

VEER NARMAD SOUTH GUJARAT UNIVERSITY
B.C.A.

Semester - I

Teaching and Evaluation Scheme

Paper No	Paper Title	Teaching Scheduled	University Exam Theory/Practical		Internal Examination Theory/Practical		Total Theory/Prac.
			Lect/Prac. (In Hours)	Duration (Hours)	Marks	Duration (Hours)	
101	Communication Skills	4.5	3	70	2	30	100
102	Mathematics - I	4.5	3	70	2	30	100
103	Introduction to Computers	4.5	3	70	2	30	100
104	Computer Programming and Programming Methodology	4.5	3	70	2	30	100
105	PC Software - I	4.5	3	70	2	30	100
106	Practical(Based on 104 and 105)	9	5	140	3	60	200
	TOTAL	31.5		490		210	700

VEER NARMAD SOUTH GUJARAT UNIVERSITY
B.C.A
Semester -I
Paper -101 Communication Skills
Effective From-2009-2010

1. Introduction

- 1.1.1 Spoken and conversation for Greetings, Requests, Invitation, Permission, Thanks, etc.
- 1.2 Basic sentence patterns
- 1.3 Agreement between Subject and Verb
- 1.4 Basic rule of Composition
- 1.5 Paragraph Development
- 1.6 Vocabulary Development
- 1.7 Model Auxiliary
- 1.8 Active and Passive voice
- 1.9 Conjunction and prepositions

2. Reading Skills

- 2.1 Model of reading to learn – P.S.OR
- 2.2 Reading tactics and Strategies
- 2.3 Reading purposes and meaning
- 2.4 Reading outcomes structure of meaning techniques

3. Writing Skills

- 3.1 Guidelines for effective writing
- 3.2 Writing style of application
- 3.3 Personal Resume
- 3.4 Business letter and Memo including Requests, Complains asking quotation etc.
- 3.5 Technical report writing
- 3.6 Writing paragraphs on a given topic
- 3.7 Developing story from given points

4. Listening Skills

- 4.1 Barriers to listening
- 4.2 Effective listening skills
- 4.3 Feedback Skills
- 4.4 Attending Telephone calls
- 4.5 Note taking

5. Speaking and Discussion Skills

- 5.1 Components of Effective talk/ presentation'
- 5.2 Planning of content of a talk / presentation
- 5.3 Use of Visual aids
- 5.4 Effective speaking skills
- 5.5 Discussion skills

Reference Books:

1. Handbook of practical Communication skills – Chrisle W., JAICo
2. Basic Managerial Skills for all –S.J. McGrath –PHI
3. Reading to learn –Sheila Smith & Thomas M.- Methuen (London)
4. Communication conversation Practice –Tata McGraw hill
5. Communication in English – RP Bharnagar & RT Bell- Orient Longman
6. Good English – G.H. Vallins –Rups & Co.
7. Let's talk English – M.I. Joshi
8. Essentials of Business Communications –pat & Sons, S.Chand

VEER NARMAD SOUTH GUJARAT UNIVERSITY
B.C.A
Semester -I
Paper -102 Mathematics-I
Effective From 2009-2010

1. Set Theory

- 1.1 Introduction
- 1.2 Representation
- 1.3 Operation and its properties
- 1.4 Venn Diagram
- 1.5 Cartesian product and graph

2. Functions

- 2.1 Definition
- 2.2 2.2 Types – Domain and Range
- 2.3 Construction and functions
- 2.4 Even Analysis
- 2.5 Linear Quadratic & Higher degree polynomial

3. Mathematical Logic & Boolean algebra

- 3.1 Introduction to Logic
- 3.2 Truth Table
- 3.3 Definition and examples of Boolean Algebra
- 3.4 Boolean functions
- 3.5 Representation and minimization of Boolean functions
- 3.6 Design example using Boolean algebra

4. Matrices and Determinants

- 4.1 Matrices of order $m \times n$
- 4.2 Row and Column transformation
- 4.3 Addition, Subtraction and multiplication of Matrices.
- 4.4 Computation of Inverse
- 4.5 Cramer's Rule
- 4.6 Business Application of Matrices

5. Basic CO-Ordinate geometry

- 5.1 Line quadrants and Co-Ordinates
- 5.2 Distance between two points
- 5.3 Area of triangle
- 5.4 Straight line and General equation of straight line

Reference Books:

- 1. Co-ordinate Geometry –Shanti Narayan
- 2. Linear Algebra –Sushoma Verma
- 3. Advanced Mathematics –B.S.Shah &Co.
- 4. Schaum's outline of Boolean algebra and switching circuits – Elliot mendelson

