



**Structure, Scheme and Revised Syllabus of
BACHELOR OF COMPUTER APPLICATIONS (BCA)
(Under the Faculty of Commerce)
Under Choice Based Credit System (CBCS)
Introduced from June 2016**

1. Objective of the Course:

The main objective of the course is to develop different software development skills in the students with current trends in IT industry as well as Business Management and to take up student at various positions such as System Analyst, System Manager, Software Engineers, Web Design Programmers, EDP Managers, Database Administrators, Academician in different areas of computer application, Management and Information Technology Industry.

Keeping above mottos, curriculum includes extensive study of problem solving and system development, project design, development areas. The extensive practical areas of different programming environment are covered in various operating environments. It also includes versatile subjects on Entrepreneurship and Business Management.

2. Duration of BCA Degree:

The duration of the course is full time three years divided into three parts of six semesters.

3. Eligibility for Admission:

A candidate must have passed H. S. C.(10+2) in any stream or any diploma (of minimum two years duration after S. S. C.) awarded by State Board in any technical or vocational stream.

Intake Capacity: 80 students.

4. Duration, Teaching Schedule and Examinations:

The teaching of semester I, III and V will start from 1st July to 15th of October (14 weeks) and the teaching for the semester II, IV and VI will start from 1st Dec. to 15th March (14 weeks). There will be semester end examination in November and April for all the semester. In addition there will be internal examinations for each paper to be conducted by the respective institutes /colleges.

Year of Degree	Semester	Subjects/ Title of the Paper	Courses	No. of Lecture Per Week			Hours	Credits	Max. Marks		
				Theory	Practical	Total			Internal	University	Total
BCA I	I	T1	Introduction To Computer and Operating System		4				20	80	100
		T2	Programming techniques using 'C' Part-I		4				20	80	100
		T3	Principles of Management		4				20	80	100
		T4	Financial Accounting		4				20	80	100
		T5	Office Management And Communications		4				20	80	100
		T6	Lab Course						20	80	100
			i)Lab Course Based I			2				50	50
			ii)Lab Course Based II			2				50	50
BCA I	II	T1	MS-Office-Tools		4				20	80	100
		T2	Programming techniques using 'C' Part-II		4				20	80	100
		T3	Bank Management		4				20	80	100
		T4	Financial Accounting with Tally		4				20	80	100
		T5	Principles of Marketing		4				20	80	100
		T6	Lab Course						20	80	100
			i)Lab Course Based III			2				50	50
			ii)Lab Course Based IV			2				50	50

5. Structure of Syllabus:

B.C.A. Part-I (Semester- I and II)

Paper No	Title of Paper for Semester I	Paper No	Title of Paper for Semester II
101	Introduction To Computer and Operating System	201	MS-Office-Tools
102	Programming techniques using 'C' Part-I	202	Programming techniques using 'C' Part-II
103	Principles of Management	203	Bank Management
104	Financial Accounting	204	Financial Accounting with Tally
105	Office Management and Communication	205	Principles of Marketing
106	Lab Course I - Based on Paper No -101 (50marks) Lab Course II - Based on Paper No – 102 (50marks)	206	Lab Course III - Based on Paper No -201and Paper No 204 (50marks) Lab Course IV - Based on Paper No – 202 (50marks)

**Equivalence of Old papers with New Papers of B.C.A. Part - I:
Semester - I**

Paper No	Name of the subject(Old)	Paper No	Name of the subject(New)
101	Fundamentals of Computers	101	Introduction To Computer and Operating System
102	Programming in 'C' Part-I	102	Programming techniques using 'C' Part-I
103	Principles of Management	103	Principles of Management
104	Financial Accounting	104	Financial Accounting
105	Office Management and Communication	105	Office Management and Communication
106	Lab Course I - Based on Paper No -101 (50marks) Lab Course II - Based on Paper No – 102 (50marks)	106	Lab Course I - Based on Paper No -101 (50marks) Lab Course II - Based on Paper No – 102 (50marks)

**Equivalence of Old papers with New Papers of B.C.A. Part - I:
Semester - II**

Paper No	Name of the subject(Old)	Paper No	Name of the subject(New)
201	Software Packages	201	MS-Office-Tools
202	Programming in 'C' Part-II	202	Programming techniques using 'C' Part-II
203	Bank Management	203	Bank Management
204	Financial Accounting with Tally	204	Financial Accounting with Tally
205	Principles of Marketing	205	Principles of Marketing
206	Lab Course III - Based on Paper No -201and Paper No 204 (50marks) Lab Course IV - Based on Paper No – 202 (50marks)	206	Lab Course III - Based on Paper No -201and Paper No 204 (50marks) Lab Course IV - Based on Paper No – 202 (50marks)

B.C.A. Part-I (Semester- I)
Paper No- 101
Revised Syllabus as per CBCS Structure
Implemented from June-2016

Introduction to Computer and Operating System

Unit 1: Introduction to Computer (10)

Introduction, Characteristics, History & Evolution, Organization of Computers, Concept of Hardware & Software, Applications of Computers in Various Fields,

Unit 2: Computer Languages (10)

Machine Language, Assembly Language, High-level Language, Language translators: Compiler, Interpreter, Assembler, Features of Good Language.

