

TEACHING AND EXAMINATION SCHEME
Post Graduate Diploma in Computer Applications
W.E.F. 2020-2021

Semester I

| Paper Name (Theory) | | Lec | Tut | Ex Hrs | Max Marks | | Credits |
|---------------------|--|-----|-----|--------|-----------|------------|-----------|
| | | | | | Sess | Sem Ex | |
| dca-101 | Introduction to IT & PC Productivity Tools | 3 | 1 | 3 | 20 | 80 | 4 |
| dca-102 | Financial Accounting Software | 3 | 1 | 3 | 20 | 80 | 4 |
| dca-103 | Electronic Data Processing | 3 | 1 | 3 | 20 | 80 | 4 |
| dca-104 | Sales Force | 3 | 1 | 3 | 20 | 80 | 4 |
| TOTAL | | | | | 80 | 320 | 16 |

| Paper Name (Practical) | | Pr Hrs | Ex Hrs | Max Marks | Credits |
|------------------------|--|--------|--------|------------|----------|
| dca-105 | Lab-Introduction to IT & PC Productivity Tools | 3 | 3 | 50 | 2 |
| dca-106 | Lab-Financial Accounting Software | 3 | 3 | 50 | 2 |
| dca-107 | Lab-Electronic Data Processing | 3 | 3 | 50 | 2 |
| dca-108 | Lab-Sales Force | 3 | 3 | 50 | 2 |
| dca-109 | Anandam* | | | | 2 |
| TOTAL | | | | 200 | 8 |

| | | |
|---|------------|-----------|
| Total of Theory & Practical Marks& Credits | 600 | 24 |
|---|------------|-----------|

*Anandam credit is not counted in Grade Point Average

Semester II

| Paper Name (Practical) | | Pr Hrs | Ex Hrs | Max Marks | Credits |
|------------------------|-----------------------------|--------|--------|------------|-----------|
| dca-201 | Seminar | 3 | 3 | 100 | 4 |
| dca-202 | Industrial Training Project | 3 | 3 | 300 | 20 |
| dca-203 | Anandam* | | | | 2 |
| TOTAL | | | | 400 | 24 |

*Anandam credit is not counted in Grade Point Average

SCHEME FOR PGDCA EXAMINATION

Theory:

The examination paper will consist of 10 questions out of which any 5 questions to be attempted.

Sessional:

There will be sessional (internal assessment) of 20 marks conducted by the department.

Practical & Projects:

Practical exams shall be conducted by one internal and one external examiner of a batch of 40 students in a day.

Duration of Practical exam is 3 hours.

A Laboratory Exercise File should be prepared by each student for each practical paper and should be submitted during practical examinations.

Practical of 50 marks distribution is as under:

- a. 30 marks for practical examination exercise for 3 questions
- b. 10 marks for Viva-voce
- c. 10 marks for Laboratory Exercise File

The Project Report work shall be assessed by one internal and one external examiner of a batch of 20 students in a day. The Project work should be allotted to a group of maximum 3 students and a copy of the project should be submitted to the **University**.

SCHEME FOR PGDCA EXAMINATION

The examination for the Post Graduate Diploma in Computer Applications (PGDCA) will consist of one part. The examination shall consist of (a) Theory papers (b) Laboratory/ Practical work and project work. Candidates will be required to pursue a regular, full time course of study at the affiliated college for a period of one academic year in order to be eligible for appearing in the examination.

Eligibility: A candidate seeking admission to the PGDCA shall be required to possess a Bachelor's degree in any discipline with 40% marks in aggregate.

