

B. Voc in E-Commerce & Digital Marketing
Course Structure and Syllabus (Pattern- 2022)
 (With effects from 2022-23)

FIRST YEAR

Semester-I			Semester-II		
Subject Code	Name Of The Subject	Credits	Subject Code	Name Of The Subject	Credits
General Component					
UBECDM-111	Business Communication-I	4	UBECDM-121	Business Communication-II	4
UBECDM-112	Fundamentals of Information Technology	4	UBECDM-122	Basics of Marketing	4
UBECDM-113	Basics of E-Commerce	4	UBECDM-123	E-Commerce Management & Digital Marketing	4
Skill Component					
UBECDM-114	Life Skills	6	UBECDM-124	Retailing & E-tailing	6
UBECDM-115	Operations & Supply Chain Management	6	UBECDM-125	Programming Lab on HTML & DHTML	6
UBECDM-116	Programming Lab on MS-Office	6	UBECDM-126	Programming Lab on DBMS & MySQL	6

Programme Specific Outcomes (PSOs)

Program Specific Outcomes (PSOs) for B.Voc. Programme

PSO1	Disciplinary Knowledge: Demonstrate comprehensive knowledge of one or more disciplines that form a part of an undergraduate B.Voc programme Execute strong theoretical and practical understanding generated from the chosen B.Voc programme.
PSO2	Critical Thinking and Problem solving: Exhibit the skill of critical design thinking and use them to predict a range of creative solutions towards a design problem, evaluate them and choose the most appropriate options.
PSO3	Social Competence Exhibit thoughts and ideas effectively in writing and orally; communicate with others using appropriate media, build effective interactive and presenting skills to meet global competencies and connect to people individually or in group settings.
PSO4	Research-Related Skills: Demonstrate a sense of inquiry and capability for asking relevant/appropriate questions; ability to plan, execute and report the results of an experiment Employ knowledge of the avenues for research and higher academic achievements in the chosen field and allied subjects and aware about research ethics, intellectual property rights and issues of plagiarism.
PSO5	Personal and Professional competence: Perform independently and participates in team activities and demonstrates cooperation. Integrate enthusiasm and commitment to improve personal and team performance levels and build skills to achieve the goals.
PSO6	Effective Citizenship and Ethics: Demonstrate empathetic social concern and equity centered national development; ability to act with an informed awareness of moral and ethical issues and commit to professional ethics and responsibility.
PSO7	Environment and Sustainability: Understand the impact of the scientific solutions in societal and environmental contexts and demonstrate the knowledge of, and need for sustainable development.

Paper Code : UBECDM-121
Paper Title : Business Communication-II

Total Credits : 04
No. of lectures : 60

Course Objectives:

1. To enhance students' oral and written communication skills in a business setting.
2. To develop students' ability to effectively communicate in various business contexts, such as meetings, presentations, negotiations, and written reports.
3. To improve students' listening and critical thinking skills necessary for effective communication.
4. To familiarize students with different communication strategies and techniques used in a business environment.
5. To cultivate cultural sensitivity in business communication to ensure effective communication in a diverse and global workplace.

Course Outcomes:

- CO1. Students will be able to deliver clear and concise oral presentations in a professional manner.
- CO2. Students will be able to effectively participate and contribute in business meetings and discussions.
- CO3. Students will be able to write clear and coherent business documents, such as emails, memos, and reports.
- CO4. Students will be able to effectively use technology tools and software for business communication purposes.
- CO5. Students will be able to apply critical thinking skills to analyze and evaluate business communication situations and make appropriate decisions.
- CO6. Students will be able to adapt their communication style and strategies to different audiences and cultural contexts.
- CO7. Students will be able to demonstrate active listening skills and apply effective listening techniques in business communication.

UBECDM-121 / Business Communication-II (60 Hours)

CONTENT OF SYLLABUS

UNIT	TOPIC	No. of Lectures
1	Types and Drafting of Business Letters: 1) Enquiry Letters 2) Replies to Enquiry Letters 3) Order Letters 4) Credit and Status Enquiries 5) Sales Letters 6) Complaint Letters 7) Collection Letters 8) Circular Letters 9) Purchase letter	20
2	Job Application Letters: Meaning, Types & Drafting of Job Application Letters, Bio-Data/Resume/ CV	10
3	Internal and other Correspondence: 1) Office Memo (Memorandums) 2) Office Orders 3) Office Circulars 4) Form Memos or Letters 5) Press Releases 6) Secretarial letters to KMP 7) Resolution & MOM with covering	10
4	New Technologies in Business Communication: Internet: Email,	20