Unit 3: Input and Output Devices (15)

Input Devices – Keyboard, Touch screen, Mouse, digitizer, Joystick and scanning devices: Scanner, OMR, and MICR.

Output Devices – Monitors (CRT, TFT, LCD, Plasma), Screen Image Projector, Printers & its types, Plotters. Memory Devices - Primary Memory & its types (RAM, ROM), Secondary memory & its types (Hard Disk, Flash Drives, Magnetic Tape, Optical Discs- CD, DVD, Blue-Ray)

Unit 4: Number Systems & Computer Codes (10)

Number System - Decimal, Binary, Octal & Hexadecimal, Conversion from One base to another base. Computer Codes - : BCD, EBCDIC, ASCII

Unit 4: Introduction to OS (15)

Meaning and Definition, Structure of O.S., Types of O.S., Functions of O.S., Windows Operating system: Components of window-Desktop, windows explorer, control panel, Managing the files and folders, Accessories: Paint, calculator and notepad.

Reference Books -

1. Computer Fundamentals by P.K.Sinha and Priti Sinha.
2. Computer fundamentals by Rajaraman.
3. Introduction to Data Processing By Prof. D. R. Patil, Pawar, Lad, Shinde (Dreamtech Publication)
4. Computer Today – Basandara
5. Computer Fundamentals, Architecture & Organisation By B. Ram
6. Information technology by D. S. Yadhav.

B.C.A. Part-I (Semester- I)
Paper No- 103
Revised Syllabus As per CBCS Structure
Implemented from June-2016
Principles of Business Management -Paper- I

Duration: 3 hrs.

Marks: 80

Lectures : 60

Objective:

1. To provide the student with an understanding of basic management concepts, principles and practices.
2. To provide the student with detailed understanding of basic management functions.

Unit 1: Introduction to the Management:

15

Meaning, Definition, Management: Is it Science, Art or profession? Professional Management.- Concept. Characteristics, Need. Management and Administration Contribution towards development of Management Theory

1.FW Taylor (Principles and Techniques of Scientific Managements),

2 Henry Fayol (Fourteen Principles of Management)

3.Elton Mayo- Hawthorne Experiment- its implications and limitations

4.PeterDruckerDifferent Approaches to Management its use and limitations- Behavioral Approach, Systems Approach, Contingency Approach

Unit 2: Planning and Decision Making

10

Meaning and Definition of Planning - Types of Planning – Steps in Planning Process

Strategic planning – Concept, process, Importance and limitations

Environmental Analysis and diagnosis (Internal and external environment) –Definition, Importance and Techniques -SWOT/TOWS/WOTS-UP, BCG Matrix, Competitor Analysis,

Decision Making- concept- importance; Decision-making Process, Perfect rationality and bounded rationality, Techniques of Decision making -qualitative and quantitative, MIS, DSS

Unit 3: Organizing and Staffing

10

Organizing – Meaning - Organization – Features – The Process of organization – Principles of organization–Organization chart

Delegation of authority – meaning - Elements – Principles – Types – Difficulties in delegation – Guidelines for making delegation effective.

Centralization and Decentralization (Meaning, Merits and Demerits) – Differences between delegating and decentralization.

Organization Structure -line, line and staff, and functional, Formal and Informal Structure; Network organization

Staffing-Meaning, Need & Importance of Staffing

Unit 4: Motivation and Leadership

15

Motivation: Concept, Importance, extrinsic and intrinsic motivation;

Theories of Motivation - Maslow's Need-Hierarchy Theory; Herzberg's Two-factor theory, Douglas McGregor's Theory X and Theory Y

Leadership - Concept, Importance, Theories of Leadership -Likert's scale theory, Blake and Mouten's Managerial Grid theory, House's Path Goal theory, Fred Fielder's situational Leadership Theory

Leadership Styles- Autocratic, Democratic, Free rein - Leadership styles of Shivaji Maharaj, Mahatma Gandhi, Dr. Babasaheb Ambedkar.