Examination:

1. A candidate who completes a regular course of study for one academic year shall be eligible to appear in PGDCA examination.
2. There shall be 10 papers (4theory, 4 practical, 1 Seminar and 1 Industrial training project as practical) of 1000 marks. Apart from the 10 papers there shall be 1 practical paper of *Anandam* in each semester. Theory paper shall be of 3 hours duration having 100 marks. Out of 100 marks 20 marks shall be considered as internal assessment based on internal test and seminars and 80 marks will be of examination as determined by the University. The practical shall be of 50 marks assessed by external examiner and the Industrial Training project work shall be of 300 marks based on project presentation and viva-voce, assessed by external examiner. The seminar shall be of 100 marks based on presentation and viva-voce, assessed by external examiner.
3. For passing a candidate shall have to secure at least 25% marks in each course (theory paper, sessional and practical work separately) and 36% marks in the aggregate in all the courses.
4. Due paper(s) will be applicable if a candidate obtains 36% marks in aggregate and fails in not more than three (3) papers (theory). Due paper(s) will be held along with the examination of the next year. The chance of due paper(s) will be given only 3 times.
5. Wherever a candidate appears at for a due paper examination he/she will do so according to the syllabus in force.
6. A candidate not appearing at any examination/absent in any paper of term end examination shall be deemed as fail.
7. A candidate will be placed in First Division if he/she secures 60% or more marks in aggregate in all the courses and in second division if he/she secures 50% or more marks but less than 60% marks in aggregate in all the courses.
 - a. Where the candidate secures at least 36% marks in aggregate of all the courses he /she shall be deemed to have passed in each such course in which he/she has secured at least 25% marks.
 - b. Where the candidate fails to secure 36% marks in aggregate of all the courses he/she shall be deemed to have passed in each such course in which he/she has secured at least 25% marks.
 - c. If a candidate fails or does not appear in more than 50% of the courses prescribed for the examination he/she may be allowed to appear at a subsequent examination subject to the condition that he/she will have to appear and pass in all the courses.

Provided that if a candidate clears any course after a continuous period of two years since he/she was admitted to the PGDCA then for the passing marks i.e. 25% marks shall be taken into account in the case of such course(s).

Provided further that in case where a candidate requires more than 25% marks in order to reach the requisite minimum aggregate as many marks, out of those actually secured by him/her will be taken into account as would enable him/her to make up the deficiency in the requisite minimum aggregate marks.

Candidates reappearing at an examination in a subsequent year shall be examined in accordance with the scheme and syllabi in force and shall be entitled to the award of the degree of year in which they clear the last failing/unclear paper.

The grace marks shall be given up to 1% of the total aggregate marks of theory and practical of that semester in maximum one paper.

Anandam Curriculum:

The Anandam curriculum aims to instill the joy of giving in young people, turning them into responsible citizens who will build a better society.

1. Students will be expected to

- Do at least one act of individual service each day
- Record this act of service in a dedicated Register/Personal Diary (PD)
- Share this Register/Personal Diary in the 30-minute Anandam time slot dedicated by the college
- Undertake one group service project or 64 hours every term (outside college hours)
- Upload the report on the group project on the Anandam platform
- Participate in a sharing and presentation on the group service in the discussion sessions held once a month

2. Inputs from the College

- Faculty will review every student's Register/PD to see if they recorded an act of goodness for that day
- The act of goodness will not be evaluated – just if it was recorded or not
- The faculty will mentor the group service projects. They will strive to mobilize the required resources and support for the group service projects.
- Mentors to guide and review the student's activities on a regular basis
- There will be one Anandam coordinator to monitor the program in every college/university/teaching unit

3. Evaluation

In order to be eligible for the credits, the students are expected to complete a minimum of 32 entries (40%) per semester/in six months in their Register/Personal Diaries. In order to be eligible for the special awards, all the group members are expected to have completed a minimum of 48 entries (60%) per semester/in six months of the same.

Time available per semester:

- Register/Personal Diary: A minimum of 32 entries (40%) and a maximum of 80.
- Project Participation: 2 hours X 8 days X 4 months = 64 hours

| | Project 1 (Semester 1) | Project 2 (Semester 2) |
|-------------|--|--|
| Two Credits | Total: 64 hours Grading = 32 hours: C grade >32 to <= 44: B grade >44 to <= 54: A grade >54 to <= 64: O grade | |
| Two Credits | | Total: 64 hours Grading = 32 hours: C grade >32 to <= 44: B grade >44 to <= 54: A grade >54 to <= 64: O grade |

The grading awarded to a student will be shown in mark sheet but will not be considered in the overall percentage of the semester.

