

NORTH MAHARASHTRA UNIVERSITY, JALGAON

BACHELOR IN COMPUTER APPLICATION

STRUCTURE (W.E.F. June 2008)

Course Name	:	Bachelor in Computer Application
Faculty to which assigned	:	Commerce and Management
Duration	:	3 years full time
Pattern	:	Semester
Examination Pattern	:	80 (External) + 20 (Internal)
Eligibility	:	Higher Secondary Examination in the Faculty of Science OR Commerce OR Diploma recognised by Board of Technical Education with minimum duration of 3 years
Medium of Instruction	:	English

Objectives

- To enable students for pursuing respectable career through Self-Employment, Executive Employment, Entrepreneurship, Professional Career in the field of service sectors such as e-Banking, Marketing, Investment, Insurance hospitality and other avenues.
- To develop inter-twining competence in the field of Commerce and Management, Computing Skill and Computational tools.
- To develop abilities for data analysis and interpretation.
- To develop the basic programming skills to enable students to build utility programmes.
- To develop the foundation for higher studies in the field of Computer Application.

Semester - I

BCA - 11	Financial Accounting and Cost Control-I
BCA - 12	Communicative English
BCA - 13	Mathematical Techniques
BCA - 14	Fundamentals of Computer and Internet
BCA - 15	Practicals on Communicative English
BCA - 16	Practicals on Computer Fundamentals and Internet
BCA - 17	Practicals on Office Automation

Semester - II

BCA - 21	Financial Accounting and Cost Control - II
BCA - 22	Statistical Techniques
BCA - 23	Computer Networks and Web Design
BCA - 24	Introduction to Programming using C++
BCA - 25	Practicals on Tally
BCA - 26	Practicals on Web Design
BCA - 27	Practicals on C++

Semester - III

BCA - 31	Fundamentals of Management and Micro-Economics
BCA - 32	Information System Audit (ISA) & Numerical Methods
BCA - 33	Introductions to DBMS
BCA - 34	Object Oriented programming using C++
BCA - 35	Practicals on ISA and Numerical Methods
BCA - 36	Practicals on DBMS using SQL Server
BCA - 37	Practicals on C++

Semester - IV

BCA - 41	Management Techniques and Macro Economics
BCA - 42	System Analyses and Design and Introduction to R
BCA - 43	Linux Operating System
BCA - 44	Data Structure
BCA - 45	Practicals on Core Banking (E-Banking) and R
BCA - 46	Practicals on Data Structure
BCA - 47	Practicals on Linux Operating System

Semester - V

BCA - 51	Case Studies in Management and Managerial Decision
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	Making
BCA - 52	Direct Tax Laws and Business Law
BCA - 53	Computer Animation using Flash and Statistical Quality Control
BCA - 54	VB.NET
BCA - 55	Practicals on Tax Base Software
BCA - 56	Practicals on Computer Animation and SQC using R
BCA - 57	Practicals on VB.NET

Semester - VI

BCA - 61	Stock and Commodity Markets
BCA - 62	Introductions to ERP and SAP
BCA - 63	Java Programming
BCA - 64	Designs of Experiments and Competitive Skills
BCA - 65	Practicals on Transactions related to Commodity and Stocks and Design of Experiments
BCA - 66	Practicals on Java Programming
BCA - 67	Project Work

Note -

Theory	-	3 Lecturers per paper per week
Practicals	-	1 practical of 3 Hrs. per paper per week
Internal Assignment- Passing	-	2 tests, 2 assignments, 2 presentations per paper Individual head of passing 35% and Aggregate 40%
ATKT	-	4 papers
On Job Training	-	Student has to undergo minimum 45 days of On Job Training as work experience and the report of which shall be access as a part of Internal Assessment of Project Work in Course No. BCA - 67.
Teacher's Eligibility-		M.C.A., M.Sc. (Comp. Science / Information Tech.) M.B.M.(Computer Management)/ M.C.M. B.E. (Computer Engg. / Information Tech.) M.Com.

F Y B C A

SEMESTER – I

COURSE CODE NO

TITLE OF THE COURSE – FINANCIAL ACCOUNTING & COST MANAGEMENT

Level of Knowledge : Elementary Working Knowledge.

Objectives :

- (a) To lay a theoretical foundation for understanding the accounts of corporate entities, and for preparing the related accounts or statements.
- (b) To lay a foundation for the understanding the Accounting Standards issued by the Institute of Chartered Accountants of India.
- (c) To introduce the concepts used in Cost Accounting and Cost Management
- (d) To lay a foundation for understanding the relevance of different types of cost on decision making.
- (e) To develop an understanding of the concepts of Account Groups & Ledgers in computerized accounting environment, and also of Vouchers and their recording in the proper books of account in the computerized accounting environment.

