



Course: BCA

Semester: 1

**Prerequisite:** Basic Knowledge of LSRW. To provide students with soft skills that complement their skills, making them more marketable when entering the workforce.

**Rationale :** Knowledge of LSRW is essential for Students

### Teaching and Examination Scheme

| Teaching Scheme  |                   |              |                  |        | Examination Scheme |     |   |                |   | Total |
|------------------|-------------------|--------------|------------------|--------|--------------------|-----|---|----------------|---|-------|
| Lecture Hrs/Week | Tutorial Hrs/Week | Lab Hrs/Week | Seminar Hrs/Week | Credit | Internal Marks     |     |   | External Marks |   |       |
|                  |                   |              |                  |        | T                  | CE  | P | T              | P |       |
| 2                | -                 | -            | -                | 2      | -                  | 100 | - | -              | - | 100   |

SEE - Semester End Examination, T - Theory, P - Practical

### Course Content

W - Weightage (%) , T - Teaching hours

| Sr. | Topics  | W  | T |
|-----|---|----|---|
| 1   | <b>Listening Skills and Hearing</b> Listening Vs Hearing<br>Types of listening<br>Traits of good listener<br>Barriers of listening  | 7  | 2 |
| 2   | <b>Listening Practice</b> Listening Practice (Audio & Video)  | 10 | 3 |
| 3   | <b>Presentation Skills</b><br>Defining the purpose of presentation<br>Presentation strategies<br>How to make an effective presentation?<br>Knowing /Analysing audience<br>Organizing content and preparing an outline<br>Traits of a good speaker | 3  | 1 |
| 4   | <b>Activity</b> Crazy Scientist   | 7  | 2 |
| 5   | <b>Speaking Practice</b> Speaking practice (Elocution)  | 24 | 7 |
| 6   | <b>Reading Skills</b><br>Define reading<br>Reading Strategies<br>Techniques of reading<br>Techniques to read faster   | 3  | 1 |
| 7   | <b>Reading Practice</b> Reading Practice (Reading Comprehension)  | 13 | 4 |
| 8   | <b>Writing Skills</b><br>Develop Writing Skills<br>7cs of communication<br>Techniques of writing better<br>Identifying common errors in writing   | 10 | 3 |
| 9   | <b>Paragraph Writing</b><br>Introduction of Paragraph Writing<br>Central components of paragraph development<br>Techniques for paragraph development  | 3  | 1 |
| 10  | <b>Writing Practice</b> Writing Practice:<br>Note making<br>Picture Description<br>Dialogue Writing<br>Paragraph Writing<br>Completion of story from given points   | 20 | 6 |



|               |              |               |
|---------------|--------------|---------------|
| Essay Writing |              |               |
|               | <b>Total</b> | <b>100 30</b> |

**Reference Books**

|    |  |
|----|--|
| 1. | <b>Understanding and Using English Grammar</b><br>By Betty Azar & Stacy Hagen   Pearson Education                            |
| 2. | <b>Business Correspondence and Report Writing</b><br>By SHARMA, R. AND MOHAN, K.   |
| 3. | <b>Communication Skills</b><br>By Kumar S And Lata P   New Delhi Oxford University Press                                     |
| 4. | <b>, Technical Communication : Principles And Practice</b><br>By Sangeetha Sharma, Meenakshi Raman   Oxford University Press |
| 5. | <b>Practical English Usage</b><br>By MICHAEL SWAN  |
| 6. | <b>A Remedial English Grammar for Foreign Student</b><br>By F.T. WOOD  |
| 7. | <b>On Writing Well</b><br>By William Zinsser   Harper Paperbacks, 2006   30th anniversary edition                            |
| 8. | <b>Oxford Practice Grammar,</b><br>By John Eastwood   Oxford University Press  |

**Course Outcome****After Learning the Course the students shall be able to:**

After Learning the course, the students shall be able to:

1. Understand the importance of creative and critical thinking.
2. Develop four basic skills (LSRW)
3. Expand vocabulary with proper pronunciation.
4. Comprehend the basics of English grammar.
5. Read & write effectively for a variety of contexts.
6. Develop confidence in speaking skills.



Course: BTech

Semester: 1

Prerequisite: Basic Computer Knowledge and Mathematics.

**Rationale :** This course provides an introduction to the fundamentals of digital marketing, covering essential concepts, strategies, and tools used in the field. Students will explore various aspects of digital marketing, including search engine optimization (SEO), social media marketing, email marketing, content marketing, and analytics..

### Teaching and Examination Scheme

| Teaching Scheme  |                   |              |                  |        | Examination Scheme |    |    |                |    | Total |
|------------------|-------------------|--------------|------------------|--------|--------------------|----|----|----------------|----|-------|
| Lecture Hrs/Week | Tutorial Hrs/Week | Lab Hrs/Week | Seminar Hrs/Week | Credit | Internal Marks     |    |    | External Marks |    |       |
|                  |                   |              |                  |        | T                  | CE | P  | T              | P  |       |
| 3                | -                 | 2            | -                | 4      | 20                 | 20 | 20 | 60             | 30 | 150   |

SEE - Semester End Examination, T - Theory, P - Practical

### Course Content

W - Weightage (%) , T - Teaching hours

| Sr.          | Topics   | W          | T         |
|--------------|--|------------|-----------|
| 1            | <b>Introduction to Digital Marketing:</b><br>Introduction to digital marketing, Evolution of digital marketing, importance and benefits of digital marketing, Overview of digital marketing channels   | 15         | 7         |
| 2            | <b>Search Engine Optimization (SEO):</b><br>Understanding search engines and how they work, On-page and off-page SEO techniques, Keyword research and analysis, SEO tools and analytics  | 25         | 9         |
| 3            | <b>Social Media Marketing:</b><br>Introduction to social media marketing, Social media platforms and their features, Content creation and curation for social media, Social media advertising and campaigns, Social media analytics and measurement    | 20         | 7         |
| 4            | <b>Content Marketing:</b><br>Understanding content marketing, Content strategy and planning, Content creation and distribution, Content promotion and amplification, Content marketing analytics   | 25         | 11        |
| 5            | <b>Digital Marketing Analytics:</b><br>Introduction to digital marketing analytics, Key performance indicators (KPIs) in digital marketing, Web analytics tools and platforms, Data analysis and interpretation, Reporting and optimization strategies | 15         | 11        |
| <b>Total</b> |  | <b>100</b> | <b>45</b> |

### Reference Books

|    |   |
|----|---|
| 1. | "Digital Marketing for Dummies" (TextBook)<br>By by Ryan Deiss and Russ Henneberry   Wiley                                    |
| 2. | "Digital Marketing: Strategy, Implementation and Practice"<br>By by Dave Chaffey and Fiona Ellis-Chadwick   Pearson Education |
| 3. | "Influence: The Psychology of Persuasion" by Robert B. Cialdini   |



## Course Outcome

### After Learning the Course the students shall be able to:

After Learning the Course, the students shall be able to:

1. Understand the core principles and concepts of digital marketing.
2. Apply various digital marketing techniques, such as SEO, social media marketing, email marketing, and content marketing.
3. Utilize digital marketing tools and analytics to measure and optimize campaign performance.
4. Develop effective digital marketing strategies for different target audiences and objectives.
5. Demonstrate proficiency in planning, executing, and evaluating digital marketing campaigns.

## List of Practical

|    |   |
|----|---|
| 1. | Conduct keyword research for a chosen topic or industry.                                      |
| 2. | Create and optimize a social media profile/page for a business.                               |
| 3. | Design and execute an email marketing campaign using an email marketing platform.             |
| 4. | Develop a content marketing plan for a specific target audience.                              |
| 5. | Analyze website traffic and user behavior using Google Analytics.                             |
| 6. | Set up and monitor social media advertising campaigns on platforms like Facebook or Instagram |
| 7. | Create a digital marketing strategy for a hypothetical business or organization.              |
| 8. | Present a digital marketing campaign report, including key metrics and insights.              |



Course: BCA

Semester: 1

Prerequisite: Basic knowledge of Data and Data Processing

**Rationale :** To acquire the fundamental knowledge of basic database system concepts, normalization and SQL programming. To make students understand the database development activities, such as, data modeling, creation of databases and posing complex SQL queries during the system development cycle. Also, introduce the students to using and implementing database systems for certain commercial applications.

### Teaching and Examination Scheme

| Teaching Scheme  |                   |              |                  |        | Examination Scheme |    |    |                |    | Total |
|------------------|-------------------|--------------|------------------|--------|--------------------|----|----|----------------|----|-------|
| Lecture Hrs/Week | Tutorial Hrs/Week | Lab Hrs/Week | Seminar Hrs/Week | Credit | Internal Marks     |    |    | External Marks |    |       |
|                  |                   |              |                  |        | T                  | CE | P  | T              | P  |       |
| 3                | -                 | 2            | -                | 4      | 20                 | 20 | 20 | 60             | 30 | 150   |

SEE - Semester End Examination, T - Theory, P - Practical

### Course Content

W - Weightage (%) , T - Teaching hours

| Sr.          | Topics  | W          | T         |
|--------------|---|------------|-----------|
| 1            | <b>Introduction to Databases</b> Basic Concepts: Data, Database, Database systems, DBMS, Purpose of Database system, Characteristics of Database, Advantages and Disadvantages of DBMS, Database Languages, Three level architecture, Various components of a DBMS  | 12         | 6         |
| 2            | <b>Data Model ,ER Diagram and Keys</b><br><b>Data Model :</b> The importance of data models, Data Model Classification, Tables, Rows, Columns, Entity sets, Attributes, Types of entities, Relationships and types of relationships, Database modelling using entity and relationships, Enhanced entity relationship diagrams.<br><b>Keys:</b> Super key, Candidate keys, Primary key, Entity integrity constraints, Referential integrity constraints. | 18         | 10        |
| 3            | <b>Database Design</b><br>Structures of Good Database Design, Database design process, Anomalies in A Database, Functional dependencies (lossless decomposition, dependency preservation, closure set of FD, canonical cover, lossless joins).<br><b>Normalization:</b> 1NF, 2NF, 3NF, BCNF and 4NF   | 20         | 10        |
| 4            | <b>Query Processing and Transaction</b><br><b>Query Processing:</b> Query processing phases, Query optimization techniques, Measures Of Query Cost<br><b>Transaction:</b> Transaction Concepts, Features of Database Transaction. Concurrency Control in Database - Lock Base, Time Stamp Base, Validation Base Protocols Database Recovery System.   | 25         | 9         |
| 5            | <b>Structure Query Languages</b><br>Introduction to SQL, Overview of SQL, Basic queries in SQL, Advanced queries in SQL, Functions in SQL, Basic data retrieval, Aggregation, Categorization, Updates in SQLs, Views in SQL, Different types of views, Theoretical updatability of views.   | 25         | 10        |
| <b>Total</b> |   | <b>100</b> | <b>45</b> |

### Reference Books

|    |  |
|----|--|
| 1. | <b>Database System Concepts</b><br>By Silberschatz, Korth, Sudarshan   McGraw Hill Publication   4th Edition |
| 2. | <b>Database Systems, Concepts, Design and Applications</b><br>By S K Singh   Pearson Edition                 |
| 3. | <b>Database Management Systems</b><br>By Raghu Ramakrishnan, Johannes Gehrke   McGraw Hill Publication       |
| 4. | <b>Fundamentals of Database Systems</b><br>By Elmsari, Navathe   Pearson Education (2008)   5th Edition      |



## Course Outcome

After Learning the Course the students shall be able to:

1. Define and describe database concepts and models.
2. Identify need of relational database design.
3. Describe and apply normalization technique for database design.
4. Apply knowledge of database query language.

