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AC dt. 05-06-09.

**D.R. BABASAHEB AMBEDKAR  
MARATHWADA UNIVERSITY,  
AURANGABAD.**



Revised Syllabus of  
Bachelor of Computer Application

[ B.C.A. ]

Semester- I & II

(with Credit System)

( Effective from 2009-10 & onwards ]

BACHELOR OF COMPUTER APPLICATION (BCA)

Effective From June 2009.

O \_\_\_\_\_ THE NAME OF THE COURSE SHALL BE "BACHELOR OF COMPUTER APPLICATION" (B.C.A.)

O\_716 A candidate who has passed his H.S.C examination from any stream from Maharashtra State Board of Secondary & Higher Secondary Education, Pune, or any other examination equivalent thereto, is eligible to join the First Semester of Bachelor of Computer Application (BCA) Course.

OR

A candidate who has passed Diploma of Engineering from the Board of Technical Education Govt. of Maharashtra or any other examination equivalent thereto shall be eligible to join the first semester of BCA.

O\_717 The Bachelor of Computer Application (BCA) shall be conferred on a candidate who has persued a regular course of study consisting of Three years ( Six Semesters) in the relevant subjects as prescribed and has appeared at and passed in all the examinations prescribed for Bachelor of Computer Application Course.

R\_1335 B.C.A. Programme will be a full time Six Semesters (Three Years) duration. Each semester will be of one academic term (15 weeks). The total marks for the entire examination shall be 3600.

R 1336.- The following shall be the scheme of examination: -

**FIRST SEMESTER**

Paper No	Title	Weekly		Credit		Marks Theory	Marks Sessional or Practical		Total Marks	Duration Theory Exam
		Th	Pr	Th	Pr		S	Pr		
I	Accountancy I	4		4		60	40		100	2 Hrs
II	Industrial Economics	4		4		60	40		100	2 Hrs
III	Business Statistics	4		4		60	40		100	2 Hrs
IV	Office Automation Tools	2	4	2	2	60	-	40	100	2 Hrs
V	Communication Skills	4		4		60	40		100	2 Hrs
VI	Operating System I	2	4	2	2	60	-	40	100	2 Hrs
	Total	20	8	20	+ 4 = 24	360	160	80	600	--

**SECOND SEMESTER**

Paper No	Title	Weekly		Credit		Marks Theory	Marks Sessional or practical		Total Marks	Duration Theory Exam
		Th	Pr	Th	Pr		S	Pr		
VII	Accountancy II	4		4		60	40		100	2 Hrs
VIII	Industrial Organisation	4		4		60	40		100	2 Hrs
IX	Mathematics	4		4		60	40		100	2 Hrs
X	Programming in C	2	4	2	2	60	-	40	100	2 Hrs
XI	Principles of Management	4		4	-	60	40		100	2 Hrs
XII	Operating	2	4	2	2	60	-	40	100	2 Hrs

	System II (UNIX)								
	Total	20	8	18 + 6 = 24	360	160	80	600	--

### THIRD SEMESTER

Pap er No	Title	Weekly Th Pr	Credit Th Pr	Marks Theory	Marks Sessional or practical S Pr	Total Marks	Duration Theory Exam		
XIII	E-Business Essentials	4		4	60	40	100	2 Hrs	
XIV	Business Law I	4		4	60	40	100	2 Hrs	
XV	Principles of Management	4		4	60	40	100	2 Hrs	
XVI	OOPS using C++	2	4	2	2	60	- 40	100	2 Hrs
XVII	Data Structure & Algorithm	4		4	60	40	100	2 Hrs	
XVII I	DBMS	2	4	2	2	60	- 40	100	2 Hrs
	Total	20	8	20 + 4 = 24	360	160	80	600	--

### FOURTH SEMESTER

Pap er No	Title	Weekly Th Pr	Credit Th Pr	Marks Theory	Marks Sessional or practical S Pr	Total Marks	Duration Theory Exam		
XIX	Cost Accountancy	4		4	60	40	100	2 Hrs	
XX	Business law II	4		4	60	40	100	2 Hrs	
XXI	Entrepreneur- ship	4		4	60	40	100	2 Hrs	
XXII	Java Programming	2	4	2	2	60	- 40	100	2 Hrs
XXII I	MIS & DSS	4		4	60	40	100	2 Hrs	
XXI V	Networking &	2	4	2	2	60	- 40	100	2 Hrs

	Web Design								
	Total	20	8	20 + 4 = 24	360	160	80	600	--

**FIFTH SEMESTER**

Pap er No	Title	Weekly Th Pr	Credit Th Pr	Marks Theory	Marks Sessional or practical S Pr	Total Marks	Duration Theory Exam
XX V	Management Accounting	4 -	4 -	60	40 -	100	2 Hrs
XX VI	Organisational Behaviour	4 -	4 -	60	40 -	100	2 Hrs
XX VII	Business Elective I	4 -	4 -	60	40 -	100	2 Hrs
XX VIII	RDBMS using ORACLE	2 4	2 2	60	- 40	100	2 Hrs
XXI X	V B	2 4	2 2	60	- 40	100	2 Hrs
XX X	I T Elective I	2 4	2 2	60	- 40	100	2 Hrs
	Total	20 12	18 + 6 = 24	360	120 120	600	--

**SIXTH SEMESTER**

Pap er No	Title	Weekly Th Pr	Credit Th Pr	Marks Theory	Marks Sessional or Practical S Pr	Total Marks	Duration Theory Exam
XX XI	Business Law III	4 -	4 -	60	40 -	100	2 Hrs
XX XII	Business Elective II	4 -	4 -	60	40 -	100	2 Hrs
XX XIII	Elements of Commercial Portals	4 -	4 -	60	40 -	100	2 Hrs
XX XIV	System Programming	4 -	4 -	60	40 -	100	2 Hrs
XX XV	I T Elective II	2 4	2 2	60	- 40	100	2 Hrs
XX XVI	Project	- 8	- 4	-	- 100	100	2 Hrs

Total	18	12	18 + 6 = 24	300	160	140	600	--
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IT Elective I

1  
2  
3

IT Elective II

1  
2  
3

Business Elective I

1  
2  
3

Business Elective II

1  
2  
3

Total Credits for BCA

No. of Semesters = 6

Credits at each Semester = 24

Total Credits = 24 x 6 = 144

R. 1337 Admission to a Semester:-

To be eligible for admission to a semester, a student must have satisfactorily completed 75% papers of previous semesters. However, for admission to second fourth and sixth semester appearance at theory exam at preceding semester is sufficient. ( Appearance means submission of examination fees and forms to the university).

- R . \_1338 Re-admission to a semester  
 a) If a student fails to complete his project work before the closure of the semester to which it belongs, he will have to take fresh admission to the course and pay Rs. 1000/- for the project.  
 b) If a student fails in one or more subjects and desires to repeat course by taking regular admission, in such cases he will be charged Rs. 500/- per theory course and per sessional work per semester.
- R . \_1339 Marks of theory papers.  
 Each paper shall carry 60 marks for written comprehensive test and 40 marks shall be reserved for sessional or practical.
- R . \_1340 Internal Assessment.  
 The internal assessment of the candidates, at the end of each semester, shall be made on the basis of the following:-  
 2 Test 10 marks each  
 2 Assignments 5 marks each  
 Seminar / Group Discussion 10 marks
- R \_1341 EXAMINATION.  
 The B.C.A. examination will be held at the end of each semester. The viva at Sixth semester shall be held after theory exams.
- R \_1342 A student who has secured minimum 40% marks in each paper, but fails to secure minimum of 50% marks in aggregate for one or more semesters may choose to reappear for one or more papers to secure 50% of aggregate marks in that/those semesters.
- “R-1343 To be eligible for promotion to second year (third semester) of the BCA course, a student must successfully clear at least 9 out of 12 papers offered during the first year (first and second semesters) of the programme. For promotion to fifth semester, a student must have successfully cleared 16 out of 24 papers, offered upto fourth semester, and must clear all the papers of first and second semesters.  
 For promotion to second, fourth and sixth semester, the appearance at the respective preceding semester is compulsory. Clearing first, third and fifth is not essential for promotion to next semester.”

**R\_1344 STANDARD OF PASSING AND AWARD OF DIVISION**

- A) In order to pass the examination of Bachelor of Computer Application a candidate must secure at least 40% of marks in each theory paper, and each sessional and project work and 50% in aggregate in all semesters marks.
- B) A student who fails to secure at least 40% marks in one or more papers will be declared to have failed in that/those papers and such students will have to reappear for such paper/papers and secure minimum passing marks.

R\_1345 To pass a semester a student must have secured at least 40% marks in each paper and each sessional & project work. The sessional marks allotted to the students by the Institute shall be scaled down in relation to the theory marks obtained by the student in the respective subject. A variation of  $\pm 10\%$  is permitted.