NORTH MAHARASHTRA UNIVERSITY, JALGAON

Faculty of Commerce and Management

Syllabus for F.Y.B.C.A. (W.E.F.: June 2008)

Semester – I

**Subject: BCA – 11 Financial Accounting And Cost
Management**

Total lecture: 48

[Total Marks: 80 External + 20 Internal = 100 Marks]

COURSE CONTENTS -

SECTION - I - FINANCIAL ACCOUNTING - 40 Marks

SECTION - II - COST MANAGEMENT - 30 Marks

SECTION – III – TALLY ACCOUNTING PACKAGE - 30 Marks

[Tally Version 9.2 or such other amended version as may be notified by the University from time to time by circular to that effect]

DETAILED SYLLABUS

FINANCIAL ACCOUNTING – I (WITH TALLY 9.0)

SECTION - I - FINANCIAL ACCOUNTING - 40 Marks

Unit I

[8L]

1. Accounting standards – Introduction, Objectives , Advantages, and Applicability of Accounting Standards
Elementary Study of –
AS-1- Disclosure of Accounting Policies,
AS-2 – Valuation of Inventories
AS-6 - Depreciation Accounting
AS-10 – Accounting for Fixed Assets

Unit II

[12L]

2. Preparation and presentation of final accounts of joint stock companies as per company law requirements; provisions and reserves; determination of managerial remuneration; appropriation out of profits; transfer of profits to reserves; payment of dividend, transfer of unpaid dividend to Investor Education and Protection Fund. – Elementary study

SECTION - II - COST MANAGEMENT - 30 Marks

Unit III

[14L]

3. Introduction to Cost, Expense, Loss, Costing, Cost Accounting – Cost Unit, Cost Centre, Elements of Costs, Classification of Costs on the

basis of various criteria viz., Element, Behaviour, Normality, Controllability, Nature, Functional

4. Marginal costing and break-even analysis - marginal costing distinguished from absorption costing; application of marginal costing; contribution concept and decision making; cost-volume-profit relationship; break-even analysis, preparation of break-even charts, profit – volume graph; practical application of profit volume ratio.

SECTION – III – TALLY ACCOUNTING PACKAGE - 30 Marks

Unit IV

[14L]

5. INTRODUCTION TO TALLY

Features of Tally Software (Version 9.2)

Starting Tally - Gateway of Tally and Exit from Tally

Company creation in Tally, Saving the company profile, Alteration / deletion of company, Selection of company

Account Groups and Ledgers

Hierarchy of Account Groups and Ledgers, Reserved account Groups,

Account groups of Balance Sheet - Account Groups of Liabilities, Account Groups of Assets

Account groups of Profit & Loss account - Account groups of Direct Income and Direct Expenses apart from Sale and Purchases, Indirect Income and Indirect Expenses

Account Masters - Account Groups Creation and Account Ledgers Creation

Feeding of Opening Balances

Alteration / Deletion of Account Master Records

Feeding of Closing Stock Value

NORTH MAHARASHTRA UNIVERSITY, JALGAON

Faculty of Commerce and Management

Syllabus for F.Y.B.C.A. (W.E.F.: June 2008)

Semester – I

Subject: BCA – 12 Communicative English

Total Lect - 48

[Total Marks: 80 External + 20 Internal = 100 Marks]

A) Writing Skills for Business

- 1) Writing an outline
- 2) Paragraph development
- 3) Art of condensation-precis writing and summarizing
- 4) Preparing Reports and Proposals
- 5) Letters, memos, e-mails
- 6) Instructions
- 7) Advertisements
- 8) Resumes and CV's

B) Conversation Skills

- 1) Essentials of a Business conversation
 - 2) Etiquettes
 - 3) Product Instructions
 - 4) Interview Techniques
 - 5) Conducting Meetings
 - 6) Group Discussions and Presentations
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The Question Paper format will be provided later.

LIST OF REFERENCE BOOKS

- 1) Resumes for Professionals – Brown Marshall
- 2) Resume Writing – Saradam
- 3) Spoken English – A Hands on guide to English Conversation
Practice – Sreevalsan
- 4) A Grammar of the English Language – Willian Corbett
- 5) Pocket Book of Basic English Usage – Michael Swan
- 6) Longman Dictionary of Common Errors – H.D. Turton
- 7) Successful Resumes – Nickart Janet
- 8) Effective Writing – Turk Christopher
- 9) Better English Pronunciation – J. D.O’Connor
- 10) Achieving Success in Second Language Acquisition – Betty Lou
Leaver
- 11) A Foundation Course in Spoken English Part I and II –
Sadanand Kamlesh
- 12) Effective Speaking – Turk Christopher
- 13) Perfect Written English – Chris West
- 14) A Course in Communication Skills – Dult P. Kiranmal
- 15) Academic Writing – A Handbook for International Students –
Stephen Bailey
- 16) Fowler’s Modern English Usage – Robert Allen
- 17) Exercises in Contemporary English – John
- 18) A Textbook of English Phonetics for Indian Students – T.
Balasubramaniam.
- 19) Communicating in English – Isabel Mephedran
- 20) An Introduction to the Pronunciation in English – A.C. Gimson
- 21) Business Communication- Minakshi Raman and Prakash Singh
- 22) Technical Communication – Minakshi Raman and Sangeeta
Sharma

NORTH MAHARASHTRA UNIVERSITY, JALGAON

Faculty of Commerce and Management

Syllabus for F.Y.B.C.A. (W.E.F.: June 2008)

Semester – I

Subject: BCA – 13 Mathematical Techniques

Total lecture: 48

[**Total Marks:** 80 External + 20 Internal = 100 Marks]

OBJECTIVES

1. To give students a working knowledge of modern mathematical concepts and techniques with particular attention to applications from real life situations.
2. To train students in fairly wide range of Applied Mathematical techniques so that they are prepared to apply the knowledge in the data analysis of commercial problems.
3. To enable students to understand the uses and limitations of Mathematics and to handle simpler mathematical problems.

Unit – 1 Number System

[3 Lect.]