VEER NARMAD SOUTH GUJARAT UNIVERSITY
B.C.A
Semester -I
Paper -103 Introduction to computers
Effective From 2009-2010

1. Introduction

- 1.1 History of development
- 1.2 Types of Computers
- 1.3 Microcomputers, Notebook computers, Palmtops, PDA
- 1.4 Hardware & Software

2. Basic Computer Architecture

- 2.1 Block Diagram & Functional Units
- 2.2 Various Hardware components: Mother board, Processor, memory, ports, peripherals
- 2.3 Phases of machine cycle
 - 2.3.1 Fetch cycle
 - 2.3.2 Execution Cycle
- 2.4 BIOS ,POST

3. Number Systems

- 3.1 Various number systems(Binary, Octal, Hex, Decimal)
- 3.2 Conversion among various number systems
- 3.3 Binary and Hex arithmetic
- 3.4 Parity Scheme
- 3.5 Character code: EBCDIC, ASCII, UNICODE

4. Memory

- 4.1 Memory organization
- 4.2 Addressing Modes
- 4.3 Memory types: RAM,ROM, FLASH,PROM,EPROM,EEPROM
- 4.4 Concepts of virtual memory, Cache memory

5. Storage Devices

- 5.1 Floppy Disks: structure, reading/writing, formatting
- 5.2 Hard disk and its architecture
- 5.3 CD-Rom DVD ROM
- 5.4 Back up devices

6. I/O devices

- 6.1 Printers: Line printer, DOT matrix, Laser, Inkjet
- 6.2 Plotters: Scanners, OCR, OMR
- 6.3 Keyboard, Mouse
- 6.4 Other devices: Joysticks, Touch pads, pens etc.
- 6.5 Monitors (CRT, Flat Screen, LCD)

Reference Books:

- 1. How computer work: Ron White –Tech Media
- 2. Introduction to computers : 4th Edition- Peter Norton
- 3. Fundamentals of Computers :V.Rajaraman
- 4. Computer fundamentals: Pradeep K. Sinha & Priti Sinha (BPB)

VEER NARMAD SOUTH GUJARAT UNIVERSITY
B.C.A
Semester -I
Paper -104 Computer programming and Programming Methodology
Effective From 2009-2010

- 1. Algorithm and Flowchart**
- 2. Programming Languages & Structured Programming**
 - 2.1 Structured Programming
 - 2.2 Concepts of Compiler/Interpreter, Editor
- 3. Constants & Variables**
 - 3.1 Character Set
 - 3.2 Constants- needs & definition
 - 3.3 Variables- needs & definition
- 4. Expression & Operators**
 - 4.1 Operators
 - 4.2 Expression
 - 4.3 Evaluation & Assignment of Expression
- 5. Input & Output Systems**
- 6. Jumping ,Branching & Looping statements**
- 7. Built-in functions : Mathematical and String Functions**
- 8. Concepts Of Arrays**
 - 8.1 One dimensional arrays
 - 8.2 Sorting using one dimensional array
 - 8.3 Concept of two dimensional array
 - 8.4 Arithmetic operation on two dimensional array
- 9. Debugging and testing**

Reference Books:

1. Structured Programming Language – La Budde- McGrawHill
2. Programming experience in BASIC-Kenetkar –BPB
3. Programming with BASIC –Gottfried- TMH
4. Programming in BASIC –Balaguruswamy -TMH

VEER NARMAD SOUTH GUJARAT UNIVERSITY
B.C.A
Semester -I
Paper -105 PC Software -I
Effective From-2009-2010

1. Introduction

- 1.1 Concept of Windows ,Icon, Menu
- 1.2 Desktop
- 1.3 Creating Folders and Shortcuts
- 1.4 Finding Files and Folders
- 1.5 Creating Copying , moving and deleting files
- 1.6 Window Explorer
- 1.7 Basic DOS Commands

2. Word Processing Package

- 2.1 Typing, editing , Proofing & reviewing
- 2.2 Formatting text & Paragraph
- 2.3 Automatics Formatting And Styles
- 2.4 Working With Tables
- 2. Graphics And Frames
- 2,6 Mail Merge
- 2.7 Automating Your Work & printing documents

3. Spreadsheet Package

- 3.1 Concept of worksheet
- 3.2 Working & Editing In Workbooks
- 3.3 Creating Formats & links
- 3.4 Protecting and Hiding data
- 3.5 Built-in functions
- 3.6 Formatting a Worksheet. & creating graphic objects
- 3.7 Creating Charts (Graphs), formatting and analyzing data
- 3.8 Organizing Data in A List (Data Management)
- 3.9 Sharing & Importing Data
- 3.10 Printing
- 3.11 Macros