The university shall appoint external examiner for the assessment of the project work. The project shall be assessed by external examiner on the basis of the following criteria:-

- |                       |          |
|-----------------------|----------|
| 1. Report Preparation | 50 Marks |
| 2. Presentation       | 25 Marks |
| 3. Viva Voce          | 25 Marks |

Both internal guide and external examiner will assess the candidate separately and will submit the marks lists separately to the university. The average of both shall be taken as the marks obtained by the student in project. The scaling down shall not be applicable to project marks.

R\_1346 The sessional & project work will be assigned by a guiding qualified teacher

R\_1347 A student who secures at least 40% marks in each individual theory papers Sessional & project work and secures 50% or more marks but less than 60% marks in aggregate of all semesters will be declared to have passed in the second class. There will be no pass class.

R\_1348 A student who secures at least 40% marks in each theory paper and sessional and project work and 60% or more in aggregate of all semesters will be declared to have passed in First Class.

R\_1349 Medium of instruction will be English.

R\_1350 The following shall be the syllabus for the examination.



**Paper I- ACCOUNTANCY - I**

<b>Theory</b>	<b>60</b>
<b>Sessional</b>	<b>40</b>
<b>Credits</b>	<b>4</b>

1. Double Entry Accounting System Introduction and concept & Advantages, Accounting Cycle, Types of Account, Journalising Rules, Subsidiary Books, Ledger, Trial Balance
2. Trading ,Profit and Loss Account and Balance Sheet ( Simple exercise on Sole Trader, Final Account expected )
3. Partnership Account:  
Introduction, Preparation of Partnership Final Accounts.
4. Depreciation  
Introduction, meaning and definition, methods of Depreciation  
1. Fixed Installment Method      2. Reducing Balance Method

**Books:**

1. Shukla & Greval " Advanced Accounts " S. Chand & Co.
2. Batliboy " Advanced Accounting " , Standard Accounting Publication.
3. Khan & Jain " Financial Management " Tats Mc Graw Hill.
4. S.C Kuchal " Financial Management "

**PAPER II - INDUSTRIAL ECONOMICS**

<b>Theory</b>	<b>60</b>
<b>Sessional</b>	<b>40</b>
<b>Credits</b>	<b>4</b>

- 1 Definition and scope of Business/Industrial Economics - Micro, Macro - Economics - Significance of Economics. Role in Business/Industrial decisions Economic Systems.
- 2 Indifference Curve Analysis, Properties of Indifference Curves, Consumer equilibrium, Income effect, Price effect and Substitution effect.
- 3 Production - Meaning - Laws of Returns.
- 4 Economic Development:-  
Concept, of Economic Development, Indicators of Economic Development, Factors promoting Economic Development, Obstacles in the Economic Development of under developed countries, Features of under developed economy with reference to India.

**Books:**

1. Business Economics by Prof. V.G. Mankar
2. Industrial Organisation and Engg. Economics by T.R. Banga, S.C. Sharma
3. Business and Managerial Economic by Sampat Mukherjee
4. Financial Institutions and Economic Growth in India. by Goyal, O.P.
5. Modern Economic Theory by K K Dewett

**PAPER III - BUSINESS STATISTICS**

<b>Theory</b>	<b>60</b>
<b>Sessional</b>	<b>40</b>
<b>Credits</b>	<b>4</b>

1. Introduction, Origin & Growth of Statistics, Definitions, Functions, Scopes and Limitations.
2. Organising Statistical Survey, Planning the Survey, Scope of Survey Techniques of data collection.
3. Sampling and sample designs.
4. Classification and Tabulation of Data.
5. Measures of Central Value - Mean, Median and Mode,
6. Measures of Dispersion - Range, Quartile Deviation, Mean Deviation, Standard Deviation.
7. Correlation Analysis:  
Introduction: Utility of the study of correlation, Correlation and causation  
Types of correlation - Positive and Negative Correlation  
Karl Pearson's Coefficient of Correlation.

**Books:-**

1. Seymour Lipschutz Probability - Schaum Outline series. Mc Graw Hill.
2. M.C. Shukla and S.S. Gulshan - Statistic S. Chand & Co. New Delhi.
3. V. Seetharaman - A Text book of Statistics - M. Nandana South Bros.
4. Gupta and Kapoor Fundamental of Statistics.
5. D.N. Elhance Statistical Methods

**PAPER IV - OFFICE AUTOMATION TOOLS**

Theory	60
Sessional	40
Credits	4

Familiarizing with different devices and facilities of computer system.

**Study of MS-Word , Excel & Power Point:**

1. Features and tools of MS-Office, Word, Excel, Power Point.
2. **Word:** Creating word documents, menu, office assistant working with files , editing text, saving, printing , undo, redo, spelling, formatting, ruler, selecting, cutting, copying, numbering, bullets, page, orientation, margins, tables in a document, formatting text in table, addition deletion of rows columns, record handling, sorting, label, & envelop, using forms, Recycle bin. Protection of documents, mail merge.
3. **Excel:** Excel Sheet creation, entering data, layout and formatting of sheet preview & print, working with range, rows, columns, total, sorting using formatting toolbars, format cells, cell content moving & coping grouped & ungrouped worksheet alignment of text, border colors, page setup, chart, types of chart merging sizing printing chart objects, formatting charts, formula palette , functions & uses - Analysing data with excel.
4. **Power Point:** Creating a presentation, modifying visual elements, adding objects, applying transition, animation and linking, preparing layouts, presenting a slide show.

**Books:-**

1. Courter Marquis - Office - 2000
2. Courter Marquis - Office - 97
3. Mansfield - MS- Office
4. Swell - MS- Office - 97
5. Syber Publication - Office- 2000 Complete
- Ulrich, L. - Sams Teach Your self 2000.

**PAPER V – COMMUNICATION SKILLS**

Theory	60
Sessional	40
Credits	4

1. Meaning, Nature, Scope, Importance, Functions and Limitations of Communication.
2. Elements of Communications - Principles of Communication, Barriers to effective communication.
3. **Communication Skills:**
  - a) **Oral Communication:**  
Effective speaking - Principles of effective oral communication, speech preparation - guidelines for effective speech. listening skills - telephonic and group communication - Board and union Meetings - Interviews, their types, techniques and styles.
  - b) **Written Communication:**  
Meaning and objective of written communication - Medias of written communication - Features of written communication - Preparation, analysis and interpretation of reports. Business letter writing - Application, references, Preparation of Tenders and Quotations - Drafting of sales circular letters.
4. Use of electric equipments in Business Communication - A hands on experiments on Telex, Fax, Pager, Cellular Phone, Computer and Internet.

**Books:-**

1. Handbook Business Correspondence - Frailey
2. Technical & Professional Communication - Hickini.
3. Communication Dynamics Dr. Mrs. V.S. Mishra
4. Business Communication Richard Huseman.
5. Business Communication Bhende, Pradhan & Others.
6. Communication C. S. Rayndu
7. Business Communication Ray & Ray
8. Communication in I T Age Dhiraj Sharma

**PAPER VI – OPERATING SYSTEM- I**

<b>Theory</b>	<b>60</b>
<b>Sessional</b>	<b>40</b>
<b>Credits</b>	<b>4</b>

1. Operating System concept, Its necessity, functions
2. Memory Management ; Device Management; Job Scheduling, I/O Management, Resource Management, Types of Operating System.
3. DISK OPERATING SYSTEM ( DOS)  
System Prompt, Default Device, File Directory, Display of files, Directory-handling, copying, deleting files,
- 4.. Windows  
Exploring Windows, Settings, Control Panel, Add Remove Hardware, Printers, Date Time Regional Settings, Games, File Handling activities, Recycle Bin etc.
- 5.. Study of Internal & External Commands of MS-DOS  
DIR (With Options) DATE, TIME, CLS, COPY CON, EDIT, COPY, DELETE, REN, FORMAT, FIND, RESTORE, PROMPT, PATH, MORE, TYPE, VER, VOL, CHKDSK, DISKCOMP, TREE, SYS, MEM, XCOPY, Wild Card Characters, Configuring Dos and Batch Files, CONFIG.SYS, BREAK ON/OFF, BUFFER, FILES, SHELL, SET, ECHO, PAUSE, CALL, IF, GOTO, END.