Websites, Electronic Clearance System, Writing a Blog, Social Media Network: Gmail, Twitter, Facebook, LinkedIn, YouTube, Cellular Phone, WhatsApp, Voice Mail, Short Messaging Services, Video Conferencing Mobile commerce	
	60

Case studies (Based on the above Units):

1. Use of Technology in Communication
2. Drafting of Memos , Drafting of Press Releases/Notes
3. Drafting of Office Orders Drafting of Office Circulars
4. Any other topics to be suggested by the Subject Teachers

Books recommended:

1. Asha Kaul (1999), “Business Communication”, Prentice Hall of India, New Delhi.
2. Chaturvedi P. D. & Chaturvedi Mukesh (2012), “Managerial Communication”, Pearson, Delhi.
3. Madhukar R. K. (2005), “Business Communication”, Vikas Publishing House Pvt. Ltd., New Delhi.
4. Mamoria C. B. & Gankar S. V. (2008), “Personnel Management”, Himalaya Publishing House, Mumbai.
5. Sinha K. K. (2003), “Business Communication”, Galgotia Publishing Company, New Delhi.

Mapping of Program Outcomes with Course Outcomes

Course Outcomes	Programme Outcomes (POs)						
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7
CO 1	3					3	
CO 2	2	2			1		
CO 3	2	2	3				3
CO 4			2	1			
CO 5			1		2		
CO 6							
CO 7							

Weightage: 1= weak or low relation, 2= moderate or partial relation, 3= strong or direct relation

Justification for the mapping

PO 1 Disciplinary Knowledge

CO1. Students will be able to deliver clear and concise oral presentations in a professional manner.

CO2. Students will be able to effectively participate and contribute in business meetings and discussions.

CO3. Students will be able to write clear and coherent business documents, such as emails, memos, and reports.

PO 2 Critical Thinking and Problem solving

CO2. Students will be able to effectively participate and contribute in business meetings and discussions.

CO3. Students will be able to write clear and coherent business documents, such as emails, memos, and reports.

PO 3 Social Competence Exhibit thoughts and ideas effectively in writing and orally

CO3. Students will be able to write clear and coherent business documents, such as emails, memos, and reports.

CO4. Students will be able to effectively use technology tools and software for business communication purposes.

CO5. Students will be able to apply critical thinking skills to analyze and evaluate business communication situations and make appropriate decisions.

PO 4 Research-Related Skills

CO4. Students will be able to effectively use technology tools and software for business communication purposes.

PO 5 Personal and Professional competence

CO2. Students will be able to effectively participate and contribute in business meetings and discussions.

CO5. Students will be able to apply critical thinking skills to analyze and evaluate business communication situations and make appropriate decisions.

PO 6 Effective Citizenship and Ethics

CO1. Students will be able to deliver clear and concise oral presentations in a professional manner.

PO 7 Environment and Sustainability

CO3. Students will be able to write clear and coherent business documents, such as emails, memos, and reports.

Paper Code : UBECDM-122
Paper Title : Basics of Marketing

Total Credits : 04
No. of lectures : 60

Course Objectives:

1. To introduce students to the fundamental concepts and principles of marketing.
2. To provide students with a comprehensive understanding of the marketing mix (product, price, place, and promotion) and its application in various business contexts.
3. To familiarize students with the process of market research and its role in effective marketing decision-making.
4. To develop students' analytical and problem-solving skills in relation to marketing challenges.
5. To enhance students' ability to identify, target, and engage with different consumer segments.
6. To nurture students' creativity and innovation in developing marketing strategies.
7. To instill ethical considerations in marketing practices and decision-making.
8. To prepare students for further studies and careers in marketing.

Course Outcomes:

- CO1. Understand the basic concepts and theories of marketing, including the marketing process, customer needs and wants, and the importance of building customer relationships.
- CO2. Analyze and evaluate various marketing strategies and tactics, and their effectiveness in meeting organizational objectives.
- CO3. Apply marketing research techniques to gather and analyze data for informed decision-making.
- CO4. Develop marketing plans and strategies that align with organizational objectives and target specific consumer segments.
- CO5. Utilize the marketing mix (product, price, place, and promotion) to create value for customers and achieve competitive advantage.
- CO6. Demonstrate effective communication skills in promoting and selling products or services.
- CO7. Recognize and address ethical issues and challenges in the marketing field.
- CO8. Collaborate effectively in group projects and activities related to marketing.
- CO9. Develop critical thinking and problem-solving skills to address marketing challenges.
- CO10. Understand the impact of technology and digital marketing on traditional marketing practices.