Grade Points awarded in the mark sheet based on marks obtained in theory and practical

| Grade | Mark m out of 100 | Grade Points | Grade | Mark m out of 100 | Grade Points |
|-------|-------------------|--------------|-------|-------------------|--------------|
| O+ | $m \geq 95$ | 10 | E | $36 \leq m < 45$ | 4 |
| O | $85 \leq m < 95$ | 9 | F | $m < 36$ | 3 |
| A | $75 \leq m < 85$ | 8 | | | |
| B | $65 \leq m < 75$ | 7 | | | |
| C | $55 \leq m < 65$ | 6 | | | |
| D | $45 \leq m < 55$ | 5 | | | |

Award of Class

| CGPA | Class |
|--------------|--------------|
| CGPA < 4 | Fail |
| 4 < CGPA < 5 | Pass |
| 5 < CGPA < 6 | II Class |
| 6 < CGPA < 7 | I Class |
| CGPA > 7 | Distinction |

dca-101 Introduction to IT & PC Productivity Tools

Introduction to Computer: Definition, characteristics, classification of computers, analog computers, digital computers, hybrid computers, classifications of computers on the basis of size and speed, different types of computer generations of computers.

Computer Keyboard, pointing devices, mouse, track ball, touch pad, joysticks, touch-sensitive screens, pen based systems, digitizer, data scanning devices, optical recognition systems, barcode readers, optical mark readers, optical scanners, drum scanners, hand scanner, flatbed scanner, web camera, game pad, digital camera

Hard copy devices: Printer, impact printers, daisy wheel, dot matrix printer, line printer, chain printers, comb printers, non-impact printers, DeskJet, inkjet printers, laser printer, thermal transfer printer, barcode printers.

Computer display, introduction memory, classifications, random-access memory, volatile memory, non-volatile memory, flash memory, read-only memory, secondary memory, the cache memory, auxiliary storage memory, memory hierarchy, storage devices, magnetic tape, magnetic disk, floppy disk, hard disks, CD, DVD, magneto optical.

Introduction to MS Word, creating, editing, formatting and printing documents and other features of MS Word.

Introduction to MS Excel, creating work sheets, editing, formatting worksheets, working with cell range, formulae and functions, graphs.

Introduction to MS Power Point, creating, editing slides and frames, OLE

dca-102 Financial Accounting Software

Fundamentals of Accounting - Accounting Terms Accounting Assumptions, Concepts and Principles, Concepts, Principles, Types of Accounts, Double entry system for book keeping, Mode of accounting.

Journalising and Posting of Transaction – Recording of Business Transactions, Ledger, Trial Balance, Subsidiary Books & Control Accounts, Financial Statements.

Maintaining Chart of Accounts in Tally ERP 9 – Getting Started with Tally ERP 9, Company Creation, Company Features and Configurations, Chart of Accounts, Ledger, Group.

Fundamentals of Inventory Management – Creating Inventory Masters, Creation of Stock Group, Creation of Unit of Measure, Creation of Stock Item, Creation of Godown.

Recording Day to Day Transactions- Recording Transactions in Tally ERP 9, Accounting Vouchers, Inventory Vouchers.

Accounts Receivable and Payable Management

Maintaining Bill-wise Details, Activation of Maintaining Bill-wise Details Feature.

Banking Features - Setting up Banking Features, Cheque Management, Bank Reconciliation

Deposit Slip Payment Advice, Managing of Post-dated Cheques.

Allocation and Tracking of Expenses and Incomes- Cost Centre and Cost Categories

MIS Reports - Advantages of Management Information Systems, Types of MIS Reports in Tally ERP 9, MIS Reports in Tally.ERP 9.