## List of Practical

|     |   |
|-----|---|
| 1.  | Design a Database and create required tables. For e.g. Bank, College Database       |
| 2.  | Apply the constraints like Primary Key, Foreign key, NOT NULL to the tables.        |
| 3.  | To Study a different DDL Commands like create, Drop ,Alter and Truncate             |
| 4.  | To Study a different TCL Commands like commit, save point, Rollback etc.            |
| 5.  | To Study a different DQL Commands.  |
| 6.  | To Study a different DCL Commands.  |
| 7.  | To Study a different Grouping Queries.  |
| 8.  | To Study a different operators in SQL.  |
| 9.  | Write the query for implementing the following functions: MAX(),MIN(),AVG(),COUNT() |
| 10. | Write the queries to implement the joins.   |



Course: BCA

Semester: 2

Prerequisite: Knowledge of Statistics

**Rationale :** Data mining is the essential component of decision support systems for the modern-day industry and business. These techniques enable the knowledge worker to make better and faster decisions. The objective of this course is to introduce the student to various Data Mining concepts and techniques. A database perspective of an open-source application is used throughout the course to introduce principles, algorithms, architecture, design, and implementation of data mining techniques. Learning this course would improve the employment potential of students in the information management sector.

### Teaching and Examination Scheme

| Teaching Scheme  |                   |              |                  |        | Examination Scheme |    |    |                |    | Total |
|------------------|-------------------|--------------|------------------|--------|--------------------|----|----|----------------|----|-------|
| Lecture Hrs/Week | Tutorial Hrs/Week | Lab Hrs/Week | Seminar Hrs/Week | Credit | Internal Marks     |    |    | External Marks |    |       |
|                  |                   |              |                  |        | T                  | CE | P  | T              | P  |       |
| 3                | -                 | 2            | -                | 4      | 20                 | 20 | 20 | 60             | 30 | 150   |

SEE - Semester End Examination, T - Theory, P - Practical

### Course Content

W - Weightage (%) , T - Teaching hours

| Sr.          | Topics  | W          | T         |
|--------------|---|------------|-----------|
| 1            | <b>Fundamentals of data mining</b> Describe the concept of Data Mining, Data mining: History, strategies, techniques, applications, challenges of data mining, Future of data mining, <b>Describe types of Data:</b> Types of Data: Database Data, Data Warehouses, Transactional Data, Other Kinds of Data.  | 10         | 8         |
| 2            | <b>Objects, Attributes, &amp; Statistical Description of Data</b> Explain Mining techniques and Attribute Relation File Format (ARFF): Data Attribute (Nominal Attributes, Binary Attributes, Ordinal Attributes, Numeric Attributes, Discrete versus Continuous Attributes. <b>Solve basic Statistical calculations on Data:</b> Mean, Median, and Mode; Measuring the Dispersion of Data: Range, Quartiles, Variance, Standard Deviation, and Interquartile Range using WEKA.         | 20         | 8         |
| 3            | <b>Data Preprocessing</b><br><b>Describe the aspect of data preprocessing:</b> Preprocess the Data, Major Tasks in Data Preprocessing.<br><b>Explain the concept of Data Cleaning &amp; Integration:</b> Data Cleaning: Missing Values, Noisy Data, Data Cleaning as a Process.<br><b>Data Integration:</b> Entity Identification Problem, Redundancy, and Correlation Analysis, Tuple Duplication, Data Value Conflict Detection and Resolution, Use WEKA for cleaning and integration | 25         | 8         |
| 4            | <b>Classification</b><br><b>Explain Decision Trees and clustering:</b> Decision tree: ID3, Probability-based solving, Concepts of Clustering, Using WEKA for classification and clustering  | 15         | 8         |
| 5            | <b>Data Warehouse &amp; OLAP Technology</b><br><b>Apply the concept of Data warehousing using WEKA solution:</b> Data Warehouse, Differences between Operational Database Systems and Data Warehouses, Enterprise Warehouse, Data Mart, and Virtual Warehouse.  | 20         | 8         |
| 6            | <b>Data Mining Tool: WEKA</b><br>Install and Configure WEKA Tool: Basic of WEKA, Installing WEKA, WEKA data file format, Data visualization in WEKA, Data filtering, Using the concepts of data mining with WEKA  | 10         | 5         |
| <b>Total</b> |   | <b>100</b> | <b>45</b> |



## Reference Books

|    |   |
|----|---|
| 1. | <b>Data Mining Concepts and Techniques</b><br>By Jiawei Han and Jian Pei   Morgan Kaufmann Publishers   Third |
| 2. | <b>Fundamentals of Data Warehouses</b><br>By M.Jarke, M Lenzerni  |
| 3. | <b>Principles of Data Mining</b><br>By David Hand, Heikki Mannila, Padhraic Smyth , PHI                       |
| 4. | <b>Data Mining: Methods and Techniques</b><br>By A B M Shawkat Ali, Saleh A, Wasimi, CENGAGE Learning         |
| 5. | <b>Data Mining Techniques</b><br>By Arun K. Pujari   Universities Press                                       |

## Course Outcome

After Learning the Course the students shall be able to:

1. Describe the concept of Data Mining & its attributes
2. Explain the concept of Data Cleaning & Integration and decision Trees and clustering
3. Demonstrate WEKA Explorer, Mining techniques and Attribute Relation File Format (ARFF).
4. Compare various Data Mining techniques available in WEKA

## List of Practical

|    |   |
|----|---|
| 1. | <b>Create following Three Tables.</b><br><b>1. Salesman</b><br>SNUM SNAME CITY COMMISSION<br><br>1001 PIYUSH LONDON 12%<br>1002 NIRAJ SURAT 13%<br>1003 MITI LONDON 11%<br>1004 RAJESH BARODA 15%<br>1005 ANAND NEW DELHI 10%<br>1006 RAM PATAN 10%<br>1007 LAXMAN BOMBAY 09%<br>SNUM: A Unique number assign to each salesman.<br>SNAME: The name of salesman.<br>CITY: The location of salesman.<br>COMMISSION: The salesman commission on order.<br><b>2. Customer</b><br>CNUM CNAME CITY RATING SNUM<br>2001 HARDIK LONDON 100 1001<br>2002 GITA ROME 200 1003<br>2003 LAXIT SURAT 200 1002<br>2004 GOVIND BOMBAY 300 1002<br>2005 CHANDU LONDON 100 1001<br>2006 CHAMPAK SURAT 300 1007<br>2007 PRATIK ROME 100 1004<br>CNUM: A Unique number assign to each customer.<br>CNAME: The name of customer.<br>CITY: The location of customer.<br>RATING: A level of preference indicator given to this customer.<br>SNUM: A salesman number assign to this customer.<br><b>3. Order</b><br>ONUM AMOUNT ODATE CNUM SNUM CNUM<br>3001 18.69 10/03/99 2008 1007 |
|----|---|



|      |         |          |      |      |
|------|---------|----------|------|------|
| 3002 | 767.19  | 10/03/99 | 2001 | 1001 |
| 3003 | 1900.10 | 10/03/99 | 2007 | 1004 |
| 3004 | 5160.45 | 10/03/99 | 2003 | 1002 |
| 3005 | 1098.25 | 10/04/99 | 2008 | 1007 |
| 3006 | 1713.12 | 10/04/99 | 2002 | 1003 |
| 3007 | 75.75   | 10/05/99 | 2004 | 1002 |
| 3008 | 4723.00 | 10/05/99 | 2006 | 1001 |
| 3009 | 1309.95 | 10/05/99 | 2004 | 1002 |
| 3010 | 9898.87 | 10/06/99 | 2006 | 1001 |

ONUM: A Unique number assign to each Order. AMOUNT: Amount of order in Rs.

ODATE: The date of order.

CNUM: The number of customer making the order. SNUM: The number of salesman credited with the sale.

**Solve following request with the help of SQL query.**

1. Produce the order no, a mount and date of all orders.
2. Give all the information about all the customers with salesman number 1001.
3. Display the information in the sequence of city, sname, snum, and Commission.
4. Calculate the average amount ordered.
5. Count the no. of salesmen currently having orders.
6. Find the largest order taken by each salesman on each date.
7. Find the largest order taken by each salesman on 10/03/1997.
8. Count the no. of different non NULL cities in the Customer table.
9. Find out each customer's smallest order.
10. Find out the customer in alphabetical order whose name begins with 'G'
11. Count the no. of salesmen registering orders for each day.
12. List all salesmen with their % of commission.
13. Display the no. of order for each day in the following format. dd-mon-yy.
14. Assume each salesperson has a 12% commission. Write a query on the order table that will produce the order number, salesman no and amount of commission for that order.
15. Find the highest rating in each city in the following format:
16. List all customers in descending order of rating.
17. List all salesmen in London who had at least one customer located there as well.
18. List all salesmen in London who didn't have any customer there.

**2. PL/SQL Programs**

1. Hello World Program in PL/SQL.
2. PL/SQL Program To add Two Numbers.
3. PL/SQL Program For Prime Number.
4. PL/SQL Program To Find Factorial of a Number.
5. PL/SQL Program to Print Table of a Number.
6. PL/SQL Program for Reverse of a Number
7. PL/SQL Program for Fibonacci Series
8. PL/SQL Program to Check Number is Odd or Even
9. PL/SQL Program to Reverse a String
10. PL/SQL Program for Palindrome Number
11. PL/SQL Program to Swap two Number
12. PL/SQL Program for Armstrong Number
13. PL/SQL Program to Find Greatest of Three Numbers

**3. PL/SQL Cursor Programs**

1. Write a Program for Implicit Cursor
2. Write a Program For Explicit Cursor

**4. Trigger Programs**

Create three tables

Student (Roll\_no, Name, Contact, Marks) Student\_copy (Roll\_no, Contact)

Student\_update\_copy (Roll\_no, New\_Contact, Old\_contact)

- A. Create a trigger to insert Roll no and Contact number of student on insertion of any record in Table Student.
- B. Create a trigger to insert Roll no New Contact number and old Contact number of student on updation of contact



|           |   |
|-----------|---|
|           | number in Table Student.  |
| <b>5.</b> | <b>Procedure Programs.</b> <ol style="list-style-type: none"><li>1. Write a procedure to insert data in employee table.</li><li>2. Write a procedure to update contact number of employee in employee table.</li><li>3. Write a procedure to find name of manager for given employee id.</li><li>4. Write a procedure to get all the details (emp_id, name, city of residence, company name, city of work, manager name, salary) of given employee id.</li><li>5.</li></ol> |



**Course:** BBA

**Semester:** 1

**Prerequisite:** Basic Computer knowledge and Internet Surfing

**Rationale :** Establishes foundational understanding: Provides students with a clear definition and historical context of IoB, laying the groundwork for further exploration. Identifies key technologies: Introduces students to the essential technologies and methodologies used in IoB, enabling them to grasp the technical aspects of the field. Highlights potential applications: Illustrates the potential of IoB across various domains, motivating students to delve deeper into specific areas of interest.

