# E.M.G. YADAVA WOMEN'S COLLEGE, MADURAI – 625 014.

(*An Autonomous Institution – Affiliated to Madurai Kamaraj University*)

Re-accredited **(3rd Cycle)** with Grade **A+** & **CGPA 3.51** by NAAC

# DEPARTMENT OF COMMERCE



## TANSCHE - **CBC**S With OBE

## BACHELOR OF COMMERCE
## (Computer Applications)

### PROGRAMME CODE - D

## COURSE STRUCTURE

(w.e.f. 2023 – 2024 Batch onwards)

# E.M.G. YADAVA WOMENS COLLEGE, MADURAI -14.

**(An Autonomous Institution – Affiliated to Madurai Kamaraj University)**
**Re –accredited (3rd cycle) with Grade A+ and CGPA 3.51 by NAAC**
**TANSCHE – CBCS with OBE**
**DEPARTMENT OF COMMERCE – UG**
**B.Com (CA)**
COURSE STRUCTURE
(w.e.f. 2023 – 2024 Batch onwards)

| Semester | Part | Course Code | Course Title | Teaching hrs (per week) | Duration of Exam (hrs.) | Marks Allotted | | | CREDITS |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | CIA | EXT | Total | |
| **III** | I | 23OU1TA3/23OU1HIN3 | Tamil/Hindi | 6 | 3 | 25 | 75 | 100 | 3 |
| | II | 23OU2EN3 | General English 3 | 6 | 3 | 25 | 75 | 100 | 3 |
| | III | 23OUCCA31 | **Core Course 5** Corporate Accounting I | 5 | 3 | 25 | 75 | 100 | 5 |
| | | 23OUCCA32 | **Core Course 6** Business Mathematics and Statistics | 5 | 3 | 25 | 75 | 100 | 5 |
| | III | 23OUCCAGECA3 | **GEC 3:** Web Technology(PHP) | 2 | 3 | 25 | 75 | 100 | 2 |
| | | 23OUCCAGECA3P | **GEC 3:** Web Technology(PHP) Lab | 2 | 3 | 40 | 60 | 100 | 1 |
| | IV | 23OUCCASEC31P | **SEC 4** Desktop Publishing Lab | 2 | 3 | 40 | 60 | 100 | 2 |
| | | 23OUCCASEC32 | **SEC 5** General Knowledge | 1 | 3 | 25 | 75 | 100 | 1 |
| | | | Environmental Studies | 1 | -- | -- | -- | -- | - |
| | | | **Total** | **30** | | | | | **22** |
| **IV** | I | 23OU1TA4/23OU1HIN4 | Tamil/Hindi | 6 | 3 | 25 | 75 | 100 | 3 |
| | II | 23OU2EN4 | General English 4 | 6 | 3 | 25 | 75 | 100 | 3 |
| | III | 23OUCCA41 | **CoreCourse 7** Corporate Accounting II | 5 | 3 | 25 | 75 | 100 | 5 |
| | III | 23OUCCA42 | **CoreCourse 8** Company Law | 5 | 3 | 25 | 75 | 100 | 5 |
| | | 23OUCCAGECA4 | **GEC 4:** Relational Database Management System | 3 | 3 | 25 | 75 | 100 | 3 |
| | | 23OUCCASEC4P | **SEC 6:** RDBMS Lab | 2 | 3 | 40 | 60 | 100 | 2 |
| | IV | 23OUCCASEC42 | **SEC 7** Soft Skills for Job Seekers | 2 | 3 | 25 | 75 | 100 | 2 |
| | | 23OU4EV4 | Environmental Studies | 1 | 3 | 25 | 75 | 100 | 2 |
| | | | **Total** | **30** | | | | | **25** |

**Semester III**

**Elective (GEC3-Choose any one)**

                             Programming in Java

                             Programming in Java Lab

23OUCCAGECA3    Web Technology (PHP)

23OUCCAGECA3P  Web Technology (PHP) Lab

**Semester IV**

**Elective (GEC4-Choose any one)**

                             Relational Database Management System

23OUCCAGECA3    Introduction to Data Science

| | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|
| | | | | | | | | | **Class: II B.Com CA** |

| Sem | Category | Course Code | Course Title | Credits | Contact Hours / Week | CIA | SE | Total |
|---|---|---|---|---|---|---|---|---|
| III | Corr-5 | 23OUCCA31 | Corporate Accounting I | 5 | 5 | 25 | 75 | 100 |

| Nature of the Course | | |
|---|---|---|
| **Knowledge and Skill Oriented** | Employability Oriented | Entrepreneurship oriented |
| ✔ | ✔ | |

**Course Objectives:**

1. To understand about the pro-rata allotment and Underwriting of Shares
2. To know the provisions of companies Act regarding Issue and Redemption of Preference shares and debentures
3. To learn the form and contents of financial statements as per Schedule III of Companies Act 2013
4. To examine the various methods of valuation of Goodwill and shares
5. To identify the Significance of International financial reporting standard (IFRS)

**Course Content:**

**UNIT-I : Issue of Shares** Issue of Shares – Premium - Discount - Forfeiture - Reissue – Pro-rata Allotment Issue of Rights and Bonus Shares - Underwriting of Shares and Debentures – Underwriting Commission - Types of Underwriting

**UNIT-II** : **Issue & Redemption of Preference Shares & Debentures** Redemption of Preference Shares– Provisions of Companies Act– Capital Redemption Reserve – Minimum Fresh Issue – Redemption at Par, Premium and Discount.

Debentures: Issue and Redemption – Meaning – Methods – In-One lot–in Instalment – Purchase in the Open Market includes Ex Interest and Cum Interest - Sinking Fund Investment Method.

**UNIT-III** : **Final Accounts** Introduction – Final Accounts – Form and Contents of Financial Statements as Per Schedule III of Companies Act 2013 – Part I Form of Balance Sheet – Part II Form of Statement of Profit and Loss – Ascertaining Profit for Managerial Remuneration

**UNIT-IV**: **Valuation of Goodwill & Shares** Valuation of Goodwill – Meaning – Need for Valuation of Goodwill – Methods of Valuing Goodwill – Average Profit – Super Profit – Annuity and Capitalisation Method.

Valuation of Shares – Need for Valuation of Shares – Methods of Valuation of Shares – Net Assets Method – Yield and Fair Value Methods.

**UNIT-V**: **Indian Accounting Standards** International Financial Reporting Standard (IFRS)–Meaning and its Applicability in India - Indian Accounting Standards – Meaning – Objectives – Significance – Procedures for Formulation of Standards – Ind AS – 1 Presentation of Financial Statement, Ind AS – 2 Valuation of Inventories, Ind AS – 7 Cash Flow Statement, Ind AS – 8 Accounting Policies, Changes in Accounting Estimate and Errors, Ind AS – 16 – Property, Plant & Equipment, Ind AS 38 – Intangible Assets  Ind AS – 103, Business Combinations Ind AS 110, Consolidated Financial Statement. (Theory Only)

**Books for Study:**

1. S.P. Jain and N.L. Narang, Advanced Accounting Vol I, Kalyani Publication, New Delhi.
2. R.L. Gupta and M. Radha swamy, Advanced Accounts Vol I, Sultan Chand, New Delhi.
3. Broman, Corporate Accounting, Taxmann, New Delhi.
4. Shukla, Grewal and Gupta- Advanced Accounts VolI,S.Chand, New Delhi.
5. M.C.Shukla, Advanced accounting Vol I, S.Chand, New Delhi.

**Books for Reference:**

1. T.S. Reddy, A. Murthy – Corporate Accounting- Margham Publication, Chennai.
2. D.S.Rawat&NozerShroff,Students Guide To  Accounting Standards ,Taxmann, New Delhi
3. Prof. Mukeshbramhbutt, Devi,Corporate Accounting I, Ahilya Publication, Madhya Pradesh
4. Anil Kumar, Rajesh kumar, Corporate accounting I, Himalaya Publishing house, Mumbai.
5. PrasanthAthma, Corporate Accounting I, Himalaya Publishing house, Mumbai.

**Websites and e-Learning resources**

1. https://www.tickertape.in/blog/issue-of-shares/
2. https://www.taxmann.com/bookstore/bookshop/bookfiles/chapter12valuationofgoodwillandshares.pdf
3. https://www.mca.gov.in/content/mca/global/en/acts-rules/ebooks/accounting-standards.html

**Pedagogy:** Chalk and Talk, PPT, Group Discussion, Presentations, quiz and Seminar.

**Rationale for nature of Course:** Chalk and Talk, PPT, Group Discussion, Presentations, quiz and Seminar

**Knowledge and Skill:** Preparing financial statements to maintaining general ledgers.

**Activities to be given:** To develop the procedure involved in Absorption of companies

**COURSE OUTCOMES:**

| COs | CLO Statement | Knowledge According to Bloom's Taxonomy (Upto K level) |
|---|---|---|
| CO1 | Prepare and account for various entries to be passed in case of issue, forfeiture and reissue of shares and compute the liability of underwrites | K3 |
| CO2 | Asses the accounting treatment of issue and redemption of preference shares and debentures | K4 |
| CO3 | Construct Financial Statements applying relevant accounting treatments | K3 |
| CO4 | Compute the value of goodwill and shares under different methods and assess its applicability | K4 |
| CO5 | Integrate theoretical knowledge on all accounting in par with IFRS and IND AS | K4 |

**Mapping of Course Learning Outcomes (CLOs) with Programme Outcomes (Pos)**

|  | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 |
|---|---|---|---|---|---|---|
| CLO1 | 1 | 3 | 2 | 2 | 1 | 3 |
| CLO2 | 2 | 1 | 3 | 2 | 1 | 2 |
| CLO3 | 2 | 1 | 2 | 3 | 1 | 3 |
| CLO4 | 1 | 2 | 1 | 3 | 2 | 3 |
| CLO5 | 2 | 1 | 3 | 2 | 2 | 3 |

