administration, database manager.

Unit-II - Organization of Database System

Introduction of file, file types, organization of file- heap file organization, serial file organization, sequential, index sequential file, random access file (direct access file) Types of Database System: centralized database system, client-server system, distributed database system.

Unit-III - Data Models

Introduction, definition, features of data models, Object based data models- Entity Relationship Model, cardinality, Record based models- Relational Model, Network Model, Hierarchical Model, Physical Data Models

Keys: Primary key, foreign key, candidate key, super key, unique key

Normalization: Concept of normalization, advantages, First NF, Second NF, Third NF, examples of normalizations

Unit-IV - Relational algebra

Introduction, fundamental operations on relational algebra- select, project, renames, set operators, join operators

SQL: Introduction of SQL, features, SQL data types, SQL operators, DDL- create table, describe table, alter table, drop table commands, DML-insert, delete, update commands, DQL- select command, aggregate functions, order by clause

Database Management through Ms-Access: Introduction of Ms-Access, features, database creation, table creation, insert records, queries, forms and report creation, introduction to latest versions of Ms-Access.

Case Study: Design Database System for- Library management system, Bank management system, Inventory management system

Reference Books:

1. Database System Concept – Silberschatz, Korth
2. Fundamentals of Database System- Ramez Elmasri,Shamkant B. Navathe(Pearson)
3. Database Management System- Raghu Ramkrishnan,Gehrke (McGraw Hill)
4. Database Management System- R.Panneerselvam
5. Ms-Office Complete reference

Semester- IV

Paper No. 404:

Web Technology

Unit-I - Internet and WWW

What is Internet? Introduction to internet and its applications, browsers, web servers

Web Development- introduction, features, steps in web development, limitations. HTML: What is HTML, what is tag and attributes, heading tags, text formatting tags, paragraph tags, font tag. List Tags-ordered and unordered, tags:
, <HR>.,<Marquee>, Hyperlink, <A> Image and Image maps, , <MAP>,<AREA>.

Tables: table tags, aligning entire table, alignment of row, cell and contents, table attributes, background color setting, width, adding a border, spacing within a cell, spacing between the cells, rowspan and colspan, Table Sections and column properties. Insert audio and video files-<BGSOUND><EMBED>

Frames: Introduction to Frames, the <FRAMESET> tag, nesting <FRAMESET> tag, placing content in frames with the <FRAME> tag, targeting named frames, creating floating frames <IFRAME>

Unit-II- Style Sheets

Introduction of CSS, inline, internal and external style sheet <link> <STYLE>, CSS selector- element, id, class, group. Cross Browser Testing.

Forms : Creating Forms, The <FORM> tag, form attributes, named input fields, <INPUT> tag, drop down and list boxes, hidden, text area, password, button, action buttons- Submit, Reset, Image. <INPUT> attributes radio, checkbox. Limitations of HTML,

Unit-III- Java Script

Introduction, Difference in Client-Side and Server-Side Script, features, introduction to Java script keywords, data types, control statements (if-else, looping) with examples, objects in java. Events and Event Handlers, Dialogue boxes, Built-in functions and Validations

Unit-IV-Introduction to Server-Side scripting

ASP – Advantages and limitations, server set-up for ASP (PWS/IIS), built in ASP objects, loop Structure, control structure (If-Else-Then), methods to get data from Clients – (GET and POST), difference between GET and POST, database handling, connections and record set object. **Case Studies:** On line Shopping Website, University Website

Reference Books:

1. HTML, JavaScript, DHTML and PHP, Ivan Bayross, BPB publications, 2010 Edition
2. HTML Black Book, Steven Holzner, DreamTech Press, 2009 Edition
3. Web Technologies Black Book, Kogent Learning Solutions Inc., Dreamtech press, 2011 Edition
4. ASP.NET 4.0 Black Book, Kogent Learning Solutions Inc., Dreamtech press, 2012 Edition
5. ASP.NET 4.0 Programming, Joydip Kanjilal, TATA McGraw-Hill Education Private Ltd., 2010 Edition

B.C.A. Part-II

Semester- IV

Paper No-405

Title: Mathematical Foundation

Unit-1: SETS

(15)

- 1.1 Meaning of a set.
- 1.2 Methods of describing of a set.
 - 1.2.1 Tabular form
 - 1.2.2 Set builder form
- 1.3 Types of a set
 - 1.3.1 Finite set, Infinite set, Empty set, Subset, Universal set.
 - 1.3.2 Equal sets, Disjoint sets, Complementary set.
- 1.4 Operation on Sets
 - 1.4.1 Union of sets
 - 1.4.2 Intersection of sets
 - 1.4.3 Difference of sets.
- 1.5 De Morgan's Laws (without proof).
- 1.6 Venn diagram.
- 1.7 Cartesian product of two sets.

- 1.8 Idempotent laws, Identity laws, Commutative Laws, Associative laws, Distributive laws, Inverse laws, Domination Laws, Absorption laws, Involution laws.
- 1.9 Duality.
- 1.10 Computer Representation of sets and its operations.
- 1.11 Examples based on above.

Unit-2 Logic

(15)

- 2.1 Introduction.
- 2.2 Meaning of Statement (Proposition).
- 2.3 Simple and compound statements.
- 2.4 Truth values of a statement.
- 2.5 Law of excluded middle.
- 2.6 Logical Operations: Negation, Conjunction, Disjunction, Implication, Double Implication.
- 2.7 Equivalence of Logical statements.
- 2.8 Truth Tables and construction of truth tables.
- 2.9 Converse, Inverse and Contra positive.
- 2.10 Statement forms: Tautology, Contradiction, Contingency.
- 2.11 Duality, Laws of logic: Idempotent laws, Commutative laws, Associative laws, Identity laws, Involution laws, Distributive laws, Complement laws, De Morgan's laws.
- 2.12 Argument: Valid and Invalid arguments.
- 2.13 Examples based on above.