Introduction to natural numbers, integers, rational and irrational numbers, real number. Statement of properties of these numbers with respect to addition, subtraction, multiplication and division. Prime numbers, relative prime numbers, even and odd numbers. Statement of theory of indices. Highest common factor and lowest common multiple of numbers.

Unit – 2 Permutation and Combination

[4 Lect.]

Meaning of factorial of number. Fundamental principle of counting. Meaning of permutation and combination. Statement of formula for determining number of permutations of n different objects when r objects are taken at a time. Statement of formula for determining number of combinations of n different objects when r objects are taken at a time. Simple numerical Problems.

Unit – 3 Mathematical Logic

[3 Lect.]

Meaning of statement, truth values of a statement, law of excluded middle, elementary and compound statements. Logical operations:- negation, conjunction, disjunction, implication and double implication.

Meaning of truth table. Construction of truth table. Meaning of tautology and contradiction. Simple problems.

Unit – 4 Coordinate System

[3 Lect.]

Introduction to coordinate system, coordinate of a point, quadrants plotting the points, slope of straight line passing through two given points, drawing a straight line passing through two given points.

Meaning of intercepts of a straight line. Simple Numerical problems.

Unit – 5 Sets

[5 Lect.]

Meaning of a Set, methods of describing a set: - tabular form and set builder form.

Types of a Set: - Finite set, infinite set, empty set, subset, universal set, equal sets, overlapping sets, disjoint sets, complementary set.

Operations on sets: - union of sets, intersection of sets, difference of sets, De Morgan's laws (without proof).

Statement of following basic results relating to number of elements of a finite set

1. $n(A \cup B) = n(A) + n(B) - n(A \cap B)$
2. $n(A \cap B') = n(A) - n(A \cap B)$
3. $n(A' \cap B) = n(B) - n(A \cap B)$
4. $n(A') = n(U) - n(A)$
5. $n(A' \cap B') = n(U) - n(A \cup B)$
6. $n(A' \cup B') = n(U) - n(A \cap B)$
7. $n(A - B) = n(A) - n(A \cap B)$
8. $n(A \cup B \cup C) = n(A) + n(B) + n(C) - n(A \cap B) - n(B \cap C) - n(A \cap C) + n(A \cap B \cap C)$

Venn diagrams: Use of Venn diagrams in mathematical logics.

Unit – 6 Function

[4 Lect.]

Meaning of a function, methods of describing a function, meaning of domain, co-domain, image, range of a function.

Types of a Function: - One-one function, onto function, many one function, constant function, identity function, polynomial function, linear function, rational function, exponential function, logarithmic function, explicit and implicit functions, even function, odd function, composite function,

Simple numerical problems illustrating commercial applications.

Unit – 7 Limit of a Function

[4 Lect.]

Meaning of limit of a function, left hand and right hand limits.

Basic theorems of limits (with out proof)

1. $\lim(f(x) + g(x)) = \lim f(x) + \lim g(x)$
2. $\lim(f(x) - g(x)) = \lim f(x) - \lim g(x)$
3. $\lim(f(x)g(x)) = \lim f(x)\lim g(x)$
4. $\lim(f(x) / g(x)) = \lim f(x) / \lim g(x)$ if $\lim g(x) \neq 0$
5. $\lim(k) = k$, where k is constant
6. $\lim(kf(x)) = k \lim f(x)$, where k is constant

Evaluation of limits of algebraic functions using (i) direct method, (ii) factorization method, (iii) simplification method, (iv) rationalization method (v) formula method (without proof)

Trigonometric functions are not expected.

Unit – 8 Differentiation

[6 Lect.]

Definition of derivative of a function in one variable, statement of the derivatives of the following functions: -

- (i) x^n (ii) $(ax + b)^n$ (iii) k , where k is a constant (iv) a^x (v) e^x
(vi) $\log(x)$ (vii) $\log_a(x)$

Basic theorems of differentiation on summation, difference, product and quotient, differentiate of composite function, differentiation of implicit and parametric functions, second order differentiation.

Problems on the evaluation of derivatives of given functions.

Unit – 9 Integration

[4 Lect.]

Definition of integration of a function. Infinite & definite integration.

Statement of result of integration for the following functions: -

- (i) x^n (ii) $(ax + b)^n$ (iii) $1/(ax + b)$ (iv) $1/\sqrt{ax + b}$ (v) a^x (vi) e^x

Statement of the following rules of integration: -

1. $[f(x) + g(x)] dx = \int f(x) dx + \int g(x) dx$
2. $[f(x) - g(x)] dx = \int f(x) dx - \int g(x) dx$
3. $\int kf(x) dx = k \int f(x) dx$
4. $\int f'(x)/f(x) dx = \log |f(x)| + C$
5. Rule for product of two functions

Evaluation of indefinite and definite integrals. Trigonometric functions are not expected.

Unit – 10 Matrices and Determinants

[10 Lect.]

Meaning of matrix, order of matrix, types of matrix: -zero matrix, column matrix, square matrix, diagonal matrix, scalar matrix, unit matrix, symmetric matrix, skew-symmetric matrix, transpose of a matrix, singular matrix, non singular matrix, trace of matrix, orthogonal matrix.

Algebra of matrices: -

Equality of matrices, multiplication of matrix by a scalar, addition of matrices, subtraction of matrices, multiplication of matrices.