**Books:-**

- MS-DOS By Peter Norton
- Dos the Complete reference By Jasma.
- Operating Systems By Madnick
- Mastering Windows .
- Pc Software Taxali

## Semester II

## PAPER VII – ACCOUNTANCY II

Theory	60
Sessional	40
Credits	4

1. Goodwill of Partnership Firm  
Meaning, Need, factors affecting Goodwill, Methods of valuing Goodwill, - Average Profit Method, Super Profit Method
2. Accounts of Non Trading Concern – Preparation of Receipts and Payment Accounts, Income and Expenditure Account and Balance Sheet
3. Company Final Accounts  
(Treatment of Provisions, Treatment of Dividends, Interim & Final Dividend on shares, Income Tax on Dividends, Payment of Dividends, Unclaimed Dividends, Treatment of Preliminary Expenses, Capital Profit, Income Tax Provision, Advance Payment, Payment of Tax, TDS, -- Simple exercises expected).
4. Single Entry System  
Concept- Ascertainment of Profit from records of single entry method

**Books:-**

1. Shukla & Greval “ Advanced Accounts “ S. Chand & Co.
2. Batliboy “ Advance Accounting “ , Standard Accounting Publication.
3. Khan & Jain “ Financial Management “ Tats Mc Graw Hill.
4. S.C Kuchal “ Financial Management “

**PAPER VIII – INDUSTRIAL ORGANISATION**

<b>Theory</b>	<b>60</b>
<b>Sessional</b>	<b>40</b>
<b>Credits</b>	<b>4</b>

- 1 Concept of Industrialization:  
What is Industrialisation, its determinates Problems of Industrialisation social Responsibility of Business.
- 2 Scale of Operation and Size of Business Units (with special reference to India).  
Economics of scales, Meaning of large Medium and small size business- relative advantages and disadvantages)
- 3 Concept of concentration of power: combinations, Process of Integration vertical Horizontal Lateral and Diagonal and service integration types: Pools, Trusts Carte. Holding Companies, Syndicates Mergers and Amalgamation Multi-directorship Interlocking, Restructuring and Rationalisation.
- 4 Industrial Policy Resolutions of 1991 & WTO.
- 5 Corporate structure of business and essentials of Corporate Governance

**Books :**

- 1 Industrial Organisation & Engg. Economics by T.R. Banga, S.C. Sharma
- 2 Management & Organisation by C.B. Gupta
- 3 Industrial Administration & Management by Batty . J.
- 4 Control Practices in Indian Industries by Dave, Mahendra & Marthy, Guruprasad.
5. Principles of Industrial Organisation by Kimball, K.S. and Kimball D.S.



**PAPER IX – MATHEMATICS**

<b>Theory</b>	<b>60</b>
<b>Sessional</b>	<b>40</b>
<b>Credits</b>	<b>4</b>

1. Logarithms, Rules for multiplication division and exponentiation
2. Permutations, Combinations, and Binomial Theorem.
3. Determinate - different methods of calculating determinants.
4. Matrix - representation - Addition, Subtraction, Multiplication and division.  
Inverse, Transpose, Adjoint - Cofactor - Singular Arrays - Vectors.

Books:-

**PAPER X - PROGRAMMING IN C**

<b>Theory</b>	<b>60</b>
<b>Sessional</b>	<b>40</b>
<b>Credits</b>	<b>4</b>

1. Introduction and importance of C language
2. Constants, variables and data types:-  
Character set - tokens-constant-keywords and identifiers - variables- data types-  
declaration and assignment of variables- defining symbolic constants.
3. Operators and Expressions:  
Arithmetic, Relational and Logical Operators Assignment, increment and  
decrement of operators - conditional bitwise and special operators - arithmetic  
expression and its evaluation - hierarchy of arithmetic operations - evaluations,  
precedence and associativity - mathematical functions.
4. Decision-Making and branching:  
If statement Switch statement - GOTO statement - The ? : Operators.
5. Decision - Making and Looping:  
WHILE DO, and FOR statements.
6. Arrays:  
One-dimensional - Two - dimensional and Multi-dimensional arrays.
7. Handling of Character Set:  
Declaration & Initialization of string variables - reading from and writing to  
screen -Arithmetic operations - String handling functions.
8. Structures and Unions:  
Definitions initialization and assigning values to members arrays of structures and  
arrays within structures structure with in structure- unions - size of structures.
9. Pointers:  
Declaration and initialisation of pointers - pointer expression - pointer and arrays -  
pointer and character strings pointers and functions - pointers and structures -  
pointer on pointers.
10. File Maintenance in "C" :  
Defining, Opening and closing a file - Input/Output operations on a file- random  
access to file - command line arguments.
11. User Defined Functions:  
Form of "C" functions- calling a function - nesting of functions - recursion -  
functions with arrays.

**Books:**

1. Programming in "C" E Balgurusamy Tata Cm Graw-Hill
2. The "C" Programming Language :Brian W. Kenigham & Dennis Ritchie
3. The Spirit of "C"- Henry Mulish, Herbert L. Cooper.
4. Mastering "C" - Crain Bolon.

**PAPER XI - PRINCIPLES OF MANAGEMENT**

<b>Theory</b>	<b>60</b>
<b>Sessional</b>	<b>40</b>
<b>Credits</b>	<b>4</b>

- I. Definition, Nature & Scope of Management, Importance, Management as an Art, Science and Profession, Different approaches to Management.
- II. Evolution of Management thought contribution of Taylor, Fayol, Follet, Drucker.
- III. Management Process, Planning, organizing, staffing, Direction, Controlling, coordination, leadership.
- IV. Functional Management, Human Resource Management, Marketing Management, Financial Management, Materials Management.

**Books:**

- 1) Organisation & Management by Agarwal R D
- 2) Management Practice by Varnashi Murthy
- 3) Principles of Management by Tripathi & Reddy

**PAPER – XII OPERATING SYSTEM II**

<b>Theory</b>	<b>60</b>
<b>Sessional</b>	<b>40</b>
<b>Credits</b>	<b>4</b>

1. The Operating System
2. Structure of Unix
3. Working with Unix
4. VI Editor
5. Shell Programming
6. Special Utilities
7. System Administration
8. Program Development Aids
9. Hello "C" Shell
10. Unix Internals

Practicals on Unix.

Familiarizing with Unix environment, Execution of different commands of Unix, Shell Programming, files in Unix-

**Books:**

1. Unix in Easy Steps by Mohammed Azam
2. Unix by Kernigham

S-21 June 2010 AC after Circulars Academic Yr. 15 June 10-11

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**DR. BABASAHEB AMBEDKAR MARATHWADA UNIVERSITY****CIRCULAR NO. ACAD / NP / B.B.A. & B.C.A. / 17 / 2010**

It is hereby notified for the information of all concerned that, the Hon'ble Vice-Chancellor has accepted the "Syllabus of Bachelor of Business Administration [B.B.A.] & Bachelor of Computer Application [B.C.A.] Semester-IIIrd & IVth under the Faculty of Management Science" on behalf of the Academic Council under Section-14(7) of the Maharashtra Universities Act, 1994 as appended herewith.

This will be effective from the academic year 2010-2011 and onwards.


These syllabi are also available on the University Website [www.bamu.net](http://www.bamu.net)

All concerned are requested to note the contents of this circular for their information and necessary action.

University Campus,  
Aurangabad-431 004.  
REF.NO.ACAD/NP/BBA/BCA/  
2010/14392-531

Date:- 13-07-2010.

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**Director,**  
**Board of College and**  
**University Development.**

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**Copy forwarded with compliments to:-**

1] The Principals, affiliated concerned Colleges,  
Dr. Babasaheb Ambedkar Marathwada University.

**Copy to :-**

- 1] The Controller of Examinations,
- 2] The Superintendent, [Commerce Unit],
- 3] The Record Keeper,  
Dr. Babasaheb Ambedkar Marathwada University.

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**DR. BABASAHEB AMBEDKAR  
MARATHWADA UNIVERSITY,  
AURANGABAD.**



**Revised Syllabus of  
Bachelor of Computer Application  
[B.C.A.]  
[SEMESTER- III<sup>RD</sup> & IV<sup>TH</sup>]**

**[ Effective from June-2010 & onwards ]**

Dr.Babasaheb Ambedkar Marathwada University  
Aurangabad.

Faculty of Management Science

Revised Syllabus

BCA III & IV Semester

Effective From June 2010

**BCA**  
**FIRST SEMESTER**

Paper No	Title	Weekly		Credit		Marks Theory	Marks Sessional or Practical		Total Marks	Duration Theory Exam
		Th	Pr	Th	Pr		S	Pr		
I	Accountancy I	4		4		60	40		100	2 Hrs
II	Industrial Economics	4		4		60	40		100	2 Hrs
III	Business Statistics	4		4		60	40		100	2 Hrs
IV	Office Automation Tools	2	4	2	2	60	-	40	100	2 Hrs
V	Communication Skills	4		4		60	40		100	2 Hrs
VI	Operating System I	2	4	2	2	60	-	40	100	2 Hrs
	Total	20	8	20	+ 4 = 24	360	160	80	600	--

**SECOND SEMESTER**

Paper No	Title	Weekly		Credit		Marks Theory	Marks Sessional or practical		Total Marks	Duration Theory Exam
		Th	Pr	Th	Pr		S	Pr		
VII	Accountancy II	4		4		60	40		100	2 Hrs
VIII	Industrial Organisation	4		4		60	40		100	2 Hrs
IX	Mathematics	4		4		60	40		100	2 Hrs
X	Programming in C	2	4	2	2	60	-	40	100	2 Hrs
XI	Principles of Management - I	4		4		60	40		100	2 Hrs
XII	Operating System II (UNIX)	2	4	2	2	60	-	40	100	2 Hrs
	Total	20	8	18	+ 6 = 24	360	160	80	600	--