**1 – Basic Level, 2- Intermediate Level, 3- Advanced Level**

## LESSON PLAN: TOTAL HOURS (75 Hrs)

| UNIT | Details | No. of Hours | Mode of Teaching |
|---|---|---|---|
| I | **Issue of Shares Issue of Shares –** Premium - Discount - Forfeiture - Reissue – Pro-rata Allotment Issue of Rights and Bonus Shares - Underwriting of Shares and Debentures – Underwriting Commission - Types of Underwriting | 15 | Chalk and Talk |
| II | **Issue & Redemption of Preference Shares & Debentures** Redemption of Preference Shares–Provisions of Companies Act–Capital Redemption Reserve – Minimum Fresh Issue – Redemption at Par, Premium and Discount. Debentures: Issue and Redemption – Meaning – Methods – In-One lot–in Instalment – Purchase in the Open Market includes Ex Interest and Cum Interest - Sinking Fund Investment Method | 15 | Chalk and Talk, PPT, quiz, on the spot test |
| III | **Final Accounts Introduction** – Final Accounts – Form and Contents of Financial Statements as Per Schedule III of Companies Act 2013 – Part I Form of Balance Sheet – Part II Form of Statement of Profit and Loss – Ascertaining Profit for Managerial Remuneration | 15 | Chalk and Talk, PPT, quiz, on the spot test |
| IV | **Valuation of Goodwill & Shares Valuation of Goodwill –** Meaning – Need for Valuation of Goodwill – Methods of Valuing Goodwill – Average Profit – Super Profit – Annuity and Capitalisation Method. Valuation of Shares – Need for Valuation of Shares – Methods of Valuation of Shares – Net Assets Method – Yield and Fair Value Methods. | 15 | Chalk and Talk, PPT, quiz, on the spot test |
| V | **Indian Accounting Standards** International Financial Reporting Standard (IFRS)–Meaning and its Applicability in India - Indian Accounting Standards – Meaning – Objectives – Significance – Procedures for Formulation of Standards – Ind AS – 1 Presentation of Financial Statement, Ind AS – 2 Valuation of Inventories, Ind AS – 7 Cash Flow Statement, Ind AS – 8 Accounting Policies, Changes in Accounting Estimate and Errors, Ind AS – 16 – Property, Plant & Equipment, Ind AS 38 – Intangible Assets  Ind AS – 103, Business Combinations Ind AS 110, Consolidated Financial Statement. (Theory Only) | 15 | Seminar, PPT presentation, Quiz |
| | **Total** | **75** | |

**Course Designer :M.Neelavathy**

| | | | | | | **Class: II B.Com CA** | | |
|---|---|---|---|---|---|---|---|---|
| **Sem** | **Course Type** | **Course Code** | **Course Title** | **Credits** | **Contact Hours / Week** | **CIA** | **SE** | **Total** |
| III | Core -6 | 23OUCCA32 | Business Mathematics &Statistics | 5 | 5 | 25 | 75 | 100 |

| **Nature of the Course** | | |
|---|---|---|
| **Knowledge and Skill Oriented** | Employability Oriented | Entrepreneurship oriented |
| ✔ | ✔ | |

**Course Objectives:**

1. To impart knowledge on the basics of ratio, proportion, indices and proportions
2. To learn about simple and compound interest and arithmetic, geometric and harmonic progressions.
3. To familiarise with the measures of central tendency
4. To conceptualise with correlation co-efficient
5. To gain knowledge on time series analysis

**Course Content:**

**UNIT I: Ratio** Ratio, Proportion and Variations, Indices and Logarithms.

**UNIT II: Interest and Annuity** Banker's Discount – Simple and Compound Interest - Arithmetic, Geometric and Harmonic Progressions**.**

Annuity - Meaning - Types of Annuity Applications.

**UNIT III: Business Statistics Measures of Central Tendency**
Arithmetic Mean, Geometric Mean - Harmonic Mean - Mode and Median – Quartiles – Deciles - Percentiles.

Measures of Variation – Range - Quartile Deviation and Mean Deviation - Variance and Standard Deviation & Co-efficient.

**UNIT IV: Correlation and Regression**
Correlation - Karl Pearson's Coefficient of Correlation – Spearman's Rank Correlation – Regression Lines and Coefficients.

UNIT V: **Time Series Analysis and Index Numbers**
Time Series Analysis : Secular Trend – Seasonal Variation – Cyclical variations - Index Numbers – Aggregative and Relative Index – Chain and Fixed Index –Wholesale Index – Cost of Living Index.

**Books for Study:**

1. Dr. B.N. Gupta, Business Mathematics & Statistics, Shashibhawan publishing house, Chennai

2. Asim Kumar Manna, Business Mathematics & Statistics, McGraw hill education, Noida
3. A.V. Rayarikar and Dr. P.G. Dixit, Business Mathematics & Statistics, Nirali Prakashan Publishing, Pune
4. Dr.S. Sachdeva, Business Mathematics & Statistics, Lakshmi NarainAgarwal, Agra
**5.** P.R. Vittal, Business Mathematics & Statistics, Margham Publications, Chennai

**Books for Reference**

1. J.K. Sharma, Fundamentals of business statistics, Vikas publishing, Noida

2. Peter Waxman, Business Mathematics & Statistics, Prentice Hall, New York

3. Andre Francis, Business Mathematics & Statistics, Cengage Learning EMEA, Andover

4. Aggarwal B M, Business Mathematics & Statistics, Ane Book Pvt. Ltd., New Delhi

5. R.S. Bhardwaj, Business Mathematics & Statistics, Excel Books Publisher, New Delhi

**Web Resources / E.Books:**

1. https://www.britannica.com/biography/Henry-Briggs

2. https://corporatefinanceinstitute.com/resources/data-science/central-tendency/

3. https://www.expressanalytics.com/blog/time-series-analysis/

**Pedagogy:** Calk and Talk, PPT, Group Discussion, Presentation, Quiz and Seminar

**Rationale for nature of Course:** Understanding 'Statistics' and apply it in business application

**Knowledge and Skill:** To make students use the proper methods to collect the data, employ the correct analyses, and effectively present the results.

**Activities to be given:** Students are asked to collect data about population and literacy in their locality.

### COURSE OUTCOMES:

| COs | CLO Statement | Knowledge According to Bloom's Taxonomy (Upto K level) |
|-----|---------------|--------------------------------------------------------|
| **CO1** | Learn the basics of ratio, proportion, indices and logarithm | K3 |
| **CO2** | Familiarise with calculations of simple and compound interest and arithmetic, geometric and harmonic progressions. | K4 |
| **CO3** | Determine the various measures of central tendency | K3 |
| **CO4** | Calculate the correlation and regression co-efficient. | K4 |
| **CO5** | Assess problems on time series analysis | K4 |

**Mapping of Course Learning Outcomes (CLOs) with Programme Outcomes (Pos)**

|  | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 |
|---|---|---|---|---|---|---|
| CLO1 | 3 | 2 | 2 | 1 | 3 | 2 |
| CLO2 | 3 | 3 | 2 | 3 | 2 | 3 |
| CLO3 | 2 | 1 | 3 | 2 | 2 | 3 |
| CLO4 | 2 | 2 | 2 | 3 | 1 | 3 |
| CLO5 | 2 | 3 | 2 | 3 | 2 | 1 |

**1– Basic Level, 2- Intermediate Level, 3- Advanced Level**

## LESSON PLAN: TOTAL HOURS (75 Hrs)

| Unit | Contents | No. of Hours | Mode of Teaching |
|---|---|---|---|
| I | **Ratio**<br>Ratio, Proportion and Variations, Indices and Logarithms. | 15 | Chalk and Talk |
| II | **Interest and Annuity**<br>Banker's Discount – Simple and Compound Interest - Arithmetic, Geometric and Harmonic Progressions. Annuity - Meaning - Types of Annuity Applications. | 15 | Chalk and Talk, PPT, quiz, on the spot test |
| III | **Business Statistics Measures of Central Tendency**<br>Arithmetic Mean, Geometric Mean - Harmonic Mean - Mode and Median – Quartiles – Deciles - Percentiles. Measures of Variation – Range - Quartile Deviation and Mean Deviation - Variance and Standard Deviation & Co-efficient. | 15 | Chalk and Talk, PPT, quiz, on the spot test |
| IV | **Correlation and Regression**<br>Correlation - Karl Pearson's Coefficient of Correlation – Spearman's Rank Correlation – Regression Lines and Coefficients. | 15 | Chalk and Talk, PPT, quiz, on the spot test |
| V | **Time Series Analysis and Index Numbers**<br>Time Series Analysis : Secular Trend – Seasonal Variation – Cyclical variations - Index Numbers – Aggregative and Relative Index – Chain and Fixed Index –Wholesale Index – Cost of Living Index. | 15 | Seminar, PPT presentation, Quiz |
| | **Total** | **75** | |

**Course Designer : K.Padmavathy**

| | | | | | | | | Class: II B.Com CA |
|---|---|---|---|---|---|---|---|---|
| **Sem** | **Course Type** | **Course Code** | **Course Title** | **Credits** | **Contact Hours / Week** | **CIA** | **SE** | **Total** |
| III | Elective -3 | | **Programming In Java** | 2 | 2 | 25 | 75 | 100 |

| Nature of the Course | | |
|---|---|---|
| **Knowledge and Skill Oriented** | **Employability Oriented** | **Entrepreneurship oriented** |
| ✓ | ✓ | |

**Course Objectives:**

1. To provide fundamental knowledge of object-oriented programming.

2. To equip the student with programming knowledge in Core Java from the basics up.

3. To enable the students to use AWT controls, Event Handling and Swing for GUI.

**Course Content:**

**UNIT-I:** Introduction: Review of Object-Oriented concepts - Java buzzwords (Platform independence, Portability, Threads)- JVM architecture –Java Program structure - –Java main method - Java Console output(System.out) - simple java program - Data types - Variables - type conversion and casting- Java Console input: Buffered input - operators - control statements - Static Data - Static Method - String and String Buffer Classes

**UNIT-II**: Java user defined Classes and Objects – Arrays – constructors - Inheritance: Basic concepts - Types of inheritance - Member access rules - Usage of this and Super key word - Method Overloading - Method overriding - Abstract classes - Dynamic method dispatch - Usage of final keyword

**UNIT-III**: Packages: Definition - Access Protection - Importing Packages - Interfaces: Definition – Implementation – Extending InterfacesException Handling: try – catch - throw - throws –- finally – Built-in exceptions - Creating own Exception classes - garbage collection, finalise

**UNIT-IV**: Multithreaded Programming: Thread Class - Runnable interface – Synchronization – Using synchronized methods – Using synchronized statement - Interthread Communication – Deadlock.

**UNIT-V**: Adapter classes - Inner classes -Java Util Package / Collections Framework:Collection & Iterator Interface- Enumeration- List and ArrayList- Vector-  Comparator

**Books for Study:**

1. Herbert Schildt, The Complete Reference, Tata McGraw Hill, New Delhi, 7th Edition, 2010.

2. Gary Cornell, Core Java 2 Volume I – Fundamentals, Addison Wesley, 1999.

**Books for Reference**

1. Head First Java, O'Rielly Publications, Y. Daniel Liang, Introduction to Java Programming, 7th Edition, Pearson Education India, 2010.