UBECDM-122 / Basics of Marketing (60 Hours)

CONTENT OF SYLLABUS

UNIT	TOPIC	No. of Lectures
1	Introduction to Marketing: Meaning, Definition, Nature, Scope, Importance, Selling VS Marketing, The Holistic marketing, Target marketing, Approaches to Marketing. Marketing Myopia. Core concepts of Marketing. Customer VS Consumer.	15
2	Marketing Environment: Components of modern marketing information system, SWOT analysis, analyzing the marketing environment- Micro and Macro, Demand forecasting –need and techniques.	15

3	Unit III Consumer markets, Factors influencing consumer behavior, Consumer decision making process, analyzing business markets- the procurement process. Business Buying behavior. Role of customers in marketing.	15
4	Unit IV Market Segmentation: Bases for Market Segmentation, Target Market Strategies, designing and managing marketing channels, STP policies, marketing mix.	15
		60

Case studies (Based on the above Units):

- 4 case studies should be conducted on each unit.

Books recommended:

1. Philip Kotler - Marketing Management
2. J.C. Gandhi - Marketing Management
3. William M. Pride and O.C. Ferrell – Marketing

Mapping of Program Outcomes with Course Outcomes

Course Outcomes	Programme Outcomes (POs)						
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7
CO 1	3					1	
CO 2	2	2			1		2
CO 3	2	2	3				
CO 4			2	1			
CO 5			1		2	3	
CO 6							
CO 7							

Weightage: 1= weak or low relation, 2= moderate or partial relation, 3= strong or direct relation

Justification for the mapping

PO 1 Disciplinary Knowledge

CO1. Understand the basic concepts and theories of marketing, including the marketing process, customer needs and wants, and the importance of building customer relationships.

CO2. Analyze and evaluate various marketing strategies and tactics, and their effectiveness in meeting organizational objectives.

CO3. Apply marketing research techniques to gather and analyze data for informed decision-making.

PO 2 Critical Thinking and Problem solving

CO2. Analyze and evaluate various marketing strategies and tactics, and their effectiveness in meeting organizational objectives.

CO3. Apply marketing research techniques to gather and analyze data for informed decision-making.

PO 3 Social Competence Exhibit thoughts and ideas effectively in writing and orally

CO3. Apply marketing research techniques to gather and analyze data for informed decision-making.

CO4. Develop marketing plans and strategies that align with organizational objectives and target specific consumer segments.

CO5. Utilize the marketing mix (product, price, place, and promotion) to create value for customers and achieve competitive advantage.

PO 4 Research-Related Skills

CO4. Develop marketing plans and strategies that align with organizational objectives and target specific consumer segments.

PO 5 Personal and Professional competence

CO2. Analyze and evaluate various marketing strategies and tactics, and their effectiveness in meeting organizational objectives.

CO5. Utilize the marketing mix (product, price, place, and promotion) to create value for customers and achieve competitive advantage.

PO 6 Effective Citizenship and Ethics

CO1. Understand the basic concepts and theories of marketing, including the marketing process, customer needs and wants, and the importance of building customer relationships.

CO5. Utilize the marketing mix (product, price, place, and promotion) to create value for customers and achieve competitive advantage.

PO 7 Environment and Sustainability

CO2. Analyze and evaluate various marketing strategies and tactics, and their effectiveness in meeting organizational objectives.

Paper Code	: UBECDM-123	Total Credits	: 04
Paper Title	: E-Commerce Management & Digital Marketing	No. of lectures	: 60

Course Objectives:

1. To understand the basics of e-commerce, including its history, concept, and significance in the business world.
2. To develop an understanding of the various types of e-commerce business models and their characteristics.
3. To explore the technological infrastructure required for e-commerce operations, including web hosting, payment gateways, and security measures.
4. To learn about the process of creating and managing an online store, including product selection, pricing, and inventory management.
5. To understand the role of digital marketing in e-commerce and the various strategies used to attract and retain customers.
6. To gain knowledge about legal and ethical considerations in e-commerce, including consumer protection and privacy laws.
7. To explore the challenges and opportunities associated with international e-commerce expansion.
8. To develop practical skills in setting up and managing an e-commerce business, including website creation, online payment integration, and order fulfillment.

Course Outcomes:

- CO1. Students will be able to explain the concept and significance of e-commerce in the business world.
- CO2. Students will be able to analyze and compare different e-commerce business models and identify their key characteristics.
- CO3. Students will be able to identify and utilize the technological infrastructure required for e-commerce operations.
- CO4. Students will be able to create and manage an online store, including product selection, pricing, and inventory management.
- CO5. Students will be able to implement digital marketing strategies to attract and retain customers in an e-commerce business.
- CO6. Students will be able to understand and apply legal and ethical considerations in e-commerce operations.
- CO7. Students will be able to identify and address the challenges and opportunities associated with international e-commerce expansion.
- CO8. Students will be able to apply practical skills in setting up and managing an e-commerce business, including website creation, online payment integration, and order fulfillment.