Unit 5 :Co-ordination Communication and Control

10

Co-ordination – Meaning and Definition – Need – Techniques of establishing co-ordination and difficulties in establishing co-ordination

Communication-Meaning, Types, Process of Communication & importance of effective Communication. Barriers to Communication, Overcoming Barriers to Communication

Control-Concept, Process, Limitations.

B.C.A. Part-I (Semester- I)
Paper No- 104
Revised Syllabus As per CBCS Structure
Implemented from June-2016
Financial Accounting

Marks :80

Duration : 3 Hrs

Lectures : 60

Objectives :

- i. To understand the meaning and concept of Accounting Process
- ii. To acquaint about the methods of depreciation

Unit I : Book Keeping and Accountancy (15)

Meaning, need and importance of Accounting, difference between Book keeping and Accounting, Users of Accounting, Branches of Accounting, Accounting concepts and conventions

Unit II :Journal and Ledger (15)

Transaction, Types of Accounts, rules of Journalising, Meaning and types of journal – General Journal and Special Journal (i.e. subsidiary books), Ledger posting and preparation of Trial balance.

Unit III : Final Accounts (15)

Preparation of final Accounts of sole trading concern only

Unit IV : Bank Reconciliation Statement and Depreciation Accounting (15)

- a. Bank Reconciliation Statement - Meaning, causes of difference in balances, preparation of Bank Reconciliation Statement
- b. Depreciation Accounting – Meaning and methods of depreciation - Straight Line Method and Written Down Value (WDV) Method, simple problem on depreciation accounting

Reference Books

1. Advance Accountancy:- M.C. Shukla& T.S. Grewal
2. Advance Accountancy:- S.C. Jain & K.L. Narang
3. Advance Accountancy:-Maheshwari
4. Advance Accountancy:-R.L.Gupta

Nature of Question Paper:

Theory Examination : 80 Marks

Duration : 3 Hrs

• Instructions

1. Question No.1 is compulsory is of short type answers
2. Attempt any four(4) questions from Q.No.2. To Q.No. 6.
3. All questions carry equal marks.

Q.No. 1	Write short notes on (any four out of six)	16 marks
Q.No. 2	Practical Problems	16 marks
Q.No. 3	Practical Problems	16 marks
Q.No. 4	Practical Problems	16 marks
Q.No. 5	Practical Problems	16 marks
Q.No. 6	Practical Problems	16 marks

B.C.A. Part-I (Semester- I)

**Paper No- 105
Revised Syllabus As per CBCS Structure
Implemented from June-2016
Office Management and Communication**

Unit-1: Introduction to Office and office Management (15)

a) Concept of office – office work and office activities - Importance of office - office functions- paperless office – automated office - virtual office – functions and duties of office manager,
b) Office Management- meaning, elements of office management- purpose, environment, means and personnel, function of office management.

Unit-2: Office Space Management (15)

Location of office- meaning and principles of office management- factors affecting office location- Urban versus suburban location. The office building, factors in selecting office premises. Office layout- meaning, objectives and principles of office layout - factors affecting office layout. Office environment- meaning- importance- elements- office lighting, ventilation and air-conditioning, interior decoration, furniture, noise and safety, sanitary arrangement, security and secrecy.

Unit-3: Communication (15)

Meaning, characteristics and importance of communication. Types of Communication- internal communication (oral, written, mechanical) and external communication. Formal and informal communication.

Unit-4: Communication Process (15)

Steps involved in communication process- role of communication in business organization- barriers to effective communication- remedies for improving effectiveness of communication. E-communication – meaning- importance tools- benefits and limitations.

Suggested Readings:

1. J.C. Denyar-Office Management
2. R.K.Chopra-Office Management
3. Leffingwell and Robinson-Text book of Office Management
4. George R.Terry-Office Management and Control
5. P.H.Reddy-Office Management and Communication
6. Sharma, Gupta and Nayyar-Office Management
7. Essentials of Business Communication - Rajendra Pal and J.S.Korlahalli
8. Business Communication-U.S.Rai and S.M.Rai
9. Business Correspondence and Report Writing-R.C.Sharma and Krishna Mohan
10. Business Communication-Robert MaArcher, Ruth Pearson.

Paper No- II
Lab Course Based on Paper

Programming techniques using 'C' Part-I

1. Simple programs using printf(), scanf()
2. Programs based on if statements
3. Programs using switch statement
4. Programs based on while loops
5. Programs based on for loops
6. Programs based on do loops
7. Simple program using array to find frequency of each value within an array.
8. Programs on matrices like addition, subtraction and multiplication and transpose.
9. Programs on sorting and searching methods.
10. Programs based on string handling.