**Web Resources/ E.Books:**

1. https://www.w3schools.com/php/
2. https://www.phptpoint.com/php-tutorial-pdf/
3. http://www.xmlsoftware.com/

**Pedagogy:** Chalk and Talk, PPT, Group Discussion, Presentations, quiz and Seminar.

Rationale for nature of Course: **Understanding the concept of PHP and its features.**

**Knowledge and Skill:**

**Professional Communication and Transferrable Skill**

 **Activities to be given:**

## Course learning Outcomes (CLO's):

| CLO | Course Outcomes Statement | Knowledge(According to Bloom's Taxonomy) |
|---|---|---|
| CLO1 | Understand the basic Object-oriented concepts.Implement the basic constructs of Core Java | K1 to K3 |
| CLO2 | Implement inheritance, packages, interfaces and exception handling of Core Java. | K1 to K3 |
| CLO3 | Implement multi-threading and I/O Streams of Core Java | K1 to K4 |

### Mapping of Course Learning Outcomes (CLOs) with Programme Outcomes (POs)

|  | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 |
|---|---|---|---|---|---|---|
| **CLO1** | 1 | 2 | 2 | 3 | 2 | 3 |
| **CLO2** | 2 | 3 | 1 | 2 | 2 | 3 |
| **CLO3** | 1 | 2 | 1 | 2 | 3 | 3 |
| **CLO4** | 3 | 3 | 2 | 2 | 2 | 3 |
| **CLO5** | 2 | 2 | 3 | 2 | 2 | 3 |

**1-Basic Level          2- Intermediate Level          3- Advanced Level**

## LESSON PLAN: TOTAL HOURS (30 Hrs)

| UNIT | DESCRIPTION | HRS | MODE |
|------|-------------|-----|------|
| I | Introduction: Review of Object-Oriented concepts - Java buzzwords (Platform independence, Portability, Threads)- JVM architecture –Java Program structure - –Java main method - Java Console output(System.out) - simple java program - Data types - Variables - type conversion and casting- Java Console input: Buffered input - operators - control statements - Static Data - Static Method - String and String Buffer Classes | 4 | Chalk and Talk, PPT, Assignment. |
| II | Java user defined Classes and Objects – Arrays – constructors - Inheritance: Basic concepts - Types of inheritance - Member access rules - Usage of this and Super key word - Method Overloading - Method overriding - Abstract classes - Dynamic method dispatch - Usage of final keyword | 6 | Chalk and Talk, PPT, Assignment. |
| III | Packages: Definition - Access Protection - Importing Packages - Interfaces: Definition – Implementation – Extending InterfacesException Handling: try – catch - throw - throws –- finally – Built-in exceptions - Creating own Exception classes - garbage collection, finalise - | 6 | Chalk and Talk, PPT, Assignment. |
| IV | Multithreaded Programming: Thread Class - Runnable interface – Synchronization – Using synchronized methods – Using synchronized statement - Interthread Communication – Deadlock. | 6 | Chalk and Talk, PPT, Assignment. |
| V | Adapter classes - Inner classes -Java Util Package / Collections Framework:Collection & Iterator Interface- Enumeration- List and ArrayList- Vector- Comparator | 8 | Chalk and Talk, PPT, Assignment. |

**Course Designer: Mrs.A.Kavitha**

| | | | | | | | | Class: II B.Com CA |
|---|---|---|---|---|---|---|---|---|
| Sem | Course Type | Course Code | Course Title | Credits | Contact Hours / Week | CIA | SE | Total |
| III | Elective -3 | | Programming In Java And Lab | 2 | 2 | 40 | 60 | 100 |

**Course Objectives:**

| Nature of the Course | | |
|---|---|---|
| Knowledge and Skill Oriented | Employability Oriented | Entrepreneurship oriented |
| ✓ | ✓ | |

1. To gain practical expertise in coding Core Java programs
2. To become proficient in the use of AWT, Event Handling and Swing.

**List of Programs**

1. Write a Java program that prompts the user for an integer and then prints out all the prime numbers up to that Integer?
2. Write a Java program to multiply two given matrices.
3. Write a Java program that displays the number of characters, lines and words in a text?
4. Generate random numbers between two given limits using Random class and print messages according to the range of the value generated.
5. Write a program to do String Manipulation using Character Array and perform the following string operations:
   a) String length
   b) Finding a character at a particular position
   c) Concatenating two strings
6. Write a program to perform the following string operations using String class:
   a) String Concatenation
   b) Search a substring
   c) To extract substring from given string
7. Write a program to perform string operations using StringBuffer class:
   a) Length of a string
   b) Reverse a string
   c) Delete a substring from the given string

8. Write a java program that implements a multi-thread application that has three threads. First thread generates random integer every 1 second and if the value is even, second thread computes the square of the number and prints. If the value is odd, the third thread will print the value of cube of the number.

9. Write a threading program which uses the same method asynchronously to print the numbers 1 to 10 using Thread1 and to print 90 to 100 using Thread2.

10. Write a program to demonstrate the use of following exceptions.

   a) Arithmetic Exception

   b) Number Format Exception

   c) Array Index Out of Bound Exception

   d) Negative Array Size Exception

## Books for Study:

1. Herbert Schildt, The Complete Reference, Tata McGraw Hill, New Delhi, 7th Edition, 2010.

Gary Cornell, Core Java 2 Volume I – Fundamentals, Addison Wesley, 1999.

## Books for Reference

1. Head First Java, O'Rielly Publications, Y. Daniel Liang, Introduction to Java Programming, 7th Edition, Pearson Education India, 2010.

## Web Resources/ E.Books:

1. Web resources from NDL Library, E-content from open-source libraries

**Pedagogy:** Chalk and Talk, PPT, Group Discussion, Presentations, quiz and Seminar.

**Rationale for nature of Course**: Understanding the concept of PHP and its features.

**Knowledge and Skill:** Knowledge, Problem Solving, Analytical ability, Professional Competency, Professional Communication and Transferrable Skill

**Activities to be given:** Questions related to the above topics, from various competitive examinations UPSC / TRB / NET / UGC –CSIR / GATE / TNPSC / others to be solved (To be discussed during the Tutorial hour)

## Course learning Outcomes (CLO's):

| CLO | Course Outcomes Statement | Knowledge(According to Bloom's Taxonomy) |
|-----|---------------------------|------------------------------------------|
| CLO1 | Code, debug and execute Java programs to solve the given problems | K1 to K3 |
| CLO2 | Implement multi-threading and exception-handling | K1 to K3 |
| CLO3 | Implement functionality using String and StringBuffer classes | K1 to K4 |

## Mapping of Course Learning Outcomes (CLOs) with Programme Outcomes (POs)

|  | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 |
|---|---|---|---|---|---|---|
| CLO1 | 1 | 2 | 2 | 3 | 2 | 3 |
| CLO2 | 2 | 3 | 1 | 2 | 2 | 3 |
| CLO3 | 1 | 2 | 1 | 2 | 3 | 3 |
| CLO4 | 3 | 3 | 2 | 2 | 2 | 3 |
| CLO5 | 2 | 2 | 3 | 2 | 2 | 3 |

**1-Basic Level          2- Intermediate Level          3- Advanced Level**

## LESSON PLAN: TOTAL HOURS (30 Hrs)

| UNIT | DESCRIPTION | HRS | MODE |
|---|---|---|---|
| I | 1. Write a Java program that prompts the user for an integer and then prints out all the prime numbers up to that Integer?<br>2. Write a Java program to multiply two given matrices.<br>3. Write a Java program that displays the number of characters, lines and words in a text?<br>4. Generate random numbers between two given limits using Random class and print messages according to the range of the value generated. | 4 | Practical in Lab PPT, Assignment. |
| II | 6. Write a program to do String Manipulation using Character Array and perform the following string operations:<br>   a) String length<br>   b) Finding a character at a particular position<br>   c) Concatenating two strings<br>7. Write a program to perform the following string operations using String class:<br>   a) String Concatenation<br>   b) Search a substring<br>   c) To extract substring from given string | 6 | Practical in Lab PPT, Assignment. |
| III | Write a java program that implements a multi-thread application that has three threads. First thread generates random integer every 1 second and if the value is even, second thread computes the square of the number and prints. If the value is odd, the third thread will print the value of cube of the number. | 6 | Practical in Lab PPT, Assignment. |
| IV | Write a threading program which uses the same method asynchronously to print the numbers 1 to 10 using Thread1 and to print 90 to 100 using Thread2. | 6 | Practical in Lab PPT, Assignment. |
| V | Write a program to demonstrate the use of following exceptions.<br>   e) Arithmetic Exception<br>   f) Number Format Exception<br>   g) Array Index Out of Bound Exception<br>   h) Negative Array Size Exception | 8 | Practical in Lab PPT, Assignment. |

**Course Designer: Mrs.A.Kavitha**

| | | | | | | | | Class: II B.Com CA |
|---|---|---|---|---|---|---|---|---|
| Sem | Course Type | Course Code | Course Title | Credits | Contact Hours / Week | CIA | SE | Total |
| III | Elective -3 | 23OUCCAGECA3 | Web Technology(PHP) | 2 | 2 | 25 | 75 | 100 |

| Nature of the Course | | |
|---|---|---|
| Knowledge and Skill Oriented | Employability Oriented | Entrepreneurship oriented |
| ✓ | ✓ | |

**Course Objectives:**

1. To use PHP and MySQL to develop dynamic web sites for user on the Internet
2. To develop web sites ranging from simple online information forms to complex e-commerce sites with MySQL database, building, connectivity, and maintenance

**Course Content:**

**UNIT-I:** Introducing PHP – Basic development Concepts – Creating first PHP Scripts – Using Variableand Operators – Storing Data in variable – Understanding Data types – Setting and Checkingvariables Data types – Using Constants – Manipulating Variables with Operators.

**UNIT-II**: Controlling Program Flow: Writing Simple Conditional Statements - Writing More ComplexConditional Statements – Repeating Action with Loops – Working with String and NumericFunctions.

**UNIT-III**: Working with Arrays: Storing Data in Arrays – Processing Arrays with Loops and Iterations –Using Arrays with Forms - Working with Array Functions – Working with Dates and Times.

**UNIT-IV**: Using Functions and Classes: Creating User-Defined Functions - Creating Classes – UsingAdvanced OOP Concepts.

**UNIT-V**: Working with Database and SQL : Introducing Database and SQL- Using MySQL-Adding and modifying Data-Handling Errors – Using SQLite Extension and PDO Extension. IntroductionXML - Simple XML and DOM Extension.

**Books for Study:**

1. VikramVaswani, "PHP A Beginner's Guide", Tata McGraw Hill 2008.

**Books for Reference**

1. Steven Holzner , "The PHP Complete Reference", Tata McGraw Hill, 2007.
2. Steven Holzer , "Spring into PHP", Tata McGraw Hill 2011, 5thEdition.

