## Appendix -A

### COURSE AND EXAMINATION SCHEME

**POST GRADUATE DIPLOMA IN COMPUTER COMMERCIAL APPLICATIONS (PGDCCA)**

**ONE YEAR PG DIPLOMA COURSE IN THE FACULTY OF COMMERCE**

<table>
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<tr>
<th>Sr. No.</th>
<th>Subject</th>
<th>Course Scheme</th>
<th>No.of Credits</th>
<th>Examination Scheme</th>
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<td>Introduction to Operating System</td>
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<td>Programming Techniques with C</td>
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<td>5.</td>
<td>Computerized Accounting using Tally</td>
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<td>6.</td>
<td>Practical-I based on Theory Paper-2 and 3</td>
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<td>Practical-II based on Theory Paper- 4 &amp; 5</td>
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<td>Project</td>
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### Examination Scheme

- **Maximum Marks**: 500
- **Minimum Passing Marks**: 200
- **End Year Exam**: 160
- **External Examiner**: 80
- **Internal Examiner**: 40

*Note: L – Lecture T-Tutorial P- Practical IA-Internal assessment EYE: End Year Exam, E= External Examiner, I- Internal Examiner*
Evaluation of Internal Assessment For PGDCCA :

Internal Assessment marks compromise of atleast 4 activities of the following,

a. Home Assignment  
b. Class Test Examination Performance  
c. Seminar  
d. Case Studies  
e. Group Discussion  
f. Field Work  
g. Study Tour  
h. Paper Presentation  
i. Book Review  
j. Involvement in Departmental and College Activities

Practical & Project Examination Scheme

i) Time: Minimum 2 Hours 30 Min. for conducting the practical examination subject to condition number of computers and printers available at the center ie if ratio of student and number of computer are same.

   a. If there are less number of computer (50%) than total Enroll students for practical examination then additional 2 hours
   b. If there is less number of computer (25%) than total Enroll students for practical examination then additional 4 hours.

ii) Practical Examination Evaluation Scheme

   1) One question to Write and Execute for Taking Printout of Program 20 Marks
   2) One question to Write Program or from Practical Index 10 Marks
   3) Record 10 Marks
   4) Viva 10 Marks

   Marks: 50 Marks

iii) Project: Head/Co-ordinator of Computer Dept. must reject any title which is already carried out in any course in the college. It must maintain a Record that lists the projects along with other detail (like Project Title, Guide, Session, Platform and Number of students working on project) that was carried out so far and must be shown to external examiner at the time of examination. If any project found duplicate of nature then it will consider as copy and action will taken against Head/Co-ordinator. In case of Non approved lecture action will be taken against Principal of college.

Classification of Marks on Project

Report, Documentation and Project Execution 70 % Marks
Viva voce 30 % Marks

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Total Marks 100% Marks
UNIT - I: Financial Accounting and Income Tax


Income Tax: Introduction, Basic Concepts, Capital Receipt and Revenue Receipt

UNIT - II: Cost and Management Accounting

Cost Accounting: Definition, Scope, Advantages, Limitation

Costing, Types of Costing, Method of Costing, UNIT Costing, Contract Costing, Methods of calculating profit on contract


Budget and Budgetary Controls- Concepts, Nature, Scope and Importance, Preparation of Flexible Budget & Cash Budget

UNIT – III: Business Laws


Company Laws- Formation of Company, Memorandum of Association, Articles of association, Prospectus, Shares, Debentures & Other sources of finance, Finance, Company Meeting.

Partnership Act – Salient features types of Partners, duties and liabilities of partnership, Dissolution of partnership.

UNIT - IV: Principals of Management

Concept of Management: Role and importance, Management- Art, Science & Profession;

Process of decision-making: Controlling, Decision-making, Leadership and Communication.

Functional Areas of Management,- Finance, Marketing HR & Production.
Books:


References:

UNIT-I: Introduction to IT and Computers


Computer Memory: Primary & Secondary, Types of Primary Memory, Registers.


Output devices: VDU, Dot Matrix, Laser and Inkjet Printers, Plotters.

