COURSE AND EXAMINATION SCHEME
POST GRADUATE DIPLOMA IN COMPUTER COMMERCIAL APPLICATIONS (PGDCCA)
ONE YEAR PG DIPLOMA COURSE IN THE FACULTY OF COMMERCE

Sr. No.	Subject	Course Scheme			No.of Credits	Examination Scheme							
						Maximum Marks				Minimum Passing Marks			
		L	T	P		ESE	P	IA	Total	ESE	P	IA	Total
1.	Commercial Practices	4		-	4	80		20	100	32		8	40
2.	Information and Communication Technology	4		-	4	80		20	100	32		8	40
3.	Introduction to Operating System	4		-	4	80		20	100	32		8	40
4.	Programming Techniques with C	4		-	4	80		20	100	32		8	40
5.	Computerized Accounting using Tally	4		-	4	80		20	100	32		8	40
6.	Practical-I based on Theory Paper-2 and 3	-		4	2	-	E-25 I-25		50		E-10 I-10		20
7.	Practical-II based on Theory Paper- 4 & 5	-		4	2	-	E-25 I-25		50		E-10 I-10		20
8.	Project	-		4	8	-	E-50 I-50		100		E-20 I-20		40
		20		12	**32**	**500**		**200**	**700**	160	80	40	280

*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   <u>10 Marks</u>
        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**

P.G.D.C.C.A

Paper - 1: COMMERCIAL PRACTICES

(PGDCCA1)

UNIT - I: Financial Accounting and Income Tax

Basic Concepts and Conventions; Accounting Process in double entry accounting System, Journal Entry, Ledger accounts, Trial Balance, Final accounts of individuals & limited Company.

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

Meaning & Role of Management Accounting, Ratio Analysis, Working Capital-Meaning, Concepts and Estimation; Break Even Analysis- Nature, Scope Uses and Limitations.

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

UNIT – III: Business Laws

Indian Contract Act 1872- Offer, Acceptance, Essentials of valid contract.

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:

1) P.C. Tripathi, " Principal of Management", TMH, Year 2007, ISBN 13:978-0-07-060058-4
2) P. N. Reddy," Principal of Management", TMH, Year2007, ISBN 10:0-07-060058-9
3) R. K. Sawlikar, "Cost & Management Accounting", Das Ganu Prakashan, Year 2003

References:

1) Dr. K. R. Dixit, "Business Management",Vishawa Pub.",Year 2006, ISBN 81-86454-46-2
2) Dr. S.B. Kishor, "Introduction to Commercial Practice", Das Ganu, , 2012, ISBN-978-93-81660-0304

P.G.D.C.C.A

Paper-2: INFORMATION AND COMMUNICATION TECHNOLOGY

(PGDCCA2)

UNIT-I: Introduction to IT and Computers

Block Diagram of Computer, Functioning of Computer, Generations of Computer, Classification of Computers, Characteristics, Advantages & Limitations of Computer.

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

Input devices: Keyboard **Locator Device:** Mouse, Joy Stick Digitizing Tablet **Pick Device:** Light Pen, Touch Screen Track ball **Voice Recognition:** Microphone, Scanning: MICR, OCR, OMR, Barcode Reader, **Vision Capturing:** Webcam, Digital Camera Point of Scale, Touch Pad, Smart Card

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

UNIT-II: Hardware and Software Concept and Programming Language

Introduction, Types of Software, Characteristics of Good Program, Development of Programming **Languages:** Machine Language, Assembly Language, High Level 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:

1) Peter Norton's, " Introduction to Computer", TMH, 2004, ISBN-0-07-05-3142-0
2) Pradeep K. Sinha and Priti Sinha " Computer Fundamentals", BPB, 2007, ISBN-10:81-7656-752-3/13:978-81-7656-752-7
3) Chetan Shrivastava " Fundamentals of Information Technology", Kalyani publishers, 2002, ISBN-81-7663-576-6
4) Dr Madhulika Jain,"Information Technology Concept", BPB,2006,ISBN -81-7656-276-9

References:

1) Sanjay Saxena and Prabhpreet Chopra, " IT Tools and Applications",2008
2) Akshay Kumar, " Information Technology and Info Guide", Authors press,2000, ISBN-81-7273-040-3

P.G.D.C.C.A

Paper-3: INTRODUCTION TO OPERATING SYSTEM

(PGDCCA3)

UNIT-I: Basic of Operating System

Introduction to Operating System: Types of Operating System. Simple Batch System, Multiprogramming, Time Sharing System, Personal Computer System, Parallel System, Distributed System, Real Time System, Multiprocessing, on-Line and Off-Line Processing.

