Barkatullah University, Bhopal
BCA Faculty 2008 onwards
Semester II

Code No	Name of the Paper
FC 201	FC: English II
FC 202	FC: EVS
BCA 201	Business Mathematics
BCA 202	Desk top Publishing
BCA 203	Programming in C
BCA 204	Management Accounting
PRACTICALS	
BCA 205	PageMaker, C Programming

Scheme of Marks:

Foundation Course	100 marks
Theory Papers (35 marks each)	140 marks
Sessional Marks (15 marks each)	60 marks
Practical & Viva (25 marks each)	50 marks
Total	**350 marks**

Paper Code: BCA 201
BUSINESS MATHEMATICS

Max Marks: 35

UNIT 1

Trigonometry: Angles & their Measurement, Values of Trigonometric Ratios and their Graphical Representations, Height and Distances.

UNIT 2

Theory of Indices, Definition & Types of Matrices, Special Matrices, Elementary Transformation of Matrices, Sparse Matrices.

UNIT 3

Frequency Distribution, Histogram, Measure of Central Tendency, Mean, Mode, Median, Standard Deviation.

UNIT 4

Determinant And Matrices, Special Matrices, Inverse of a Matrix.

Ratio And Proportion, Percentage, Commission & Brokerage, Discount, Profit & Loss.

UNIT 5

Limits & Continuity, Limits of Functions, Infinite Limits, Limits at Infinity, Continuous Function, Differentiation of 1st and 2nd Order, Integration – finite, infinite, addition, subtraction & multiplication.

Text Books:
1. Business Mathematics BY *S.M.SHUKLA*.
2. Fundamental of Statistics BY *ELHANCE & ELHANCE*.

Reference Books :
1. Mathematical Statistics BY H.S.SHARMA
2. Differential & Integral Calculus BY RAY & SETH
3. Matrices BY RAY & SETH.

Paper Code: BCA 202
DESK TOP PUBLISHING

Max Marks: 35

UNIT I

Why Graphics? Various Types of Graphics Programs, Drafting Packages, DTP Package, Microsoft Windows. Various Documentation cum DTP Packages e.g. Word Perfect, Microsoft Word Etc.

UNIT II

Introduction To Pagemaker / Ventura or a similar Package. Preparation of Document Using DTP Package.

UNIT III

Text Formatting, Different Page Layouts, Printing Various Fonts And Character Sets. Various types of Printers used in DTP.

UNIT IV

Introduction to Commercial DTP System available in market, Indian Language Fonts, Creation of Indian Language Fonts.

UNIT V

Import & Export of Documents created by other Word Processors, Spelling Check, Designing exercise like Visiting Card, Greeting Cards etc.

Text Books:
1. Desktop Publishing on PC by M C Sharma, BPB Publication.
2. PAGE MAKER 6 BY BPB PUBLICATIONS.

Reference Books :
1. PAGE MAKER – MANUAL .
2. 'O' LEVEL MODULE M3.2 DESKTOP PUBLISHING & PRESENTATION GRAPHICS BY V K JAIN, BPB PUBLICATIONS..

Paper Code: BCA 203
PROGRAMMING IN 'C'

Max Marks: 35

UNIT I

Program Logic development Using algorithm and Flowchart, Historical development of 'C', constants, variables and keywords, 'C' instructions.

Data types – int, float, double, char, void, short, long, long double, signed, unsigned.

UNIT II

Decision control structure:- if statement, if-else statement , the conditional operators.

Case control structure: switch statement, goto statement .

 'C' operators: Arithmetic, relational and logical .

Development of 'C' program using Decision control & Case control structure.

UNIT III

Operators:- Increment and Decrement operators, Bitwise operator, Operators precedence, arithmetic and logical expressions evolution.

Loop Control Structure:- for loop, while loop and do-while loop, Break statement, continue statement.

Development of 'C' programs using loops.

UNIT IV

Arrays: One dimension array, 2D array, 3D array, Introduction to Pointers.

Functions: Function declaration and prototypes, Passing values between functions:- call by value.

Development of 'C' programs using Arrays, functions.

UNIT V

Storage classes in 'C', Structures:- declaring a structure, accessing structure element, how structure elements are stored, array of structures, union.

Text Books:

1. Let US C by Yashwant Kanitkar
2. Programming in C by E. Balaguruswami

Reference Books:

1. Schaum's Series 'C' Programming
2. The complete reference in C/C++ Herbert Shield
3. Working with C by Yashwant Kanitkar

Paper Code: BCA 204
MANAGEMENT ACCOUNTING

Max Marks: 35

UNIT I

Introduction and Purpose of Accounting and Uses of Accounting Information, Basic Accounting Concepts, Accounting Structure, Process of Accounting, Journal, Ledger & Trial Balance based on Double Entry Book – Keeping.

UNIT II

Valuation of Assets and Depreciation Methods: Straight Line Method, Diminishing Balance Method, Sinking Fund Method, Insurance Method and Aunty Method.

UNIT III

Practical System of Accounting: Cash Book, Sales & Purchase of Goods, Bills of Exchange, Bank Reconciliation Statement.

UNIT IV

Preparation of Financial Statements: Income Statement (Profit & Loss Account), Statement of Financial Position (Balance Sheet) and Adjustment.

UNIT V

Analysis of Financial Statements – Financial Ratio.

Reference Books:

1. Managemant Accounting BY *HINGORANI, GREWAL.*
2. Financial Management BY *KHAN & JAIN.*
3. Management Accounting by Shashi K Gupta, S Chand Publication.
4. Financial Accounts by Dr S M Shukla, Sahitya Bhavan Publications.

Paper Code: BCA 205
Practicals List

PageMaker

1. Create a Greeting Card for New Year.
2. Create a Visiting Card.
3. Create your Resume.
4. Create an advertisement for job in well-known form.
5. Create a Newspaper Report.
6. Create a document by importing Graphic Image from Clip Art.
7. Create a Wedding Card.
8. Type a document using Story Editor.
9. Input a text from Word Document into a PageMaker document.
10. Create a document on Importance of Text Wrap, applying proper font size, tabs, alignment & indentation.

'C' Programming

1. Program to find roots of quadratic equations.
2. Program to Raise X to the power N.
3. Program for Generating Histogram.
4. Program to Add Digits of a number.
5. Program to check whether a number is prime.
6. Program to print a given number in Reverse order.
7. Program for Finding GCD of two numbers.
8. Program to generate Fibonacci series.
9. Program for Reversing an Array.
10. Program to calculate factorial of a given number.
11. Program to add series $1+x+x^2+x^3+……..+x^n$.
12. Program for linear search.