**THIRD SEMESTER**

Paper No	Title	Weekly		Credit		Marks Theory	Marks Sessional or practical		Total Marks	Duration Theory Exam
		Th	Pr	Th	Pr		S	Pr		
XIII	E-Business Essentials	4		4		60	40		100	2 Hrs
XIV	Business Law I	4		4		60	40		100	2 Hrs
XV	Principles of Management - II	4		4		60	40		100	2 Hrs
XVI	OOPS using C++	2	4	2	2	60	-	40	100	2 Hrs
XVII	Data Structure & Algorithm	4		4		60	40		100	2 Hrs
XVII I	DBMS	2	4	2	2	60	-	40	100	2 Hrs
	Total	20	8	20	4	360	160	80	600	--

**FOURTH SEMESTER**

Paper No	Title	Weekly		Credit		Marks Theory	Marks Sessional or practical		Total Marks	Duration Theory Exam
		Th	Pr	Th	Pr		S	Pr		
XIX	Cost Accountancy	4		4		60	40		100	2 Hrs
XX	Business law II	4		4		60	40		100	2 Hrs
XXI	Entrepreneurship	4		4		60	40		100	2 Hrs
XXII	Java Programming	2	4	2	2	60	-	40	100	2 Hrs
XXII I	MIS & DSS	4		4		60	40		100	2 Hrs
XXI V	Networking & Web Design	2	4	2	2	60	-	40	100	2 Hrs
	Total	20	8	20	4	360	160	80	600	--

**FIFTH SEMESTER**

Paper No	Title	Weekly		Credit		Marks Theory	Marks Sessional or practical		Total Marks	Duration Theory Exam
		Th	Pr	Th	Pr		S	Pr		
XX V	Management Accounting	4	-	4	-	60	40	-	100	2 Hrs
XX VI	Organisational Behaviour	4	-	4	-	60	40	-	100	2 Hrs
XX VII	Business Elective I	4	-	4	-	60	40	-	100	2 Hrs
XX VIII	RDBMS using ORACLE	2	4	2	2	60	-	40	100	2 Hrs
XXIX	V B	2	4	2	2	60	-	40	100	2 Hrs
XX X	I T Elective I	2	4	2	2	60	-	40	100	2 Hrs
	Total	20	12	18 + 6	= 24	360	120	120	600	--

**SIXTH SEMESTER**

Paper No	Title	Weekly		Credit		Marks Theory	Marks Sessional or Practical		Total Marks	Duration Theory Exam
		Th	Pr	Th	Pr		S	Pr		
XX XI	Business Law III	4	-	4	-	60	40	-	100	2 Hrs
XX XII	Business Elective II	4	-	4	-	60	40	-	100	2 Hrs
XX XIII	Elements of Commercial Portals	4	-	4	-	60	40	-	100	2 Hrs
XX XIV	System Programming	4	-	4	-	60	40	-	100	2 Hrs
XX XV	I T Elective II	2	4	2	2	60	-	40	100	2 Hrs
XX XVI	Project	-	8	-	4	-	-	100	100	2 Hrs
	Total	18	12	18 + 6	= 24	300	160	140	600	--

**BCA III Semester****Theory Marks: 60****Sessional Marks: 40****Credits: 4****Paper XIII - E-Business Essentials**

Introduction, Definition of Electronic Commerce and business, History, Electronic Forces, Management & E-Business, Implications of various forces, information, Superhighway, Types of Electronic, Commerce, Internet & WWW, Concept and Technology, Browsers, Internet access providers, On line transactions, Shopping & Banking.

(Exposure to Internet Operations expected)

**Recommended Books:**

- |                                       |                                  |
|---------------------------------------|----------------------------------|
| 1) Rayudu C S                         | E-Commerce- E-Business           |
| 2) Ravi Kalakots & Andrew B. Whinston | Electronic Commerce              |
| 3) Ravi Kalakots & Marcia Robinson    | E-business                       |
| 4) Rich, Jason R                      | Starting an E-Commerce business. |

**Sessional Work: Marks 40**

	Marks
1. Two Test of 5 Marks each	10
2. Two Tutorials of 5 Marks each	10
3. Seminar on any Topic	10
4. Group Discussion on any Topic	10

**Paper XIV - Business Laws – I**

**Theory Marks: 60**  
**Sessional Marks: 40**  
**Credits: 4**

- 1) Contract Act
- 2) Sale of Goods Act
- 3) Partnership Act
- 4) Shop & Establishment Act

**Recommended Books:**

- |    |                          |                             |
|----|--------------------------|-----------------------------|
| 1) | A.K. Sen                 | Commercial & Industrial Law |
| 2) | N.D. Kapoor              | Mercantile & Industrial Law |
| 3) | M.C. Shukla              | Mercantile & Industrial     |
| 4) | Mahaeshwari & Maheshwari | Business Law                |

**Sessional Work: Marks 40**

1. Two Test of 5 Marks each
2. Two Tutorials of 5 Marks each
3. Seminar on any Topic
4. Group Discussion on any Topic

**Marks**

10  
 10  
 10  
 10

**Paper XV - Principles of Management II****Theory Marks: 60****Sessional Marks: 40****Credits: 4**

- Unit – I      Communication- Meaning, Nature and scopes, Communication Process, Significance, Types, Methods or Media, Barriers to Communication, Effective Communication, Essentials of a sound communication system, Growing importance of communication in management, Modern Channels.
- Unit – II      Motivation & Morale – Meaning, Nature and scopes of Motivation, Its significance, Motivation Process & Cycle, Motivation Theories- Maslow's Need Hierarchy Theory, McGregors Theory, Herzberg's Theory, William Oochi's Theory, Employee Morale and its significance in organization.
- Unit – III      Group and Group Behavior – Concept and Types, Process of Group Development, Group Formation Reasons, Theories of Group Development, Concept of Group Dynamics, Group Behavior, Group Norms, Group cohesiveness factors.
- Unit – IV      Organisational Change & Development- Concept of organizational change, causes for change, process of organizational change, causes of resistance to change, overcoming resistance, Management of Change, Organisational Development, Concept, Distinction between OD and Management Development, Objectives and role of OD, Process of Organisation Development, Techniques of OD.
- Unit – V      Current Management Thought – Contingency and Managerial Roles Approach, McKinsey's 7-S, Benchmarking, Advantages of Benchmarking, Pitfalls, Steps in Benchmarking Process, Types, Requirement for successful Benchmarking, Business Process Reengineering, Objectives of BPR, causes of failure in BPR, TQM, concepts and philosophy, Deming's Fourteen Principles, Competitive Edge

**Recommended Books:**

- C B Gupta      Organisation and Management Fundamentals  
S .Chand & Co. New Delhi
- C B Gupta      Business Organisation and Management  
S. Chand & Co., New Delhi

**Sessional Work: Marks 40**

- |                                  | <b>Marks</b> |
|----------------------------------|--------------|
| 1. Two Test of 5 Marks each      | 10           |
| 2. Two Tutorials of 5 Marks each | 10           |
| 3. Seminar on any Topic          | 10           |
| 4. Group Discussion on any Topic | 10           |

### **Paper XVI - OOPS Using C++**

**Theory Marks: 60**  
**Practical Marks: 40**  
**Credits: 4**

- Basic concepts and principles of Object Oriented Programming
- Object Oriented Languages.
- Application of Object Oriented Programming
- Introduction to C++
- Tokens, Expression & Control Structure.
- Function in C++
- Constructors & Destructors
- Operator Overloading & Type Conversion.
- Inheritance
- Pointers, Virtual Function & Polymorphism.
- File Handling in C++.

#### **Practicals:**

Writing of C++ Programs using keywords, functions, Pointers, Objects, Class, features etc.

#### **Recommended Books:**

- 1) E- Balaguruswamy Object Oriented Programming with C++
- 2) S. Nisar Ali. Object Oriented Programming System
- 3) Jayram & Prasad Object Oriented Programming with C++

**Paper XVII - Data Structure & Algorithms**

**Theory Marks: 60**  
**Sessional Marks: 40**  
**Credits: 4**

Data, Type, Primitive secondary, Simple, Compound, Data Structure, Linear Structure, Array, Linked List, Queue, Stacks, Non Linear Data Structure Tree, Binary Tree Structures, Graph, Networks, Implementation of Data Structure in Computer Memory, Algorithm Concept, Features & Characteristics, Designing of algorithms for Insertion & Deletion of records in Array, Linked List, Stack, Queue, Traversal of Linked List Stack Queue, Binary Tree, Graph.

**Recommended Books:**

- |                       |                             |
|-----------------------|-----------------------------|
| 1. Bhagat Singh & Nap | Data & File Structure.      |
| 2. Droomy             | How to solve it by Computer |
| 3. Aho                | Data Structure & Algorithm  |

**Sessional Work: Marks 40**

- |  | <b>Marks</b> |
|--|--------------|
| 1. Two Test of 5 Marks each                | 10           |
| 2. Two Tutorials of 5 Marks each           | 10           |
| 3. Seminar on any Topic                    | 10           |
| 4. Writing of Algorithms in Journal / File | 10           |

**Paper XVIII - DBMS**

**Theory Marks: 60**  
**Practical Marks: 40**  
**Credits: 4**

Introduction to DBMS – Database Features, Database operations, Types of Databases, data types, managing data in a database

Study of FOXPRO Commands.