UNIT-II: Hardware and Software Concept and Programming Language


Number System: Decimal, Binary, Octal, Hexadecimal number systems, features & conversions. BCD, EBCDIC & ASCII codes.

UNIT-III: Windows

Features of Windows, GUI, Operating with Windows, Desktop, Taskbar, Windows Explorer, Control Panel, My Computer, My Documents, Recycle Bin

Windows Accessories: Calculator, Notepad, Paint, System Information, Disk Management, Disk Defragmentation, Disk Cleanup

UNIT-IV: Network & Internet

Computer Communication, Need for Networks, Communication Device, Types of Network-LAN, WAN, MAN, Concept of Network Topology, Types of Topologies and its Advantages and Limitations. OSI Model.

Internet: Basic Internet terms, Internet Addressing, Services provided by Internet, Detail about E-mail, Search Engine, Basic of Intranet. Social and Ethical Issue, YouTube, FaceBook, Linkedin, Orkut
Open Source Terminologies: Open Source Software, Freeware, Shareware, Proprietary Software, FLOSS, GNU, FSF, OSI

Books:


References:

P.G.D.C.C.A

Paper-3: INTRODUCTION TO OPERATING SYSTEM

(PGDCCA3)

UNIT-I: Basic of Operating System


UNIT-II: Disk Operating System

Introduction to Disk Operating System (DOS): File Types, Directory Structure, Booting From (Floppy and Hard Disk), Warm and Cold Booting, Type of DOS Commands (Internal and External), Introduction of Autoexe and Config Files, Directory Commands: Dir, MD, RD, Tree, Path, etc. Wild Card, File Management Command: Copy, Del, Erase, Rename, Attrib, Xcopy, Backup and Restore, General Command: Type, Date, Time, Prompt, etc.

UNIT - III: Linux

Structure of Linux Operating System, Exploring the directory structure, Naming files and directories

Shell: Bourne, Korn and C-Shells

File System Commands: ls, mkdir, rmdir, cd, cat, mv, cp, rm, ln, pwd, more

Text editing with vi editor

UNIT IV: Shell Scripts

Pipe and Filters: sort, grep, egrep Permission modes: chmod, chown, chgrp Process: ps, kill

Communication, Shell Scripts: Variables, Arithmetic in Shell Script, Control flow statements, Shell Parameters

Books:


References:
1) Brain Proffitt, “Red Hat Linux 7”, PHI.
2) Abraham Silberschatz, “Operating System Concepts”, Bell Labs Peter Baergalvin Replika Press Pvt. Ltd. Delhi,
UNIT–I: Programming Logic and Basic Elements of ‘C’ Programming


Translator: Interpreter, Compiler

Introduction to C: C-Character Set and Keyboards, Constants and Variables, Data types, Type Casting, Type Modification,

Operators and Expressions – Arithmetic, Relational, Logical Assignment, Bitwise and Increment and Decrement Operator

Input and Output statements in C.

UNIT–II: Storage Class and Control Statement

Storage Class: auto, static, extern, static

Conditional Statement: if-else, nested if, else-if ladder, switch, Ternary Operator

Looping Statement: for loop, while and do-while loop, Comma Operator and Use of break, continue and goto statements

UNIT–III: Arrays, Structure, Functions

Arrays: Definition, Initialization of array, Writing and Reading data from an array, Bounce Checking, Searching, Sorting and Merging of two arrays.

String: String Manipulation using string library functions.

Structure: Need of Structure, period operator, Initializing Structure, sizeof(), Arrays of Structure, Nested Structures.

Unions: Concept and applications, enum

Function: Arithmetic and String Library Function, User defined functions, use of void, Recursion.

UNIT–IV: Pointer and File Concept

Pointer: Declaring and Initializing pointer variable, Pointer Operator, Call by value and Call by Reference
Dynamic Memory Management Functions: malloc(), calloc(), realloc(), free()

Files: Concept of file, Operation on Files, Defining, Opening and closing files, Modes of Files, file handling function, Command Line Argument.