### Teaching and Examination Scheme

| Teaching Scheme  |                   |              |                  |        | Examination Scheme |    |   |                |   | Total |
|------------------|-------------------|--------------|------------------|--------|--------------------|----|---|----------------|---|-------|
| Lecture Hrs/Week | Tutorial Hrs/Week | Lab Hrs/Week | Seminar Hrs/Week | Credit | Internal Marks     |    |   | External Marks |   |       |
|                  |                   |              |                  |        | T                  | CE | P | T              | P |       |
| 4                | -                 | -            | -                | 4      | 20                 | 20 | - | 60             | - | 100   |

SEE - Semester End Examination, T - Theory, P - Practical

### Course Content

W - Weightage (%) , T - Teaching hours

| Sr.          | Topics   | W          | T         |
|--------------|--|------------|-----------|
| 1            | <b>Introduction to Internet of Behavior</b> Introduction to Internet of Behavior (IoB) Understanding the concept of IoB Historical context and evolution Key technologies and methodologies  | 20         | 12        |
| 2            | <b>Data Collection</b> Behavioral Data Collection and Analysis Techniques for collecting behavioral data Data privacy and ethical considerations Tools and methods for analyzing behavioral data   | 20         | 12        |
| 3            | <b>Applications of IoB in Various Industries</b> Healthcare: IoB in patient monitoring and personalized medicine Retail: Customer behavior analysis and personalized marketing Transportation: IoB applications in smart cities and traffic management | 20         | 12        |
| 4            | <b>Ethical and Legal Implications of IoB</b> Privacy concerns and data protection regulations Ethical considerations in behavior tracking and analysis Case studies and real-world examples  | 20         | 12        |
| 5            | <b>Practical</b> Practical Applications and Project Development Hands-on projects using IoB technologies Developing IoB applications Integration with existing systems and platforms   | 20         | 12        |
| <b>Total</b> |  | <b>100</b> | <b>60</b> |

### Reference Books

|    |   |
|----|---|
| 1. | <b>"Internet of Things (A Hands-on-Approach)",</b><br>By Vijay Madiseti and Arshdeep Bahga,   VPT |
| 2. | <b>Big data analytics with R and Hadoop</b><br>By VigneshPrajapati   SPD, Pub. Year 2013          |
| 3. | <b>Getting Started with the Internet of Things</b><br>By Cuno Pfister                             |

### Course Outcome

**After Learning the Course the students shall be able to:**

1. Formulate strategies for addressing ethical and legal challenges in IoB
2. Critique ethical considerations in behavior tracking and analysis.
3. Apply tools and methods for analyzing behavioral data in various scenarios.
4. Compare different techniques for behavioral data collection.
5. Explain the fundamental principles of IoB

**Course:** B.Sc.**Semester:** 1**Prerequisite:** Shall have the basic knowledge about environmental studies**Rationale :** Will understand the basic interface between climate change and sustainability.**Teaching and Examination Scheme**

| Teaching Scheme     |                      |                 |                     |        | Examination Scheme |    |   |                |   | Total |
|---------------------|----------------------|-----------------|---------------------|--------|--------------------|----|---|----------------|---|-------|
| Lecture<br>Hrs/Week | Tutorial<br>Hrs/Week | Lab<br>Hrs/Week | Seminar<br>Hrs/Week | Credit | Internal Marks     |    |   | External Marks |   |       |
|                     |                      |                 |                     |        | T                  | CE | P | T              | P |       |
| 2                   | -                    | -               | -                   | 2      | 20                 | 20 | - | 60             | - | 100   |

SEE - Semester End Examination, T - Theory, P - Practical

**Course Content**

W - Weightage (%) , T - Teaching hours

| Sr.          | Topics   | W          | T         |
|--------------|--|------------|-----------|
| 1            | <b>Unit 1 : Introduction to Climate Change</b> Global Climate System Climate Change: Causes and Consequences: Global warming, ozone layer depletion, acid rain, and greenhouse effect case studies: nuclear accidents, chemical disasters, and climatic episodes   | 33         | 10        |
| 2            | <b>Unit 2: Sustainable Development:</b> Sustainable Development Goals: An overview Climate Change and Sustainable Development: National and State Policies Achieving Sustainable Development Goals: Role of Various Stakeholders Building Partnership for Climate Change and Sustainable Development   | 34         | 10        |
| 3            | <b>Unit 3 : Sustainable Approach to Climate Change:</b> Energy Conservation: Use of Renewable energies: Water, Solar, Wind, Tidal, Geothermal Water conservation techniques: Rain Water Harvesting. Environmental Ethics & Public Awareness: Role of various religions and cultural practices in environmental conservation Sustainable Human Development. | 33         | 10        |
| <b>Total</b> |  | <b>100</b> | <b>30</b> |

**Reference Books**

|    |  |
|----|--|
| 1. | <b>Climate Change and Sustainable Development: Prospects for Developing Countries</b><br>By Anil Markandya, Kirsten Halsnæs  |
| 2. | <b>Climate Change and Sustainable Development Global Prospective</b><br>By R.K.Mishra, P.s.Janki Krishna & CH. Laskhmi Kumar |
| 3. | <b>This Changes Everything: Capitalism vs The Climate</b><br>By Naomi Klein  |
| 4. | <b>The Uninhabitable Earth: Life After Warming (TextBook)</b><br>By David Wallace-Wells                                      |

**Course Outcome****After Learning the Course the students shall be able to:**

1. Identify the complexity and operations of governance systems and processes on international, national, and local levels.
2. Explain the differences between government and governance and the various ideas and meanings attached to the goal of sustainable development.
3. Critically analyze policy-making processes in regard to sustainability issues.
4. Apply high-quality written and verbal communication skills
5. Work effectively in a team and in tutorial or workshop situations



Course: B.Com(A.Y. 2023-24)

Semester: 1

Prerequisite: Basic Knowledge of commerce and business

Rationale : Accounting provides students with skills and knowledge that can be applied to a number of industries.

### Teaching and Examination Scheme

| Teaching Scheme  |                   |              |                  |        | Examination Scheme |    |   |                |   | Total |
|------------------|-------------------|--------------|------------------|--------|--------------------|----|---|----------------|---|-------|
| Lecture Hrs/Week | Tutorial Hrs/Week | Lab Hrs/Week | Seminar Hrs/Week | Credit | Internal Marks     |    |   | External Marks |   |       |
|                  |                   |              |                  |        | T                  | CE | P | T              | P |       |
| 4                | -                 | -            | -                | 4      | 20                 | 20 | - | 60             | - | 100   |

SEE - Semester End Examination, T - Theory, P - Practical

### Course Content

W - Weightage (%) , T - Teaching hours

| Sr.          | Topics  | W          | T         |
|--------------|---|------------|-----------|
| 1            | <b>Theoretical Framework:</b> Meaning and Scope of accounting, Accounting Concepts and Principles –Accounting Conventions, Accounting Standards–Concepts, Objectives, Benefits, Accounting Policies, International Financial Reporting Standards (IFRS):- Need and procedures of IFRS , Distinction between IFRS & GAAP   | 25         | 15        |
| 2            | <b>Accounting Process:</b> Basis of Accounting: Accrual basis and cash basis. Types of accounts: Personal, Real and Nominal, Rules of debit and credit, Journal Entries. Introduction of journal and various ledgers - Examples related to recording the transaction into journal, posting into ledger, balancing & preparation of trial balance.   | 25         | 15        |
| 3            | <b>Measurement of business income</b> <b>Net income:</b> the accounting period, the continuity doctrine and matching concept. Objectives of measurement. <b>Revenue recognition:</b> Recognition of expenses. <b>Depreciation accounting:</b> Purpose of charging depreciation; Factors affecting depreciation; Methods of charging Depreciation: Straight Line Method (Single Asset and Addition of Asset), Written Down Value Method (Single Asset and Addition of Asset), Annuity Method (Single Asset), Sinking Fund Method (Single Asset); Computation and accounting treatment of depreciation. | 25         | 15        |
| 4            | <b>Final Accounts &amp; Rectification of error:</b> Accounting Errors, Types of Errors, Errors affecting to Trial Balance and Errors which are not affecting to Trial balance, Rectification- of errors affecting trial balance. Preparation of trial balance, Profit and Loss Account and Balance Sheet of Sole Proprietorship firms   | 25         | 15        |
| <b>Total</b> |   | <b>100</b> | <b>60</b> |

### Reference Books

|    |   |
|----|---|
| 1. | <b>Fundamental Accountancy</b><br>By S.N. Maheshwari                                  |
| 2. | <b>Financial Accounting</b><br>By Tulsian P. C.   Pearson Education                   |
| 3. | <b>Advanced Accounting</b><br>By M.C.Shukla and T.S.Grewal   Sultan Chand Publication |

### Course Outcome

After Learning the Course the students shall be able to:

- CO1 To understand the basics of accounting practices
- CO2 To prepare journal and ledger in books of accounts
- CO3 To evaluate and measure the business income and its accounting treatment
- CO4 To evaluate the financial statements of Sole Proprietors


**Course:** B.Com(A.Y. 2023-24)

**Semester:** 1

**Prerequisite:** Basic Knowledge of business and economics

**Rationale :** Economics is an essential part of business firms. Hence it is necessary to understand basic concepts of microeconomics.

### Teaching and Examination Scheme

| Teaching Scheme  |                   |              |                  |        | Examination Scheme |    |   |                |   | Total |
|------------------|-------------------|--------------|------------------|--------|--------------------|----|---|----------------|---|-------|
| Lecture Hrs/Week | Tutorial Hrs/Week | Lab Hrs/Week | Seminar Hrs/Week | Credit | Internal Marks     |    |   | External Marks |   |       |
|                  |                   |              |                  |        | T                  | CE | P | T              | P |       |
| 4                | -                 | -            | -                | 4      | 20                 | 20 | - | 60             | - | 100   |

**SEE** - Semester End Examination, **T** - Theory, **P** - Practical

### Course Content

**W** - Weightage (%) , **T** - Teaching hours

| Sr.          | Topics  | W          | T         |
|--------------|---|------------|-----------|
| 1            | <b>Nature &amp; Scope of Business Economics</b> Introduction, Nature of business economics, Scope of business economics, Basic Problems of an Economy & Role of Price Mechanism, Types of Economy   | 25         | 15        |
| 2            | <b>Theory of Demand and Supply</b> Meaning of Demand & Supply, The demand & Supply Schedule, Demand Function & Supply function, Law of Demand & Supply Individual and Market Demand & Supply Determinants of Demand & Supply, Demand & Supply Curve, Equilibrium with supply & Demand Curve, Demand & Supply Shifts Effects of a shift in Supply or Demand, Interpreting Changes in Price & Quantity, Types of Elasticity of Demand & Supply, Calculating Elasticity, Measurement of Elasticity, Degree of Elasticity, Consumer Equilibrium – Utility Analysis, Consumer Equilibrium – Indifference Curve Analysis, | 25         | 15        |
| 3            | <b>Theory of Production, Revenue and Cost</b> Theory of Production, Factors of Production, Production function, Returns to scale, Return to factors, Theory of Cost, Cost Function, Types of Cost, Cost curves in Long run & short run. Theory of Revenue.  | 25         | 15        |
| 4            | <b>Market Structure:</b> Meaning & Characteristics of Perfect Competition, Price & output Determination under perfect Competitive Market, Short Run & Long Run Equilibrium, Imperfect Competition- Basic Concept of Monopoly, Features of Monopoly Equilibrium under Monopoly Short & Long run, Concept of Monopolistic Competition, Features of Monopolistic Competition, Price and output determination under Monopolistic Competition, Meaning & Characteristics of Oligopoly, Kinked demand curve.  | 25         | 15        |
| <b>Total</b> |   | <b>100</b> | <b>60</b> |

### Reference Books

|    |   |
|----|---|
| 1. | <b>Principal of Economics</b><br>By N. Gregory Mankiw(2002)   Thomson (India)   |
| 2. | <b>Koutsoyiannis A., (2006): Modern Microeconomics, MacMillan Press limited, London, 2nd Edition-7th Re-print (Thrice).</b> |
| 3. | <b>Microeconomics</b><br>By H L AHUJA   S CHAND & CO   LATEST   |
| 4. | <b>Modern Microeconomics Theory and Application,</b><br>By Ahuja H.L   S. Chand, New Delhi .                                |

### Course Outcome

**After Learning the Course the students shall be able to:**

- CO1 To understand the basic concepts of economics, nature of production and its relationship to Business operations.  
 CO2 To apply marginal analysis to the “firm” under different market conditions.  
 CO3 To analyse the causes and consequences of different market conditions.  
 CO4 To integrate the concept of price and output decisions of firms under various market structure.