CONTENT OF SYLLABUS

UNIT	TOPIC	No. of Lectures
1	Introduction- E-Commerce Management <ul style="list-style-type: none"> • Register Your Domain • Build Your Site • Host Your Site • Accept Online Payments • Promote Your Business • Manage Your Business 	15
2	E-Commerce website design <ul style="list-style-type: none"> • Your website should be... • Your website should have... • Store and platforms to develop ecommerce website • Product information • Product names • Product images for ecommerce business must have characteristics • Product descriptions • Filed / Tabs / Attributes • Order information • Shopping cart • Shopping cart abandonment • Shipping • Payment gateways • Website securities - PCI Standard, SSL Certificate 	15
3	E-commerce hosting setup <ul style="list-style-type: none"> • Customer Registrations • Customer Transactions • Product Catalogs • Customer Orders • Order Security • Server Security • Server Maintenance • Server Backup • Server downtime • Inventory Control • Shipment Methods • Payment Methods • Foreign currency • Credit Cards • Taxes issues 	15

	<ul style="list-style-type: none"> Offers and discounts. 	
4	Introduction to Digital Marketing Meaning, Definition, Features, Need, Importance, Scope, Limitations & Challenges. Traditional marketing vs. Digital Marketing.	15
		60

Case studies: 10 Case studies should be covered in all units.

Recommended Books:

1 Text Books:

1. Understanding Digital Marketing: Marketing Strategies for Engaging the Digital Generation by Damian Ryan, Calvin Jone. Kogan Page.
2. Marketing 2012 by William M. Pride, O. C. Ferrell, Cengage Learning.
3. Integrated Marketing Communications: Asia Pacific Edition by William Chitty, Nigel Barker, Michael Valos, Terence A. Shim, Cengage DigiMarketing: The Essential Guide to New Media and Digital Marketing by Kent Wertime, Ian Fenwick
4. Web Analytics 2.0: The Art of Online Accountability and Science of Customer Centricity by Avinash Kaushik

2 Reference Books:

5. Wiki Brands – Reinventing Your Company In A Customer Driven Market Place, Sean Moffitt and Mike Dover, TMGH.
6. Advanced Web Metrics with Google Analytics by Brian Clifton.
7. Data-Driven Marketing: The 15 Metrics Everyone in Marketing Should Know Mark Jeffery

Mapping of Program Outcomes with Course Outcomes

Course Outcomes	Programme Outcomes (POs)						
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7
CO 1	3						3
CO 2	2	2					
CO 3	2	2	3			3	
CO 4			2	1			
CO 5			1		2		
CO 6							
CO 7	3						3

Weightage: 1= weak or low relation, 2= moderate or partial relation, 3= strong or direct relation

Justification for the mapping

PO 1 Disciplinary Knowledge

CO1. Students will be able to explain the concept and significance of e-commerce in the business world.

CO2. Students will be able to analyze and compare different e-commerce business models and identify their key characteristics.

CO3. Students will be able to identify and utilize the technological infrastructure required for e-commerce operations.

CO7. Students will be able to identify and address the challenges and opportunities associated with international e-commerce expansion.

PO 2 Critical Thinking and Problem solving

CO2. Students will be able to analyze and compare different e-commerce business models and identify their key characteristics.

CO3. Students will be able to identify and utilize the technological infrastructure required for e-commerce operations.

PO 3 Social Competence Exhibit thoughts and ideas effectively in writing and orally

CO3. Students will be able to identify and utilize the technological infrastructure required for e-commerce operations.

CO4. Students will be able to create and manage an online store, including product selection, pricing, and inventory management.

CO5. Students will be able to implement digital marketing strategies to attract and retain customers in an e-commerce business.

PO 4 Research-Related Skills

CO4. Students will be able to create and manage an online store, including product selection, pricing, and inventory management.

PO 5 Personal and Professional competence

CO5. Students will be able to implement digital marketing strategies to attract and retain customers in an e-commerce business.

PO 6 Effective Citizenship and Ethics

CO3. Students will be able to identify and utilize the technological infrastructure required for e-commerce operations.

PO 7 Environment and Sustainability

CO1. Students will be able to explain the concept and significance of e-commerce in the business world.