4. Presentation Package

- 4.1 Creating and Editing Slides
- 4.2 Creating and Editing objects. in the Slide
- 4.3 Animation and running Slide show
- 4.4 Creating and Running Slide show
- 4.5 Templates
- 4.6 Interface with other packages

5 Internet

- 5.1 Concepts
- 5.2 Working
- 5.3 Mailing & surfing tools

Reference Books

1. WORD 6 for Windows Quick & easy Reference - Mansield - BPB
2. Masteing Word 6 for Windows - Mansfield - I3PB
3. Masterring EXCEL 4 for Windows - Townsend - IWB
4. Mastering EXCEL 4 for Windows - Chester - BPB
5. EXCEL 5 for Windows Quick & Eas4 -Jones TECH
6. Mastering Windows 95 Cowat-BPB
7. Mastering Microsoft Office 97 L. Mosely , D.Boody -BPB
8. Internet : An introduction Cisiems – Tata Mac , D. Boody –BPB
9. Internet 6 in 1 – Joe Krayuak & Harbraken , PHI
10. Internet access essential – Tittle & M. Robbins , AP professional

VEER NARMAD SOUTH GUJARAT UNIVERSITY
B.C.A
Semester -I
Paper -106 Practicals
Effective From-2009-2010

Practicals Papers 104 and 105

VEER NARMAD SOUTH GUJARAT UNIVERSITY
B.C.A.

Semester - II

Teaching and Evaluation Scheme

Paper No	Paper Title	Teaching Scheduled	University Exam Theory/Practical		Internal Examination Theory/Practical		Total Theory/Prac.
			Lect/Prac. (In Hours)	Duration (Hours)	Marks	Duration (Hours)	
201	Computerized Financial Accounting	4.5	3	70	2	30	100
202	Organization Structure and Behaviour	4.5	3	70	2	30	100
203	Introduction to Operating System	4.5	3	70	2	30	100
204	Programming Language - I	4.5	3	70	2	30	100
205	Database Management Systems	4.5	3	70	2	30	100
206	Practicals(Based on 201,204 and 205)	9	5	140	3	60	200
	TOTAL	31.5		490		210	700

VEER NARMAD SOUTH GUJARAT UNIVERSITY
B.C.A.
Semester - II

201-Computerized Financial Accounting
Effective From-2009-2010

1. Introduction to Accounting System

- 1.1 Meaning & Definition of Accounting
- 1.2 Objectives of Accounting
- 1.3 Concepts and Features of Book Keeping
- 1.4 Branches of Accounting (Financial, Management, Cust)
- 1.5 Basis of Accounting (Accrual Bases, Cash Bases)

2. Accounting Concepts:

- 2.1 Accounting Concept
- 2.2 Accounting Equation Concept
- 2.3 Accounting Period Concept
- 2.4 Concept of Matching Realization Accrual

3. Accounting Equation & Transaction Analysis:

- 3.1 Introduction of Assets, Liabilities Equities
- 3.2 Concepts of Transaction Analysis
- 3.3 Classification of Accounts (Real Account, Personal Account, Nominal Account)

4. Concepts of Book- Keeping:

- 4.1 Introduction of Single Entry System and its advantages/disadvantages
- 4.2 Introduction of double entry system and its advantages.
- 4.3 Types of Business Transaction
 - 4.3.1 Cash Transaction
 - 4.3.2 Credit Transaction
 - 4.3.3 Barter Transaction
- 4.4 Concepts of Important Terminologies : Opening Stock, Closing Stock, Goods, Inventory, Asset Liabilities, Capital, Debit, Debtors, Creditors, Income, Expenses, Loss, Profit, Credit, Debit.

5. Journal & Subsidiary Books(With preliminary examples) :

- 5.1 Meaning of Journal
- 5.2 Format of Journal
- 5.3 Concept and format of Cash Book
- 5.4 Concept and format of Petty Cash Book

6. Concept of Accounting Mechanism

- 6.1 Meaning and definition of Ledger
- 6.2 Types of Ledger
- 6.3 Concepts of posting Bank Reconciliation Statement
- 6.4 Trial Balance and its objectives
- 6.6 Concepts of Suspense Account

7. Application of Accounting Using Accounting Package:

- 7.1 Creation of Company
- 7.2 Voucher Printing Entry
- 7.3 Alteration, Deletion of Vouchers
- 7.4 Types of voucher entry(Receipt, Payment, Contra, Purchase, Sales, Journal, Physical Stock, Reversing Journal)
- 7.5 Generating Trial Balance
- 7.6 Maintaining Account Books & Reports
 - 7.6.1 Cash Book , Bank Book ,Ledger
 - 7.6.2 Sales Register , Purchase Register
 - 7.6.3 Day Book Inventory Book, Stock Summary
 - 7.6.4 Balance Sheet