**Web Resources/ E.Books:**

4. https://www.w3schools.com/php/
5. https://www.phptpoint.com/php-tutorial-pdf/
6. http://www.xmlsoftware.com/

**Pedagogy:** Chalk and Talk, PPT, Group Discussion, Presentations, quiz and Seminar.

**Rationale for nature of Course**: Understanding the concept of PHP and its features.

**Knowledge and Skill:** Knowledge, Problem Solving, Analytical ability, Professional Competency,

Professional Communication and Transferrable Skill

**Activities to be given:** Questions related to the above topics, from various competitive examinations UPSC / TRB / NET / UGC –CSIR / GATE / TNPSC / others to be solved (To be discussed during the Tutorial hour)

## Course learning Outcomes (CLO's):

| CLO | Course Outcomes Statement | Knowledge(According to Bloom's Taxonomy) |
|---|---|---|
| CLO1 | Understand the general concepts of PHP scripting language for the development of Internetwebsites. | K1 to K3 |
| CLO2 | Understand the basic functions of MySQL database program and XML concepts | K1 to K3 |
| CLO3 | Learn the relationship between the client side and the server side scripts. | K1 to K4 |

## Mapping of Course Learning Outcomes (CLOs) with Programme Outcomes (POs)

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 |
|---|---|---|---|---|---|---|
| CLO1 | 1 | 2 | 2 | 3 | 2 | 3 |
| CLO2 | 2 | 3 | 1 | 2 | 2 | 3 |
| CLO3 | 1 | 2 | 1 | 2 | 3 | 3 |
| CLO4 | 3 | 3 | 2 | 2 | 2 | 3 |
| CLO5 | 2 | 2 | 3 | 2 | 2 | 3 |

**1-Basic Level**　　　　**2- Intermediate Level**　　　　**3- Advanced Level**

## LESSON PLAN: TOTAL HOURS (30 Hrs)

| UNIT | DESCRIPTION | HRS | MODE |
|---|---|---|---|
| I | Introducing PHP – Basic development Concepts – Creating first PHP Scripts – Using Variableand Operators – Storing Data in variable – Understanding Data types – Setting and Checkingvariables Data types – Using Constants – Manipulating Variables with Operators | 4 | Chalk and Talk, PPT, Assignment. |
| II | Controlling Program Flow: Writing Simple Conditional Statements - Writing More ComplexConditional Statements – Repeating Action with Loops – Working with String and NumericFunctions. | 6 | Chalk and Talk, PPT, Assignment. |
| III | Working with Arrays: Storing Data in Arrays – Processing Arrays with Loops and Iterations –Using Arrays with Forms - Working with Array Functions – Working with Dates and Times. | 6 | Chalk and Talk, PPT, Assignment. |
| IV | Using Functions and Classes: Creating User-Defined Functions - Creating Classes – UsingAdvanced OOP Concepts. | 6 | Chalk and Talk, PPT, Assignment. |
| V | Working with Database and SQL : Introducing Database and SQL- Using MySQL-Adding andmodifying Data-Handling Errors – Using SQLite Extension and PDO Extension. IntroductionXML - Simple XML and DOM Extension. | 8 | Chalk and Talk, PPT, Assignment. |

**Course Designer: Mrs.A.Kavitha**

| | | | | | | | | Class: II B.Com CA | |
|---|---|---|---|---|---|---|---|---|---|
| Sem | Course Type | Course Code | Course Title | Credits | Contact Hours / Week | CIA | SE | Total | |
| III | Elective -3 | 23OUCCAGECA3P | Web Technology(PHP) Lab | 1 | 2 | 40 | 60 | 100 | |

**Course Objectives:**

| Nature of the Course | | |
|---|---|---|
| **Knowledge and Skill Oriented** | **Employability Oriented** | **Entrepreneurship oriented** |
| ✓ | ✓ | |

1. The objectives of this course are to have a practical understanding about how to writePHP code to solve problems.
2. Display and insert data using PHP and MySQL.
3. Test, debug, and deploy web pages containing PHP and MySQL.
4. It also aims to introduce practical session to develop simple applications using PHP andMySQL.

**List of Programs**

1. Write a PHP program which adds up columns and rows of given table
2. Write a PHP program to compute the sum of first n given prime numbers
3. Write a PHP program to find valid an email address
4. Write a PHP program to convert a number written in words to digit.
5. Write a PHP script to delay the program execution for the given number of seconds.
6. Write a PHP script, which changes the colour of the first character of a word
7. Write a PHP program to find multiplication table of a number.
8. Write a PHP program to calculate Factorial of a number.
9. Write a PHP code to create a student mark sheet table. Insert, delete and modify records.
10. From a XML document (email.xml), write a program to retrieve and print all the e-mail addresses from the document using XML
11. From a XML document (tree.xml), suggest three different ways to retrieve the text value 'John' using the DOM:
12. Write a program that connects to a MySQL database and retrieves the contents of any one of its tables as an XML file. Use the DOM.

**Books for Study:**

1. VikramVaswani, "PHP A Beginner's Guide", Tata McGraw Hill 2008.

**Books for Reference**

1. Steven Holzner , "The PHP Complete Reference", Tata McGraw Hill, 2007.
2. Steven Holzer , "Spring into PHP", Tata McGraw Hill 2011, 5thEdition.

**Web Resources/ E.Books:**

1. https://www.w3schools.com/php/
2. https://www.phptpoint.com/php-tutorial-pdf/
3. http://www.xmlsoftware.com/

**Pedagogy:** Chalk and Talk, PPT, Group Discussion, Presentations, quiz and Seminar.

**Rationale for nature of Course**: Understanding the concept of PHP and its features.

**Knowledge and Skill:** Knowledge, Problem Solving, Analytical ability, Professional Competency,

Professional Communication and Transferrable Skill

**Activities to be given:** Questions related to the above topics, from various competitive examinations UPSC /

TRB / NET / UGC –CSIR / GATE / TNPSC / others to be solved (To be discussed during the Tutorial hour)

## Course learning Outcomes (CLO's):

| CLO | Course Outcomes Statement | Knowledge(According to Bloom's Taxonomy) |
|---|---|---|
| CLO1 | On the completion of this laboratory course the students ought to | K1 to K3 |
| CLO2 | Obtain knowledge and develop application programs using PHP | K1 to K3 |
| CLO3 | Create dynamic Web applications such as content management, user registration, and ecommerce using PHP and to understand the ability to post and publish a PHP website. | K1 to K4 |
| CLO4 | Develop a MySQL database and establish connectivity using MySQL. | K1 to K3 |

## Mapping of Course Learning Outcomes (CLOs) with Programme Outcomes (POs)

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 |
|---|---|---|---|---|---|---|
| CLO1 | 1 | 2 | 2 | 3 | 2 | 3 |
| CLO2 | 2 | 3 | 1 | 2 | 2 | 3 |
| CLO3 | 1 | 2 | 1 | 2 | 3 | 3 |
| CLO4 | 3 | 3 | 2 | 2 | 2 | 3 |
| CLO5 | 2 | 2 | 3 | 2 | 2 | 3 |

**1-Basic Level**  **2- Intermediate Level**  **3- Advanced Level**

## LESSON PLAN: TOTAL HOURS (30 Hrs)

| UNIT | DESCRIPTION | HRS | MODE |
|---|---|---|---|
| I | Write a PHP program which adds up columns and rows of given table<br>Write a PHP program to compute the sum of first n given prime numbers<br>Write a PHP program to find valid an email address | 4 | Practical in Lab PPT, Assignment. |
| II | Write a PHP program to convert a number written in words to digit.<br>Write a PHP script to delay the program execution for the given number of seconds. | 6 | Practical in Lab PPT, Assignment. |
| III | Write a PHP script, which changes the colour of the first character of a word<br>Write a PHP program to find multiplication table of a number. | 6 | Practical in Lab PPT, Assignment. |
| IV | Write a PHP program to calculate Factorial of a number.<br>Write a PHP code to create a student mark sheet table. Insert, delete and modify records.<br>From a XML document (email.xml), write a program to retrieve and print all the e-mail addresses from the document using XML | 6 | Practical in Lab PPT, Assignment. |
| V | From a XML document (tree.xml), suggest three different ways to retrieve the text value 'John' using the DOM:<br>Write a program that connects to a MySQL database and retrieves the contents of any one of its tables as an XML file. Use the DOM. | 8 | Practical in Lab PPT, Assignment. |

**Course Designer: Mrs.A.Kavitha**

| | | | | | | | | Class: II B.Com CA |
|---|---|---|---|---|---|---|---|---|
| **Sem** | **Course Type** | **Course Code** | **Course Title** | **Credits** | **Contact Hours / Week** | **CIA** | **SE** | **Total** |
| IV | Skill Enhancement Course - 4 | **23OUCCASEC31P** | **Desktop Publishing Lab** | 2 | 2 | 40 | 60 | 100 |

| Nature of the Course | | |
|---|---|---|
| **Knowledge and Skill Oriented** | **Employability Oriented** | **Entrepreneurship oriented** |
| ✓ | ✓ | |

**Course Objectives:**

1. To learn how to design various publications such as banner ,brochure, viz.cards, books and book covers, booklets using Photoshop.
2. To apply various filter and color correction using Photoshop.
3. To understand the basic Page Maker tools.
4. To create Pamplets, Billbooks, Viz cards, Greeting card using Page Maker.
5. To know the basic knowledge of Coreldraw.

**List of Programs**

**To Design the following program using CorelDraw**

1. Pattern design
2. Shaping the object
3. Mirroring the object
4. Placing text inside the circle
5. Effects
6. Text wizard
7. CD Design

**To Design the following program using Photoshop**

8. Greeting Card
9. Note Book Cover Design
10. Manipulation of Text
11. Manipulation of Image

**To Design the following program using PageMaker**

     12. News Item

     13. Advertisement

     14. Course Details

     15. Invitation Card

     16. Application Form

Books for Study:

    **1.** RobertShufflebotham,*Photoshop6ineasysteps,*DreamtechPress,NewDelhi,Reprint2018.

    **2.** RebeccaBridgesAltmanwithRickAltman,*MasteringPagemaker*,BPBPublications,NewDelhi,2016.

    **3.** DineshMaidasani,*CorelDrawX3*,FirewallMedia,Laxmi PublicationsPvtLtd,Chennai,2017.

Books for **Reference:**

    1. DekeMcChelland&LaurieUlrichFuller,*PhotoshopCS3*,DreamtechIndiaPvtLtd,2016.

    2. GaryDavidBouton,*CorelDRAWX8:TheOfficialGuide*12thEdition,2015.

    3. LaurieUlrichFuller,*Photoshop(R)7:TheCompleteReference*,McGraw-HillEducation, NewDelhi,2018.

    4. ScottBasham,*PageMakerineasysteps*,SouthamPublishers,2018.

    5. VikasGupta,*Multimediaand WebDesign*,DreamtechPress,NewDelhi,2016.

**Web Resources:**

    **1.** **https://kupdf.net/download/desktop-publishing-lecture-notes_5c465611e2b6f5727228116d_pdf**

    **2.** **https://rccmindore.com/wp-content/uploads/2015/06/B.Com-1-Desktop-Publishing-and-Multimedia.pdf**

    **3.** **https://www.google.co.in/books/edition/Desktop_Publishing_for_Beginners_How_to/Iy5XM8xsq0QC?hl=en&gbpv=1&dq=dtp+e-books&printsec=frontcover**

**Pedagogy:** Chalk and Talk, PPT, Group Discussion, Presentations, quiz and Seminar.

**Rationale for nature of Course**: to provide the participants understanding of the techniques essential to build their career in desktop publishing using suitable hardware and software tools.