Meaning of a vector, equality of two vectors, magnitude of vector, addition of two vectors, difference of two vectors, scalar multiplication of two vectors, negative of a vector, zero vector, unit vector, inequalities between two vectors, distance between two vectors, linear combination of vectors.

Introduction to Eigen values and eigenvectors, determination of Eigenvalues.

Introduction to quadratic form, types of quadratic form: -positive definite, positive semi-definite, negative definite, negative semi-definite.

Meaning of determinant, evaluation of second and third order determinants, minor, cofactor of element, adjoint of matrix.

Meaning of Inverse of a matrix, matrix inversion by adjoint method, Cramer's rule to solve system of linear equations in two and three variables.

NOTE: Figures within parenthesis on the right hand side indicate expected lectures for corresponding topics.

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Reference Books:-

- 1) Business Mathematics
By: Linda L. Thompson, Ross E. Lowe
- 2) Business Mathematics
By: Suchitra S.
- 3) Business Mathematics
By: D.C. Sancheti, V.K.Kapoor
- 4) Mathematics and Statistics for Management
By: Mittal, Sathyaprasad, Pradeep Rao.
- 5) Mathematics and Statistics for Economics
By: G.S.Monga
- 6) A text book of Business Mathematics
By: Mohd. Shadab Khan.
- 7) Mathematics and Statistics
By: Suranjan Saha

NORTH MAHARASHTRA UNIVERSITY, JALGAON

Faculty of Commerce and Management

Syllabus for **F.Y.B.C.A. (W.E.F.: June 2008)**

Semester – I

Subject: **BCA – 14 Fundamentals of Computer and Internet**

Total lecture: 48

[Total Marks: 80 External + 20 Internal = 100 Marks]

A] Fundamentals of Computer

1. Introduction [8L]

1.1 History & generation of computer

1.2 Block diagram of computer system

1.3 Types of computers

1.4 Definition-Software, Hardware, Compiler, Interpreter

1.5 Characteristics

1.6 Applications

2. Data Representation [2L]

2.1 Number system: decimal, binary, octal and hexa decimal

2.2 Representation of integers, fixed and floating points

2.3 Character representation: ASCII, EBCDIC

3. Memory Concepts [5L]

3.1 Concepts of Memory cell

3.2 Types of memory

3.2.1 Primary- RAM, ROM, PROM, EPROM

3.2.2 Secondary - Magnetic disk, hard disk, CD-R/W memory, Pen drive

4. Input Output Devices [5L]

4.1 Input devices - keyboard, mouse, scanner, web camera

4.2 Output device - printers, plotters, LCD projector

5. Algorithm & flowcharts [5L]

5.1 Definition - Algorithm, flowchart

5.2 Flowchart symbols

5.3 Examples for constructing algorithm and flowchart for simple programs (Minimum 5)

6. Operating System Concepts [5L]

6.1 Definition, need and function of an operating system

6.2 Types of operating system

6.3 Comparative study of various operating systems

B] Internet

[18L]

1.1 Introduction to Internet

1.2 Working of Internet

1.3 Applications of Internet

1.4 Study of Web Browsers

1.5 Search Engines

1.6 E-mail account - Creation, sending and receiving E-mails with attachments

1.7 Messenger Services, News Groups

References

Fundamentals of computer - V. Raja Raman (PHI Publication)

Computer and commonsense - Roger Hunt and John Shelley (PHI Publication)

Internet in easy steps - Dream tech Press

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NORTH MAHARASHTRA UNIVERSITY, JALGAON

Faculty of Commerce and Management

Syllabus for F.Y.B.C.A. (W.E.F.: June 2008)

Semester – I

Subject: BCA – 15 Practicals on Communicative English
[Total Marks: **80 External + 20 Internal = 100 Marks**]

It is expected that the concerned teacher is to conduct 01 practical of 03 hrs duration every week. Through out the semester, total 12 practicals are to be conducted. A practical journal is to be maintained by the students for 50 marks. And the remaining 50 marks there will be a practical / oral examination will be conducted at the end of the semester. The subject teacher will function as the Internal Examiner and the External Examiner will be appointed by the University. A list of specimen practicals is attached. However, creativity in carrying out these practicals on the part of the teacher will be appreciated.

List of Specimen Practical: -

[The Teacher has the liberty to use his creative abilities in visualizing the situations and carrying out the practicals.]

- 1) Practical on Interview Techniques.
- 2) Practical on Business Conversations.
- 3) Practical on Marketing Communication.
- 4) Practical on Direct and Indirect Selling.
- 5) Practical on Negotiation Skills.
- 6) Practical on Participatory Skills in meetings.
- 7) Practical on Participatory Skills in Conferences.
- 8) Practical on Group Discussion Techniques.
- 9) Practical on Advertising Skills.
- 10) Practical on Verbal Communication Skills.
- 11) Practical on Non – Verbal Communication Skills.
- 12) Practical on Common Errors in English.
- 13) Practical on Etiquettes in Communication.
- 14) Practical on Letters / Memos / e-mails.
- 15) Practical on writing Resumes & CV's.

[Practical may be carried as a group activity. Each group is to have 6 – 12 members. No work load will be counted Batch wise.]