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:

1) Andrew S. Tanenbaum, "Modern Operating Systems", 2nd Ed, PHI, ISBN-81-203-0974-X
2) Jack Tackett, Jr. and Steven Burnett, "Using Linux", PHI, 5th Ed, ISBN-0789716232
3) Brian Proffitt, "Install Configure and Customize (Red Hat Linux 7)", PHI, ISBN-0761531505
4) Grant Taylor, "Linux Complete" , BPB, ISBN- : 81-7656-170-3

References:

1)   Brain Proffitt, "Red Hat Linux 7",PHI.

2) Abraham Silbeschatz, "Operating System Concepts", Bell Labs Peter Baergalvin Replika Press Pvt. Ltd.Delhi,

3)   "Teach Linux in 24 hours",SAMS Techmedia,ISBN:81-7635-499-6.

P.G.D.C.C.A

Paper-4: PROGRAMMING TECHNIQUES WITH C

(PGDCCA4)

UNIT–I: Programming Logic and Basic Elements of 'C' Programming

Programming Logic: Problem Analysis, Process Analysis, Conceptual Development of solution. **Development Tools:** Algorithm, Flowchart

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(), feee()

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

Books:

1) E. Balguruswami, "Programming in ANSI C", TMH, 2009, ISBN-978-0-07-064822-7/0-07-064822-0
2) K.R. Venugopal and S.R. Prasad, "Mastering C", TMH, 2008, ISBN-13:978-0-07-061667-7 / 10: 0-07-06-1667-1.

References:

1) V RAJARAMAN, "COMPUTER PROGRAMMING IN C", PHI, 2002, ISBN-81-203-0859-X

2) Stephen G. Kochan, "Programming in C", CBS, *ISBN*-13: 9780321566157

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

Accounts info menu, Account Groups- create new group, creation of primary group. Normal and advance information, Ledger Accounts, cost categories, Cost Centers. Creation of Budget, Types of budget. VAT/CST Report generation, TDS and Service Tax Voucher- Voucher Entry, creation of Vouchers Screen, types of Voucher, Selection of Voucher types, Post Dated Voucher, printing of Vouchers, Cheque Printing, advance Features of account Voucher.

UNIT-IV: Inventory Info, Security

Inventory info, Features of Inventory info, Configure- Inventory Info, Stock Item, Stock Group, Stock Category, godown, balance Sheet, Audit Trail, Ratio Analysis. Display- Accounting Report Display, Inventory report Display, and MIS Report Display. Printing Reports, Export, Export of Data. Maintenance- Bank Reconciliation, Security- Users and Password, Security Controls, Types of Security, Creation New Security Levels and Tally Audit.

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:

1) K.K. Nadhani, "IMPLEMENTING TALLY 6.3", BPB, 2006, ISBN 81-7656494-X
2) Anthony R-N. and J.S.Richard, "Accounting Principle", Irwin Inc. Pub.
3) K.K. Nadhani and A.K. Nadhani,"Tally Tutorial", BPB,2005, ISBN 81-7656-516-4

References:

1) .M.C. Shukla, T.S.Grewal and S.G,Gupta " Advances Accounts Vol-I", S. Chand & Company, Delhi. 2005 ISBN 81-219-0396-3
2) P.C. Tulsian, "advanced Accountancy", TMH.

P.G.D.C.C.A

SEMESTER-II

PORJECT

(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
    iv.   Process Logic.
    v.   Types of Report Generation.
6.   Scope of future Application.

Project Report Formulation.

1.   Title Page.
2.   Certificate Page.
3.   Declaration Page.
4.   Acknowledgment 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.
    iv.   Software Requirement Specification.
    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

POST GRADUATE DIPLOMA IN COMPUTER COMMERCIAL APPLICATIONS

(PGDCCA)

Question Paper Scheme

Time: 3 Hours   **Max. Marks: 80**

Q1 Either (From Unit 1)
            a)
            b)
    Or
            c)
            d)   8 * 2 = 16

Q2 Either (From Unit 2)
            a)
            b)
    Or
            c)
            d)   8 * 2 = 16

Q3 Either (From Unit 3)
            a)

            b)

    Or
            c)
            d)   8 * 2 = 16

Q4 Either (From Unit 4)
            a)

            b)

    Or
            c)
            d)   8 * 2 = 16

Q5 Short Question (One compulsory question from each unit)

        a)

        b)

        c)

        d)   4 * 4 = 16