CREATE, APPEND, EDIT, BROWSE, RECALL, COPY, PACK, FIND, LOCATE, REPLACE, DELETE, LIST, SORT, INDEX, Report & Label Generation.

Programming in FOXPRO

Creating program files, control, looping & structures, SKIP, INPUT, ACCEPT, SET, DO WHILE, END DO, IF – END IF, FOR, END FOR, DO CASE- END CASE, TEXT, END TEXT.

**Practicals:**

Writing of Programs using the different commands of Foxpro.

**Recommended Books:**

- |              |                      |
|--------------|----------------------|
| 1) Taxali    | FoxPro 2.5           |
| 2) Ahlo H.M. | FoxPro 2             |
| 3) Siegal    | Mastering FoxPro 2.5 |



## B.C.A IV Semester

### Paper XIX - Cost Accountancy

**Theory Marks: 60**  
**Sessional Marks: 40**  
**Credits: 4**

- I. Cost Accounting Definition, Nature & Scope of Cost Accounting, Distinction between Cost, Financial and Management Accounting, Classification & Elements of Cost, Material, Labour, Expenses, Direct & Indirect Cost, Overheads.
- II. Costs – Prime Cost, Factory/works Cost, Administration Cost, Total Cost, Cost of Sales.
- III. Preparation of Cost Sheet.
- IV. Material – Purchasing, Purchase Requisition, EOQ, Purchase Procedure, Purchase Order, Receiving & Recording of Material, Documents, Goods Received Note, Bin card, Issue of materials, Pricing, methods, LIFO, FIFO, Average method.
- V. Wages – Compensation, Methods of wage payment, Fixed Rate, Piece Rate, contract, Bonus, Halsay & Rowan Plan

#### Recommended Books:

- |                    |  |
|--------------------|--|
| a. Bhatta H S M    | Cost Accounting                          |
| b. Shukla & Grewal | Cost Accounts                            |
| c. Nigam & Sharma  | Cost Accounting Principle & Application. |
| d. N. K. Prasad    | Cost Accounting                          |

#### **Sessional Work: Marks 40**

- |  | <b>Marks</b> |
|--|--------------|
| 1. Two Test of 5 Marks each                                    | 10           |
| 2. Two Tutorials of 5 Marks each                               | 10           |
| 3. Seminar on any Topic  | 10           |
| 4. Preparation of Cost Sheets and maintaining a Journal / File | 10           |

**Paper XX - Business Laws – II**

**Theory Marks: 60**  
**Sessional Marks: 40**  
**Credits: 4**

- 1) Companies Act  
Formation, documents for registration, Mgt & Adm Directors, Meetings
- 2) Negotiable Instruments Act
- 3) Factories Act
- 4) Payment of Wages Act

**Recommended Books:**

- 1) A.K. Sen                      Commercial & Industrial Law
- 2) N.D. Kapoor                Mercantile & Industrial Law
- 3) M.C. Shukla                Mercantile & Industrial Law

**Sessional Work: Marks 40**

1. Two Test of 5 Marks each
2. Two Tutorials of 5 Marks each
3. Seminar on any Topic
4. Group Discussion on any Topic

**Marks**

10  
10  
10  
10

**Paper XXI – Entrepreneurship**

**Theory Marks: 60**  
**Sessional Marks: 40**  
**Credits: 4**

- Introduction, Concept & Philosophy, Entrepreneurship Evolution and Development, Qualities of Entrepreneur,
- Function of Entrepreneur – Contribution to economic growth, regional development, Employment generation, export promotion.
- Setting up new venture, search for new ideas, Project identification, project report and business planning.
- SSI, Definition, Role, Types, Incentives & Assistance to SSI, Policies Governing SSI, Process of setting up a small scale industry.

**Recommended Books:**

- |                               |   |
|-------------------------------|---|
| 1) Himalaya Publishing        | Entrepreneurial Development (Vol. 1,2 & 3)          |
| 2) Gupta C.B & N.P Srinivasan | Entrepreneurial Development                         |
| 3) Desai Vasant               | Fundamentals of Entrepreneurship and Small Business |

**Sessional Work: Marks 40**

- |   |              |
|---|--------------|
| 1. Two Test of 5 Marks each                     | <b>Marks</b> |
| 2. Two Tutorials of 5 Marks each                | 10           |
| 3. Seminar on any Topic                         | 10           |
| 4. Preparing a Project Report for a new venture | 10           |

**Paper XXII - Java Programming**

**Theory Marks: 60**  
**Practical Marks: 40**  
**Credits: 4**

**Java-** History, Features, Difference of Java, C & C++, Java Support System & Environment, Overview of Java Program, Java Program Structure, Java Tokens, Java Statements, Implementing Java Program, Java Virtual Machine, Command Line Arguments, Constants, Data Types, Variables, Declaration, Operators and Expressions, Branching and Looping in Java, Classes, Objects and Methods, Arrays.

**Practicals:**

Writing of Java Programs using keywords, functions, Pointers, Objects, Class, features etc.

**Recommended Books:**

- |                     |                               |
|---------------------|-------------------------------|
| 1) E – Balguruswamy | Programming with JAVA         |
| 2) Rebelsky         | Experiments in Java           |
| 3) Arnold           | The Java Programming Language |

**Paper XXIII – MIS & DSS**

**Theory Marks: 60**  
**Sessional Marks: 40**  
**Credits: 4**

Introduction to MIS, Role & Importance of MIS, Decision Making Concept, Decision Methods, Tools & Procedures, Behavioural concepts, MIS & Decision Making Concept, Classification of information, MIS & Information Concepts, System Concepts, Control, MIS & System Concepts, DSS, Computer supported DSS, DSS Framework, Characteristics and capabilities of DSS, Components of DSS, Differences and similarities of MIS and DSS, Classification of DSS.

**Recommended Books:**

- |    |                 |                                |
|----|-----------------|--------------------------------|
| 1) | W.S. Jawdekar   | Management Information System  |
| 2) | Gordon Davis    | Management Information System  |
| 3) | Turban & others | Decision Support System        |
| 4) | Mohan P         | Management Information Systems |

**Sessional Work: Marks 40**

1. Two Test of 5 Marks each
2. Two Tutorials of 5 Marks each
3. Seminar on any Topic
4. Group Discussion on any Topic

**Marks**

10  
 10  
 10  
 10

**Paper XXIV – Networking & Web Design**

**Theory Marks: 60**  
**Practical Marks: 40**  
**Credits: 4**

1. Computer & Communication, Single User, Multi-user, Workstation, Client Server Systems, Computer Networks, Network protocols, TCP/IP, LAN, WAN, MAN, Topologies, OSI model
2. Creating Web Page with HTML, Basic Elements lists, Linking HTML Pages & URL, Text formatting, embedding image, in HTML page.
3. Tables & Frames, Creation of Tables & Frames, Complex Frames.
4. Form & CGI Script, Form Design, Layout features, CGI Scripting.
5. Introduction to Java applets, use of Audio/Video files in web pages.

**Practicals:**

Developing web sites using HTML and Java applets.

**Books:**

1. Monica D' Souza & Jude D' Souza 'Web Publishing' : Tata McGraw Hill.
2. Christian Crumlish & Malcom Humes 'Web publishing with Netscape', : Tata McGraw Hill.
3. Willard 'Web Design' : Tata McGraw Hill.
4. Bhatnagar Network Analysis Technique
5. Tenenbaum Computer Networks.
6. Black U Computer Network Protocols

**D.R. BABASAHEB AMBEDKAR  
MARATHWADA UNIVERSITY,  
AURANGABAD.**



**Revised Syllabus**

**of**

**BACHELOR OF COMPUTER APPLICATION**

**(B.C.A.)**

**Under the Faculty of Management Science**

**Semester – V & VI**

[ Effective from 2011-12 & onwards ]

# BACHELOR OF COMPUTER APPLICATION (BCA) SYLLABUS

## FIFTH SEMESTER

Paper No	Title	Weekly		Marks Theory	Marks Sessional or practical		Total Marks	Duration Theory Exam
		Th	Pr		S	Pr		
XXV	Management Accounting	4	-	60	40	-	100	2 Hrs
XXVI	Organisational Behaviour	4	-	60	40	-	100	2 Hrs
XXVII	Business Elective I	4	-	60	40	-	100	2 Hrs
XXVIII	RDBMS using ORACLE	2	4	60	-	40	100	2 Hrs
XXIX	V B	2	4	60	-	40	100	2 Hrs
XXX	I T Elective I	2	4	60	-	40	100	2 Hrs
	<b>Total</b>	<b>18</b>	<b>12</b>	<b>360</b>	<b>120</b>	<b>120</b>	<b>600</b>	--