NORTH MAHARASHTRA UNIVERSITY, JALGAON

Faculty of Commerce and Management

Syllabus for F.Y.B.C.A. (W.E.F.: June 2008)

Semester – I

Subject: BCA – 16 Practicals on Computer Fundamentals and Internet

[Total Marks: 80 External + 20 Internal = 100 Marks]

A] Computer Fundamentals

1. Booting of a computer and study of anatomy of a computer.
2. Study of Windows XX Desktop - my computer, recycle bin, network places, task bar
3. Study of start button - programs, documents, settings, search, run, shutdown
4. Various operations on folder - Creation, deletion, rename, copy, move
5. Study of dos commands - Internal and External commands

B] Internet

1. Study of Internet connectivity components -
Types of Internet connection (Dial-up, Lease line, VSAT, Broadband),
Modem, IP Sharer, Hub, Switch.
2. Study of Browsers- Internet Explorer, Fire fox, Netscape navigator, WWW,
URL, Surfing, Downloading of files,
3. E-mail - Creating an e-mail account, sending and receiving e-mails, study of
various options available on screen of e-mail account.
4. Chatting - Study of messenger services (Online messaging, Sending SMS)
5. Study of various search engines and searching information on Internet

NORTH MAHARASHTRA UNIVERSITY, JALGAON

Faculty of Commerce and Management

Syllabus for F.Y.B.C.A. (W.E.F.: June 2008)

Semester – I

Subject: BCA - 17 Practicals on Office Automation

[Total Marks: 80 External + 20 Internal = 100 Marks]

1. Practical based on Ms-Word (at least 3 practical)
2. Practical based on Ms-Excel (at least 4 practical)
3. Practical based on Power point (at least 3 practical)

Note: - Lab in charge should cover all options/features available in above application software

NORTH MAHARASHTRA UNIVERSITY, JALGAON

Faculty of Commerce and Management

Syllabus for F.Y.B.C.A. (W.E.F.: June 2008)

Semester – II Subject: **BCA – 21 Financial Accounting And Cost Management**

Total lecture: 48 [Total Marks: 80 External + 20 Internal = 100 Marks]

COURSE CONTENTS -

SECTION - I - FINANCIAL ACCOUNTING - 40 Marks

SECTION - II - COST MANAGEMENT - 30 Marks

SECTION – III – TALLY ACCOUNTING PACKAGE - 30 Marks

[Tally Version 9.2 or such other amended version as may be notified by the University from time to time by circular to that effect]

DETAILED SYLLABUS

SECTION - I - FINANCIAL ACCOUNTING - 40 Marks

Unit V

[18L]

1. Analysis and interpretation of financial statements - nature, objectives; latest trends in presenting financial data; importance and limitations; types and tools of financial statement analysis; accounting ratios - classification, advantages and limitations; inter-firm comparisons. [Simple problems]

SECTION - II - COST MANAGEMENT - 30 Marks

Unit VI

[16L]

2. Budgetary control – Budget, Budgeting, Budgetary Control, advantages and limitations; preparation of various types of budgets – Fixed Budget, Flexible budget, Cash Budget, Production and Purchase budget [Simple problems]
3. Standard costing and variance analysis – Standard Cost, Standard costing, Standard costing as distinguished from budgetary control; types of standards, determination of standards, variance analysis – Computation of Material variances, and Labour Variances only [Simple problems]

SECTION - III - TALLY ACCOUNTING PACKAGE - 30 Marks

Unit VII

[7L]

VOUCHER ENTRY

Types of vouchers in Tally - Contra, Receipts, Payments and Journal
Entering Account Voucher - Sales, Purchases, Debit Note, Credit
Note, Incomes, Expenses, Voucher Modification, Saving the Voucher
Voucher alteration, deletion and cancellation, Single Mode voucher
entries, Account Voucher Printing - Online Voucher Printing, Multi-
voucher printing

Displaying voucher list, Day book, Ledger

Extracting Daybook Summaries

UNIT VIII

[7L]

TRIAL BALANCE AND FINAL ACCOUNTS

Extracting detailed Trial Balance, Exploded Trial Balance and Ledger-
wise Trial Balance

Extracting Balance Sheet - Primary Balance Sheet , Detailed Balance
Sheet

Closing Stock Value Entry through Balance Sheet

Extracting Profit and Loss Account - Detailed form and Vertical Form,
Extracting Income and Expenditure Statements for Non-Trading Units

Books on Financial Accounting -

1. Advanced Accounting Volume 2 – Ashok Sehgal and Deepak Sehgal, Taxmann Allied Services (P) Ltd., New Delhi
2. Advanced Accountancy – Vol. II , R. L. Gupta & M. Radhaswamy, Sultan Chand & Sons
3. Advanced Accountancy Volume –II P. C. Tulsian , Peareson Education (Singapore) Pvt. Ltd, Indian Branch, New Delhi
4. Advanced Accounts, M.C. Shukla, T. S. Grewal & S.C. Gupta, S. Chand & Co Ltd.
5. Advanced Accountancy Vol.-I, Vol-2, Dr. S.N. Maheshwari & Dr. S.K. Maheshwari, Vikash Publishing House Pvt. Ltd.
6. Advanced Accountancy, S.P. Jain & K.L. Narang, Kalyani Publishers