Course: B.Com(A.Y. 2023-24)

Semester: 1

Prerequisite: Knowledge of Communication in an Organization and Presentation Skills

Rationale : Basic Communication Skills are essential for all Commerce students

### Teaching and Examination Scheme

| Teaching Scheme  |                   |              |                  |        | Examination Scheme |    |   |                |   | Total |
|------------------|-------------------|--------------|------------------|--------|--------------------|----|---|----------------|---|-------|
| Lecture Hrs/Week | Tutorial Hrs/Week | Lab Hrs/Week | Seminar Hrs/Week | Credit | Internal Marks     |    |   | External Marks |   |       |
|                  |                   |              |                  |        | T                  | CE | P | T              | P |       |
| 2                | -                 | -            | -                | 2      | 20                 | 20 | - | 60             | - | 100   |

SEE - Semester End Examination, T - Theory, P - Practical

### Course Content

W - Weightage (%) , T - Teaching hours

| Sr.          | Topics  | W          | T         |
|--------------|---|------------|-----------|
| 1            | <b>Basic Principles of Communication:</b> Introduction, Understanding Communication, the Communication Process, Barriers to Communication, the Importance of Communication in the Workplace, Classification of Communication Channels, Types of Business Communication, Communication Network in Organizations  | 25         | 8         |
| 2            | <b>Written Business Communication:</b> Need and essentials of business correspondence, communication and e-mail etiquettes. Principles of Business Writing, Parts and layouts of business letters. <b>Written communication:</b> Letters and E-mails – Statement of Purpose (SOP), Job application with CV, sales letter, credit sales inquiry letters, collection letters, Complaint Letter, Order Letter, Consumer Grievance Letter, RTI Letter etc.                            | 25         | 7         |
| 3            | <b>Etiquettes in Business Communication</b> Concept and Importance of Etiquettes, Telephone/Cell phone conversations, Etiquettes at Workplace (Internal - superiors, peers and subordinates), Etiquettes with Stakeholders (External - suppliers and customers). E-Mail Etiquette: Significance of Netiquette, E-mail: Way of professional communication, Basic Email Etiquettes: Proper Grammar, Spelling, Punctuation, Styling and Formatting, Body of Email, Response, Privacy | 25         | 8         |
| 4            | <b>Business Presentation:</b> Importance and Role of Business Presentation Planning for Presentation Preparing and Practicing (Rehearsing) the Presentation Delivering the Presentation Essentials of Presentation: Using Visual Aids for Presentation, Oral Presentation (Transparencies, graphs, charts, etc.), Using Audio/Visual Aids for Presentation, Electronic Presentation (Multimedia/PPT), Coping with Presentation fears, Non-Verbal aspects of Presentation          | 25         | 7         |
| <b>Total</b> |   | <b>100</b> | <b>30</b> |

### Reference Books

|    |   |
|----|---|
| 1. | <b>Basics of Business Communication</b><br>Cambridge University Press,   South Asian Edition  |
| 2. | <b>Business Communication</b><br>By Meenakshi Raman & Prakash Singh   Oxford University Press   |
| 3. | <b>Business Communication Concepts , Cases &amp; Application</b><br>By Chaturvedi, P D Chaturvedi & Mukesh Chaturvedi   Pearson Education |

### Course Outcome

After Learning the Course the students shall be able to:

- CO1 Understand the foundational concepts of communication and recognize its significance in the workplace.
- CO2 Develop the skills necessary for effective business writing, including various types of letters and emails.
- CO3 Acquire knowledge of proper etiquette in various business communication contexts, both internal and external.
- CO4 Master the art of planning, preparing, and delivering impactful business presentations using visual and audio/visual aids.



**Course:** B.Com(A.Y. 2023-24)

**Semester:** 1

**Prerequisite:** Basic Knowledge of accounting

**Rationale :** The course is designed to equip students with foundational knowledge and skills essential for understanding and practicing auditing principles. Recognizing the pivotal role of auditing in ensuring financial integrity, accountability, and transparency, this course aims to cultivate a strong ethical foundation and in still a sense of professional responsibility in students, preparing them for careers in auditing and related fields.

### Teaching and Examination Scheme

| Teaching Scheme  |                   |              |                  |        | Examination Scheme |    |   |                |   | Total |
|------------------|-------------------|--------------|------------------|--------|--------------------|----|---|----------------|---|-------|
| Lecture Hrs/Week | Tutorial Hrs/Week | Lab Hrs/Week | Seminar Hrs/Week | Credit | Internal Marks     |    |   | External Marks |   |       |
|                  |                   |              |                  |        | T                  | CE | P | T              | P |       |
| 4                | -                 | -            | -                | 4      | 20                 | 20 | - | 60             | - | 100   |

SEE - Semester End Examination, T - Theory, P - Practical

### Course Content

W - Weightage (%) , T - Teaching hours

| Sr.          | Topics  | W          | T         |
|--------------|---|------------|-----------|
| 1            | <b>Introduction to Auditing:</b> Definition, Characteristics and Scope of Auditing, Objectives of Auditing, Advantages and limitations of Auditing, Qualities of an Auditor, Difference between Auditing and Accountancy, Types of Audit.   | 25         | 15        |
| 2            | <b>Internal Audit and Verification</b> Meaning, Characteristics, Objectives, Auditor's duty regarding internal check system, Difference between Internal Audit and Statutory Audit, Difference between Internal Check and Internal Audit <b>Vouching:</b> Meaning, of Vouching and Voucher, Characteristics, Objectives, Importance of Vouching, Points to be considered in Vouching, Vouching and Auditor's duties | 25         | 15        |
| 3            | <b>Verification and Valuation of Assets and Liabilities:</b> Meaning and Objectives of verification and valuation – Position of an Auditor as regards the Valuation of Assets – Verification and Valuation of different Items: Assets: Land & Building, Plant & Machinery, Goodwill – Investments - Stock in Trade. Liabilities: Bills Payable - Sundry Creditors – Contingent Liabilities                          | 25         | 15        |
| 4            | <b>Audit of Joint Stock Companies:</b> Qualification – Dis-qualifications – Various modes of Appointment of Company Auditor – Rights and Duties – Liabilities of a Company Auditor – Share Capital and Share Transfer Audit – Audit Report – Contents and Types.  | 25         | 15        |
| <b>Total</b> |   | <b>100</b> | <b>60</b> |

### Reference Books

|    |   |
|----|---|
| 1. | <b>Auditing</b><br>By Aruna Jha   Taxmann |
| 2. | <b>Auditing</b><br>By B. S. Shah          |

### Course Outcome

**After Learning the Course the students shall be able to:**

CO1 Apply their understanding of internal audit by describing its meaning, characteristics, objectives, and distinguishing it from statutory audit and internal check.

CO2 Analyze the process of vouching, recognizing its meaning, objectives, and importance, while also understanding the auditor's duties in relation to vouching.

CO3 Synthesize information on verification and valuation, examining the auditor's position in asset valuation and applying the principles to specific items such as land, buildings, plant, machinery, goodwill, investments, stock in trade, bills payable, sundry creditors, and contingent liabilities.

CO4 Evaluate the audit of joint-stock companies, assessing the qualifications, disqualifications, modes of auditor appointment, rights, duties, and liabilities of a company auditor, along with the audit report's contents and types.




**Course:** BTech

**Semester:** 1

**Prerequisite:** Basic numeracy skill

**Rationale :** Mathematical aptitude refers to the ability to reason, think critically, and apply mathematical principles to solve problems and make sense of the world around us.

### Teaching and Examination Scheme

| Teaching Scheme  |                   |              |                  |        | Examination Scheme |    |   |                |   | Total |
|------------------|-------------------|--------------|------------------|--------|--------------------|----|---|----------------|---|-------|
| Lecture Hrs/Week | Tutorial Hrs/Week | Lab Hrs/Week | Seminar Hrs/Week | Credit | Internal Marks     |    |   | External Marks |   |       |
|                  |                   |              |                  |        | T                  | CE | P | T              | P |       |
| 2                | -                 | -            | 0                | 2      | 20                 | 20 | - | 60             | - | 100   |

SEE - Semester End Examination, T - Theory, P - Practical

### Course Content

W - Weightage (%) , T - Teaching hours

| Sr.          | Topics   | W          | T         |
|--------------|--|------------|-----------|
| 1            | <b>Unit-1</b> Numbers, HCF & LCM, Square Root & Cube Root, Ratio & Proportion, Permutations & Combinations, Percentage, Average-Shortcut averages, Partnership, Time -work & distance, Boats & streams, Mixtures, Logarithms | 40         | 12        |
| 2            | <b>Unit-2</b> Progression (AM, GM, HM), Series, Interest (S.I. & C.I.) and depreciation rate, Profit-Loss & Discount, Equations (Linear & Quadratic), Probability.   | 40         | 12        |
| 3            | <b>Unit-3</b> Mensuration I (Area & Perimeter), Mensuration II (Volume & Surface area), Grouped Data, Ungrouped Data (Mean and Standard Deviation) Data interpretation: (Tabulation, Bar Graph, Pie Chart, Line Chart).      | 20         | 6         |
| <b>Total</b> |  | <b>100</b> | <b>30</b> |

### Reference Books

|    |   |
|----|---|
| 1. | <b>Quantitative Aptitude for Competitive Examinations (TextBook)</b><br>By D. Khattar   Person Indian Education Service |
| 2. | <b>Verbal Reasoning and Non - Verbal Reasoning (TextBook)</b><br>By B. S. Sijwali and Indu Sijwali   New Delhi: Arihant |
| 3. | <b>Quantitative Aptitude for Competitive Examinations</b><br>By R. S. Aggarwal   S. Chand Publishing,                   |

### Course Outcome

**After Learning the Course the students shall be able to:**

After completion of the course, Students will be able to,

- Analyse and interpret mathematical problems, devise appropriate strategies, and apply relevant mathematical concepts and techniques to find solutions.
- Comprehend and manipulate numerical information effectively, make accurate calculations, and interpret numerical data in various contexts.
- Think critically and logically, recognize patterns and relationships, and construct logical arguments using mathematical principles.
- Apply these concepts and techniques to solve real-world situations.



Course: BCA

Semester: 2

Prerequisite: Knowledge of Basic English-I

Rationale : Knowledge of Communication is essential for students.

### Teaching and Examination Scheme

| Teaching Scheme  |                   |              |                  |        | Examination Scheme |     |   |                |   | Total |
|------------------|-------------------|--------------|------------------|--------|--------------------|-----|---|----------------|---|-------|
| Lecture Hrs/Week | Tutorial Hrs/Week | Lab Hrs/Week | Seminar Hrs/Week | Credit | Internal Marks     |     |   | External Marks |   |       |
|                  |                   |              |                  |        | T                  | CE  | P | T              | P |       |
| 2                | -                 | -            | -                | 2      | -                  | 100 | - | -              | - | 100   |

SEE - Semester End Examination, T - Theory, P - Practical

### Course Content

W - Weightage (%) , T - Teaching hours

| Sr.          | Topics   | W          | T         |
|--------------|--|------------|-----------|
| 1            | <b>Definition, Importance and Process of Communication</b><br>Definition of Communication & Importance of Communication<br>Definition and process of communication | 7          | 2         |
| 2            | <b>Levels and Flow of Communication</b><br>Levels of Communication<br>Flow of Communication  | 7          | 2         |
| 3            | <b>Barriers and features of Effective Communication</b><br>Barriers to effective Communication<br>Features of effective Communication                              | 7          | 2         |
| 4            | <b>Non-verbal Communication and Kinesics</b><br>Define non-verbal communication<br>Kinesics  | 3          | 1         |
| 5            | <b>Proxemics, Paralinguistic and Chronemics</b><br>Proxemics<br>Paralinguistic<br>Chronemics   | 3          | 1         |
| 6            | <b>Error Analysis</b> Error Analysis (Tenses, voices & Reported speech)  | 7          | 2         |
| 7            | <b>Reading Comprehension</b> Reading Comprehension   | 3          | 1         |
| 8            | <b>Vocabulary Building</b> <b>Vocabulary Building</b><br>Idioms<br>Phrases<br>Synonyms<br>Antonyms   | 7          | 2         |
| 9            | <b>Theatrics (Role Play)</b> Theatrics (Role Play)   | 16         | 5         |
| 10           | <b>Extempore</b> Extempore   | 16         | 5         |
| 11           | <b>Application Writing</b> Application Writing   | 10         | 3         |
| 12           | <b>Letter writing</b> Letter writing (Elements, Layouts, Inquiry, Complain, & Adjustment,)   | 14         | 4         |
| <b>Total</b> |  | <b>100</b> | <b>30</b> |



## Reference Books

|    |  |
|----|--|
| 1. | <b>1. Sanjay Kumar, Pushp Lata, Communication Skills, Oxford University Press</b>  |
| 2. | <b>Business Correspondence and Report Writing</b><br>By SHARMA, R. AND MOHAN, K.   |
| 3. | <b>Practical English Usage</b><br>By MICHAEL SWAN  |
| 4. | <b>A Remedial English Grammar for Foreign Student</b><br>By F.T. WOOD  |
| 5. | <b>On Writing Well</b><br>By William Zinsser   Harper Paperbacks, 2006   30th anniversary edition                            |
| 6. | <b>Oxford Practice Grammar,</b><br>By John Eastwood   Oxford University Press  |
| 7. | <b>, Technical Communication : Principles And Practice</b><br>By Sangeetha Sharma, Meenakshi Raman   Oxford University Press |

## Course Outcome

### After Learning the Course the students shall be able to:

After Learning the course the students shall be able to:

1. Construct grammatically correct sentences.
2. Develop and deliver professional presentation skills
3. Develop confidence in speaking skills.
4. Develop the skills of critical thinking.
5. Compose different types of written communication.