## SIXTH SEMESTER

Paper No	Title	Weekly		Marks Theory	Marks Sessional or Practical		Total Marks	Duration Theory Exam
		Th	Pr		S	Pr		
XXXI	Business Law III	4	-	60	40	-	100	2 Hrs
XXXII	Business Elective II	4	-	60	40	-	100	2 Hrs
XXXIII	Elements of Commercial Portals	4	-	60	40	-	100	2 Hrs
XXXIV	System Programming	4	-	60	40	-	100	2 Hrs
XXXV	I T Elective II	2	4	60	-	40	100	2 Hrs
XXXVI	Project	-	8	-	-	100	100	--
	<b>Total</b>	<b>18</b>	<b>12</b>	<b>300</b>	<b>160</b>	<b>140</b>	<b>600</b>	--



**BCA V Semester  
XXVII - Business Elective I  
(Choose any One Elective)**

- E-1 Banking and Insurance**
- E-2 Retail Management**
- E-3 Entrepreneurship Development**

**BCA VI Semester  
XXXII - Business Elective II  
(Choose any One Elective)**

- E-1 Services Marketing**
- E-2 Hospitality Management**
- E-3 Export Management**

### **IT Elective I**

1. Software Engineering
2. Internet Programming
3. Advanced Networking

### **IT Elective II**

1. Software Testing and Quality Assurance
2. Linux Administration
3. Mobile Computing

**DETAILED SYLLABUS**  
**FOR**  
**BCA V SEMESTER**

**PAPER No: XXV: MANAGEMENT ACCOUNTING****Theory Marks: 60****Sessional Marks: 40****UNIT I**

Definition, Objectives, Scope and Functions of Management Accounting, Management Accounting and Financial Accounting, Advantages & Limitations of Management Accounting

**UNIT II**

Analysis and Interpretation of Financial Statement

**UNIT III**

Funds Flow Analysis- Nature, Importance, Advantages of Fund Flow Analysis-Techniques used for construction of Funds Flow Statement (Simple Illustrations)

**UNIT IV**

Cash Flow Analysis- Nature, Importance, Advantages of Fund Flow Analysis-Techniques used for construction of Funds Flow Statement (Simple Illustrations)

**UNIT V**

Ratio Analysis – Nature of Ratio Analysis – Significance – Calculation of Ratios-Liquid Ratio-Fixed Assets-Turnover Ratio – Operating Ratio, Stock Turnover Ratio, Debtors Turnover Ratio, Creditors Turnovers Ratio, Debt Equity Ratio

**Suggested Readings:**

1. Management Accounting : Khan, M. Y. & Jain, P.K.
2. Management Accounting : Maheshwari, S. N.
3. Management Accounting : Sharma, R. K.
4. Management Accounting, M.E.Thukaram Rao, New Age International
5. Management Accounting, Khan & Jain, TMH
6. Cost Accounting-An Introduction, Nigam & Jain, PHI
7. Management Accounting, Pande, VIKAS

**Sessional Work: Marks 40**

	<b>Marks</b>
1. Attendance	10
2. Two Class Test of 5 Marks each	10
3. Tutorials /Assignment	10
4. Seminar on any Topic	05
5. Group Discussion on any Topic	05

## PAPER NO. XXVI: ORGANISATIONAL BEHAVIOUR

**THEORY : 60 Marks**

**SESSIONAL : 40 Marks**

### UNIT I

Definition and meaning of organizational behavior, role and importance of organizational behavior, OB Model.

### UNIT II

Nature of personality, Theories of personality: type theory, Trait theory, Psychoanalytic theory, Social learning theory, Maslow's self actualization theory, Concept of Learning, Theories of Learning.

### UNIT III

Perception and factors influencing perception, Concept of Motivation , Motivation Theories and principles

### UNIT IV

Attitude and components of attitude, Formation of attitude, Work related Attitude, values, Terminal and instrumental values, Organizational values, Impact of attitude and values of individual on his performance.

### Books Recommended

1. Robbins S.R; Judge.T.A; Sanghi.S., "Organizational Behaviour", 13<sup>th</sup> Edition, Pearson Education ,2009.
2. Luthans F. "Organizational Behaviour". 7th Edition, Mcgraw Hill .
3. Aswathappa, K. " Organizational Behaviour", 9<sup>th</sup> Edition, Himalaya Publishing House.

### Sessional Work: Marks 40

	<b>Marks</b>
1. Attendance	10
2. Two Class Test of 5 Marks each	10
3. Tutorials /Assignment	10
4. Seminar on any Topic	05
5. Group Discussion on any Topic	05

**XXVII -BCA V Semester: Business Elective I****E-1: BANKING AND INSURANCE****Theory Marks: 60****Sessional Marks: 40**

Objective: Business needs fund for establishment, growth and development. Simultaneously every business bears a certain amount of risk and operates under uncertainties. In this context Banking and Insurance facilitate the business operation. This module has been designed to acquaint the learners with various services provided by Banking and Insurance to the business sector.

**Unit 1: Banking**

- Meaning and role of Bank, Type of Banks, Functions of a Commercial Bank

**Unit 2: Bank Deposit Account**

- Bank deposit accounts – Type, Opening and operating of Saving Bank Account

**Unit 3: Negotiable Instruments**

- Meaning and importance, Types - Hundis, Bills of Exchange, Promissory Note, Cheque

**Unit 4: Insurance**

- Concept and importance of Insurance, Principles of Insurance, Growth & Development of Indian Insurance Industry – Regulations of Insurance Business and The Emerging Scenario – Introduction to Life & General Insurance – Life Insurance: Features of Life Insurance – Essentials of Life Insurance Contract – Kinds of Insurance Policies – Premium determination – Life Policy Conditions.

**Suggested Readings**

1. Sundhram, K. P. M., Banking Theory Law and Practice, Sultan Chand & Co. Ltd., New Delhi.
2. Read, E. W., Commercial Bank Management, Harper and Row Publishers, New York
3. Varshney, P.N., Banking Law and Practice, Sultan Chand & Sons, New Delhi.
4. Seth, Marketing of Banking Services, Macmillan India Ltd., New Delhi.
5. Nigam, B. M. Lal, Banking Law & Practice, Konark, New Delhi

**Sessional Work: Marks 40**

	<b>Marks</b>
6. Attendance	10
7. Two Class Test of 5 Marks each	10
8. Tutorials /Assignment	10
9. Seminar on any Topic	05
10. Group Discussion on any Topic	05

**XXVII -BCA V Semester : Business Elective I**

**E-2: RETAIL MANAGEMENT**

**Theory Marks: 60**  
**Sessional Marks: 40**

**Objective:** This course presents the basics of retailing, trends in retailing, evolution of retailing and global retail markets. This course enables students to learn the basics in retailing, evolution and trends in retailing.

**UNIT I**

Retail: Meaning – Functions and special characteristics of a Retailer – Reasons for studying. Retailing – Marketing-Retailer Equation – Marketing concepts applied to retailing – Retailing as a career – Trends in Retailing.

**UNIT II**

Retail Model and Theories of Retail Development – Life cycle and phase in growth of retail markets – Business models in retail – other Retail models.

**UNIT III**

Strategic Planning in Retailing: Situation Analysis – Objectives – Need for identifying consumer needs – Overall strategy, feedback and control – consumer decision-making process.

**UNIT IV**

Retail in India: Evolution and Size of retail in India – Drivers of retail change in India – Foreign Direct Investment in retail – Challenges to retail developments in India.

**UNIT V**

Global retail markets: Strategic planning process for global retailing – Challenges facing global retailers – Challenges and Threats in global retailing – Factors affecting the success of a global retailing strategy – U.S. retailers and foreign markets – Foreign retailers and U.S.markets.

**Suggested Readings**

1. Swapna Pradhan – Retailing Management – Text and Cases, Tata McGraw Hill – 2<sup>nd</sup> edition, 2004
2. Barry Berman and Joel R Evans – Retailing Management – A Strategic Approach, Prentice Hall of India, 8<sup>th</sup> Edition, 2002.
3. James R. Ogden, Denise Ogden – Integrated, Retail Management – Biztantra 2005
4. Gibson G Vedamani – Retail Management – Functional Principles and Prectice, Jaico Publishing House, Second edition, 2004.

**Sessional Work: Marks 40****Marks**

- |                                   |    |
|-----------------------------------|----|
| 1. Attendance                     | 10 |
| 2. Two Class Test of 5 Marks each | 10 |
| 3. Tutorials /Assignment          | 10 |
| 4. Seminar on any Topic           | 05 |
| 5. Group Discussion on any Topic  | 05 |

**XXVII -BCA V Semester: Business Elective I**

**E-3: ENTREPRENEURSHIP DEVELOPMENT****Theory Marks: 60****Sessional Marks: 40****Objective:** To Explain Development Of Entrepreneurs.**UNIT I**

Entrepreneur - meaning- importance-Qualities, nature, types, traits, culture, similarities and Economic and differences between Entrepreneur and Intrapreneur. Entrepreneurship development-its importance- Role of Entrepreneurship -Entrepreneurial environment.

**UNIT II**

Evolution of Entrepreneurs - Entrepreneurial promotion. Training and developing motivation : Factors - mobility of Entrepreneurs - Entrepreneurial change - occupational mobility-factors in mobility - Role of consultancy organizations in promoting Entrepreneurs-Forms of business for Entrepreneurs.