Unit - 3 Matrices

(15)

- 3.1 Meaning of a matrix, Order of matrix.
- 3.2 Types of matrices
 - 3.2.1 Row matrix, Column matrix, Null matrix, Unit matrix
 - 3.2.2 Square Matrix, Diagonal matrix, Scalar matrix,
 - 3.2.3 Symmetric matrix, Skew - symmetric matrix
 - 3.2.4 Transpose of a matrix,
- 3.3 Definition of Determinants of order 2nd & 3rd and their expansions
- 3.4 Singular and Non-Singular Matrices
- 3.5 Algebra of Matrices
 - 3.5.1 Equality of matrices
 - 3.5.2 Scalar Multiplication of matrix
 - 3.5.3 Addition of matrices, Subtraction of matrices

- 3.5.4 Multiplication of matrices.
- 3.6 Elementary Row & Column Transformations
- 3.7 Inverse of Matrix (Using Elementary Transformations)
- 3.8 Examples based on above.

Unit – 4 Graph Theory

(15)

- 4.1 Introduction to Graph
- 4.2 Kinds of Graph : Simple, Multi and Pseudo Graph
- 4.3 Digraph
- 4.4 Weighted Graph
- 4.5 Degree of Vertex, Isolated Vertex
- 4.6 Path, Cycle, A-Cycle,
- 4.7 Types of Graph: Complete, Regular, Bi-Partite, Complete Bi-partite, Isomorphism of Graph
- 4.8 Matrix Representation of Graph: Adjacency and Incidence Matrix
- 4.9 Operation on Graph: Union, Intersection, Complement, Product of Graphs, Fusion of Graphs
- 4.10 Examples based on above.

Reference Books :

- Discrete Mathematics & Structures by Satinder Bal Gupta, *University Science Press*
- Fundamental Approach to Discrete Mathematics by D. P. Acharjya, Sreekumar, *New Age International Publishers*
- Discrete Mathematical Structures by Kolman, Busby, Ross, *Pearson Education Asia*
- Matrices by Shantinayakan, *S. Chand & Co., New Delhi*
- Discrete Mathematics by Schaum Series
- Discrete Mathematics by K D Joshi

Semester- IV

Paper No. 406

Lab Course Based on Paper No. 403 and 404

Lab Course Based on Paper No. 403

Practicals on MS-Access: (Take sample tables)

1. Write procedure for creating database in Ms-Access.
2. Generate form in Ms-Access and write steps in detail.
3. Establish relationship between tables and write steps for it.

4. Create reports using different queries based on multiple tables and write steps in detail for it.

I. Library system:

1. Create database for library system
2. Establish essential relationship between tables
3. Design form for above library system
4. Generate following reports for library system-
 - a. List of book with accession numbers
 - b. List of books according to author
 - c. List of books issued to student
 - d. Demand books report of students

II. Design Database System for Payroll management system:

1. Draw ER diagram
2. Create database- contains 1. At least 5 tables 2. At least 3 fields with proper data type
3. Set primary key wherever required
4. Create relationship structure
5. Create form for each table
6. Insert at least 5 records in each table
7. Create different query using query wizard
8. Create at least 3 reports using report wizard (at least 5 records)

III. Design Database System for Hospital management system

1. Draw ER diagram
2. Create database- contains 1. At least 5 tables 2. At least 3 fields with proper data type
3. Set primary key wherever required
4. Create relationship structure
5. Create form for each table
6. Insert at least 5 records in each table
7. Create different query using query wizard
8. Create at least 3 reports using report wizard (at least 5 records)

Lab Course Based on Paper No. 404

Unit-I

1. Programs based on singular and paired tags, formatting tags, list tags,
2. Programs based on marquee, hyperlink, image maps
3. Program based on frame tags

Unit-II

4. Programs based on CSS, cross browser testing
5. Programs based on creating forms, inputting values
6. Programs based on drop down and list box, text area, password
7. Program based on action buttons, radio, checkbox

Unit-III

8. Programs based on control statements
9. Programs based on event handling and built in functions
10. Program based on validations

Unit-IV

11. Programs based on control statements (branching and looping)
12. Programs based on GET and POST method
13. Programs based on database handling
14. Design and develop interactive website using different HTML tags, ASP, Java Script and database handling.

Semester- IV

Paper No. 407

Mini Project

(Any subject related to Computer Study.)

Equivalence of New course with old course:

Paper No.	Old Course	Paper No.	New Course
301	Software Engineering –I	303	System Analysis & Design
302	Object Oriented Programming With C++	304	Object Oriented Programming with C++
303	Programming in Visual Basic		##
304	Marketing Management	302	HRM
305	Financial Services and Banking	301	Cost Accounting
306	Lab Course V (Based on Paper No. 302 & 303)	306	Lab Course Based on Paper No. 304
307	Mini Project	307	Lab Course Based on Paper No. 305 (Using MS-Excel)
401	Operating System		##
402	RDBMS with Oracle	403	DBMS using MS-Access.
403	E-Commerce & Web Designing	404	Web Technology
404	Entrepreneurship Development and Small Business Management	401	Entrepreneurship Development
405	Development of Human Skill	402	Organizational Behaviour
406	Lab Course VI (Based on Paper No. 402,403)	406	Lab Course Based on Paper No. 403 & 404
407	Mini Project	407	Mini Project.

Two chances of examination to be given to the fail students of old course.