Storage and Classification of Inventory- Godown Management, Activating Godown, Creating a Godown, Stock Category, Movements of Goods in Batches/Lots - Batch wise details, Stock Valuation Methods.

Management of Purchase and Sales Cycles - Purchase Order Processing, Sales Order Processing

Price Levels and Price Lists - Activating Price Lists and Defining of Price Levels, Creation of Price List, Using Price List, Revise Price List.

Manufacturing Process – Activating of Bill of Materials, Auto Listing of Components Using Bill of Materials, Accounting of Manufacturing Process in Tally ERP 9, Transferring of Manufactured Goods from Storehouse to Showroom

Goods and Services Tax – Introduction to GST, Getting Started with GST (Goods), Advance adjustments and Entries (Goods), Getting Started with GST (Services), Advance adjustments and Entries (Services).

Securing Financial Information – Security Control, Password Policy, Tally Vault Password

Data Management and Financial Year End Process- Backup and Restore , Export and Import of Data, Printing Reports, Managing of Data during Financial Year End Process, Important Pre-Split Activity, Splitting of Data

dca-103 Electronic Data Processing

Concept of system, conventional file system, object of database systems, data abstraction, data definition language, data manipulation language, database administrator. Database design stages, database model, database system architecture.

Entity relationship model, entities and entity sets their relationship, mapping constraints.

Create a Table in MS Access -Data Types, Field Properties, Fields names, types, properties, default values, format, caption, validation rules Data Entry Add record delete recode and edit text Sort, find/replace, filter / select, re-arrange columns, freeze columns. Edit a Tables- copy, delete, import, modify table structure find replace.

Setting up Relationships- Define relationships, add a relationship, set a rule for Referential Integrity, change the join type, delete a relationship, save relationship Queries & Filter –difference between queries and filter, filter using multiple fields AND, OR, advance filter Queries create Query with one table, fiend record with select query, find duplicate record with query, find unmatched record with query, run query, save and change query.

Introduction to Forms Types of Basic Forms: Columnar, Tabular, Datasheet, Main/Sub forms, adding headers and footers, add fields to form, add text to form use label option button, check box, combo box, list box Forms Wizard, Create Template.

Introduction to Reports, Types of Basic Reports: Single Column, Tabular Report Groups/Total, single table report multi table report preview report print report, Creating Reports and Labels, Wizard

dca-104Sales Force

Introduction to Cloud Computing, What is Cloud Computing, Advantages, Layers – Client, Application (Software as a Service (SaaS)), Platform (platform as a service (PaaS)), Infrastructure (infrastructure as a service" (IaaS)), Server. Deployment Models – Public cloudm Community Cloud, Hybrid Cloud, Private Cloud.

Introduction to Salesforce, What is salesforce.com, Advantages, Products and Services - CRM – Salesforce CRM and other CRM, AppExchange, Configuration, Web services, Mobile support.

Introduction to Force.com Platform - Registering Developer Edition with Salesforce.com, Standard applications, Standard Tabs, Standard Objects and relationships, Links. Setup page – Personal Setup, Application Setup and Administration Setup.

Designing Applications on Force.com – I - Creating new application, Creating Custom objects, Creating Tabs – Custom Tabs, Web tabs, Adding text, Currency, Checkbox, Date fields, Creating Picklists, Field Dependencies.

Designing Applications on Force.com - II - Encrypted fields, field help, and field history tracking, Use master detail, lookup, and many-to-many Relationships, Custom button and links Creation, Rollup Summary field.

Designing Applications on Force.com – III - Develop custom formulas, Use the VLOOKUP, regex, ischanged, isnew, and prior value functions to build business processes, Validation Rules – Creating rule by applying formulas, Payelayouts – Payelayout Editor, Grouping fields into New Section, adding space between Fields, Editing Field properties, Search Layouts