Reference Books :

1. Accounting For Management – By Dr. Hawaharlal
2. Financial Management By : Dr. S.N. Maheshwari
3. Accounting for Management By : S.K.Bhattacharya & John Deardon
4. Advanced Accountancy By : S.P.Jain & K.L.Narang
5. Implementing Tally 6.3 By K. K. Nathani B.P.B. Publication
6. Implementing Tally 7.2 By A. K. Nathan & K. K. Nathan B.P.B. Publication

VEER NARMAD SOUTH GUJARAT UNIVERSITY
B.C.A.
Semester - II
202-Organization Structure and Behavior
Effective From-2009-2010

1. Introduction to Organization

- 1.1 What makes an organization
- 1.2 Structure of organization
- 1.3 What is Management
- 1.4 Scope of Management

2. Need for Management

- 2.1 Role of Management
- 2.2 Manager's Role (Interpersonal Role, Information Role and Decisional Role)
- 2.3 Managerial Skills (Technical Skills, Human Skills, Conceptual Skills)

3. Attitude

- 3.1 Meaning of Attitudes
- 3.2 Characteristics of Attitudes
- 3.3 Functions of Attitudes
- 3.4 Types of counter

4. Motivation

- 4.1 What is motivation?
- 4.2 Nature and Characteristics of Motivation
- 4.3 Importance and Benefits of Motivation
- 4.4 Types of Motivation (Positive and negative Motivations)

5. Leadership

- 5.1 What is Leadership?
- 5.2 Characteristics of Leadership
- 5.3 Leadership styles
- 5.4 Leadership Skills (Technical Skills, Human Skills, Conceptual Skills, Personal Skills)
- 5.5 Difference between Leadership and Management

6. Counseling

- 6.1 What is counseling?
- 6.2 Characteristics of Counseling
- 6.3 Causes of Counseling (Conflict, Stress, Frustration)
- 6.4 Types of Counseling (Directive, Non-Directive, Participative Counseling)
- 6.5 Need for Counseling
- 6.6 Counseling Process (Initiating, Exploring, Formulation of Action Plan)

7. Case Study

- 7.1 What is B.P.O
- 7.2 What is out-sourcing? Benefits of outsourcing
- 7.3 What is Call center
- 7.4 Call centre setup and functions
- 7.5 Case study of Call Center pertaining to Management setup, Motivation. Leadership, Attitude of employees and Counseling.

Reference Books

1. Management and Organization Development - By Ahmed Abod Rachna Prakashan , New Delhi
2. Organization Behaviour - By Aplewhite Philip, Prentice Hall.
3. Management and Organization Development - By Argyris Chris, Mc Graw Hill Publication
4. Human Behaviour at work - By Davis Keeth, Tata Mc Graw Hill
5. Organization Behaviour – By L. M. Prasad.
6. Principles and Practices of Management - By L. M. Prasad.
7. Managing People at Work - By Harris O Jeff, John Wiley & Sons Publication
6. Call Centers –By S. Pankaj (APII Publication)

VEER NARMAD SOUTH GUJARAT UNIVERSITY
B.C.A.
Semester - II
203- Introduction to Operating System
Effective From-2009-2010

1. Operating system Concepts

- 1.1 Evolution of Operating System & History.
- 1.2 Need of an Operating system
- 1.3 Single user & Multi user Operating system
- 1.4 Elements of an operating system.
- 1.5 Operating System as a Resource Manager

2. Introduction to File System

- 2.1 File Concept
- 2.2 Operations on File
- 2.3 File Access Methods (Sequential Access and Direct Access)
- 2.4 Directory Systems (Sequential Level and Tree Structured Directory)

3. Microsoft windows Management

- 3.1 System properties using My Computer
- 3.2 Concept of Domain
- 3.3 Windows Administration Tools
 - 3.3.1 Event Viewer
 - 3.3.2 Computer Management
 - 3.3.2.1 System Tools
 - 3.3.2.2 Storage
 - 3.3.3 Introduction to Local Security Policy
- 3.4 Windows MMC & Snap-ins
- 3.5 System Configuration Utility (msconfig)

4. A Case Study – Unix

- 4.1 Concept of multitasking O.S.
- 4.2 Concept of multi-user O.S.
- 4.3 History of Unix
- 4.4 Introduction to Unix environment
- 4.5 Types of files in Unix and their introduction (ordinary ,Directory, special file, fifo file)
- 4.6 Important Unix Directories / Files (root , bin , usr , lib, etc, tmp, dev)
- 4.7 Practical Demonstration of Important commands of Unix equivalent to DOS