**Activities to be given:** Practise them for Online Shopping, online transaction etc.

**Course learning Outcomes (CLO's):**

| CLO | Course Outcomes Statement | Knowledge(According to Bloom's Taxonomy) |
|---|---|---|
| **CLO1** | Learn how to design various publications such as banner ,brochure, viz. cards, books and book covers, booklets using Photoshop. | K1 to K3 |
| **CLO2** | To apply various filter and color correction using Photoshop. | K1 to K3 |
| **CLO3** | To understand the basic Page Maker tools. | K1 to K4 |
| **CLO4** | To create Pamplets,  Billbooks, Viz cards, Greeting card using Page Maker. | K1 to K3 |
| **CLO5** | To know the basic knowledge of Coreldraw. | K1 to K4 |

**Mapping of Course Learning Outcomes (CLOs) with Programme Outcomes (Pos)**

|  | **PO1** | **PO2** | **PO3** | **PO4** | **PO5** | **PO6** |
|---|---|---|---|---|---|---|
| **CLO1** | 2 | 1 | 2 | 2 | 2 | 3 |
| **CLO2** | 1 | 2 | 2 | 3 | 2 | 2 |
| **CLO3** | 2 | 3 | 1 | 2 | 2 | 3 |
| **CLO4** | 1 | 2 | 2 | 1 | 3 | 2 |
| **CLO5** | 2 | 3 | 1 | 2 | 3 | 3 |

**1 – Basic Level, 2- Intermediate Level, 3- Advanced Level**

**LESSON PLAN : Total (30 Hrs)**

| UNIT | DESCRIPTION | HRS | MODE |
|---|---|---|---|
| I | **To Design the following program using CorelDraw**<br>1. Pattern design<br>2. Shaping the object<br>3. Mirroring the object<br>4. Placing text inside the circle | 6 | Chalk and Talk, PPT, Assignment. |
| II | **To Design the following program using CorelDraw**<br>5. Effects<br>6. Text wizard<br>7. CD Design | 6 | Chalk and Talk, PPT, Assignment. |
| III | **To Design the following program using Photoshop**<br>8. Greeting Card<br>9. Note Book Cover Design<br>10. Manipulation of Text | 6 | Chalk and Talk, PPT, Assignment. |
| IV | **To Design the following program using Photoshop**<br>11. Manipulation of Image | 6 | Chalk and Talk, PPT, Assignment. |
| V | **To Design the following program using PageMaker**<br>12. News Item<br>13. Advertisement<br>14. Course Details<br>15. Invitation Card<br>16. Application Form | 6 | Chalk and Talk, PPT, Assignment. |

**Course Designer:** Mrs. S. Chitradevi

| Sem | Course Type | Course Code | Course Title | Credits | Contact Hours / Week | CIA | SE | Total |
|---|---|---|---|---|---|---|---|---|
| III | Skill Enhancement Course –SEC 5 | 23OUCCASEC32 | **General knowledge** | 1 | 1 | 25 | 75 | 100 |

| Nature of the Course | | |
|---|---|---|
| **Knowledge and Skill Oriented** | **Employability Oriented** | **Entrepreneurship oriented** |
| ✓ | | |

**Course Objectives:**

1. To enhance the skills of students in General Knowledge

2. To help the students to know about the current affairs

**Course Content:**

**UNIT : I**

General English – Vocabulary - Choosing Correct Synonyms, Antonyms, Prefix, Suffix, Suitable Articles, Prepositions, Correct Tense, Correct Voice, Correct Question Tag, Sub stituting with a Single word - Correct the Errors.

**UNIT : II**

General Science-Topics in Physics, Chemistry and Biology viz. Scientific laws, Scientific Inventions and Discoveries, Scientists and their Contributions.

**UNIT : III**

History of India & Indian National Movement-Dates and events - Agriculture, Major Crops and Crop Pattern in India, Industrial Development, Country and Currencies, Export and Import**.**

**UNIT : IV**

Indian Constitution- Salient features of the Constitution-Citizenship-Fundamental Rights-Fundamentable duties to Citizens-Powers of the President-The Union Parliament-Rajaya Sabha-The Supreme Court of India-High Court-Important Amendments to the Indian Constitution-Indian Defense-Indian Army-Indian Air Force-Indian Navy.

**UNIT : V**

Current Affairs-Latest development in Science and Technology, Political development in India, New developments in Trade. Transport, Fine Arts, Major Literary Works, Games and Sports - National, International Awards - National & International organizations, present day India and other related topics.

**Multiple Choice question only.**

**Reference Books:**

1. The General Knowledge Manual Publication, 2018 - Edgar Thorpe & Showick Thorpe

2. Ever Latest General Knowledge - Khanna & Verma, Upkar's Publication, 2015

3. Manorama Year book -Malayala Manorama Press, 2018

4. Top 500 Year book - Disha Publication, 2015

5. Journals & Magazines

6. Websites

**Pedagogy:** Calk and Talk, PPT, Group Discussion, Presentation, Quiz and Seminar

**Rationale for nature of Course:** It will cover the aspects of various constituents of General Knoweldge.

**Knowledge and Skill:** It helps to acquire knowledge about the operations of t.

**Activities to be given:** To analyse and collect the details of share price in various companies.

<div align="center">

**EVALUATION (THEORY)**

Internal (FORMATIVE) :25 MARKS

External (SUMMATIVE) :75MARKS

TOTAL :100

Formative Test (CIA-Continuous Internal Assessment):25Marks

</div>

| Components | Marks |
|---|---|
| Test(Conducted for 50 marks and converted into 25 Marks) | 25 |

- ✓ There will be only one internal assessment test
- ✓ Duration of internal assessment test will be 2 hour for test
- ✓ Students shall write retest with the approval of HOD on genuine grounds if they are absent**.**

<div align="center">

**Question paper pattern for continuous internal assessment-Test**

</div>

| Section | Marks |
|---|---|
| **Multiple Choice question(50x1mark)** | **50** |
| **Total** | **50** |

Conducted for 50 marks and converted into 25 Marks

<div align="center">

**Question paper pattern for continuous External Examination**

</div>

| Section | Marks |
|---|---|
| **Multiple Choice question(75x1mark)** | **75** |
| **Total** | **75** |

## Course learning Outcomes (CLO's)

| CLO | Course Outcomes Statement | Knowledge (According to Bloom's Taxonomy) |
|------|----------------------------|------------------------------|
| CLO1 | Knowledge about general English vocabulary | K3 |
| CLO2 | Understanding the basic science | K4 |
| CLO3 | Students are able to understand Indian history | K3 |
| CLO4 | Students are able to fundamental of rights | K4 |
| CLO5 | Gain knowledge the current Affairs. | K4 |

## Mapping of Course Learning Outcomes (CLOs) with Programme Outcomes (Pos)

|      | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 |
|------|-----|-----|-----|-----|-----|-----|
| CLO1 | 1 | 3 | 2 | 2 | 1 | 3 |
| CLO2 | 2 | 1 | 3 | 2 | 1 | 2 |
| CLO3 | 2 | 1 | 2 | 3 | 1 | 3 |
| CLO4 | 1 | 2 | 1 | 3 | 2 | 3 |
| CLO5 | 2 | 1 | 3 | 2 | 2 | 3 |

**3 – Basic Level, 2- Intermediate Level, 1- Advanced Level**

## LESSON PLAN: Total (30 Hrs)

| UNIT | DESCRIPTION | HRS | MODE |
|------|-------------|-----|------|
| I | General English – Vocabulary - Choosing Correct Synonyms, Antonyms, Prefix, Suffix, Suitable Articles, Prepositions, Correct Tense, Correct Voice, Correct Question Tag, Substituting with a Single word - Correct the Errors | 6 | Chalk and Talk, PPT, quiz, on the spot test |
| II | General Science-Topics in Physics, Chemistry and Biology viz. Scientific Llaws, Scientific Inventions and Discoveries, Scientists and their Contributions. | 6 | Chalk and Talk, quiz, on the spot test |
| III | History of India & Indian National Movement-Dates and events - Agriculture, Major Crops and Crop Pattern in India, Industrial Development, Country and Currencies, Export and Import. | 6 | Chalk and Talk, |
| IV | Indian Constitution- Salient features of the Constitution-Citizenship-Fundamental Rights-Fundamentable duties to Citizens-Powers of the President-The Union Parliament-Rajaya Sabha-The Supreme Court of India-High Court-Important Amendments to the Indian Constitution-Indian Defense-Indian Army-Indian Air Force-Indian Navy | 4 | Chalk and Talk, |
| V | Current Affairs-Latest development in Science and Technology, Political development in India, New developments in Trade. Transport , Fine Arts, Major Literary Works, Games and Sports - National, International Awards - National & International organizations, present day India and other related topics | 6 | Chalk and Talk, , |

Course Designer:
Dr.K.Padamavathy

| | | | | | | | | Class: II B.Com CA |
|---|---|---|---|---|---|---|---|---|
| **Sem** | **Course Type** | **Course Code** | **Course Title** | **Credits** | **Contact Hours / Week** | **CIA** | **SE** | **Total** |
| IV | Core -7 | 23OUCCA41 | **Corporate Accounting - II** | 5 | 5 | 25 | 75 | 100 |

| **Nature of the Course** | | |
|---|---|---|
| **Knowledge and Skill Oriented** | Employability Oriented | Entrepreneurship oriented |
| ✔ | ✔ | |

**Course Objectives:**

1. To know the types of Amalgamation, Internal and external Reconstruction
2. To know Final statements of banking companies
3. To understand the accounting treatment of Insurance company accounts
4. To understand the procedure for preparation of consolidated Balance sheet
5. To have an insight on modes of winding up of a company

**Course Content:**

**UNIT I: Amalgamation, Internal & External Reconstruction**

Amalgamation – **Meaning** - Purchase Consideration - Lump sum Method, Net Assets Method, Net Payment Method, Intrinsic Value Method - Types of Methods of Accounting forAmalgamation -The Pooling of Interest Method - The Purchase Method(Excluding Inter-Company Holdings).

**Internal & External Reconstruction**

Internal Reconstruction – Conversion of Stock – Increase and Decrease of Capital – Reserve Liability - Accounting Treatment of External Reconstruction

**UNIT II: Accounting of Banking Companies**

Final Statements of Banking Companies (As Per New Provisions) - Non-Performing Assets - Rebate on Bills Discounted- Profit and Loss a/c - Balance Sheet as Per Banking Regulation Act 1949.

**UNIT III: Insurance Company Accounts:**

Meaning of Insurance – Principles – Types – Preparation of Final Accounts of Insurance Companies – Accounts of Life Insurance Business – Accounts of General Insurance Companies -New Format.

**UNIT IV: Consolidated Financial Statements**

Introduction-Holding & Subsidiary Company-Legal Requirements Relating to Preparation of Accounts - Preparation of Consolidated Balance Sheet (Excluding Inter-Company Holdings).

**UNIT V Liquidation of Companies**

Meaning-Modes of Winding Up – Preparation of Statement of Affairs and Statement of Deficiency **or Surplus (List H)** Order of Payment – Liquidators Remuneration- Liquidator's Final Statement of Accounts.