Books:


References:

P.G.D.C.C.A

Paper-5: COMPUTERIZED ACCOUNTING USING TALLY
(PGDCCA5)

UNIT-I: Introduction to Computerized Accounting

Introduction to Accounting, Features of Accounting, Classification of Accounts, Books of Accounts, Financial Statement, Accounting Organization, Need of Computerized Accounting, Features of Computerized Accounting, Manual v/s Computerized Accounting

UNIT-II: Accounting software’s and Configurations

Introduction to Tally, Features of Tally, Disadvantages of Tally, Tally Screen, Company information, Creating new Company, Gateway, Selection of Company, Selection of Options, Buttons at Gateway, Working with multiple Companies, Company Features,

Configuration- General, Numeric Symbols, Voucher Entry, Creation of Voucher Screen, invoice Order Entry, Printing.

UNIT-III: Account Info and Vouchers


UNIT-IV: Inventory Info, Security


Practical:

Tally Software – All Accounting Problems Viz. Balance sheet, Profit & Loss, Cash Book, Loans, Cost Accounting, cost categories, Cost Centers, Vouchers, Budget, Sales and Purchase, Assets & Liabilities, Inventory Accounting, Financial Statements, Books of accounts, Ledger, Bill wise details etc.
Books:


References:

2) P.C. Tulsian, “advanced Accountancy”, TMH.
P.G.D.C.C.A
SEMESTER-II
PROJECT
(PGDCCA8)

Instruction:

Towards the end of the second semester of study, a student will be examined in the course “Project Work”.

a. Project Work may be done individually or in groups (Maximum 2 students) in case of bigger projects. However if project is done in groups, each student must be given a responsibility for a distinct module and care should be taken to monitor the progress of individual student.

b. The Project Work should be done using the tools covered in PGDCCA.

c. The Project Work should be of such a nature that it could prove useful or be relevant from the System-oriented/Application/commercial / management angle.

d. The project work will carry 100 marks.

e. The external viva-voce examination for Project Work would be held as per the Examination Time Table of the second year of study, by a panel of one external and one Internal examiner.

f. Head/Co-ordinator of Computer Dept. must reject any project title which was already carried out in any computer course in the college. It must maintain a Record that lists the projects along with other detail (like Guide, Session, and Number of students working on project etc) that was carried out so far and must be shown to external examiner at the time of examination.

Types of Project
As majority of the students are expected to work out a project in some industry/research and development laboratories/educational institutions/software export companies, it is suggested that the project is to be chosen which should have some direct relevance in day-today activities of the candidates in his/her institution. The Applications Areas of project - Financial/Marketing/Database Management System/ Relational Database Management System/E-Commerce /Internet/ Manufacturing/ web Designing/Hardware and Software interaction based etc.

Project Proposal (Synopsis)
The project proposal should be prepared in consultation with the guide. The project guide must be a person having minimum Qualification MCA/M.Sc.(Computer)/ M.Sc. (Maths/Electronics/Statistics/Physics + Post B.Sc. Dip. In Comp. Sc. & Appl.) The project proposal should clearly state the objectives and environment of the proposed project to be undertaken. It should have full details in the following form:

1. Title of the project
2. Objectives of the Project
3. Project Category (DBMS/RDBMS/OOPS/Web Designing/Internet etc.)
4. Tools/Platform, Languages to be used
5. A complete Structure of the program:
   i. Analysis.
   ii. Numbers of Modules.
   iii. Data Structures or Tables
   v. Types of Report Generation.

Project Report Formulation.
1. Title Page.
3. Declaration Page.
5. Index or Content Page.
6. Documentation.
   i. Introduction/Objectives.
   ii. Preliminary System Analysis.
      • Identification of Need.
      • Preliminary Investigation.
      • Feasibility Study.
      • Need of New System.
      • Flaws in Present System.
   iii. Project Category.
   v. Detailed System Analysis.
      • Data Flow Diagram.
      • Numbers of Modules and Process Logic.
      • Data Structures and Tables.
      • Entity-Relationship Diagram.
   vi. System Design.
      • Source Code.
      • Input screen & Output Screen.
   vii Validation Checks.
   viii Implementation, Evaluation and Maintenance.
   ix Security Measures taken.
   x Future Scope of the project.
   xi Bibliography
# Question Paper Scheme

**Time: 3 Hours**

**Max. Marks: 80**

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