Books on Cost Accounting -

1. Fundamentals of Cost Accounting, Dr. S.N. Maheshwari, Sultan Chand & Sons
2. Saxena and Vaishish : Advanced Cost Accounting.
3. Maheshwari and Mittal : Cost Accounting.
4. Jain and Narang : Advanced cost Accounting.
5. Nigam and Sharma : Cost Accounting.
6. N. Sarkar Cost Accounting.
7. B. K Bhar :Cost Accounting.
8. N. K. Prasad : Advanced Cost Accounting.
9. Cost Accounting for C.A. , Dr. N. K. Agrawal, Suchitra Prakashan Pvt. Ltd
10. Cost Accounting (Problem and Theory), S. N. Maheshwari, Mahavir Publication
11. Cost Accounting (Methods & Problems), B. K. Bhar, Academic Publisher, Calcutta
12. Principles and Practices of Cost Accounting, Ashish K. Bhattacharya, A.H. Wheeler Publisher

Books on Tally Accounting package -

1. Implementing Tally 9: Comprehensive Guide For Tally 9 & 8.1 - A. K. Nadhani, K. K. Nadhani, BPB Publishers, New Delhi.
2. Simple Tally 9 - A. K. Nadhani, K. K. Nadhani, BPB Publishers, New Delhi.
3. Practical Approach towards Tally 8.1 and 9.0, S. H. Sharma, Siddhant Prakashan, Aurangabad
4. Tally 9.2 Comdex Publisher

Note:

- Answers shall be written in English only.
- Every question shall carry 16 marks.
- There shall be only one Question paper for the Subject carrying 80 marks
- Out of total 80 marks,
 - 32 marks shall be for Questions based on Financial Accounting, and
 - 24 marks shall be for Questions based on Cost Management
 - 24 marks shall be for questions based on Tally Accounting Package.

Suggested Pattern of Question paper for each Semester of F Y B C A

- Question No 1 shall be based on practical problems on Accounting. There shall not be any internal option for this question. It shall be a compulsory one.
- Question No 2 shall be subdivided into two sub-questions. Sub-question (a) carrying 8 marks shall be on practical problem on Accounting and sub-question (b) carrying 8 marks shall be on theory of Accounting. There shall be an internal option for this question, which shall be set exactly on the similar line.
- Question No 3 shall be based on practical problems on Cost Management. There shall be an internal option for this question.
- Question No 4 shall be subdivided into two sub-questions. Sub-question (a) carrying 8 marks shall be on practical problem on theory of Cost Management, and sub-question (b) carrying 8 marks shall be on theory of Tally Accounting Package. There shall be an internal option for this question, which shall be set exactly on the similar line.
- Question No 5 shall be based on Tally Accounting Package theory. There shall be an internal option for this question.

Question 1	Practical problem on Accounting	16
Question 2	(a) practical problem on Accounting and (b) theory of Accounting.	8 8
	or	
	(a) practical problem on Accounting and (b) theory of Accounting.	8 8
Question 3	Practical problem on Cost Management Or Practical problem on Cost Management	16 16
Question 4	a. theory of Cost Management and b. theory of Tally Accounting Package	8 8
	or	
	a. theory of Cost Management and b. theory of Tally Accounting Package	8 8
Question 5	Tally Accounting Package theory. Or Tally Accounting Package theory.	16 16

NORTH MAHARASHTRA UNIVERSITY, JALGAON

Faculty of Commerce and Management

Syllabus for F.Y.B.C.A. (W.E.F.: June 2008)

Semester – II

Subject: BCA – 22 Statistical Techniques

Total lecture: 48

[**Total Marks:** 80 External + 20 Internal = 100 Marks]

OBJECTIVES

1. To give student a working knowledge of Statistical Concepts and techniques with particular attention to applications from real life situations.
2. To provide student Computer Oriented Statistical Methods.
3. To enable students to understand the uses and limitations of Statistics in data analysis.

Unit – 1 Introduction to Statistics.

[2 Lect.]

Meaning of Statistics, Importance and Limitations of statistics, meaning of data, raw data, primary data, secondary data, variable and attribute.

Types of variable: - districts and continuous. Meaning of Population and sample.

Introduction to methods of sampling: - simple random sampling and stratified random sampling.

Unit – 2 Measures of central tendency

[3 Lect.]

Meaning and central tendency. Statement of measures of central tendency: - arithmetic mean, geometric mean, harmonic mean, median and mode. Computation of these measures of central tendency for given raw data. Partition values: - quartiles, deciles and percentiles. Computation of

partition values for given raw data. Numerical examples and problems from real life situations.

Unit – 3 Measures of dispersion

[3 Lect.]

Meaning of dispersion. Meaning of absolute and relative measures of dispersion. Statement of absolute and relative measures of dispersion: - range, coefficient of range, quartile deviation, coefficient of quartile deviation, mean deviation from an average, coefficient of mean deviation, standard deviation, variance, coefficient of variance. Computation of measures of dispersion for given raw data. Numerical examples and problems from real life situation.

Unit – 4 Measures of skewness

[4 Lect.]

Meaning of skewness. Positive and negative skewness. Statement of Bowley's and Karl Pearson's formulae to measure skewness. Computation measures of skewness for given raw data.

Numerical examples and problems from real life situations.

Unit –5 Correlation**[4 Lect.]**

Meaning of bivariate data. Meaning of correlation. Types of Correlation: positive correlation, negative correlation, perfect correlation. Scatter diagram for studying correlation. Definition of Karl Pearson's coefficient of correlation. Computation of coefficient of correlation for ungrouped data.

Unit –6 Regression**[6 Lect.]**

Meaning of Regression, Types of Regression: Linear and Non-linear, Simple and Multiple Statement of Lines of Regression, Meaning of Regression coefficients, Determination of Lines of Regression for given ungrouped bivariate data, Standard error of Regression Estimate, Explained and unexplained variation, coefficient of Determination, Simple Numerical Examples and Problems from Real Life Situations.