**Course:** BCA

**Semester:** 2

**Prerequisite:** basic awareness of personal values, social behavior, and Indian culture is desirable.

**Rationale :** IPDC aims to prepare students for the modern challenges they face in their daily lives. Promoting fortitude in the face of failures, Unity amongst family discord, Self-discipline amidst Distractions... and many more priceless lessons. The course focuses on morality and character development at the core of student growth, to enable students to become self-aware, sincere, and successful in their many roles - as an ambitious student, reliable employee, caring family member, and considerate citizen.

### Teaching and Examination Scheme

| Teaching Scheme  |                   |              |                  |        | Examination Scheme |     |   |                |   | Total |
|------------------|-------------------|--------------|------------------|--------|--------------------|-----|---|----------------|---|-------|
| Lecture Hrs/Week | Tutorial Hrs/Week | Lab Hrs/Week | Seminar Hrs/Week | Credit | Internal Marks     |     |   | External Marks |   |       |
|                  |                   |              |                  |        | T                  | CE  | P | T              | P |       |
| 2                | -                 | -            | -                | 2      | -                  | 100 | - | -              | - | 100   |

SEE - Semester End Examination, T - Theory, P - Practical

### Course Content

W - Weightage (%) , T - Teaching hours

| Sr. | Topics  | W | T |
|-----|---|---|---|
| 1   | <b>Introduction and Remaking Yourself</b> Restructuring Yourself: Students learn how self-improvement enables them to secure a bright future for themselves. They will learn 6 powerful thought-processes that can develop their intellectual, physical, emotional, and spiritual quotients   | 7 | 2 |
| 2   | <b>Remaking Yourself</b> Power of Habit: Students will undergo a study of how habits work, the habits of successful professionals, and the practical techniques that can be used to develop good habits in their life.  | 7 | 2 |
| 3   | <b>Learning from Legends</b> Tendulkar & Tata: Students will learn from the inspirational lives of India's two legends, Sachin Tendulkar and Ratan Tata. They will implement these lessons through relatable case studies.  | 7 | 2 |
| 4   | <b>From House to Home</b> Listening & Understanding: Active listening is an essential part of academic progress and communications. Students will learn to listen with their eyes, ears, mind, and heart.   | 7 | 2 |
| 5   | <b>Facing Failures</b> Welcoming Challenges: This lecture enables students to revisit the way in which they approach challenges. Through the study of successful figures such as Disney, Lincoln and Bachchan, students will learn to face difficulties through a positive perspective.   | 7 | 2 |
| 6   | <b>Facing Failures</b> Significance of Failures: Failure is a student's daily source of fear, negativity, and depression. Students will be given the constructive skills to understand failure as formative learning experiences.   | 7 | 2 |
| 7   | <b>My India My Pride</b> Glorious Past - Part 1: India's ancient Rishis, scholars, and intellectuals have made tremendous contributions to the world, they developed an advanced, sophisticated culture and civilization which began thousands of years ago. Students will learn the importance of studying India's glorious past so that they could develop a strong passion and pride for our nation. | 7 | 2 |
| 8   | <b>My India My Pride</b> Glorious Past - Part 2: Our ancient concepts can be used to seek revolutionary ideas and to generate inspiration. Students will develop a deeper interest in India's Glorious Past – by appreciating the need to read about it, research it, write about it, and share it.   | 7 | 2 |
| 9   | <b>Learning from Legends</b> A.P.J. Abdul Kalam: Dr Kalam's inspirational life displayed legendary qualities which apply to students (1) Dare to Dream (2) Work Hard (3) Get Good Guidance (4) Humility (5) Use Your Talents for the Benefit of Others  | 7 | 2 |
| 10  | <b>Soft Skills</b> Networking & Leadership: Students are taught the means of building a professional network and developing a leadership attitude.  | 7 | 2 |



|              |  |            |           |
|--------------|--|------------|-----------|
| 11           | <b>Soft Skills</b> Project Management: Students will learn the secrets of project management through the Akshardham case study. They will then practice these skills through an activity relevant to student life. | 6          | 2         |
| 12           | <b>Remaking Yourself</b> Handling Social Media: Students will learn how social media can become addictive and they will imbibe simple methods to take back control.  | 6          | 2         |
| 13           | <b>Facing Failures</b> Power of Faith: Students will learn about the power and necessity of faith in our daily lives.  | 6          | 2         |
| 14           | <b>From House to Home</b> Bonding the Family: Students will understand the importance of strong family relationships. They will learn how to overcome the generation gap and connect with their family more.       | 6          | 2         |
| 15           | <b>Selfless Service</b> Seva: Students will learn that performing seva is beneficial to one's health, wellbeing, and happiness. It also benefits and inspires others.  | 6          | 2         |
| <b>Total</b> |  | <b>100</b> | <b>30</b> |

### Reference Books

1. **Integrated Personality Development Course (TextBook)**  
By Bochasanwasi Akshar Purushottam Swaminarayan Sanstha

### Course Outcome

**After Learning the Course the students shall be able to:**

1. Develop self-awareness, positive habits, and ethical values for personal and academic growth.
2. Apply soft skills such as communication, leadership, and teamwork in academic and social settings.
3. Demonstrate resilience by adopting positive approaches to challenges, failures, and life situations.
4. Appreciate India's cultural heritage and apply its values to become responsible and considerate citizens.

### Miscellaneous

#### Useful Links

[https://www.youtube.com/watch?v=\\_C09aqOszvY](https://www.youtube.com/watch?v=_C09aqOszvY)



Course: BCA

Semester: 2

Prerequisite: Knowledge of Statistics

**Rationale :** Data mining is the essential component of decision support systems for the modern-day industry and business. These techniques enable the knowledge worker to make better and faster decisions. The objective of this course is to introduce the student to various Data Mining concepts and techniques. A database perspective of an open-source application is used throughout the course to introduce principles, algorithms, architecture, design, and implementation of data mining techniques. Learning this course would improve the employment potential of students in the information management sector.

### Teaching and Examination Scheme

| Teaching Scheme  |                   |              |                  |        | Examination Scheme |    |    |                |    | Total |
|------------------|-------------------|--------------|------------------|--------|--------------------|----|----|----------------|----|-------|
| Lecture Hrs/Week | Tutorial Hrs/Week | Lab Hrs/Week | Seminar Hrs/Week | Credit | Internal Marks     |    |    | External Marks |    |       |
|                  |                   |              |                  |        | T                  | CE | P  | T              | P  |       |
| 3                | -                 | 2            | -                | 4      | 20                 | 20 | 20 | 60             | 30 | 150   |

SEE - Semester End Examination, T - Theory, P - Practical

### Course Content

W - Weightage (%) , T - Teaching hours

| Sr.          | Topics  | W          | T         |
|--------------|---|------------|-----------|
| 1            | <b>Fundamentals of data mining</b> Describe the concept of Data Mining, Data mining: History, strategies, techniques, applications, challenges of data mining, Future of data mining, <b>Describe types of Data:</b> Types of Data: Database Data, Data Warehouses, Transactional Data, Other Kinds of Data.  | 10         | 8         |
| 2            | <b>Objects, Attributes, &amp; Statistical Description of Data</b> Explain Mining techniques and Attribute Relation File Format (ARFF): Data Attribute (Nominal Attributes, Binary Attributes, Ordinal Attributes, Numeric Attributes, Discrete versus Continuous Attributes. <b>Solve basic Statistical calculations on Data:</b> Mean, Median, and Mode; Measuring the Dispersion of Data: Range, Quartiles, Variance, Standard Deviation, and Interquartile Range using WEKA.         | 20         | 8         |
| 3            | <b>Data Preprocessing</b><br><b>Describe the aspect of data preprocessing:</b> Preprocess the Data, Major Tasks in Data Preprocessing.<br><b>Explain the concept of Data Cleaning &amp; Integration:</b> Data Cleaning: Missing Values, Noisy Data, Data Cleaning as a Process.<br><b>Data Integration:</b> Entity Identification Problem, Redundancy, and Correlation Analysis, Tuple Duplication, Data Value Conflict Detection and Resolution, Use WEKA for cleaning and integration | 25         | 8         |
| 4            | <b>Classification</b><br><b>Explain Decision Trees and clustering:</b> Decision tree: ID3, Probability-based solving, Concepts of Clustering, Using WEKA for classification and clustering  | 15         | 8         |
| 5            | <b>Data Warehouse &amp; OLAP Technology</b><br><b>Apply the concept of Data warehousing using WEKA solution:</b> Data Warehouse, Differences between Operational Database Systems and Data Warehouses, Enterprise Warehouse, Data Mart, and Virtual Warehouse.  | 20         | 8         |
| 6            | <b>Data Mining Tool: WEKA</b><br>Install and Configure WEKA Tool: Basic of WEKA, Installing WEKA, WEKA data file format, Data visualization in WEKA, Data filtering, Using the concepts of data mining with WEKA  | 10         | 5         |
| <b>Total</b> |   | <b>100</b> | <b>45</b> |

## Reference Books

|    |   |
|----|---|
| 1. | <b>Data Mining Concepts and Techniques</b><br>By Jiawei Han and Jian Pei   Morgan Kaufmann Publishers   Third |
| 2. | <b>Fundamentals of Data Warehouses</b><br>By M.Jarke, M Lenzerni  |
| 3. | <b>Principles of Data Mining</b><br>By David Hand, Heikki Mannila, Padhraic Smyth , PHI                       |
| 4. | <b>Data Mining: Methods and Techniques</b><br>By A B M Shawkat Ali, Saleh A, Wasimi, CENGAGE Learning         |
| 5. | <b>Data Mining Techniques</b><br>By Arun K. Pujari   Universities Press                                       |

## Course Outcome

After Learning the Course the students shall be able to:

1. Describe the concept of Data Mining & its attributes
2. Explain the concept of Data Cleaning & Integration and decision Trees and clustering
3. Demonstrate WEKA Explorer, Mining techniques and Attribute Relation File Format (ARFF).
4. Compare various Data Mining techniques available in WEKA