Note : Minimum 15 assignments.

Practical Examination (Lab Course):

- Duration of Practical Examination : 3 Hrs.(One hr. for paper work and oral, Two hrs for live implementation of practical work)
- Nature of Practical Question Paper
There will be three questions of 15 Marks, Out of which student have to attempt any two questions.
- Distribution of marks
 - i. Total Marks : 50 Marks
 - Journal : 10 Marks
 - Oral Examination: 10 Marks
 - Practical Examination- 30 Marks
- Practical Examination conducted by the University examination panel. There will be one external and one internal examiner appointed by university.

B.C.A. Part-I (Semester- II)

Paper No- 201 Revised Syllabus As per CBCS Structure Implemented from June-2016

MS-Office-Tools

Unit-1: Introduction To MS-Office (5)

Introduction to software packages, Components of MS-Office, Features of MS-Office.

Unit-2: MS-Word (15)

Introduction, Menus, Shortcuts, Document types, Working With Documents- Opening, Saving, Closing, Editing Document, Using Toolbars, Rulers, Help, Formatting Documents-Setting font, paragraph, Page Style-Setting foot notes, page break, Line break, creating sections and frames, Inserting clip arts, pictures, Setting document styles, Creating Tables-Settings, borders, alignments, Merging, splitting, sorting rows and columns, Drawing-Inserting, drawing, formatting, grouping, ordering, rotating pictures, Tools-Word completion, Spell check, Macros

Unit-3: MS-Excel (15)

Introduction, Spread sheet application, Menus, Tool bars and icons, Spreadsheet- Opening, saving, closing, printing file, setting margins, Converting file to different formats, spread sheet addressing, Entering And Editing Data- Copy, cut, paste, undo, redo, find, search, replace, filling continuous rows and columns, inserting data cells, columns, rows and sheet, Computation Data- Setting formula, finding total in rows and columns, Formatting Spread Sheet- Alignment, font, border, hiding, locking, cells, highlighting values, background color, bordering and shading, Working With Sheet- Sorting, filtering, validation, consolidation, subtotals, Charts-Selecting, formatting, labeling, scaling, Tools- Error checking, spell check, formula auditing, tracking changes, customization.

Unit-4: MS-Power Point (15)

Introduction, Opening new presentation, Presentation templates, presentation layout, Creating Presentation- Setting presentation style, adding text, Formatting- Adding style, color, gradient fills, arranging objects, adding header and footer, slide background, slide layout,

Unit 5: Applications of MS-Office (10)

Word-Mail merge, Tracking Changes, Security, Printing Documents Excel - Functions Types- Mathematical, Group, string, date and time. Powerpoint- Slide Show, Adding Graphics-Inserting pictures, movies, tables, Adding Effects-Setting animation and transition effects, audio and video, Printing handouts.

Reference Books:

1. Microsoft Office 2010 Bible- WILEY.
2. Microsoft Office-Word 2007 inside out Microsoft Press Publication.
3. Microsoft Office-Excel 2007 inside out Microsoft Press Publication.
4. Step by step 2007 Microsoft Office system by Curtis Frye, Joyce Cox, Steve Lambert.
5. Microsoft Office-Power Point 2007 Plian and simple- Nancy Muir

B.C.A. Part-I (Semester- II)
Paper No- 203
Revised Syllabus As per CBCS Structure
Implemented from June-2016
Bank Management

Objectives:

- 1- To study and understand the nature of Bank Management
- 2- To be aware about recent technologies required to be adopted for efficient Banking.

Unit-1 Bank Organization: (15)

Meaning and concept of Bank, Importance and Functions of Bank, Meaning and concept of Bank Management- Customer centric v/s Business Centric management organizational set up of commercial bank-Bank organization- Role of Director, General manager- Important Provisions of and Branch manager Important Provisions of - Banking regulation Act- 1949.

Unit-2 Liquidity and credit Management- (15)

Liquidity policies- Day to Day management of the money position-Fund based credit management. supervision and Follow up credit administration and monitoring of advances-Non fund based credit management, Non Performing Asset (NPA)- Concept, RBI Norms and Provisions for NPA, Concept of Leasing and Hire purchase.

Unit-3 Investment-Portfolio and profit Management (15)

Investment practices and policies-fundamental principles of security investment-The determinants of bank profits-Management of - Long term & Short term Funds Capital to Risk Assets Ratio (CRAR) Long term and short term funds- Management of reserves- Risk Management.