Unit –7 Probability**[6 Lect.]**

Random and Non-random Experiment, Meaning of sample space, Event, Mutually Exclusive Events, Exhaustive Events, Complementary Event. Sure Event, Impossible Event, equally Likely Outcomes, Mathematical Definition of Probability, Axioms of Probability, Statistical Definition of Probability, Statement of Addition theorem of Probability for Two and Three Events, Simple Numerical Examples and Problems.

Unit –8 Probability Distributions**[6 Lect.]**

Meaning of Random Variable, Discrete and Continuous Random Variables, Expected Value, Standard Deviation and Variance of Random Variable, Meaning of Probability Mass Function and Probability Density Function, Distribution Function of a Random Variable, Bernoulli Distribution, Binomial Distribution, Poisson Distribution and Normal Distribution, Numerical Examples and Problems from Real Life Situations.

Unit –9 Testing of Hypothesis**[8 Lect.]**

Meaning of Hypothesis, Statistical Hypothesis, Null and Alternate Hypothesis. Level of significance. Meaning of test of Hypothesis, p-value. Large and small sample tests. Large sample tests for testing single population means, single population proportion and two population proportions.

Unit –10 Statistical Quality Control**[6 Lect.]**

Meaning and purpose of Statistical Process Control, Quality of a product, Need of Quality Control, Chance and assignable causes of variation. Basis of control chart, 3-sigma limits and criteria for detecting lack of control, control chart for variables and attributes.

Simple numerical examples from real life situations.

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Reference Books

- 1) Statistics Methods **by: S.P.Gupta**
- 2) Business Statistics **by: S.C.Gupta, Indra Gupta.**
- 3) Fundamentals of Statistics **by: S.C.Gupta**
- 4) Mathematics and Statistics for Management

by: Mittal, Sathyaprasad, Pradeep Rao.

5) Mathematics and Statistics for Economics by: G.S.Gupta

6) Statistical Method by: Digambar Patri

7) Statistics by: D.C.sancheti, V.K.Kapoor.

NORTH MAHARASHTRA UNIVERSITY, JALGAON

Faculty of Commerce and Management

Syllabus for F.Y.B.C.A. (W.E.F.: June 2008)

Semester – II

Subject: BCA - 23 Computer Networks and Web Design

Total lecture: 48

[Total Marks: 80 External + 20 Internal = 100 Marks]

A] Computer Networks

1.Computer Networks

[10L]

1.1 Introduction to computer networks

1.2 Advantages of networks

1.3 Transmission medias - Twisted wire pair, coaxial cable, optical fiber, wireless

1.4 Network topologies - Bus, Ring, Star, Tree, Mesh and Fully Connected.

1.5 Network structures - Point to point, broadcast channels

2. Types of Networks

[5L]

2.1 Introduction to LAN, MAN and WAN

2.2 ISO-OSI reference model

3. Switching techniques -

[3L]

3.1 Circuit Switching,

3.2 Packet Switching

3.3 Message Switching

B] WEB DESIGN

1 Web design process

[5L]

1.1 Basic Web Process

1.2 What is Web Design ?

1.3 Web Design Pyramid

1.4 What is Good Web Design & Website Evaluation?

1.5 Basic Web Process Model

- Modified Waterfall

- Joint Application Development

1.6 Goals & Problems

- Brain Storming

- Narrowing the goal

1.7 Site Plan

2. Site types and architectures	[6L]
2.1 Site Types	
2.2 Grouping by purpose	
2.3 Site Structure	
2.4 Site Organization Model	
2.5 Deep Vs Shallow sites	
2.6 Picking the site structure	
3. Navigation Theory	[5L]
3.1 What is Navigation?	
3.2 Placing Navigation	
3.3 Navigation Scrolling	
3.4 Navigation and Mouse Travel	
3.5 Frames	
4. Page Types	[4L]
4.1 What is Page & Page Size?	
4.2 Page Margins	
4.3 Page Types	
4.4 Entrance Pages	
4.5 Exit Pages	
5. Introduction to HTML & HTML tags	[10L]
5.1 What is HTML?	
5.3 Structure of HTML document	
5.4 Introduction to CSS	
5.5 Text Level tags	
5.6 Character entity references	
5.7 List tags	
5.8 Anchor & Image tags	
5.9 Table tags	
5.10 Frameset tags	
5.11 Form tags	
5.12 Script tags	

References:

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Semester – II

Subject: BCA - 24 Introduction to Programming using C++

Total lecture: 48

[Total Marks: 80 External + 20 Internal = 100 Marks]

- 1. Introduction to C++** [02L]
- 2. Data types, operators, expression and control structure:** [10L]
Character set, tokens, identifiers, keywords, variables, operators, Control flow statements, expressions and qualifiers, operator precedence and associativity
- 3. Array, strings** [06L]
Arrays, multidimensional array, strings, array of string, string functions.
- 4. Structures and Union** [08L]
Structure declaration and definition, use of structure and union, difference between structure and unions
- 5. Function** [10L]
Function component, parameter passing – pass by value, pass by address, pass by reference, inline function, scope and extent of variables, recursive function,
- 6. Pointers** [10L]
Pointer variables, address operator & Runtime memory management, pointer to pointer, array of pointer, pointer constant, pointer arithmetic, pointer to function, pointer to objects, array of object, this pointer, self referential classes.
- 7. Preprocessor directives** [02L]
#define, defining like macros, #error, #include

References:-

K.R. Venugopal, Rajkumar, T. Ravishankar, Mastering C++, TMH.