## List of Practical

| 1.   | <p><b>Create following Three Tables.</b></p> <p><b>1. Salesman</b></p> <table border="1"> <thead> <tr> <th>SNUM</th> <th>SNAME</th> <th>CITY</th> <th>COMMISSION</th> </tr> </thead> <tbody> <tr><td>1001</td><td>PIYUSH</td><td>LONDON</td><td>12%</td></tr> <tr><td>1002</td><td>NIRAJ</td><td>SURAT</td><td>13%</td></tr> <tr><td>1003</td><td>MITI</td><td>LONDON</td><td>11%</td></tr> <tr><td>1004</td><td>RAJESH</td><td>BARODA</td><td>15%</td></tr> <tr><td>1005</td><td>ANAND</td><td>NEW DELHI</td><td>10%</td></tr> <tr><td>1006</td><td>RAM</td><td>PATAN</td><td>10%</td></tr> <tr><td>1007</td><td>LAXMAN</td><td>BOMBAY</td><td>09%</td></tr> </tbody> </table> <p>SNUM: A Unique number assign to each salesman.<br/>SNAME: The name of salesman.<br/>CITY: The location of salesman.<br/>COMMISSION: The salesman commission on order.</p> <p><b>2. Customer</b></p> <table border="1"> <thead> <tr> <th>CNUM</th> <th>CNAME</th> <th>CITY</th> <th>RATING</th> <th>SNUM</th> </tr> </thead> <tbody> <tr><td>2001</td><td>HARDIK</td><td>LONDON</td><td>100</td><td>1001</td></tr> <tr><td>2002</td><td>GITA</td><td>ROME</td><td>200</td><td>1003</td></tr> <tr><td>2003</td><td>LAXIT</td><td>SURAT</td><td>200</td><td>1002</td></tr> <tr><td>2004</td><td>GOVIND</td><td>BOMBAY</td><td>300</td><td>1002</td></tr> <tr><td>2005</td><td>CHANDU</td><td>LONDON</td><td>100</td><td>1001</td></tr> <tr><td>2006</td><td>CHAMPAK</td><td>SURAT</td><td>300</td><td>1007</td></tr> <tr><td>2007</td><td>PRATIK</td><td>ROME</td><td>100</td><td>1004</td></tr> </tbody> </table> <p>CNUM: A Unique number assign to each customer.<br/>CNAME: The name of customer.<br/>CITY: The location of customer.<br/>RATING: A level of preference indicator given to this customer.<br/>SNUM: A salesman number assign to this customer.</p> <p><b>3. Order</b></p> <table border="1"> <thead> <tr> <th>ONUM</th> <th>AMOUNT</th> <th>ODATE</th> <th>CNUM</th> <th>SNUM</th> <th>CNUM</th> </tr> </thead> <tbody> <tr><td>3001</td><td>18.69</td><td>10/03/99</td><td>2008</td><td>1007</td><td></td></tr> </tbody> </table> | SNUM      | SNAME      | CITY | COMMISSION | 1001 | PIYUSH | LONDON | 12% | 1002 | NIRAJ | SURAT | 13% | 1003 | MITI | LONDON | 11% | 1004 | RAJESH | BARODA | 15% | 1005 | ANAND | NEW DELHI | 10% | 1006 | RAM | PATAN | 10% | 1007 | LAXMAN | BOMBAY | 09% | CNUM | CNAME | CITY | RATING | SNUM | 2001 | HARDIK | LONDON | 100 | 1001 | 2002 | GITA | ROME | 200 | 1003 | 2003 | LAXIT | SURAT | 200 | 1002 | 2004 | GOVIND | BOMBAY | 300 | 1002 | 2005 | CHANDU | LONDON | 100 | 1001 | 2006 | CHAMPAK | SURAT | 300 | 1007 | 2007 | PRATIK | ROME | 100 | 1004 | ONUM | AMOUNT | ODATE | CNUM | SNUM | CNUM | 3001 | 18.69 | 10/03/99 | 2008 | 1007 |  |
|------|--|-----------|------------|------|------------|------|--------|--------|-----|------|-------|-------|-----|------|------|--------|-----|------|--------|--------|-----|------|-------|-----------|-----|------|-----|-------|-----|------|--------|--------|-----|------|-------|------|--------|------|------|--------|--------|-----|------|------|------|------|-----|------|------|-------|-------|-----|------|------|--------|--------|-----|------|------|--------|--------|-----|------|------|---------|-------|-----|------|------|--------|------|-----|------|------|--------|-------|------|------|------|------|-------|----------|------|------|--|
| SNUM | SNAME  | CITY      | COMMISSION |      |            |      |        |        |     |      |       |       |     |      |      |        |     |      |        |        |     |      |       |           |     |      |     |       |     |      |        |        |     |      |       |      |        |      |      |        |        |     |      |      |      |      |     |      |      |       |       |     |      |      |        |        |     |      |      |        |        |     |      |      |         |       |     |      |      |        |      |     |      |      |        |       |      |      |      |      |       |          |      |      |  |
| 1001 | PIYUSH   | LONDON    | 12%        |      |            |      |        |        |     |      |       |       |     |      |      |        |     |      |        |        |     |      |       |           |     |      |     |       |     |      |        |        |     |      |       |      |        |      |      |        |        |     |      |      |      |      |     |      |      |       |       |     |      |      |        |        |     |      |      |        |        |     |      |      |         |       |     |      |      |        |      |     |      |      |        |       |      |      |      |      |       |          |      |      |  |
| 1002 | NIRAJ  | SURAT     | 13%        |      |            |      |        |        |     |      |       |       |     |      |      |        |     |      |        |        |     |      |       |           |     |      |     |       |     |      |        |        |     |      |       |      |        |      |      |        |        |     |      |      |      |      |     |      |      |       |       |     |      |      |        |        |     |      |      |        |        |     |      |      |         |       |     |      |      |        |      |     |      |      |        |       |      |      |      |      |       |          |      |      |  |
| 1003 | MITI   | LONDON    | 11%        |      |            |      |        |        |     |      |       |       |     |      |      |        |     |      |        |        |     |      |       |           |     |      |     |       |     |      |        |        |     |      |       |      |        |      |      |        |        |     |      |      |      |      |     |      |      |       |       |     |      |      |        |        |     |      |      |        |        |     |      |      |         |       |     |      |      |        |      |     |      |      |        |       |      |      |      |      |       |          |      |      |  |
| 1004 | RAJESH   | BARODA    | 15%        |      |            |      |        |        |     |      |       |       |     |      |      |        |     |      |        |        |     |      |       |           |     |      |     |       |     |      |        |        |     |      |       |      |        |      |      |        |        |     |      |      |      |      |     |      |      |       |       |     |      |      |        |        |     |      |      |        |        |     |      |      |         |       |     |      |      |        |      |     |      |      |        |       |      |      |      |      |       |          |      |      |  |
| 1005 | ANAND  | NEW DELHI | 10%        |      |            |      |        |        |     |      |       |       |     |      |      |        |     |      |        |        |     |      |       |           |     |      |     |       |     |      |        |        |     |      |       |      |        |      |      |        |        |     |      |      |      |      |     |      |      |       |       |     |      |      |        |        |     |      |      |        |        |     |      |      |         |       |     |      |      |        |      |     |      |      |        |       |      |      |      |      |       |          |      |      |  |
| 1006 | RAM  | PATAN     | 10%        |      |            |      |        |        |     |      |       |       |     |      |      |        |     |      |        |        |     |      |       |           |     |      |     |       |     |      |        |        |     |      |       |      |        |      |      |        |        |     |      |      |      |      |     |      |      |       |       |     |      |      |        |        |     |      |      |        |        |     |      |      |         |       |     |      |      |        |      |     |      |      |        |       |      |      |      |      |       |          |      |      |  |
| 1007 | LAXMAN   | BOMBAY    | 09%        |      |            |      |        |        |     |      |       |       |     |      |      |        |     |      |        |        |     |      |       |           |     |      |     |       |     |      |        |        |     |      |       |      |        |      |      |        |        |     |      |      |      |      |     |      |      |       |       |     |      |      |        |        |     |      |      |        |        |     |      |      |         |       |     |      |      |        |      |     |      |      |        |       |      |      |      |      |       |          |      |      |  |
| CNUM | CNAME  | CITY      | RATING     | SNUM |            |      |        |        |     |      |       |       |     |      |      |        |     |      |        |        |     |      |       |           |     |      |     |       |     |      |        |        |     |      |       |      |        |      |      |        |        |     |      |      |      |      |     |      |      |       |       |     |      |      |        |        |     |      |      |        |        |     |      |      |         |       |     |      |      |        |      |     |      |      |        |       |      |      |      |      |       |          |      |      |  |
| 2001 | HARDIK   | LONDON    | 100        | 1001 |            |      |        |        |     |      |       |       |     |      |      |        |     |      |        |        |     |      |       |           |     |      |     |       |     |      |        |        |     |      |       |      |        |      |      |        |        |     |      |      |      |      |     |      |      |       |       |     |      |      |        |        |     |      |      |        |        |     |      |      |         |       |     |      |      |        |      |     |      |      |        |       |      |      |      |      |       |          |      |      |  |
| 2002 | GITA   | ROME      | 200        | 1003 |            |      |        |        |     |      |       |       |     |      |      |        |     |      |        |        |     |      |       |           |     |      |     |       |     |      |        |        |     |      |       |      |        |      |      |        |        |     |      |      |      |      |     |      |      |       |       |     |      |      |        |        |     |      |      |        |        |     |      |      |         |       |     |      |      |        |      |     |      |      |        |       |      |      |      |      |       |          |      |      |  |
| 2003 | LAXIT  | SURAT     | 200        | 1002 |            |      |        |        |     |      |       |       |     |      |      |        |     |      |        |        |     |      |       |           |     |      |     |       |     |      |        |        |     |      |       |      |        |      |      |        |        |     |      |      |      |      |     |      |      |       |       |     |      |      |        |        |     |      |      |        |        |     |      |      |         |       |     |      |      |        |      |     |      |      |        |       |      |      |      |      |       |          |      |      |  |
| 2004 | GOVIND   | BOMBAY    | 300        | 1002 |            |      |        |        |     |      |       |       |     |      |      |        |     |      |        |        |     |      |       |           |     |      |     |       |     |      |        |        |     |      |       |      |        |      |      |        |        |     |      |      |      |      |     |      |      |       |       |     |      |      |        |        |     |      |      |        |        |     |      |      |         |       |     |      |      |        |      |     |      |      |        |       |      |      |      |      |       |          |      |      |  |
| 2005 | CHANDU   | LONDON    | 100        | 1001 |            |      |        |        |     |      |       |       |     |      |      |        |     |      |        |        |     |      |       |           |     |      |     |       |     |      |        |        |     |      |       |      |        |      |      |        |        |     |      |      |      |      |     |      |      |       |       |     |      |      |        |        |     |      |      |        |        |     |      |      |         |       |     |      |      |        |      |     |      |      |        |       |      |      |      |      |       |          |      |      |  |
| 2006 | CHAMPAK  | SURAT     | 300        | 1007 |            |      |        |        |     |      |       |       |     |      |      |        |     |      |        |        |     |      |       |           |     |      |     |       |     |      |        |        |     |      |       |      |        |      |      |        |        |     |      |      |      |      |     |      |      |       |       |     |      |      |        |        |     |      |      |        |        |     |      |      |         |       |     |      |      |        |      |     |      |      |        |       |      |      |      |      |       |          |      |      |  |
| 2007 | PRATIK   | ROME      | 100        | 1004 |            |      |        |        |     |      |       |       |     |      |      |        |     |      |        |        |     |      |       |           |     |      |     |       |     |      |        |        |     |      |       |      |        |      |      |        |        |     |      |      |      |      |     |      |      |       |       |     |      |      |        |        |     |      |      |        |        |     |      |      |         |       |     |      |      |        |      |     |      |      |        |       |      |      |      |      |       |          |      |      |  |
| ONUM | AMOUNT   | ODATE     | CNUM       | SNUM | CNUM       |      |        |        |     |      |       |       |     |      |      |        |     |      |        |        |     |      |       |           |     |      |     |       |     |      |        |        |     |      |       |      |        |      |      |        |        |     |      |      |      |      |     |      |      |       |       |     |      |      |        |        |     |      |      |        |        |     |      |      |         |       |     |      |      |        |      |     |      |      |        |       |      |      |      |      |       |          |      |      |  |
| 3001 | 18.69  | 10/03/99  | 2008       | 1007 |            |      |        |        |     |      |       |       |     |      |      |        |     |      |        |        |     |      |       |           |     |      |     |       |     |      |        |        |     |      |       |      |        |      |      |        |        |     |      |      |      |      |     |      |      |       |       |     |      |      |        |        |     |      |      |        |        |     |      |      |         |       |     |      |      |        |      |     |      |      |        |       |      |      |      |      |       |          |      |      |  |



|      |         |          |      |      |
|------|---------|----------|------|------|
| 3002 | 767.19  | 10/03/99 | 2001 | 1001 |
| 3003 | 1900.10 | 10/03/99 | 2007 | 1004 |
| 3004 | 5160.45 | 10/03/99 | 2003 | 1002 |
| 3005 | 1098.25 | 10/04/99 | 2008 | 1007 |
| 3006 | 1713.12 | 10/04/99 | 2002 | 1003 |
| 3007 | 75.75   | 10/05/99 | 2004 | 1002 |
| 3008 | 4723.00 | 10/05/99 | 2006 | 1001 |
| 3009 | 1309.95 | 10/05/99 | 2004 | 1002 |
| 3010 | 9898.87 | 10/06/99 | 2006 | 1001 |

ONUM: A Unique number assign to each Order. AMOUNT: Amount of order in Rs.