CO7. Students will be able to identify and address the challenges and opportunities associated with international e-commerce expansion.

Paper Code : UBECDM-124
Paper Title : Retailing & E-Tailing

Total Credits : 06
No. of lectures : 90

Course Objectives:

1. To develop knowledge of contemporary retail management issues at the strategic level.
2. To describe and analyze the way retailing works, specifically the key activities and relationships.
3. To provide an academic underpinning to the above through the application of retailing theory and research.
4. To define and explain the concept of retail management.
5. To identify the key functions and processes involved in retailing.
6. To analyze consumer behavior in the context of retailing.
7. To apply consumer behavior insights to enhance retail strategies.

Course Outcomes:

- CO1. Understanding of the retail history and its function.
CO2. Awareness about Retail Formats application.
CO3. Buying process, retail market strategy and target market.
CO4. Understand Growth strategy of retailing.
CO5. Choosing retail location and its evaluation, Inventory management, Warehousing, Logistics in SCM.
CO6. Students will be able to articulate the key concepts and functions of retail management through class discussions and written assignments.
CO7. Through case studies and projects, students will analyze consumer behavior patterns and apply insights to develop effective retail strategies.

UBECDM-124 / Retailing & E-Tailing (90 Hours)

CONTENT OF SYLLABUS

Case studies	TOPIC	No. of Practicals to be cover
1	1. INTRODUCTION TO THE WORLD OF RETAILING : Concept and Functions performed by retailers , Emerging Trends and career opportunities in retailing TYPES OF RETAILERS: Retailer characteristics , Retail Formats - Store based, Non-store based, Web based , Various format within store based retailing e.g. specialty store, hyper market, supermarket. Physical and non physical attributes in store, Organized and unorganized retailing. Retail Layout planning.	5
2	2. RETAIL MARKET STRATEGY : Definition of retail and market strategy, Target market, Building a sustainable competitive advantage like - customers loyalty, location, human resource management, distribution and information system, vendor relations. Growth Strategies - Market penetration, market expansion, retail format development	5

	diversification, integration. Global Retail Strategies, Strategic retail planning process.	
3	3. CHOOSING RETAIL LOCATIONS : Types of locations - . Planned sites Unplanned locations, free standing sites, Evaluation of area for location, Evaluating specific area for locations. Roles and responsibilities of store manager. Retail store functions.	5
4	4. E-RETAILING E-retailing, E-retailing models, starting an E-store, Marketing Strategies for E-stores, Payment & Security issues, Customer Relation Management in E-retailing and Latest Developments, Post pandemic Trends and Practices.	4
		19

Practicals:

1. Field surveys and Industrial visits to find out Emerging Trends and career opportunities in retailing.
2. Store based retail format
3. Non-store based retail format
4. Web based retail format
5. Various format within store based retailing
6. Organized and unorganized retailing.
7. Retail Layout planning.
8. Retail and market strategy
9. Building a sustainable competitive advantage.
10. Global Retail Strategies and Strategic retail planning process.
11. How to choose retail location.
12. Evaluating specific area for locations.
13. Retail growth strategies.
14. Roles and responsibilities of store manager.
15. Retail store functions.
16. Marketing Strategies for E-stores
17. Payment & Security issues in retailing.
18. Customer Relation Management in E-retailing and Latest Developments
19. Post pandemic Trends and Practices in retailing.

Recommended books

1. D.P. Sharma, E-retailing Principles and Practice, Himalaya Publications
2. Newman A. J. and Cullen P - Retailing : Environment and Operations (Vikas).
3. Berman B and Evans J. R., Retail Management (Pearson Edition).
4. Michael Levi M and Weitz B W - Retailing Management (Tata McGraw Hill)
5. Dunne Patrick M, Lusch Robert F and Griffith David A - Retailing (Cengage Learning).
6. Cox Roger and Brittain Paul - Retailing : An Introduction (Pearson Education)

Mapping of Program Outcomes with Course Outcomes

4.

Course Outcomes	Programme Outcomes (POs)						
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7
CO 1	3				3	1	3
CO 2	2	2					
CO 3	2	2	3				
CO 4			2	1			
CO 5			1		2		
CO 6						2	
CO 7							

Weightage: 1= weak or low relation, 2= moderate or partial relation, 3= strong or direct relation

Justification for the mapping

PO 1 Disciplinary Knowledge

CO1. Understanding of the retail history and its function.

CO2. Awareness about Retail Formats application.

CO3. Buying process, retail market strategy and target market.

PO 2 Critical Thinking and Problem solving

CO2. Awareness about Retail Formats application.

CO3. Buying process, retail market strategy and target market.