**UNIT III**

Creating and starting the venture - Steps for starting a small industry - selection of types of organization - International entrepreneurship opportunities.

**UNIT IV**

Managing, growing and ending the new venture - Preparing for the new venture launch – early management decisions Managing early growth of the new venture- new venture expansion strategies and issues - Going public - ending the venture.

**UNIT V**

Entrepreneurship Development and Government: Role of Central Government and State Government in promoting Entrepreneurship - Introduction to various incentives, subsidies and

grants - Export Oriented Units - Fiscal and Tax concessions available. Women Entrepreneurs Reasons for low / no women Entrepreneurs their Role, Problems and Prospects

**Suggested Readings**

1. Vasanth Desai " Dynamics of Entrepreneurial Development and Management Himalaya Publishing House.
2. N.P.Srinivasan & G.P.Gupta," Entrepreneurial Development ", Sultanchand & Sons.
3. P.Saravanavelu "Entrepreneurship Development ",Eskapee Publications.
4. Satish Taneja, Entrepreneur Development ", New Venture Creation.
5. Robert D.Hisrich, Michael P.Peters, " Entrepreneurship Development, Tata McGraw Hill

**Sessional Work: Marks 40****Marks**

- |                                   |    |
|-----------------------------------|----|
| 1. Attendance                     | 10 |
| 2. Two Class Test of 5 Marks each | 10 |
| 3. Tutorials /Assignment          | 10 |
| 4. Seminar on any Topic           | 05 |
| 5. Group Discussion on any Topic  | 05 |



## XXVIII - RDBMS USING ORACLE

THEORY 60

PRACTICAL 40

- Database Systems – Application and Purpose, View of Data, Database Languages, Relational Databases, Database Design, Object-Based and Semi-Structured Databases, Data Storage and Querying, Database Architecture, Database Users and Administrators, History of Database Systems.
- Data Models, Schemas and Instances.
- Relational Model – Structure of Relational Databases, Fundamental Relational Algebra Operations.
- SQL – Introduction, Data Definition, Basic Structure of SQL Queries, Set Operations, Aggregate Functions, Null Values, Nested Sub queries, Complex Queries, Views, Modification of Database, Joined Relations.
- Advanced SQL – Data Types and Schemas, Integrity Constraints, Authorization, Functions and Procedures, Recursive Queries.

### PRACTICAL:

- Writing and executing queries to implement SQL concepts of DDL, DML, TCL, joins, procedures, functions, sub queries and views.

### REFERENCE:

1. Abraham Siberschatz, Henry F. Korth, S. Sudarshan, "Database System Concepts", McGraw Hill.
2. Ramez Elmasri, Shamkant B. Navathe, "Fundamentals of Database Systems", Pearson Education.

## XXIX - V B

**THEORY 60**

**PRACTICAL 40**

- Introduction – Installing Visual Basic, First Application, Toolbox, Property Editor, VB Forms, buttons, Events, Adding Code, Dealing with Errors, Project Explorer, Saving and Reopening Applications.
- Controls Explained – Controls and Methods, Using Buttons, Labels, Text Boxes, Picture Boxes, Check Boxes, Option Buttons, Frames, Lines and Shapes, Images, List Boxes, FlexGrids, Common Dialog Control, Combo Boxes, Timers, OLE Control, Setting Tab Order.
- Basics – Variables and Scope, Data Types, Using If...Then...Else, For...Next, Do...Loop, Case...Else, With...End With, MsgBox, InputBox, API, Printing.
- VB Tools – Menus, Toolbars, Code Editor, ActiveX Controls, Reference Manager, Project Templates.
- Databases – Introduction to Databases, Visual Data Manager, Designing Table, Adding Data, Adding Records, Deleting Records, Viewing Records, Searching Records, Showing Records in Grid, Copying Record to Clipboard.
- VB and Internet – Basics of Web Scripting.

### **PRACTICAL:**

- Creating forms to implement all the VB controls given in the syllabus above.
- Developing a Mini Project in any application area using VB.

### **REFERENCE:**

1. Greg Perry, Snajaya Hettihewa, "SAMS Teach Yourself Visual Basic 6 in 24 Hours", Pearson Education.
2. Tim Anderson, "Visual Basic 6 in Easy Steps", Dreamtech Press.
3. Steven Holzner, "Visual Basic 6 Programming Black Book", Dreamtech Press.

### **XXX – IT Elective I** **Software Engineering**

**THEORY 60**

**PRACTICAL 40**

- Introduction, Role and Nature of Software, Software Terminologies, Role of Management in Software Development.
- Software Life Cycle Models – Build and Fix Model, Water Fall Model, Prototyping Model, RAD Model, Spiral Model, Iterative Enhancement Model, The Unified Process, Selection of a Life Cycle Model.
- Analysis – Requirements Engineering, Types of Requirements, Feasibility Study, Requirements Elicitation, Requirements Analysis, Requirements Documentation, Requirements Validation, Requirements Validation, Requirements Management.
- Project Planning – Size Estimation, Cost Estimation, Models, COCOMO, Risk Management.
- Design – Importance, Objectives and Types of Design, Modularity, Design Strategies, IEEE Recommended Practice of Software Design, Object Oriented Design.
- Software Testing – Strategic Approach to Software Testing, Basic Terminologies, Functional Testing, Structural Testing, Levels of Testing, Validation Testing, Art of Debugging, Testing Tools.

**PRACTICAL:**

- Preparation of Design Specification of a particular Domain according to IEEE Recommended Practice for Software Design Descriptions.

**REFERENCE:**

1. Roger S. Pressman, "Software Engineering – A Practitioner's Approach", McGraw Hill Companies.  
K. K. Aggarwal, Yogesh Singh, "Software Engineering", New Age International Publications.

## Internet Programming

**THEORY 60**

**PRACTICAL 40**

- Introduction to Internet & WWW, Client Server Model, protocol, IP address, Domain Name, basics of HTML, DHTML, CSS and Content Management Systems.
- Scripting, types of Scripting & languages, JavaScript basics & elements, Data Types, variables, operators, conditional statements, looping statements, array, date, string, objects, functions and Input functions
- Document object model, document, image, browser objects, Forms and elements, Event handling, validations.
- Server Side scripting, client server responsibilities, JSP Architecture, JSP Servers, tags, request and response objects, Introduction to JDBC, SQL statements
- Java Servlets, Servlet Environment, role, JWS, Servlet life cycle, HTML to servlet communication.

### **PRACTICAL:**

- Web page designing using HTML, CSS, JavaScript and JSP.
- Installing and Executing Servlets.

### **REFERENCE:**

1. C. Xavier, "Web Technology & Design", New Age International Publishers.

## Advanced Networking

**THEORY 60**

**PRACTICAL 40**

- Introduction: Network Definition, Basic components of a network, network types and topologies, Uses of computer networks, network architecture. Transmission Media: Coaxial cable, twisted pair cable, fiber optics & satellites. OSI referable model, TCP/IP references model, comparison of OSI and TCP reference model.
- Introduction to Analog and Digital Transmission: Telephone system, Modems, Types of modems, pulse code modulation. Transmission & Switching: Multiplexing, circuit switching packet switching, hybrid switching, ISDN service transmission.
- Local Area Network Protocols: CSMA Protocols, BRAP, MLMA, IEEE standards 602, Token Bus, Token Ring, FDDI.
- Data Link Layer Design Issues: Services provided to Network layer framing, error control, flow control, link management. Error detection & correction, Elementary Datalink Protocols.
- Design Issues of Network Layer: Services provided to transport layer, routing, connection, internet & world wide web.
- Network Security and Privacy: Brief Introduction to Cryptography.
- Network Services: File transfer, Access & Management, Electronic Mail, Remote logic.

### **PRACTICAL:**

- Setting up a workgroup, domain, peer-to-peer network.
- Configuring & creating user logins, profiles, roles, and setting policies.
- Using FTP & E-mail software.

### **REFERENCE:**

1. Tannenbaum, A.S., "Computer Networks", Prentice Hall.
2. Stallings William, "Data and Computer Communications", Pearson Education.  
Stallings William, "Local and Metropolitan Area Networks", Pearson Education.

**DETAILED SYLLABUS**  
**FOR**  
**BCA-VI SEMESTER**

## XXXI - BUSINESS LAW III

**THEORY 60**

**SESSIONAL 40**

- Concept of Cyber Crime and the IT Act 2000, Hacking, Teenage Web Vandals, Cyber Fraud and Cyber Cheating, Virus on the Internet, Defamation, Harassment and E-mail Abuse, Cyber Pornography, Other IT Act Offences, Monetary Penalties, Adjudication and Appeals under IT Act 2000, Network Service Providers, Jurisdiction and Cyber Crimes, Nature of Cyber Criminality, Strategies to Tackle Cyber Crime and Trends, Criminal Justice in India and Implications on Cyber Crime.
- Contracts in the Infotech World, Contract Formation on Internet, Terms and Conditions on Contracts.
- Copyright – Meaning, Ownership and Assignment, Licence of Copyright, Copyright Protection of Content on the Internet.
- Digital Signatures, Digital Signature Certificate, Certifying Authorities and Liabilities.
- Protection of Cyber Consumers in India – Consumer Protection Act, Consumer Complaint, Defects in Goods and Services, Restrictive and Unfair Trade Practices, Instance of Unfair Trade Practices, Reliefs under CPA, Consumer Foras, Jurisdiction and Implications on Cyber Consumers in India.