Balguruswamy, Object Oriented Programming C++, TMH

Bjarne Stroustrup, “The C ++ Programming Language “ ,3rd edition, Pearson Education Asia,2000 , ISBN 81-7808-126-1

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Semester – II

Subject: BCA – 25 Practicals on Tally

[Total Marks: 80 External + 20 Internal = 100 Marks]

Illustrative list of Practicals.

I] List A of Practicals

1. Create a Company BCA Ltd. to maintain Financial Accounts only using hypothetical address and other details.
The company maintains its books of accounts on financial year basis.
 - (a) Make the default setting for printer assuming that the reports are printed on the stationery with a letterhead printed on the top that consumes the space of one inch.
 - (b) The Company wants to print the amount in Indian Currency with space between Rs and amount.
2. Create a Company Temporary Ltd. (Store data in C:/work/temp) having financial year as the accounting year. It is a newly set up company that has commenced its business from 1st October 2007. Other details may be entered as per your assumption, except the Income Tax Number (PAN); upon saving the company, enter the Income tax number PAN as FYBCA0278S.

Delete the Company created for Temporary Ltd.
3. Create Groups following the hierarchy shown below -

Debtors -	International
Debtors -	National
Debtor-	South
Debtor-	North
Debtor-	Central
4. Create the following Ledger accounts, place under appropriate group (Create new groups whenever necessary)
 - (a) Wages paid to factory workers
 - (b) Wages paid to temporary workers
 - (c) Salary paid to H.O. employees
 - (d) Salary paid to Branch employees
 - (e) Share Capital (Rs. 5,00,000 Cr.)
 - (f) Telephone Charges

Contd....

5. a) Create at least 8 imaginary ledger account and place them under appropriate group – in the books of an Educational Institution.
- b) Modify the above company to record account of a new asset which was not these earlier.
- c) Creation of ledger consist of
 1. Debtors in regional hierarchy, at least 4 groups
 2. Sales at least 4 groups
 3. Fixed assets groups at least 3 ledgers
 4. Capital groups at least 3 – 5 parties ledgers
 5. Purchases group at least 3 ledgers
 6. Creditors at least 3 groups. Take imaginary opening balance.

Create the following Ledger

Name	Group	Opening Balance Rs.
Khandesh Textile	Debtors- South	5,000 Dr.
Kanpur Textile	Debtor Central	0
Lucknow Textile	Debtor- North	0
Honda Corporation	Debtors- International	0
Jackson Textile	Debtors- International	0
Bank of Maharashtra	Bank Account	60,000 Dr.
Sales- Domestic	Sales Account	0
Sales- International	Sales Account	0
Purchases	Purchase Account	0
Building	Fixed Assets	6,00,000
Furniture	Fixed Assets	30,000

6. Create a Short-life Company Ltd, and copy all the masters from the BCA Ltd. to the Short-life Company Ltd. Select the Short-life Company created, and check whether all the masters (Groups & Ledgers) have been copied.
Delete the Short-life Company.

II] List B of Practicals

1. Preparing Purchase Register and Sales Register entering the transactions relating to Purchase (including discount), Sales (including discount), Purchase>Returns, Sales>Returns [Minimum 8 to 10 transactions be recorded]
2. Preparing Trial Balance with the minimum of 10 to 12 transactions.
3. Preparing Balance Sheet with transactions regarding Trading and Profit & Loss Account with adjustments. Alternatively, preparing Income & Expenditure Account for a non-trading concern along with the Balance Sheet.
4. Modifying Vouchers, deleting Voucher entries – using imaginary transactions.

The above list is illustrative. A teacher, if required, may conduct similar additional practicals on the above line in such a way as to cover the syllabus. Minimum of 3 practicals each must be completed by a student from List A & List B to get the Journal certified.

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Semester – II

Subject: BCA - 26 Practicals on Web Design

[Total Marks: 80 External + 20 Internal = 100 Marks]

1. Create a HTML pages to demonstrate use of:
 - Internal Links
 - External Links
 - Use of Images
 - Various types of list
2. Create a HTML pages to demonstrate use of:
 - Logical styles
 - Entity reference characters
3. Create HTML pages to demonstrate use of linking using image map.
4. Create a HTML page to demonstrate use of
 - Animated Images & text
 - Scrolling text
 - Static background
 - Paragraph and Division
5. Create a HTML page for Calendar of current month
6. Create HTML page that shows the year wise statement of sale & revenue.
7. Create a HTML page to demonstrate use of frames
8. Create a HTML page that contains a table with images (at least 9 images)

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Semester – II

Subject: BCA - 27 Practicals on C++

[Total Marks: 80 External + 20 Internal = 100 Marks]

- 1 Program using various arithmetic operators
- 2 Program using control statements (if, if else, nested if, switch)
- 3 Program using various looping structure (for, while, do while, nested loops)
(Programs like prime number, factorial of a number, Fibonacci series)
- 4 Program using arrays (One dimension, Two dimensions)
- 5 Write a program to demonstrate use of function (call by value, call by reference, recursive)
- 6 Write a program to demonstrate use various string function
- 7 Write a program to demonstrate use of pointers
- 8 Write a program to demonstrate use structure and union