Reference Books

- 1. Operating System Concepts - James Peterson – McGraw Hill
- 2. Inside IBM PC - Peter Norton -PHI
- 3. Advanced MSDOS - Ray Duncon – McGraw Hill
- 4. Advanced Unix – A Programmer's Guide – Stephen Prata - SAMS
- 5. Unix Concepts and Application - Das - McGraw Hill
- 6. Operating System - Stallings - PHI

VEER NARMAD SOUTH GUJARAT UNIVERSITY
B.C.A.
Semester - II
204- Programming Language - I
Effective From-2009-2010

1. Introduction to Programming Language & its IDE

2. Constant & Variables

- 2.1 Character Set
- 2.2. Constants – needs & definition
- 2.3. Variables – needs & definition
- 2.4 Preprocessor directories

3. Expression & Operations

- 3.1 Operators
- 3.2 Expression
- 3.3 Evaluation & Assignment of Expression

4. Input & Output Functions

5. Jumping, Branching & Looping Statements

6. Built in functions

- 6.1 Mathematical functions
- 6.2 String functions
- 6.3 Conversion functions

7. Arrays

8. Introduction to Pointer

- 8.1 Address and value operators
- 8.2 Pointer Arithmetic

9. Introduction to User Defined Function

- 9.1 Call by Value
- 9.2 Call by reference

10. Structure & Union

11. Storage classes and its use

Reference Books:

- | | | |
|---------------------------|------------------------|--------------|
| 1. Programming in C | - Balagurusami | - TMH |
| 2. C Programming Language | - Karnigham & Ritchie | - TMH |
| 3. The spirit of C | - Cooper H & Mullish H | - Jaico Pub. |
| 4. Programming in C | - Stephan Kochan | - CBS |
| 5. Mastering Turbo C | - Kelly & Bootle | -BPB |
| 6. C Language Programming | - Byron Gottfried | - TMH |
| 7. Mastering turbo C | - stan Kelly | -BPB |

VEER NARMAD SOUTH GUJARAT UNIVERSITY
B.C.A.
Semester - II
205: Database Management Systems
Effective From-2009-2010

1. Introduction to Database Systems

- 1.1 Drawbacks of Conventional File Processing System
- 1.2 Need of Database Management System
- 1.3 Organization of database (Physical, Conceptual, Logical)
- 1.4 Data Models
 - 1.4.1 Object based data models: E-R Model
 - 1.4.1.1 E-R diagram
 - 1.4.1.2 Entities and entity sets
 - 1.4.1.3 Types of relationships
 - 1.4.2 Record based data models: Network, hierarchical & Relational
 - 1.4.3 Physical data models
- 1.5 Components of Data Base Management System
 - 1.5.1 Query Language: DDL, DML, TCL
 - 1.5.2 Database Users: DBA, Programmer, Other Users
- 1.6 Functional Dependencies & Closure of Functional Dependencies
- 1.7 Keys: Super Key, Candidate Key, Primary Key, Alternate Key, Foreign Key
- 1.8 Data independence: Logical & Physical
- 1.9 Constraints
 - 1.9.1 Domain Integrity
 - 1.9.2 Referential Integrity
 - 1.9.3 Entity Integrity

2. Relational database design

- 2.1 Structure of Relational database Model
- 2.2 Normalization
 - 2.2.1 First normal form
 - 2.2.2 Second normal form
 - 2.2.3 Third normal form
 - 2.2.4 BCNF

3. Microsoft Access

- 3.1 Working with databases & tables
- 3.2 Managing constraints & relationships
- 3.3 Using SQL queries

Reference Books:

- 1. Database system concepts — Henry F.Korth & Abraham Silberschatz-IMR
- 2. Introduction to Database management system — Bipin.C. Desai-Galgotia
- 3. Principles of database systems- Jeffery Ullman-Galgotia Publication
- 4. An introduction to database systems — C.J.Date-Addison-Wesley
- 5. Introduction to database management — Navin Prakash — TM
- 6. Access — The Complete Reference - Virginia Andersen - McGraw-Hill
- 7. Access Database Design & Programming - Steven Roman - O'Reilly
- 8. ABC of Microsoft Access: Cowart Robert: BPB publication

VEER NARMAD SOUTH GUJARAT UNIVERSITY
B.C.A
Semester -II
Paper -206 Practicals
Effective From-2009-2010

Practicals based on Paper 201 (20%) and Paper 204 & 205 (80%)