**Books For Study**:

1. S.P. Jain and K.L Narang.  Advanced Accountancy, Kalyani Publishers, New Delhi.
2. Dr.K.S .Raman and Dr. M.A. Arulanandam , Advanced Accountancy, Vol. II, Himalaya Publishing House, Mumbai.
3. R.L. Gupta and M. Radhaswamy, Advanced Accounts, Sultan Chand, New Delhi.
4. M.C. Shukla and T.S. Grewal, Advanced Accounts Vol.II, S Chand & Sons, New Delhi.
5. T.S. Reddy and A.Murthy, Corporate Accounting II, Margham Publishers, Chennai

**Books For Reference:**

1. B.Raman, Corporate Accounting, Taxmann, New Delhi
2. M.C.Shukla, Advanced Accounting,S.Chand, New Delhi
3. Prof. MukeshBramhbutt, Devi Ahilya publication, Madhya Pradesh
4. Anil kumar, Rajesh kumar, Advanced Corporate Accounting, Himalaya Publishing house, Mumbai.
5. PrasanthAthma, Corporate Accounting, Himalaya Publishing house, Mumbai.

**Web Resources/ E.Books:**

1. https://www.accountingnotes.net/amalgamation/amalgamation-absorption-and-reconstruction-accounting/126
2. https://www.slideshare.net/debchat123/accounts-of-banking-companies
**3.** https://www.accountingnotes.net/liquidation/liquidation-of-companies-accounting/12862

**Pedagogy:**  Calk and Talk, PPT, Group Discussion, Presentation, Quiz and Seminar

**Rationale for nature of Course:** Understand 'Accounts' and apply it in business application.

**Knowledge and Skill:** To make students use the proper methods to analyze the insurance &banking companies

**Activities to be given:** Students are asked to differentiate the proper methods for banking and insurance accounts and make the students to prepare consolidated balance sheet for holding and subsidiary companies

**COURSE OUTCOMES:**

| COs | CLO Statement | Knowledge According to Bloom's Taxonomy (Upto K level) |
|---|---|---|
| **CO1** | Understand the accounting treatment of amalgamation, Internal and external reconstruction | K3 |
| **CO2** | Construct Profit and Loss account and Balance Sheet of Banking Companies in accordance in the prescribed format. | K4 |
| **CO3** | Synthesize and prepare final accounts of Insurance companies in the prescribed format | K3 |
| **CO4** | Give the consolidated accounts of holding companies | K4 |
| **CO5** | Preparation of liquidator's final statement of account | K4 |

**Mapping of Course Learning Outcomes (CLOs) with Programme Outcomes (Pos)**

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 |
|---|---|---|---|---|---|---|
| **CLO1** | 3 | 1 | 3 | 1 | 1 | 3 |
| **CLO2** | 3 | 1 | 3 | 3 | 1 | 3 |
| **CLO3** | 3 | 1 | 3 | 3 | 1 | 2 |
| **CLO4** | 3 | 1 | 3 | 3 | 1 | 3 |
| **CLO5** | 3 | 1 | 3 | 3 | 1 | 3 |

**1 – Basic Level, 2- Intermediate Level, 3- Advanced Level**

## LESSON PLAN:TOTAL( 75 HRS)

| Unit | Contents | No. of Hours | Mode of Teaching |
|------|----------|--------------|------------------|
| I | Amalgamation, Internal & External Reconstruction<br>Amalgamation – Meaning - Purchase Consideration - Lump sum Method, Net Assets Method, Net Payment Method, Intrinsic Value Method - Types of Methods of Accounting for Amalgamation -The Pooling of Interest Method - The Purchase Method (Excluding Inter-Company Holdings).<br>Internal & External Reconstruction<br>Internal Reconstruction – Conversion of Stock – Increase and Decrease of Capital – Reserve Liability - Accounting Treatment of External Reconstruction | 15 | Chalk and Talk, PPT |
| II | Accounting of Banking Companies<br>Final Statements of Banking Companies (As Per New Provisions) - Non-Performing Assets - Rebate on Bills Discounted- Profit and Loss a/c - Balance Sheet as Per Banking Regulation Act 1949. | 15 | Chalk and Talk, PPT, quiz, on the spot test |
| III | **Insurance Company Accounts:**<br>Meaning of Insurance – Principles – Types – Preparation of Final Accounts of Insurance Companies – Accounts of Life Insurance Business – Accounts of General Insurance Companies -New Format. | 15 | Chalk and Talk, PPT, quiz, on the spot test |
| IV | **Consolidated Financial Statements**<br>Introduction-Holding & Subsidiary Company-Legal Requirements Relating to Preparationof Accounts - Preparation of Consolidated Balance Sheet (Excluding Inter-Company Holdings). | 15 | Chalk and Talk, PPT, quiz, on the spot test |
| V | **Liquidation of Companies**<br>Meaning-Modes of Winding Up – Preparation of Statement of Affairs and Statement of Deficiency or Surplus (List H) Order of Payment – Liquidators Remuneration- Liquidator's Final Statement of Accounts. | 15 | Seminar, PPT presentation , Quiz |
| | **Total** | **75** | |

Course Designer: M.Neelavathy

| | | | | | | Class: II B.Com CA | | |
|---|---|---|---|---|---|---|---|---|
| Sem | Category | Course Code | Course Title | Credits | Contact Hours / Week | CIA | SE | Total |
| IV | **Core - 8** | 23OUCCA42 | **COMPANY LAW** | 5 | 5 | 25 | 75 | 100 |

| Nature of the Course | | |
|---|---|---|
| **Knowledge and Skill Oriented** | Employability Oriented | Entrepreneurship oriented |
| ✔ | ✔ | |

**Course Objectives:**

1. To know Company Law 1956 and Companies Act 2013
2. To have an understanding on the formation of a company
3. To understand the requisites of meeting and resolution
4. To gain knowledge on the procedure to appoint and remove Directors
5. To familiarize with the various modes of winding up

**Course Content:**

**UNIT I: Introduction to Company law**

Companies Act 2013 – Definition of a Company, Characteristics of Company – Lifting or Piercing the Corporate Veil – Company Distinguished from Partnership and Limited Liabilities Partnerships – Classification of Companies – Based on Incorporation, Liability, Number of Members, Control.

**UNIT II: Formation of Company**

Formation of a Company – Promoter –Incorporation Documents e-filing – Memorandum of Association – Contents – Alteration – Legal Effects – Articles of Association - Certificate of Incorporation – Prospectus – Contents - Kinds – Liabilities – Share Capital – Kinds – Issue – Alteration – Dividend – Debentures.

**UNIT III: Meeting**

Meeting and Resolution – Types – Requisites – Voting & Poll – Quorum – Proxy - Resolution – Ordinary & Special - Audit & Auditors – Qualification, Disqualification, Appointment and Removal of an Auditor

**UNIT IV: Management & Administration**

Management & Administration – Directors – Legal Position – Board of Directors – Appointment/ Removal – Disqualification – Director Identification Number – Directorships – Powers – Duties – Board Committees –

Related Party Transactions – Contract by One Person Company – Insider Trading- Managing Director – Manager – Secretarial Audit – Administrative Aspects and Winding Up – National Company Law Tribunal (NCLT) – National Company Law Appellate Tribunal (NCLAT) – Special Courts.

## UNIT V: Winding up

Meaning – Modes – Compulsory Winding Up – Voluntary Winding Up – Consequences of Winding Up Order – Powers of Tribunal – Petition for Winding Up – Company Liquidator.

**Books  For Study**:

1. N.D. Kapoor, Business Laws, Sultan Chand and Sons, Chennai
2. R.S.N. Pillai – Business Law, S.Chand, New Delhi.
3. M.V. Dhandapani, Business Laws Sultan Chand and Sons, Chennai
4. Shusma Aurora, Business Law,Taxmann, New Delhi
5. M.C.Kuchal, Business Law, VikasPublication, Noida

**Books  For Reference :**

1. Gaffoor&Thothadri, Company Law, Vijay Nichole Imprints Limited, Chennai
2. M.R. Sreenivasan, Business Laws, Margham Publications, Chennai
3. KavyaAndVidhyasagar, Business Law, Nithya Publication, Bhopal
4. S.D.Geet, Business Law Nirali Prakashan Publication, Pune
5. PreethiAgarwal, Business Law, CA foundation study material

**Web Resources/Econtent:**

1. https://www.mca.gov.in/content/mca/global/en/acts-rules/companies-act/companies-act-2013.html
2. https://vakilsearch.com/blog/explain-procedure-formation-company/
3. https://www.investopedia.com/terms/w/windingup.asp

**Pedagogy:**  Chalk and Talk, Group Discussion, Presentations, and seminar

**Rationale for nature of Course:** Understand 'commercial law' and apply it in business application.

**Knowledge and Skill:**  A student becomes familiar about industrial law and workmen related issues and benefits.

**Activities to be given:** Students are asked to visit industries to collect the note about the process.

**COURSE OUTCOMES:**

| COs | CLO Statement | Knowledge According to Bloom's Taxonomy (Upto K level) |
|---|---|---|
| CO1 | Understand the classification of companies under the act | K3 |
| CO2 | Examine the contents of the Memorandum of Association & Articles of Association | K4 |
| CO3 | Know the qualification and disqualification of Auditors | K3 |
| CO4 | Understand the workings of National Company Law Appellate Tribunal (NCLAT) | K4 |
| CO5 | Analyse the modes of winding up | K4 |

**Mapping of Course Learning Outcomes (CLOs) with Programme Outcomes (Pos)**

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 |
|---|---|---|---|---|---|---|
| CLO1 | 2 | 1 | 2 | 2 | 1 | 3 |
| CLO2 | 3 | 1 | 2 | 2 | 1 | 3 |
| CLO3 | 3 | 2 | 2 | 3 | 2 | 3 |
| CLO4 | 2 | 1 | 2 | 3 | 1 | 2 |
| CLO5 | 3 | 1 | 2 | 2 | 2 | 3 |

**1– Basic Level, 2- Intermediate Level, 3- Advanced Level**

## Lesson plan:Total( 75 Hrs)

| Unit | Contents | No. of Hours | Mode of Teaching |
|------|----------|--------------|------------------|
| I | **Introduction to Company law**<br>Companies Act 2013 – Definition of a Company, Characteristics of Company – Lifting or Piercing the Corporate Veil – Company Distinguished from Partnership and Limited Liabilities Partnerships – Classification of Companies – Based on Incorporation, Liability, Number of Members, Control. | **15** | Chalk and Talk, PPT, quiz, on the spot test |
| II | **Formation of Company**<br>Formation of a Company – Promoter –Incorporation Documents e-filing – Memorandum of Association – Contents – Alteration – Legal Effects – Articles of Association - Certificate of Incorporation – Prospectus – Contents - Kinds – Liabilities – Share Capital – Kinds – Issue – Alteration – Dividend – Debentures. | **15** | Chalk and Talk, PPT |
| III | **Meeting**<br>Meeting and Resolution – Types – Requisites – Voting & Poll – Quorum – Proxy - Resolution – Ordinary & Special - Audit & Auditors – Qualification, Disqualification, Appointment and Removal of an Auditor | **15** | Chalk and Talk, PPT, quiz, on the spot test |
| IV | **Management & Administration**<br>Management & Administration – Directors – Legal Position – Board of Directors – Appointment/ Removal – Disqualification – Director Identification Number – Directorships – Powers – Duties – Board Committees – Related Party Transactions – Contract by One Person Company – Insider Trading- Managing Director – Manager – Secretarial Audit – Administrative Aspects and Winding Up – National Company Law Tribunal (NCLT) – National Company Law Appellate Tribunal (NCLAT) – Special Courts. | **15** | Chalk and Talk, PPT, quiz, on the spot test |
| V | **Winding up**<br>Meaning – Modes – Compulsory Winding Up – Voluntary Winding Up – Consequences of Winding Up Order – Powers of Tribunal – Petition for Winding Up – Company Liquidator. | **15** | Seminar, PPT presentation , Quiz |
| | **Total** | **75** | |