ODATE: The date of order.

CNUM: The number of customer making the order. SNUM: The number of salesman credited with the sale.

**Solve following request with the help of SQL query.**

1. Produce the order no, a mount and date of all orders.
2. Give all the information about all the customers with salesman number 1001.
3. Display the information in the sequence of city, sname, snum, and Commission.
4. Calculate the average amount ordered.
5. Count the no. of salesmen currently having orders.
6. Find the largest order taken by each salesman on each date.
7. Find the largest order taken by each salesman on 10/03/1997.
8. Count the no. of different non NULL cities in the Customer table.
9. Find out each customer's smallest order.
10. Find out the customer in alphabetical order whose name begins with 'G'
11. Count the no. of salesmen registering orders for each day.
12. List all salesmen with their % of commission.
13. Display the no. of order for each day in the following format. dd-mon-yy.
14. Assume each salesperson has a 12% commission. Write a query on the order table that will produce the order number, salesman no and amount of commission for that order.
15. Find the highest rating in each city in the following format:
16. List all customers in descending order of rating.
17. List all salesmen in London who had at least one customer located there as well.
18. List all salesmen in London who didn't have any customer there.

**2. PL/SQL Programs**

1. Hello World Program in PL/SQL.
2. PL/SQL Program To add Two Numbers.
3. PL/SQL Program For Prime Number.
4. PL/SQL Program To Find Factorial of a Number.
5. PL/SQL Program to Print Table of a Number.
6. PL/SQL Program for Reverse of a Number
7. PL/SQL Program for Fibonacci Series
8. PL/SQL Program to Check Number is Odd or Even
9. PL/SQL Program to Reverse a String
10. PL/SQL Program for Palindrome Number
11. PL/SQL Program to Swap two Number
12. PL/SQL Program for Armstrong Number
13. PL/SQL Program to Find Greatest of Three Numbers

**3. PL/SQL Cursor Programs**

1. Write a Program for Implicit Cursor
2. Write a Program For Explicit Cursor

**4. Trigger Programs**

Create three tables

Student (Roll\_no, Name, Contact, Marks) Student\_copy (Roll\_no, Contact)

Student\_update\_copy (Roll\_no, New\_Contact, Old\_contact)

- A. Create a trigger to insert Roll no and Contact number of student on insertion of any record in Table Student.
- B. Create a trigger to insert Roll no New Contact number and old Contact number of student on updation of contact



|           |   |
|-----------|---|
|           | number in Table Student.  |
| <b>5.</b> | <b>Procedure Programs.</b> <ol style="list-style-type: none"><li>1. Write a procedure to insert data in employee table.</li><li>2. Write a procedure to update contact number of employee in employee table.</li><li>3. Write a procedure to find name of manager for given employee id.</li><li>4. Write a procedure to get all the details (emp_id, name, city of residence, company name, city of work, manager name, salary) of given employee id.</li><li>5.</li></ol> |


**Course:** B.Com(A.Y. 2023-24)

**Semester:** 2

**Prerequisite:**
**Rationale :-**
**Teaching and Examination Scheme**

| Teaching Scheme  |                   |              |                  |        | Examination Scheme |    |   |                |   | Total |
|------------------|-------------------|--------------|------------------|--------|--------------------|----|---|----------------|---|-------|
| Lecture Hrs/Week | Tutorial Hrs/Week | Lab Hrs/Week | Seminar Hrs/Week | Credit | Internal Marks     |    |   | External Marks |   |       |
|                  |                   |              |                  |        | T                  | CE | P | T              | P |       |
| 4                | -                 | -            | -                | 4      | 20                 | 20 | - | 60             | - | 100   |

**SEE** - Semester End Examination, **T** - Theory, **P** - Practical

**Course Content**
**W** - Weightage (%) , **T** - Teaching hours

| Sr.          | Topics   | W          | T         |
|--------------|--|------------|-----------|
| 1            | <b>Consignment Account</b> Meaning, Features, Difference between consignment and sale, Journal entries in Books of Consignor and consignee, Ledgers in Books of Consignor (consignment account, consignee's account, goods sent on consignment account), Ledgers in Books of consignee (consignor's account, commission account), Examples including invoice price.  | 25         | 15        |
| 2            | <b>Accounting for Inland Branches</b> Meaning, Types of Branches, Objectives of preparing branch accounts, Inland Branches; Dependent branches only and Ascertainment of Profit by Debtors Method & Stock and Debtors Method.  | 25         | 15        |
| 3            | <b>Accounting for Hire Purchase and Installment System</b> Accounting for Hire Purchase Transactions, Journal entries and ledger accounts in the books of Hire Vendors and Hire purchaser for large value items including default and repossession, stock and debtors system.  | 25         | 15        |
| 4            | <b>Final Accounts of Companies</b> <b>Basic Terms:</b> Dividend; Proposed Dividend; Interim dividend; Unclaimed dividend; Dividend equalization fund; Less tax dividend; Provisions and reserve; General reserve; Contingency reserve; Debenture redemption fund. <b>Preparation of Final Accounts of Companies:</b> Statement of Profit and Loss and Balance Sheet in prescribed form with major headings and sub headings (as per Schedule III to the Companies Act, 2013) | 25         | 15        |
| <b>Total</b> |  | <b>100</b> | <b>60</b> |

**Reference Books**

|    |  |
|----|--|
| 1. | <b>Financial Accounting: Concepts and Applications</b><br>By J.R. Monga   Mayur Paper Backs, New Delhi       |
| 2. | <b>Financial Accounting</b><br>By Tulsian P. C.   Pearson Education  |
| 3. | <b>Advanced Accounts. Vol.-I</b><br>By M.C.Shukla, T.S. Grewal and S.C.Gupta.   S. Chand & Co., New Delhi    |
| 4. | <b>Financial Accounting</b><br>By S.N. Maheshwari, and. S. K. Maheshwari   Vikas Publishing House, New Delhi |
| 5. | <b>Financial Accounting</b><br>By Deepak Sehgal   Vikas Publishing H House, New Delhi                        |



## Course Outcomes

At the end of this course Students Will be able to:

|   |  |
|---|--|
| 1 | Understand accounting treatment for various forms of business                      |
| 2 | Prepare journal and ledger of firms engaged in consignment, hire purchase business |
| 3 | Prepare accounts of business having inland branches.                               |
| 4 | Prepare and evaluate final accounts of companies.                                  |



Course: B.Com(A.Y. 2023-24)

Semester: 2

Prerequisite:

Rationale :-

### Teaching and Examination Scheme

| Teaching Scheme  |                   |              |                  |        | Examination Scheme |    |   |                |   | Total |
|------------------|-------------------|--------------|------------------|--------|--------------------|----|---|----------------|---|-------|
| Lecture Hrs/Week | Tutorial Hrs/Week | Lab Hrs/Week | Seminar Hrs/Week | Credit | Internal Marks     |    |   | External Marks |   |       |
|                  |                   |              |                  |        | T                  | CE | P | T              | P |       |
| 4                | -                 | -            | -                | 4      | 20                 | 20 | - | 60             | - | 100   |

SEE - Semester End Examination, T - Theory, P - Practical

### Course Content

W - Weightage (%), T - Teaching hours

| Sr.          | Topics  | W          | T         |
|--------------|---|------------|-----------|
| 1            | <b>Theoretical Framework of Macroeconomics and National income:</b> Development of macroeconomics-School of Thought – Classical, Keynesian, and Post- Keynesian, Goals of macroeconomics policy, Basic concepts - Usefulness and significance of National Income, Measurement of National Income, Concepts of national income (Real and Nominal GNP), Challenges and limitations of national income, Aggregate Consumption, Circular flow of Income. Difference between micro and macro economics | 25         | 15        |
| 2            | <b>Money Demand, and Employment</b> The concept of Money demand, Functions of money, theories of demand for money, the concept of money supply, classification, supply and demand for money, Effects of money on output and prices, Inflation and deflation, Monetary policy, Money markets and capital markets, Output and employment in classical theory, Classical Model without savings and investment, Classical Model with savings and investment.  | 25         | 15        |
| 3            | <b>Economy in the short run</b> Determination of aggregate demand, shifts in aggregate demand. Aggregate supply in the short and long run. Aggregate demand and aggregate supply analysis. Fiscal Policy & Monetary Policy – Concept & objectives, Union Budget.  | 25         | 15        |
| 4            | <b>Cost Analysis, Pricing Approach &amp; Index Number</b> Short Run Cost Analysis - Fixed, Variable, Total, Average and Marginal Cost Curves. Long Run Cost Analysis - Economies and Diseconomies of Scale, Review of index Number-Meaning, Importance and Limitations.   | 25         | 15        |
| <b>Total</b> |   | <b>100</b> | <b>60</b> |

### Reference Books

|    |   |
|----|---|
| 1. | <b>Managerial Economics</b><br>By D.N.Dwivedi   Vikas Publishing House   8th  |
| 2. | <b>Managerial Economics - Theory and Application</b><br>By D. M. Mithani   Information technology for Sustainable world- Himalaya Publishing House Pvt Ltd.   8th |
| 3. | <b>Managerial Economics</b><br>By Ashvarathi Damodaran   Oxford University Press   2nd  |
| 4. | <b>MANAGERIAL ECONOMICS</b><br>By H L AHUJA   S CHAND & CO   LATEST   |



## Course Outcomes

At the end of this course Students Will be able to:

|   |  |
|---|--|
| 1 | To understand the key schools of thought in macroeconomics (Classical, Keynesian, and Post-Keynesian), and demonstrate a critical understanding of the goals of macroeconomic policy, as well as the usefulness and limitations of National Income as an economic indicator. |
| 2 | To evaluate the functions of money, theories of money demand, and the impact of monetary policy on output and prices.  |
| 3 | To analyze shifts in aggregate demand, understand aggregate supply in the short and long run, and apply aggregate demand and aggregate supply analysis to explain economic fluctuations.   |
| 4 | To analyze short-run and long-run cost structures, apply cost analysis to pricing strategies, and critically assess the significance and limitations of index numbers in economic measurement.   |


**Course:** B.Com(Hons)(4 years)

**Semester:** 2

**Prerequisite:** Knowledge of Financial Markets and services

**Rationale :** To incubate knowledge and understanding of Knowledge of Financial Markets and services

**Teaching and Examination Scheme**

| Teaching Scheme  |                   |              |                  |        | Examination Scheme |    |   |                |   | Total |
|------------------|-------------------|--------------|------------------|--------|--------------------|----|---|----------------|---|-------|
| Lecture Hrs/Week | Tutorial Hrs/Week | Lab Hrs/Week | Seminar Hrs/Week | Credit | Internal Marks     |    |   | External Marks |   |       |
|                  |                   |              |                  |        | T                  | CE | P | T              | P |       |
| 4                | -                 | -            | -                | 4      | 20                 | 20 | - | 60             | - | 100   |