### SESSIONAL:

- Two Tests of 10 Marks Each.
- Two Tutorials of 10 Marks Each.

### REFERENCE:

1. Vivek Sood, "Cyber Law Simplified", Tata McGraw Hill.
2. Suresh T. Vishwanathan, "The Indian Cyber Law", Bharat Law House.

**BCA-VI Semester  
XXXII - Business Elective II  
(Choose any One Elective)**

**E-1 Services Marketing**

**E-2 Hospitality Management**

**E-3 Export Management**



**XXXII - BCA V Semester : Business Elective II****E-1: SERVICES MARKETING****Theory Marks: 60****Sessional Marks: 40**

**Objective:** The course aims at making students understand concepts, philosophies, processes and techniques of managing the service operations of a firm

**Unit I**

Introduction: Difference between product and services marketing; Characteristics of services; Classification of services; Paradigms in services marketing Service marketing system: Service quality; Understanding customer expectations and zone of tolerance; Segmentation and zone of tolerance; Targeting and positioning of service

**Unit II**

Services marketing mix: Augmented marketing mix; Developing the service product/intangible product; Service product planning; Service pricing strategy; Services promotions; Services distributions

**Unit III**

Physical evidence: Role of communication in service marketing; People and internal communication; Process of operations and delivery of services; Role of technology in services marketing.

**Unit IV**

Marketing the Financial Services: Deciding the service Quality, Understanding the customer expectation, segmenting, targeting, and positioning of Financial Services, Devising Financial Services Marketing Mix Strategies with special reference to Credit Cards, Home Loans, Insurance and Banking.

**Suggesting Readings**

- 1) Lovelock- Services Marketing: People, Technology and Strategy (Pearson Education, 5th edition) 2001.
- 2) Rampal and Gupta –Services Marketing –Sultan Chand
- 3) Bhattacharjee-Services Marketing –Excel publishers
- 3) Zeithaml- Services Marketing (Tata McGraw-Hill, 3rd edition) 1999.
- 4) Rama Mohana Raok - Services Marketing (Pearson Education)
- 6) Govind Apte- Services Marketing (Oxford Univ. Press)

**Sessional Work: Marks 40**

	<b>Marks</b>
1. Attendance	10
2. Two Class Test of 5 Marks each	10
3. Tutorials /Assignment	10
4. Seminar on any Topic	05
5. Group Discussion on any Topic	05

## XXXII - BCA V Semester : Business Elective II

**E-2: HOSPITALITY MANAGEMENT****Theory Marks: 60****Sessional Marks: 40****Objective:** To explain Business Management of Tourism sector.**Unit I**

The World of Hospitality: Introduction to Hotel, Travel and tourism Industry -Nature of Hospitality: Communication, Turnover, Demands and Rewards

**Unit II**

The Organization and Structure of Lodging Operations: Size and Scope of the Industry - Classifications of Hotels - Hotel Market Segments - Organization of Hotels -Organization of Hotel and Restaurant Food Service - Management and Operation of Food Services

**Unit III**

The Rooms Division: The Front Office Department - The Reservation Department -The Telecommunications Department - The Uniformed Service Department

**Unit IV**

Hospitality Marketing: Distinctive characteristics - Seven Ps of Marketing -Segmentation, Targeting and Positioning - Future trends in Hospitality Industry: Usage of CRS in Hotel Industry, Chain of hotels- Role of Associations in hospitality management

**REFERENCE:**

1. Gray and Ligouri: Hotel and Motel Management and operations (Delhi: Prentice Hall India) 2002
2. Andrews: Hotel front office training manual Bombay: Tata McGraw Hill, 2002.
3. Negi: Hotels for Tourism Development Delhi: Metropolitan India, 2004.
4. Negi: Professional Hotel Management Delhi: S.Chand 2003

**Sessional Work: Marks 40****Marks**

- |                                   |    |
|-----------------------------------|----|
| 1. Attendance                     | 10 |
| 2. Two Class Test of 5 Marks each | 10 |
| 3. Tutorials /Assignment          | 10 |
| 4. Seminar on any Topic           | 05 |
| 5. Group Discussion on any Topic  | 05 |

**XXXII - BCA V Semester : Business Elective II****E-3: EXPORT MANAGEMENT****Theory Marks: 60****Sessional Marks: 40**

**Objective:** This subject presents the obstacles, strategies to globalization and the hurdles in exporting in the organization. This subject enables the students to learn the globalization and exports concepts with respect to Indian Economy.

**UNIT – I**

India's merchandise trade – review of the trade performance – comparative export performance of India – Share of India in World Exports -Hurdles in Exporting from India – Major Problems – lack of integrated approach – technological factors – Supply Problems – Infrastructural bottlenecks – structural weakness.

**UNIT II**

Exports from India – Preliminary for starting export – Kind of Export Business organization – Factors – Mode of operations – Naming the business – Selecting the company – Profile of the company –Details

**UNIT III**

Selecting export markets – selecting prospective buyers – Selecting channels of distribution – Negotiating with prospective buyers – Processing an export order – Entering into export contract – Different aspects of export contract – Arbitration.

**UNIT IV**

Incentives: Incentives – as tool for promotion of exports – Duty exemption – Duty drawback – bonafide of MODVAT – awards – CCS – Import Replenishment (REP) licenses – IPRS – Other incentives- Promotion Measures & assistance for export of Garments – Software – Leather – Handloom – Marine product exports.

**UNIT V**

Export Assistance: Assistance to exporters – Importance – Production assistance – EPZs – EOUs – Software – Technology parks – EHTPs – SEZ – AEZ – Marketing Assistance.

**UNIT VI**

Special Economic Zones: SEZ – Objectives – Advantages to exporters – Incentives – Evaluation – Foreign Trade, Policy and SEZs – Current issues – Future of SEZs.

**Suggested Readings:**

1. Export Management – Cherunilam Francis – Prentice Hall
2. Foreign Exchange & Risk Management – Dr. Jeevanandam . Sultan Chand.
4. Indian Economy: Performance and Policies – Uma kapila
5. Exporter's Manuel – Nabhi publications

**Sessional Work: Marks 40****Marks**

- |                                   |    |
|-----------------------------------|----|
| 1. Attendance                     | 10 |
| 2. Two Class Test of 5 Marks each | 10 |
| 3. Tutorials /Assignment          | 10 |
| 4. Seminar on any Topic           | 05 |
| 5. Group Discussion on any Topic  | 05 |

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## **XXXIII - ELEMENTS OF COMMERCIAL PORTALS**

**THEORY 60**

**SESSIONAL 40**

- Internet Technology, Packet switched networks, TCP/IP Internet protocols, Domain Names, URL, HTTP, FTP, POP, SMTP, IMAP, Ping.
- Markup languages and Web, Introduction of SGML, HTML & XML, links, HTML Editor, Web Client/ Server Architecture and Communication, Internet, intranet, extranet, VPN, ISP, IAP.
- Web Server, Web Server hosting performance evaluation, Web Server Software features, Site Management, Site Development.
- Web Server Software, Apache HTTP Server, IIS, Netscape Enterprise Server, Web Server tools, Web Portals, Search Engine, Intelligent agent, Push technologies.

### **SESSIONAL:**

- Two Tests of 10 Marks Each.
- Two Tutorials of 10 Marks Each.

### **REFERENCE:**

1. Gary P. Schneider & James Perry "Electronic Commerce, Thomas Course Technology
2. Ravi Kalakota & Marcia Robinson "E- Business" Pearson Education,

## XXXIV - SYSTEM PROGRAMMING

**THEORY 60**

**SESSIONAL 40**

- Evolution and Components of System Programming, Assembler, Loaders, Compilers, Macros, Interpreters, Linkers.
- Machine Structure, Machine language & Assembly language.
- Assembler: Functions of assembler, general design procedure, design of assembler, Table processing searching and sorting techniques.
- Loader: Loader schemes, Compiler & Go Loader, General Loader Scheme, Absolute loaders, subroutine linkages, relocating loaders, Direct linking loaders.
- Macros: Macro language & processors feature of macro facility, macro instruction, arguments.
- Programming languages: Importance of High Level Language, Features, Data Types and data structure, Storage allocation, accessing flexibility, Functional modularity.

### SESSIONAL WORK:

1. Two Tests of 10 Marks Each.
2. One Tutorial of 10 Marks.
3. One Case Study of 10 Marks.

### REFERENCE:

1. John N. Donovan "System Programming" Tata McGraw Hill.
2. D. M. Damdhere "System Programming & Operating System" Tata McGraw Hill.