COURSE DESIGNER: MRS.M.SHREE RAMAJEYAM

| Sem | Course Type | Course Code | Course Title | Credits | Contact Hours / Week | CIA | SE | Total |
|---|---|---|---|---|---|---|---|---|
| | | | | | | | | **Class: II B.Com CA** |
| IV | Elective - 4 | **23OUCCAGECA4** | RELATIONAL DATABASE MANAGEMENT SYSTEM | 3 | 3 | 25 | 75 | 100 |

| Nature of the Course | | |
|---|---|---|
| **Knowledge and Skill Oriented** | **Employability Oriented** | **Entrepreneurship oriented** |
| ✓ | | |

**Course Objectives:**

1. Gain a good understanding of the architecture and functioning of Database Management Systems
2. Understand the use of Structured Query Language (SQL) and its syntax.
3. Apply Normalization techniques to normalize a database.
4. Understand the need of transaction processing and learn techniques for controlling the consequences of concurrent data access.

**Course Contents:**

**UNIT-I**

Introduction to DBMS– Data and Information - Database – Database Management System – Objectives-Advantages – Components - Architecture. ER Model: Building blocks of ER Diagram

**UNIT-II** :

Relationship Degree – Classification – ER diagram to Tables – ISA relationship – Constraints –Aggregation and Composition – Advantages

Structure of Relational Database. Introduction to Relational Database Design - Objectives – Tools –Redundancy and Data Anomaly

**UNIT-III** : Functional Dependency - Normalization – 1NF – 2NF – 3NF –BCNF. Transaction Processing – Database Security.

**UNIT-IV**: Introduction to SQL: Data Definition Commands – Data Manipulation Commands – SELECT Queries – Additional Data Definition Commands – Additional SELECT Query Keywords – Joining Database Tables.Advanced SQL:Relational SET Operators: UNION – UNION ALL – INTERSECT - MINUS.

**UNIT-V**: SQL Join Operators: Cross Join – Natural Join – Join USING Clause – JOIN ON Clause – Outer Join.

Sub Queries and Correlated Queries: WHERE – IN – HAVING – ANY and ALL – FROM. SQL Functions: Date and Time Function – Numeric Function – String Function – Conversion Function

Books For Study:

1. S. Sumathi, S. Esakkirajan, "Fundamentals of Relational Database Management System",Springer International Edition 2007.

Books For **Reference:**

1. Abraham Silberchatz, Henry F. Korth, S. Sudarshan, "Database System Concepts",McGrawHill2019, 7th Edition.

2. Alexis Leon & Mathews Leon, "Fundamentals of DBMS", Vijay Nicole Publications 2014, 2ndEdition.

**Web Resources:**

1. https://nptel.ac.in/courses/106106093/

2. https://nptel.ac.in/courses/106106095/

3. NPTEL & MOOC courses titled Relational Database Management Systems

**Pedagogy:** Chalk and Talk, PPT, Group Discussion, Presentations, quiz and Seminar.

Rationale for nature of Course:

**Knowledge and Skill:** Knowledge, Problem Solving, Analytical ability, Professional Competency,

Professional Communication and Transferrable Skill

**Activities to be given:** Questions related to the above topics, from various competitive

examinations UPSC / TRB / NET / UGC –CSIR / GATE / TNPSC / others

to be solved (To be discussed during the Tutorial hour)

### Course learning Outcomes (CLO's):

| CLO | Course Outcomes Statement | Knowledge(According to Bloom's Taxonomy) |
|-----|---------------------------|-------------------------------------------|
| **CLO1** | Describe basic concepts of database system | K1 to K3 |
| **CLO2** | Design a Data model and Schemas in RDBMS | K1 to K3 |
| **CLO3** | Competent in use of SQL | K1 to K4 |
| **CLO4** | Analyse functional dependencies for designing robust Database | K1 to K3 |

### Mapping of Course Learning Outcomes (CLOs) with Programme Outcomes (POs)

| | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 |
|------|-----|-----|-----|-----|-----|-----|
| **CLO1** | 2 | 2 | 1 | 3 | 2 | 3 |
| **CLO2** | 2 | 1 | 2 | 2 | 2 | 3 |
| **CLO3** | 1 | 3 | 3 | 2 | 1 | 2 |
| **CLO4** | 2 | 1 | 2 | 2 | 3 | 2 |
| **CLO5** | 3 | 2 | 1 | 2 | 2 | 2 |

**1-Basic Level          2- Intermediate Level          3- Advanced Level**

## LESSON PLAN : Total (30 Hrs)

| UNIT | DESCRIPTION | HRS | MODE |
|------|-------------|-----|------|
| I | Introduction to DBMS– Data and Information - Database – Database Management System – Objectives- Advantages – Components - Architecture. ER Model: Building blocks of ER Diagram | 6 | Chalk and Talk, PPT, Assignment. |
| II | Relationship Degree – Classification – ER diagram to Tables – ISA relationship – Constraints – Aggregation and Composition – Advantages Structure of Relational Database. Introduction to Relational Database Design - Objectives – Tools – Redundancy and Data Anomaly | 6 | Chalk and Talk, PPT, Assignment. |
| III | Functional Dependency - Normalization – 1NF – 2NF – 3NF –BCNF. Transaction Processing – Database Security. | 6 | Chalk and Talk, PPT, Assignment. |
| IV | Introduction to SQL: Data Definition Commands – Data Manipulation Commands – SELECT Queries – Additional Data Definition Commands – Additional SELECT Query Keywords – Joining Database Tables.Advanced SQL:Relational SET Operators: UNION – UNION ALL – INTERSECT - MINUS. | 6 | Chalk and Talk, PPT, Assignment. |
| V | SQL Join Operators: Cross Join – Natural Join – Join USING Clause – JOIN ON Clause – Outer Join. Sub Queries and Correlated Queries: WHERE – IN – HAVING – ANY and ALL – FROM. SQL Functions: Date and Time Function – Numeric Function – String Function – Conversion Function | 6 | Chalk and Talk, PPT, Assignment. |

**Course Designer: MRS.M.Sharmila devi**

| | | | | | | | | Class: II B.Com CA |
|---|---|---|---|---|---|---|---|---|
| Sem | Course Type | Course Code | Course Title | Credits | Contact Hours / Week | CIA | SE | Total |
| IV | Elective - 4 | | **INTRODUCTION TO DATA SCIENCE** | 3 | 3 | 25 | 75 | 100 |

| Nature of the Course | | |
|---|---|---|
| **Knowledge and Skill Oriented** | **Employability Oriented** | **Entrepreneurship oriented** |
| ✓ | | |

**Course Objectives:**

1. To introduce the concepts, techniques and tools in Data Science
2. To understand the various facets of data science practice, including data collection and integration, exploratory data analysis, predictive modelling, descriptive modelling and effective communication.

**Course Contents:**

**UNIT-I**

 **Introduction:**Benefits and uses – Facets of data – Data science process – Big data ecosystem and data science

**UNIT-II** :

**The Data science process:** Overview – research goals - retrieving data - transformation – Exploratory Data Analysis – Model building - Data Visualization

**UNIT-III** :

**Algorithms:**Machine learning algorithms – Modelling process – Types – Supervised – Unsupervised - Semi-supervised

**UNIT-IV**:

 **Introduction to Hadoop:** Hadoop framework – Spark – replacing MapReduce– NoSQL – ACID – CAP – BASE – types

**UNIT-V**:

**Case Study:** Prediction of Disease - Setting research goals - Data retrieval – preparation - exploration - Disease profiling - presentation and automation

Books For Study:

1. Davy Cielen, Arno D. B. Meysman, Mohamed Ali, "Introducing Data Science", manning publications 2016

2. Roger Peng, "The Art of Data Science", lulu.com 2016.

3. MurtazaHaider, "Getting Started with Data Science – Making Sense of Data with Analytics", IBM press, E-book.

Books For **Reference:**

1. Davy Cielen, Arno D.B. Meysman, Mohamed Ali,"Introducing Data Science: Big Data, Machine Learning, and More, Using Python Tools", Dreamtech Press 2016.
2. Annalyn Ng, Kenneth Soo, "Numsense! Data Science for the Layman: No Math Added", 2015,1st Edition.
3. Cathy O'Neil, Rachel Schutt, "Doing Data Science Straight Talk from the Frontline", O'Reilly Media 2013.

4. Lillian Pierson, "Data Science for Dummies", 2015 II Edition

**Web Resources:**

1. https://nptel.ac.in/courses/106106093/
2. https://nptel.ac.in/courses/106106095/

**Pedagogy:** Chalk and Talk, PPT, Group Discussion, Presentations, quiz and Seminar.

Rationale for nature of Course:

**Knowledge and Skill:** Knowledge, Problem Solving, Analytical ability, Professional Competency,

Professional Communication and Transferrable Skill

**Activities to be given:** Questions related to the above topics, from various competitive

examinations UPSC / TRB / NET / UGC –CSIR / GATE / TNPSC / others

to be solved (To be discussed during the Tutorial hour)

**Course learning Outcomes (CLO's):**

| CLO | Course Outcomes Statement | Knowledge(According to Bloom's Taxonomy) |
|---|---|---|
| CLO1 | Describe basic concepts of database system | K1 to K3 |
| CLO2 | Design a Data model and Schemas in RDBMS | K1 to K3 |
| CLO3 | Competent in use of SQL | K1 to K4 |
| CLO4 | Analyse functional dependencies for designing robust Database | K1 to K3 |

**Mapping of Course Learning Outcomes (CLOs) with Programme Outcomes (POs)**

|      | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 |
|------|-----|-----|-----|-----|-----|-----|
| CLO1 | 2   | 2   | 1   | 3   | 2   | 3   |
| CLO2 | 2   | 1   | 2   | 2   | 2   | 3   |
| CLO3 | 1   | 3   | 3   | 2   | 1   | 2   |
| CLO4 | 2   | 1   | 2   | 2   | 3   | 2   |
| CLO5 | 3   | 2   | 1   | 2   | 2   | 2   |