**SEE** - Semester End Examination, **T** - Theory, **P** - Practical

**Course Content**
**W** - Weightage (%) , **T** - Teaching hours

| Sr.          | Topics   | W          | T         |
|--------------|--|------------|-----------|
| 1            | <b>Introduction to Financial Markets &amp; Services</b> Meaning and Characteristics of Financial Markets, Structure of Financial Markets in India. <b>Financial Services:</b> Meaning, Classification, Scope, Fund Based Activities, Non Fund Based Activities, Modern Activities, Sources of Revenue, Need for Financial Innovation, New Financial Products & Services, Innovative Financial Instruments, Challenges Facing the Financial Sector.   | 25         | 15        |
| 2            | <b>Housing Finance</b> Introduction, Housing Finance Industry, Housing Finance Policy Aspect, Sources of Funds, Market of Housing Finance in India, Securitization of Housing Loans, Major Issues of Housing Finance in India, Growth Factors, Housing Finance Institutions in India, National Housing Bank(NHB), Guidelines for ALM(Asset Liability Management) System in Housing Finance Companies.  | 25         | 15        |
| 3            | <b>Consumer Finance and Plastic Money</b> <b>Consumer Finance:</b> Introduction, Sources, Types of Products, Consumer Finance Practice in India, Mechanics of Consumer Finance, Terms, Pricing, Marketing & Insurance of Consumer Finance, Consumer Credit Scoring <b>Plastic Money:</b> Growth of Plastic Money Services in India, Types of Plastic Cards- Credit card Debit Card- Smart card- Add-on Cards, Performance of Credit Cards and Debit Cards, Benefits of Credit Cards, Dangers of Debit Cards, Prevention of Frauds and Misuse, Consumer Protection. Indian Scenario. Smart Cards- Features, Types, Security Features and Financial Applications | 25         | 15        |
| 4            | <b>Other Financial Services in India</b> <b>Merchant Banking:</b> Meaning and Role, Functions, SEBI Guidelines Regarding Merchant Banking, Underwriting Services in India. <b>Venture Capital:</b> Meaning, Techniques, Venture Capital in India <b>Factoring:</b> Meaning, Modus Operandi, Terms and Conditions, Functions, Types of Factoring, Factoring vs. Discounting. <b>Forfeiting-</b> Definition, Factoring vs. Forfeiting, Working of Forfeiting, Benefits & Limitations.  | 25         | 15        |
| <b>Total</b> |  | <b>100</b> | <b>60</b> |

**Reference Books**

|    |   |
|----|---|
| 1. | <b>The Indian Financial System; Markets, Institutions and Services</b><br>By B.V.Pathak   Pearson's publications                            |
| 2. | <b>Introduction to Financial Planning, Indian Institute of Banking and Finance</b>  |
| 3. | <b>"Financial Markets and Institutions A modern Perspective",</b><br>By Saunders Anthony and Cornett Marcia,   Mc Graw Hill. Latest edition |
| 4. | <b>"Financial Management:</b><br>By I.M. Pandey   Vikas Publishing house, Latest edition  |



## Course Outcome

### After Learning the Course the students shall be able to:

CO1 To understand the structure and functions of financial markets and services in India, including their sources of revenue and emerging trends in innovation.

CO2 To evaluate the key features and challenges of the housing finance industry in India, including policy aspects, funding sources, and growth factors.

CO3 To distinguish between various types of consumer finance products in India, assessing their mechanics, risks, and regulatory frameworks, including the growing role of plastic money.

CO4 To explain the diverse range of specialized financial services available in India, such as merchant banking, venture capital, factoring, and forfeiting, highlighting their functions and regulatory environment.



**Course:** LL.B.

**Semester:** 2

**Prerequisite:** Students should have a basic understanding of economic principles and market dynamics, familiarity with consumer rights and responsibilities, and awareness of the role of government and regulatory bodies in protecting consumers.

**Rationale :** Studying Consumer Protection Legislation is essential for students as it helps them understand their rights and responsibilities in the marketplace, empowers them to make informed decisions and seek redress, and fosters a fair and transparent economic environment by highlighting the role of regulatory frameworks in safeguarding consumer interests.

### Teaching and Examination Scheme

| Teaching Scheme  |                   |              |                  |        | Examination Scheme |    |   |                |   | Total |
|------------------|-------------------|--------------|------------------|--------|--------------------|----|---|----------------|---|-------|
| Lecture Hrs/Week | Tutorial Hrs/Week | Lab Hrs/Week | Seminar Hrs/Week | Credit | Internal Marks     |    |   | External Marks |   |       |
|                  |                   |              |                  |        | T                  | CE | P | T              | P |       |
| 4                | -                 | -            | -                | 4      | 20                 | 20 | - | 60             | - | 100   |

SEE - Semester End Examination, T - Theory, P - Practical

### Course Content

W - Weightage (%) , T - Teaching hours

| Sr.          | Topics  | W          | T         |
|--------------|---|------------|-----------|
| 1            | <b>Introduction to Consumer Protection Legislation</b><br>Historical development of consumer protection movements<br>Theoretical foundations of consumer rights<br>Evolution of consumer protection laws in different jurisdictions<br>Global perspectives on consumer protection initiatives<br>Economic rationale for government intervention in consumer markets<br>Social and ethical considerations in consumer protection policies<br>Consumer and Consumerism  | 25         | 15        |
| 2            | <b>National and International Frameworks</b><br>Comparative analysis of major national consumer protection laws (e.g., USA, EU, China, India)<br>Examination of regional consumer protection frameworks (e.g., ASEAN, Mercosur)<br>Overview of international agreements and conventions related to consumer protection (e.g., UN Guidelines for Consumer Protection)<br>Case studies on cross-border consumer disputes and their resolution mechanisms<br>Analysis of supranational organizations' roles in harmonizing consumer protection laws (e.g., WTO, OECD)<br>Emerging trends in international consumer protection cooperation and coordination | 25         | 15        |
| 3            | <b>Enforcement Mechanisms and Regulatory Authorities</b><br>Role and functions of consumer protection agencies<br>Legal remedies and dispute resolution mechanisms<br>Challenges in enforcement and compliance<br>Role of consumer advocacy groups and non-governmental organizations in enforcing consumer protection laws<br>Emerging technologies and their impact on consumer protection enforcement (e.g., blockchain, artificial intelligence)  | 25         | 15        |
| 4            | <b>Contemporary Issues and Future Trends</b><br>Globalization and its impact on consumer rights<br>Digitalization and e-commerce: challenges and opportunities<br>Emerging issues in consumer protection: sustainability, data privacy, and technological advancements<br>Intersection of Consumer Protection and Competition Law   | 25         | 15        |
| <b>Total</b> |   | <b>100</b> | <b>60</b> |



## Reference Books

|     |  |
|-----|--|
| 1.  | <b>Corporate Governance (TextBook)</b><br>By Monks, R. A. G., & Minow, N.   John Wiley & Sons, Pub. Year 2017                                  |
| 2.  | <b>Consumer Protection and Product Liability Law: Commentary and Materials.</b><br>By Ramsay, I.   Cambridge University Press., Pub. Year 2012 |
| 3.  | <b>Research Handbook on EU Consumer and Contract Law.</b><br>By Schoshinski, A. (Ed.)   Edward Elgar Publishing., Pub. Year 2018               |
| 4.  | <b>Corporate Governance (TextBook)</b><br>By Mallin, C.   Oxford University Press, Pub. Year 2017  |
| 5.  | <b>Corporate Governance: Principles, Policies, and Practices. (TextBook)</b><br>By Tricker, B.   Oxford University Press., Pub. Year 2015      |
| 6.  | <b>Consumer Protection Law: Issues, Problems, and Prospects.</b><br>By Iqbal, A.   CRC Press., Pub. Year 2017                                  |
| 7.  | <b>Comparative Consumer Law and Policy.</b><br>By Bussani, M., & Micara, A.   Cambridge University Press., Pub. Year 2019                      |
| 8.  | <b>Corporate Governance and Accountability. (TextBook)</b><br>By Solomon, J.   John Wiley & Sons, Pub. Year 2019                               |
| 9.  | <b>Consumer Protection Law in a Nutshell. (TextBook)</b><br>By Clarke, T., & Clarke, P.   West Academic Publishing., Pub. Year 2019            |
| 10. | <b>Consumer Protection Law (TextBook)</b><br>By Howells, G., & Weatherill, S.   Routledge., Pub. Year 2019                                     |

## Course Outcome

### After Learning the Course the students shall be able to:

1. Students will be able to explain the evolution and significance of consumer protection legislation.
2. Students will demonstrate a comprehensive understanding of the core principles and provisions of consumer protection laws.
3. Students will assess the strengths and weaknesses of existing consumer protection mechanisms through case studies and real-world examples.
4. Students will be capable of analyzing the roles and responsibilities of various stakeholders involved in consumer protection.
5. Students will critically evaluate emerging issues such as online consumer rights, privacy concerns, and product safety in the digital age.
6. Students will develop the ability to propose strategies for enhancing consumer protection laws and enforcement mechanisms.



**Course:** BHMCT Hotel Mgmt

**Semester:** 2

**Prerequisite:** The students studying this course should be able to write, read and speak English and must have a basic understanding of marketing sector.

**Rationale :** The course provides theoretical knowledge about the Marketing & branding strategies applicable in Tourism Industry.

### Teaching and Examination Scheme

| Teaching Scheme  |                   |              |                  |        | Examination Scheme |    |   |                |   | Total |
|------------------|-------------------|--------------|------------------|--------|--------------------|----|---|----------------|---|-------|
| Lecture Hrs/Week | Tutorial Hrs/Week | Lab Hrs/Week | Seminar Hrs/Week | Credit | Internal Marks     |    |   | External Marks |   |       |
|                  |                   |              |                  |        | T                  | CE | P | T              | P |       |
| 4                | -                 | -            | -                | 4      | 20                 | 20 | - | 60             | - | 100   |

SEE - Semester End Examination, T - Theory, P - Practical

### Course Content

W - Weightage (%) , T - Teaching hours

| Sr.          | Topics  | W          | T         |
|--------------|---|------------|-----------|
| 1            | <b>INTRODUCTION TO MARKETING IN TOURISM</b> Marketing Concepts - Marketing Process Marketing mix - Marketing environment. - Consumer Markets and buying behavior - Market segmentation and targeting and positioning.   | 20         | 12        |
| 2            | <b>CONCEPT &amp; DESIGN OF TOURISM PRODUCT</b> Concept of a Product - Product mix decisions - Brand Decision - New Product Development – Sources of New Product idea - Steps in Product Development - Product Life Cycle strategies- Stages in Product Life Cycle                     | 20         | 12        |
| 3            | <b>PRICING OF TOURISM PRODUCTS</b> Pricing objectives - Pricing policies and constraints - Different pricing method - new product pricing, Product Mix pricing strategies and Price adjustment strategy   | 20         | 12        |
| 4            | <b>SUPPLY CHANNEL FOR TOURISM PRODUCTS</b> Nature of Marketing Channels –. Types of Channel flows - Channel functions - Functions of Distribution Channel – Structure and Design of Marketing Channels -Channel co-operation, conflicts, and competition – Retailers and wholesalers. | 20         | 12        |
| 5            | <b>PROMOTIONAL STRATEGIES OF TOURISM PRODUCTS</b> Promotion mix - Advertising Decision, Advertising objectives - Advertising and Sales Promotion – Developing Advertising Program – Role of Media in Advertising - Advertisement effectiveness - - Sales force Decision.              | 20         | 12        |
| <b>Total</b> |   | <b>100</b> | <b>60</b> |

### Reference Books

|    |  |
|----|--|
| 1. | <b>Principle of management</b><br>By Prasad L.M  |
| 2. | <b>Marketing Management Text and Case Indian Context Student CD Included</b><br>By Tapan K Panda   Excel Books |
| 3. | <b>Case Studies In Marketing</b><br>By Srinivasan, R   The Indian Context, PHI                                 |
| 4. | <b>Marketing Management Text and Cases</b><br>By S. Jaychandran, Iit, Chennai   Excel Publications             |
| 5. | <b>Marketing management</b><br>By Tapan panda   Excel Books  |
| 6. | <b>Marketing Management : Planning, Implementation and Control</b><br>By V. S. Ramaswamy, S. Namakumari        |



**Course Outcome**

**After Learning the Course the students shall be able to:**

1. Understand and Elaborate marketing mix techniques in Tourism sector products.
2. Design the Tourism sector product & Price.
3. Describe the Distribution channel of Tourism sector products.
4. Plan the Promotional strategies for Tourism sector.