PO 3 Social Competence Exhibit thoughts and ideas effectively in writing and orally

CO3. Buying process, retail market strategy and target market.

CO4. Understand Growth strategy of retailing.

CO5. Choosing retail location and its evaluation, Inventory management, Warehousing, Logistics in SCM.

PO 4 Research-Related Skills

CO4. Understand Growth strategy of retailing.

PO 5 Personal and Professional competence

CO1. Understanding of the retail history and its function.

CO5. Choosing retail location and its evaluation, Inventory management, Warehousing, Logistics in SCM.

PO 6 Effective Citizenship and Ethics

CO1. Understanding of the retail history and its function.

CO6. Students will be able to articulate the key concepts and functions of retail management through class discussions and written assignments.

PO 7 Environment and Sustainability

CO1. Understanding of the retail history and its function.

Paper Code: UBECDM-125

Total Credits : 06

Paper Title: Programming Lab on HTML & DHTML

No. of lectures : 90

Course Objectives:

1. To provide students with a thorough understanding of HTML (Hypertext Markup Language) and DHTML (Dynamic HTML) fundamentals.
2. To introduce students to the concepts of web page creation and design using HTML and DHTML.
3. To enable students to enhance web pages through the use of DHTML effects and interactivity.
4. To develop students' skills in writing clean and semantically correct HTML code.
5. To familiarize students with the best practices and standards in web development using HTML and DHTML.

Course Outcomes:

CO1: Understand the basic concepts and syntax of HTML and DHTML.

CO2: Create web pages using HTML tags, attributes, and elements.

CO3: Design and structure web pages using Cascading Style Sheets (CSS).

CO4: Enhance web pages through the use of DHTML effects, such as animations, transitions, and interactive elements.

CO5: Implement form validation and user input handling using HTML and DHTML.

CO6: Optimize web pages for mobile devices and different screen resolutions.

CO7: Apply best practices and adhere to web development standards in HTML and DHTML coding.

CO8: Collaborate with others in developing and maintaining web pages using HTML and DHTML.

UBECDM-125 / PROGRAMMING LAB ON HTML & DHTML (90 Hours)

CONTENT OF SYLLABUS

Case studies	TOPIC	No. of Practicals to be cover
1	Basics in HTML: Web Programming introduction, HTML-Introduction, Basic Formatting Tags, Grouping Using Div Span, Lists, Images, Hyperlink, Table, Iframe, Form, Headers, Miscellaneous.	5
2	HTML Advanced (HTML5): HTML Doctype, Layout, Head, Meta, Scripts, Entities, URL, URL Encode, Validation, Features- New Input Types, Canvas, SVG, Audio, Video, Web Storage, Application Cache, Web Workers, SSE, Geolocation, Drag & Drop.	5
3	CSS & CSS3: CSS- Introduction, Syntax, Selectors, Color Background Cursor, Text Fonts, Lists Tables, Box Model, Display Positioning, Floats, CSS3- Introduction, Borders, Backgrounds, Text Effects, Text, Fonts, Transforms, Transitions, Animations, Multiple Columns, User Interface.	5
4	DHTML: Introduction to JavaScript: What is DHTML, JavaScript, basics, Variables, String Manipulations, Mathematical functions, statements, operators, arrays and functions.	5

Practicals:

Practical No.1- Display your family information with background and other formatting.

Practical No.2- Write a HTML code to generate lists.

Practical No.3- Write a HTML code to create table.

Practical No.4- Write a HTML code set of frames to show.

Practical No.5- Design the web page to display the table with hyperlink the department name for every information inside the table.

Practical No.6- HTML image Examples.

Practical No.7- Write a HTML code for to create an HTML form.

Practical No.8- Write a HTML5 code for Graphics- Canvas, SVG.

Practical No.9- Write a HTML5 code for Media- Audio, Video, YouTube.

Practical No.10- Write a HTML5 code for Geolocation.

Practical No.11- Write a CSS code for Colors(Front, Background).

Practical No.12- Write a CSS code for Borders.

Practical No.13- Write a CSS3 code for Demonstrating the Box Model.

Practical No.14- Write a CSS3 code for Table.

Practical No.15- Write a CSS3 code for Navigation Bar & Dropdowns.

Practical No.16- Write a CSS3 code for Animations.

Practical No.17- Write a DHTML code for Document.write() Method.

Practical No.18- Write a DHTML code to checks the Grade of a student according to the percentage criteria with the JavaScript and HTML DOM.

Practical No.19- Write a DHTML code for onsubmit event handler.

Practical No.20- Write a DHTML code for Mathematical operators.