**1-Basic Level          2- Intermediate Level          3- Advanced Level**

## LESSON PLAN  : Total (30 Hrs)

| UNIT | DESCRIPTION | HRS | MODE |
|------|-------------|-----|------|
| I | **Introduction:**Benefits and uses – Facets of data – Data science process – Big data ecosystem and data science | 6 | Chalk and Talk, PPT, Assignment. |
| II | **The Data science process:** Overview – research goals - retrieving data - transformation – Exploratory Data Analysis – Model building - Data Visualization | 6 | Chalk and Talk, PPT, Assignment. |
| III | **Algorithms:**Machine learning algorithms – Modelling process – Types – Supervised – Unsupervised - Semi-supervised | 6 | Chalk and Talk, PPT, Assignment. |
| IV | **Introduction to Hadoop:** Hadoop framework – Spark – replacing MapReduce– NoSQL – ACID – CAP – BASE – types | 6 | Chalk and Talk, PPT, Assignment. |
| V | **Case Study:** Prediction of Disease - Setting research goals - Data retrieval – preparation - exploration - Disease profiling - presentation and automation | 6 | Chalk and Talk, PPT, Assignment. |

**Course Designer: MRS.M.Sharmila devi**

| Sem | Course Type | Course Code | Course Title | Credits | Contact Hours / Week | CIA | SE | Total |
|-----|-------------|-------------|--------------|---------|----------------------|-----|-----|-------|
| IV | Skill Enhancement Course –SEC 6 | **23OUCCASEC4P** | **RDBMS Lab** | 2 | 2 | 40 | 60 | 100 |

| **Nature of the Course** | | |
|--------------------------|--------------------------|---------------------------|
| **Knowledge and Skill Oriented** | **Employability Oriented** | **Entrepreneurship oriented** |
| ✔ | ✔ | |

**Course Objectives:**

1. To learn and implement SQL & PL/SQL.
2. Choose appropriate SQL queries and PL/SQL block for the database.
3. Implement SQL and PL/SQL blocks for the given problem effectively.
4. Analyze the problem and Exception using queries and PL/SQL blocks.
5. Design database tables, create Procedures, User-defined functions and Triggers.

List of Programs

1. DDL Commands
2. DML Commands
3. DCL Commands
4. Usage of SubQueries in DML and Create-SQL
5. Solving queries using built-in functions
6. Simple programs in PL/SQL block
7. Exception Handling in PL/SQL
8. Programs using Implicit Cursors
9. Programs using Explicit Cursor
10. Procedures &User-defined functions
11. Creation of Triggers

Books For Text:

1. Abraham Silberchatz, Henry F. Korth, S. Sudarshan, "Database System Concepts",McGrawHill2019, 7th Edition.
2. Alexis Leon & Mathews Leon, "Fundamentals of DBMS", Vijay Nicole Publications 2014, 2ndEdition.

Books For **Reference:**

1. AtulKahate. *Introduction to Database Management systems*. Pearson Education.2020

2. CarloZaniolo.StefanoCeri.ChristosFaloustsos.Snodgrass.&Subrahmanian.R.T., Morgan Kaufman. V.S . *Advanced Database Systems.2020*

3. George Koch, Kelvin Loney (2012).*Oracle9i:The Complete Reference*, Oracle Press. Tata McGraw Hill Publication.2018

4. Ramez Elmasri, Shamkant B, Navathe. (2018). *Database Systems*. Pearson Education. New Delhi . Sixth Edition.

**Web Resources:**

1. http://awtrey.com/tutorials/dbeweb/database.php

2. http://www.slideshare.net/SalamaAlbusaidi/emerging-database-technology-multimedia- database.

3. http://www.tutorialspoint.com/dbms/index.htm

4. http://www.tutorialspoint.com/plsql/index.htm

5. https://opentextbc.ca/dbdesign/chapter/chapter-11-functional-dependencies/

**Pedagogy:** Chalk and Talk, PPT, Group Discussion, Presentations, quiz and Seminar.

**Knowledge and Skill:** To make students aware of relational databases and uses of PL/SQL.

**Activities to be given:** Students shall be asked to design and construct tables and manipulate it effectively using PL/SQL database objects.

**Course learning Outcomes (CLO's):**

| CLO | Course Outcomes Statement | Knowledge(According to Bloom's Taxonomy) |
|---|---|---|
| CLO1 | Understand the basic DDL, DML,DCL | K1 to K3 |
| CLO2 | Illustrate and examine sub query and Build–in Functions. | K1 to K3 |
| CLO3 | Infer the Exception handling programs in PL/SQL. | K1 to K4 |
| CLO4 | Examine and implement the cursors. | K1 to K3 |
| CLO5 | Infer and integrate the user-defined Functions, Procedures and Triggers. | K1 to K4 |

**Mapping of Course Learning Outcomes (CLOs) with Programme Outcomes (POs)**

|        | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 |
|--------|-----|-----|-----|-----|-----|-----|
| CLO1   | 3   | 3   | 1   | 3   | 3   | 3   |
| CLO2   | 3   | 3   | 3   | 3   | 3   | 3   |
| CLO3   | 3   | 3   | 2   | 3   | 3   | 3   |
| CLO4   | 3   | 3   | 2   | 3   | 3   | 2   |
| CLO5   | 3   | 3   | 3   | 3   | 3   | 3   |

**1-Basic Level        2- Intermediate Level        3- Advanced Level**

**Lesson plan: Total( 30 Hrs)**

| UNIT | DESCRIPTION | HRS | MODE |
|------|-------------|-----|------|
| I | 1. DDL Commands<br>2. DML Commands<br>3. DCL Commands | 4 | Chalk and Talk, PPT, Assignment. |
| II | 4. Usage of Sub Queries in DML and Create-SQL<br>5. Solving queries using built-in functions | 6 | Chalk and Talk, PPT, Assignment. |
| III | 6. Simple programs in PL/SQL block<br>7. Exception Handling in PL/SQL | 6 | Chalk and Talk, PPT, Assignment. |
| IV | 8. Programs using Implicit Cursors<br>9. Programs using Explicit Cursor | 6 | Chalk and Talk, PPT, Assignment. |
| V | 10.    Procedures &User-defined functions<br>11.    Creation of Triggers | 8 | Chalk and Talk, PPT, Assignment. |

**Course Designer: MRS.M.Sharmila devi**

| | | | | | | | | Class: II B.Com CA | |
|---|---|---|---|---|---|---|---|---|---|
| **Sem** | **Course Type** | **Course Code** | **Course Title** | **Credits** | **Contact Hours / Week** | **CIA** | **SE** | **Total** | |
| IV | Skill Enhancement Course SEC–7 | 23OUCCASEC42 | Soft Skills for Job Seekers | 2 | 2 | 25 | 75 | 100 | |

| Nature of the Course | | |
|---|---|---|
| **Knowledge and Skill Oriented** | **Employability Oriented** | **Entrepreneurship oriented** |
| ✓ | ✓ | |

**Course Objectives:**

- To develop personality development of students
- To encourage the students in preparing resumes
- To categorize, apply and use thought process to attend different types of interviews
- To help students for career planning

**Course Content:**

**UNIT: I**

Personality Development – Communication skills, Self Confidence, Time Management, Problem Solving, Work Ethics, Five necessary soft skills for job seeker.

**UNIT: II**

Resumes – resume writing – Summary of Qualification, Work Experience and reference – Applying for the job.

**UNIT: III**

Group Discussion and Interview – Types of interviews – Patterned Interviews and Non Patterned Interviews – Group/ Panel Interviews - Stress Interviews – Telephone

**UNIT: IV**

Preparation for Job Interviews – Tips for facing a Job interview- Guidelines for career planning – Career decision makes advice & tips.

**UNIT: V**

Orientation in the work place – goal tasks – steps to achieve a goal – eleven steps to achieve your goals

**Text Books**:

Annee Lawrence, *The job seekers hand book*, Emerald publication, Chennai, 2010.

**Reference Book**

1. Jayanth neogy,*Winning Resume,*Pushtak Mahal Publishers, New Delhi, 2010.

2. Menon. A.K,*How to succeed in group discussion*,Varun Publishing house,2010

3. Raghu Palat,*Interview Tips*, Jaico Publishing House,2010.

4. Sajitha Jayaprakash, *Interview Skills*, Himalaya Publishing House, Mumbai, 2010.

5. Jain.T.S & Gupta, *Interviews and Group Discussion,*Upkar Publication, Agra,2008.

**Pedagogy:** Chalk and Talk, PPT, Group Discussion, Presentations, quiz and Seminar

**Rationale for nature of Course:** To develop the skills and personality of the students to attend interview.

**Knowledge and Skill:** Use their logical thinking and analytical abilities to solve interview questions.

**Activities to be given:** Students are asked to prepare resumes in various categories.

**COURSE OUTCOMES:**

At the end of the course, the student will be able to:

| CLO | Course Outcomes Statement | Knowledge(According to Bloom's Taxonomy) |
|-----|---------------------------|------------------------------------------|
| CLO1 | To Understand the Personality Development – Communication skills | K3 |
| CLO2 | To Understand resume writing job applying | K4 |
| CLO3 | To understand the types of interview | K3 |
| CLO4 | Helps to understand the tips for interview. | K4 |
| CLO5 | Helps to achieve a goal. | K4 |

**Mapping of Course Learning Outcomes (CLOs) with Programme Outcomes (POs)**

|       | PO1 | PO2 | PO3 | PO4 | PO5 | PO6 |
|-------|-----|-----|-----|-----|-----|-----|
| **CLO1** | 3 | 2 | 2 | 2 | 3 | 2 |
| **CLO2** | 3 | 3 | 2 | 2 | 3 | 2 |
| **CLO3** | 3 | 3 | 3 | 2 | 2 | 3 |
| **CLO4** | 3 | 2 | 3 | 2 | 2 | 2 |
| **CLO5** | 2 | 3 | 3 | 2 | 2 | 3 |

1-Basic Level          2- Intermediate Level          3- Advanced Level

**LESSON PLAN: Total 30hrs**

| UNIT | DESCRIPTION | HRS | MODE |
|------|-------------|-----|------|
| I | Personality Development – Communication skills, Self Confidence, Time Management, Problem Solving, Work Ethics, Five necessary soft skills for job seeker. | 6 | Chalk and Talk, PPT, spot test |
| II | Resumes – resume writing – Summary of Qualification, Work Experience and reference – Applying for the job.. | 6 | Chalk and Talk, PPT, spot test |
| III | Group Discussion and Interview – Types of interviews – Patterned Interviews and Non Patterned Interviews – Group/ Panel Interviews - Stress Interviews – Telephone | 6 | Chalk and Talk, PPT, spot test |
| IV | Preparation for Job Interviews – Tips for facing a Job interview- Guidelines for career planning – Career decision making advice & tips | 6 | Chalk and Talk, PPT, spot test |
| V | Orientation in the work place – goal tasks – steps to achieve a goal – eleven steps to achieve your goals | 6 | Chalk and Talk, quiz , spot test. |

Course Designer: Dr.M.Neelavathy