Unit-4 Capital Management and Information Technology (15)

Banking sector reforms- Capital adequacy-E- banking, E-money, Tele Banking/ Mobile Banking (M-Banking), ATM, Debit/ Credit Card, Networking system, Cyber Law-Management Information system-concept, role in banking sector.

Reference Book:-

1. Management of Indian Financial Institutions- R.M.Srivastawa.
2. Commercial Bank Management- Edward w.Reed
3. The Management of Bank funds- Roland I Robinsion
4. Development Banking- Issues and options-Vasant Desai
5. Modern Banking of India- O.P. Agarwal
6. Banking principles and operation-M.N.Gopinath
7. Management Information System- Jawadekar

Unit – 3 : Market Segmentation and Consumer Behavior (10)

a. Market Segmentation - Concept, importance and bases of market segmentation. Target Market selection; positioning concept, importance and bases. Product differentiation versus market segmentation

b. Consumer Behavior - Meaning, nature and importance of consumer behavior, factors influencing consumer buying behavior.

Unit – 4: Product: (10)

Concept and importance, Product classifications; Concept of product mix; Branding, packaging and labeling; Product-Support Services; Product life-cycle; New Product Development Process; Consumer adoption process.

Unit – 5 : Pricing, Distribution Channels and Promotion (15)

a. Pricing: Meaning and Significance. Factors affecting price of a product. Pricing policies and strategies.

b. Distribution Channels: Channels of distribution - meaning and importance. Types of distribution channels; Functions of middle man; Factors affecting choice of distribution channel; Wholesaling and retailing; Types of Retailers; e-tailing.

c. Promotion : Meaning and importance of promotion; Types of promotion - advertising, personal selling, public relations & sales promotion, and their distinctive characteristics. Promotion mix and factors affecting promotion mix decisions.

Unit 6: Marketing Research and Recent developments in marketing: (10)

Meaning & importance, Steps in Marketing research process. Marketing in 21st Century- Challenges & opportunities. Social marketing, online marketing, direct marketing, services marketing, green marketing, Rural marketing; Consumerism. E-Marketing: Concept & techniques.

Reference Books

1. Kotler, Philip, Gary Armstrong, Prafulla Agnihotri and Ehsanul Haque. Principles of Marketing. 13th edition. Pearson Education.
2. Michael, J. Etzel, Bruce J. Walker, William J Stanton and Ajay Pandit. Marketing: Concepts and Cases. (Special Indian Edition), McGraw Hill Education
3. William D. Perreault, and McCarthy, E. Jerome., Basic Marketing. Pearson Education.
4. Majaro, Simon. The Essence of Marketing. Pearson Education, New Delhi.
5. The Consumer Protection Act 1986.
6. Iacobucci and Kapoor, Marketing Management: A South Asian Perspective. Cengage Learning.
7. Dhruv Grewal and Michael Levy, Marketing, McGraw Hill Education.
8. Chhabra, T.N., and S. K. Grover. Marketing Management. Fourth Edition. Dhanpat Rai & Company.
9. Neeru Kapoor, Principles of Marketing, PHI Learning
10. Rajendra Maheshwari, Principles of Marketing, International Book House\
11. Ravi Shankar- Service Marketing – The Indian Perspective, Excel Books (1998)
12. S.M. Jha- Service Marketing Himalaya publishing House , Mumbai (1994)
13. V.S. Ramaswamy & S Namakumari- Marketing Management Himalaya publishing
14. House Mumbai.
15. William Stanton & Ajay Pandit: Marketing concepts and cases The McGraw Hill Ltd New Delhi
16. Amukumar and N. Marketing Management Vikas Publishing House Pvt. Ltd. New Delhi

Paper No-
Lab Course Based on Paper
Programming techniques using 'C' Part-II

1. Programs based on user defined functions (covering categories of functions)
2. Programs based on recursion
3. Programs based on pointers (pointer arithmetic, pointer expressions)
4. Programs based on Structures (array of structures, array within structures and structure within structure)
5. Programs based on Unions
6. Programs based on File handling covering basic file operations
7. Programs based on File handling (single and multiple file handling).

Note : Minimum 15 assignments.

Practical Examination (Lab Course):

- Duration of Practical Examination : 3 Hrs.(One hr. for paper work and oral, Two hrs for live implementation of practical work)
- Nature of Practical Question Paper
There will be three questions of 15 Marks, Out of which student have to attempt any two questions.
- Distribution of marks
 - ii. Total Marks : 50 Marks
 - Journal : 10 Marks
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 - Practical Examination- 30 Marks
- Practical Examination conducted by the University examination panel. There will be one external and one internal examiner appointed by university.