Recommended books:

1. Head First HTML and CSS- Elizabeth Robson and Eric Freeman.
2. HTML and CSS Quickstart Guide- David DuRocher

Mapping of Program Outcomes with Course Outcomes

5.

Course Outcomes	Programme Outcomes (POs)						
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7
CO 1	3					1	
CO 2							
CO 3	2						
CO 4		2					1
CO 5		2		1	2		
CO 6			3				3
CO 7	3		2		3		

Weightage: 1= weak or low relation, 2= moderate or partial relation, 3= strong or direct relation

Justification for the mapping

PO 1 Disciplinary Knowledge

CO1: Understand the basic concepts and syntax of HTML and DHTML.

CO3: Design and structure web pages using Cascading Style Sheets (CSS).

CO7: Apply best practices and adhere to web development standards in HTML and DHTML coding.

PO 2 Critical Thinking and Problem solving

CO4: Enhance web pages through the use of DHTML effects, such as animations, transitions, and interactive elements.

CO5: Implement form validation and user input handling using HTML and DHTML.

PO 3 Social Competence Exhibit thoughts and ideas effectively in writing and orally

CO6: Optimize web pages for mobile devices and different screen resolutions.

CO7: Apply best practices and adhere to web development standards in HTML and DHTML coding.

PO 4 Research-Related Skills

CO5: Implement form validation and user input handling using HTML and DHTML.

CO7: Apply best practices and adhere to web development standards in HTML and DHTML coding.

PO 5 Personal and Professional competence

CO5: Implement form validation and user input handling using HTML and DHTML.

CO7: Apply best practices and adhere to web development standards in HTML and DHTML coding.

PO 6 Effective Citizenship and Ethics

CO1: Understand the basic concepts and syntax of HTML and DHTML.

PO 7 Environment and sustainability:

CO4: Enhance web pages through the use of DHTML effects, such as animations, transitions, and interactive elements.

CO6: Optimize web pages for mobile devices and different screen resolutions.

Paper Code: UBECDM-126

Total Credits : 06

Paper Title: Programming Lab on DBMS & MySQL

No. of lectures : 90

Course Objectives:

1. To provide students with a practical understanding of SQL programming language.
2. To develop students' skills in designing and implementing complex database systems.
3. To introduce students to various SQL concepts, such as data manipulation, data definition, and data control.
4. To enhance students' problem-solving abilities by applying SQL queries to real-world scenarios.
5. To expose students to advanced SQL topics, such as stored procedures, triggers, and views.
6. To promote teamwork and collaboration by assigning group programming projects.

Course Outcomes:

- CO1. Apply SQL syntax and commands to retrieve and manipulate data from relational databases.
- CO2. Design and implement database tables using appropriate data types, primary and foreign keys, and constraints.
- CO3. Utilize advanced SQL techniques to implement complex queries involving multiple tables and conditions.
- CO4. Create and modify database structures using SQL statements, such as CREATE, ALTER, and DROP.
- CO5. Demonstrate an understanding of data control and security concepts in SQL, including user authentication and access permissions.
- CO6. Implement various types of database relationships, including one-to-one, one-to-many, and many-to-many.
- CO7. Develop stored procedures, triggers, and views to automate database tasks and improve system performance.
- CO8. Collaborate effectively within a team to design and implement a database system for a specific application.
- CO9. Analyze and optimize SQL queries and database structures to improve performance and efficiency.
- CO10. Demonstrate effective communication skills by presenting and explaining SQL concepts and solutions to fellow classmates and instructors.

UBECDM-126 / Programming Lab on DBMS & MySQL (90 Hours)

CONTENT OF SYLLABUS

Case studies	TOPIC	No. of Practicals to be cover
1	Basic Concepts of Database Management (Database, Database System, why database, Data independence) an architecture for a database system (levels of the architecture, mappings, DBA, client/server architecture) Introduction to Relational db systems. Characteristics of database approach, data models, DBMS architecture and data independence, Components of DBMS, Concept	5

	of Primary & Foreign Key, Unique Key, Traditional file environment Vs. DBMS.	
2	E-R Modeling: Entity types, Entity set, attribute and key, relationships, relation types, roles and structural constraints, weak entities, enhanced E-R and object modeling, Sub classes; Super classes, inheritance, specialization and generalization.	5
3	Relational Data Model: Relational model concepts, relational constraints ER and ER to relational mapping: Data base design using EER to relational language Data Normalization: Functional Dependencies, Normal form up to 3rd normal form. Concurrency & Recovery: Transaction processing, locking techniques and associated, security and authorization. Recovery Techniques, Database Security	5
4	MySQL: Basics, Query Design & Functions, Database Operations, Procedures.	5
		20

Practicals:

Practical No.1- Create an Entity set for student information.

