

**Second Year B.Com  
Computer Application (Vocational) Paper – II**

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**1.Data Base Management System**

**(40%)**

(Any GUI base package like FoxPro 2.6 , MS-Access/Visual Foxpro)

**Introduction:**

DBMS as Programming Language, Utilities and Tools.

**Defining database and Indexes:**

Defining a databases, Normalizing databases, Data integrity, Data consistency, Defining indexes

**Data Entry:**

Providing data defaults, Input validation, Calculated fields, Control object, Read options.

**Procedure and User defined functions:**

Procedure, Functions, Choosing between procedure and functions, Creating procedure and functions library.

**DBMS and Windows :**

Windows: Defining - Activating – Removing – Modifying – Saving and Restoring Window.

**Use of Macro with GUI package for DBMS :**

Macro: Keyboard Macro, Keyboard Command, Text Merge.

**Arrays:**

Arrays: Creating and Naming array, Redimensioning arrays, Redefining arrays, Copying arrays, Determining array length, Sorting array, Searching an array for an expression.

**Using Memo Fields :**

Memo Fields: Adding a memo to databases, Using memo, Locating text in a memo.

**Menus :**

Menu terminology, Popup menus, Horizontal bar menu, component menus, Menu functions, HIDE/SHOW/RELEASE/DEACTIVATE Menu and Popup.

**The Report Generator :**

Starting Report, Creating a report form, Defining group, Creating a quick report, Enhancing report, Adding and deleting fields.

**Screen Generator :**

Generating information screens, Creating edit screen.

**The Menu Generator :**

Quick menu, Creating a sample application menu.

## 2. Worksheet using GUI tools

(30%)

Introduction about worksheet and advantages in business, How to create new work sheet, Find a worksheet, Insert a worksheet, Delete a worksheet, Move the worksheet, Selecting cells, Enter and Edit data, To create a Custom Lists, Cell References, Range Names, Navigate worksheet, Search and Replace data.

**Rearrange Cell Contents:** Move or Copy cell contents, Inserting or Deleting rows & columns, Save and protect workbook.

### CALCULATIONS IN WORKSHEET:

**Formula Basics:** Basic properties of formula, Order of precedence of operators, How to enter a formula? Editing formula.

### Functions: Categories of Functions:

**Arithmetic Functions:** SUM(), ABS(), EVEN(), EXP(), INT(), FACT(), MOD(), PRODUCT(), ROUND(), SQRT(), CEILING(), RAND(), LOG(), EXACT(), FIND()

**Characters Functions:** LEFT(), RIGHT(), LEN(), LOWER(), UPPER(), MID(), PROPER().

**Date and Time Functions:** DATE(), DATEVALUE(), DAY(), MONTH(), YEAR(), WEEKDAY(), HOUR(), MINUTE(), NOW(), TODAY().

**Logical Functions:** AND(), NOT(), OR().

**Formatting and Print Worksheet:** Page Setup, Column Width and Row Height, Using menu commands, Using Mouse, Fonts, Numbers, Alignments, Getting worksheet printed.

**Using Custom controls:** Forms Toolbar, Create controls on the worksheet, Format controls, Worksheet controls.

**Charts:** Chart types, Editing charts: Adding of deleting data, Change the chart type, Format as chart, Drawing in the chart Pie chart, Series chart line and Area chart, Column and Bar chart, Stacked 3-d column chart, XY chart, Stock chart.

## 3. Networking

(20%)

### Network concept and classification:

Local Area Network:

Need of Networking

Characteristics of LAN

### LAN topology :

Ring, Star, Bus

### LAN access methods:

CSMA/CD, token passing

### Communication architecture:

Application layer, Presentation layer, Session layer, Transport layer, Network layer, Datalink layer, Physical layer.

### LAN hardware and software :

Transmission channel, Network Interface Unit, Servers, Workstation.

Facilities available under Novel Network Operating System.

**4. Installation Management : Introduction****(10%)**

Backup, Importance, Backup procedure, Diagnostics for IBM PC. Use of Norton Utilities for system maintenance jobs.

**Virus:**

Introduction, the process of infection, Classification of virus, viruses prevention, cure from viruses.

**Reference Book for S.Y.Bcom**

Name of the book	Author	Publication
Learn EXCEL 7.0 for Window in a day	Stulz	BPB
Teach Yourself EXCEL 7.0 for Window 95	Weingarten	BPB
ABCs of Excel 97/2000	Weisskopf	BPB
Mastering EXCEL 97/2000	Chester	BPB
EXCEL 97/2000 Training Guide	Schwartz	BPB
Teach yourself MS EXCEL in 24 hours	Peterson	Teachmedia
The complete Idiot's guide to MS EXCEL 97/2000	Post & Gold	Que
Developing & distributing FOXPRO 2.5/2.6	Havewala	BPB
Mastering FOXPRO 2.5 and 2.6	Seigel	BPB
Programming FOXPRO 2.5 and 2.6	Liskin	BPB
Programming Guide to FOXPRO 2.5/2.6	Dickler	BPB
Foxpro 2.5/2.6	R.K. Taxali	
Data Base Management System	C J Date	
ABC of MS Access	Cowart	BPB
Learn MS Access for Windows in a day	Stulz	BPB
Teach Yourself ACCESS for WINDOWS 95	Siegel	BPB
ACCESS 97 Developers Handbook	Litwin	BPB
Dictionary of NETWORKING	Dyson	BPB
Learn Norton Utility in a day	Dejesus	BPB
NORTON Desktop for Window instant Reference	Crawford	BPB
Computer Virus Protection handbook	Haynes	BPB
Introduction of LAN (Revised Edition)	Thomas	BPB
Mastering Local Area Networks	Minasi	BPB
LAN Troubleshooting Handbook	Milner	BPB
Local Area Network and their Application	Tangney	PHI
Angat Computer and DOS Packegs	R P Soni & Other	Tata Mac.

**Second Year B.Com**  
**Computer Application (Vocational) PAPER – III**

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**STRUCTURED PROGRAMMING THROUGH 'C'**

- A. Structured Programming (40%)**
- Need of Structured Programming
  - Tools & Techniques of Problem Analysis
    - Algorithm Development
    - Flow Chart
    - Decision Table and Tree
    - Documentation
    - Data Flow Diagram
    - Entity Relationship Chart
- B. Programming in 'C' language (60%)**
- Introduction to 'C'
  - Basic Structure of 'C' Program
  - Character set, Tokens and Keywords
  - Constant, Variable and Datatypes
  - Operators
  - Expression
  - Program Control Statements
  - Handling of Arrays and Character String
  - Functions
  - Input, Output and Disk Files
  - Program Development Process
    - Program design
    - Program coding
    - Program testing

**Text/Reference**

1. Programming in ANSI C
    - E Balagurusamy , Tata McGraw-Hill
  2. Programming with C
    - Gottfried, McGraw-Hill International
  3. The sprit of 'C'
    - Mullish cooper [ JAICO publishing house]
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