Practical No.2- Create an one-to-one, one-to-many and many-to-many relationship between student and Course.

Practical No.3- Create an Relation diagram for employee and department.

Practical No.4- Create an Attributes diagram for student information.

Practical No.5- Create an ER diagram for student.

Practical No.6- Create an ER diagram for College Department.

Practical No.7- 'Enrolled in' is a relationship that exists between entities Student and Course.

Practical No.8- Create an ER diagram for College Management System.

Practical No.9- Write a SQL statement to create a simple table countries including columns country_id, country_name and region_id.

Practical No.10- Write a SQL statement to create a simple table countries including columns country_id, country_name and region_id which is already exists.

Practical No.11- Write a SQL statement to create the structure of a table dup_countries similar to countries.

Practical No.12- Write a SQL statement to create a duplicate copy of countries table including structure and data by name dup_countries.

Practical No.13- Write a SQL statement to create a table countries set a constraint NULL.

Practical No.14- Write a SQL statement to create a table named jobs including columns job_id, job_title, min_salary, max_salary and check whether the max_salary amount exceeding the upper limit 25000.

Practical No. 15- Write a SQL statement to create a table named countries including columns country_id, country_name and region_id and make sure that no countries except Italy, India and China will be entered in the table.

Practical No. 16- Write a SQL statement to create a table named job_histroy including columns employee_id, start_date, end_date, job_id and department_id and make sure that the value against column end_date will be entered at the time of insertion to the format like '--/--/----'.

Practical No. 17- Write a SQL statement to create a table named countries including columns country_id,country_name and region_id and make sure that no duplicate data against column country_id will be allowed at the time of insertion.

Practical No. 18- Write a SQL statement to create a table named jobs including columns job_id, job_title, min_salary and max_salary, and make sure that, the default value for job_title is blank and min_salary is 8000 and max_salary is NULL will be entered automatically at the time of insertion if no value assigned for the specified columns.

Practical No. 19- Write a SQL statement to create a table named countries including columns country_id, country_name and region_id and make sure that the country_id column will be a key field which will not contain any duplicate data at the time of insertion.

Practical No. 20- Write a SQL statement to create a table countries including columns country_id, country_name and region_id and make sure that the column country_id will be unique and store an auto incremented value.

Books recommended:

1. C.J. Date, “An Introduction of Database System”, The Systems Programming Series, 6/Ed, Addison-Wesley Publishing Company, Inc., 1995.
2. Silberschatz, Korth and Sudarshan, “Database System Concepts”, Third Ed. McGraw Hill International Editions, Computer Science Series-1997.

Mapping of Program Outcomes with Course Outcomes

6.

Course Outcomes	Programme Outcomes (POs)						
	PO 1	PO 2	PO 3	PO 4	PO 5	PO 6	PO 7
CO 1	3						1
CO 2	1	3	2		3		
CO 3	1	1				2	
CO 4				1			
CO 5							
CO 6							
CO 7	2	1					

Weightage: 1= weak or low relation, 2= moderate or partial relation, 3= strong or direct relation

Justification for the mapping

PO 1 Disciplinary Knowledge

CO1. Apply SQL syntax and commands to retrieve and manipulate data from relational databases.

CO2. Design and implement database tables using appropriate data types, primary and foreign keys, and constraints.

CO3. Utilize advanced SQL techniques to implement complex queries involving multiple tables and conditions.

CO7. Develop stored procedures, triggers, and views to automate database tasks and improve system performance.

PO 2 Critical Thinking and Problem solving

CO2. Design and implement database tables using appropriate data types, primary and foreign keys, and constraints.

CO3. Utilize advanced SQL techniques to implement complex queries involving multiple tables and conditions.

CO7. Develop stored procedures, triggers, and views to automate database tasks and improve system performance.

PO 3 Social Competence Exhibit thoughts and ideas effectively in writing and orally

CO2. Design and implement database tables using appropriate data types, primary and foreign keys, and constraints.

PO 4 Research-Related Skills

CO4. Create and modify database structures using SQL statements, such as CREATE, ALTER, and DROP.

PO 5 Personal and Professional competence

CO2. Design and implement database tables using appropriate data types, primary and foreign keys, and constraints.

PO 6 Effective Citizenship and Ethics

CO3. Utilize advanced SQL techniques to implement complex queries involving multiple tables and conditions.

PO 7 Environment and Sustainability

CO1. Apply SQL syntax and commands to retrieve and manipulate data from relational databases.