Theory Paper

Part A Introduction				
Program: Degree		Class :	Year: III	Session: 2023-24
Subject: BCA				
1	Course Code	S3-BCAC4G		
2	Course Title	MYSQL (Theory)		
3	Course Type (Core Course/ Discipline Specific Elective/Elective/Generic Elective/Vocational/.....)	Elective		
4	Pre-requisite (if any)			
5	Course Learning outcomes (CLO)	**On successful completion of this course, the students will be able to:** 1. Understand basic concepts of how a database stores information. 2. Gain knowledge Of SQL syntax with MySQL. 3. Design database for an organization and apply various SQL Queries and constructs. 4. Apply queries to retrieve and manipulate data from one or more tables. 5. Learn how to filter data based upon multiple conditions		
6	Credit Value	Theory 4		
7	Total Marks	Max. Marks: 30 + 70	Min. Passing Marks:35	

Part B- Content of the Course

Total No. of Lectures =60 (3 hours/ lecture per week)

Unit	Topics	No. of Lectures (1 Hour Each)
I	Introduction to Database and related terms, Introduction to MySQL, need Of SQL, features, Data Types, Types of SQL statements, Concept Of Keys, Null values and Not Null Values.	12
II	**Handling database with MySQL Using Query:** Create ,Save edit execute Query for different SQL Statements ,Use the Where clause, Conditional statements, Multiple conditions, Comparison Operators , Logic Values, Null Values, Wildcard characters, Compare Column Values, Distinct Values, Top Values	12
III	**Data Wrangling** : Group Data, Filtering Grouped Data Summarize Group DataPivot and Unpivot Operators Importing and Exporting Data,Update Data.	12
IV	**Joins:** Inner Join,Left Join,Full Outer Join, Self-Join, Unions,Except and Intersect, Saving the Query Results and Exporting, Generating Reports	12
V	**MySQL Functions**: Date Functions, Date Calculations	12

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	Aggregate Functions, String Functions ,Sort Data ,Rank Data ,Views in Mysql , Overview Of Transactions Triggers, Stored Procedures and User Defined Functions.	

Keywords/Tags:

Part C-Learning Resources

Text Books, Reference Books, Other resources

Suggested Readings:

1. "MySQL Workbench: Data Modeling & Development" by Michael McLaughlin
2. "MySQL Stored Procedure Programming: Building High-Performance Web Applications in MySQL" by Guy Harrison and Steven Feuerstein
3. "MySQL Administrator's Bible" by Sheeri K Cabral and Keith Murphy
4. "MySQL Cookbook: Solutions for Database Developers and Administrators" by Paul DuBois
5. "MySQL Database Design and Tuning" by Robert D Schneider
6. MySQL: The Complete Reference Vikram Vaswani
7. मध्य प्रदेश हिन्दी ग्रंथ अकादमी की पुस्तकें।

Suggestive digital platforms/ web links

1. https://www.tutorialspoint.com/mysql/index.htm
2. https://www.javatpoint.com/mysql-tutorial
3. https://www.w3schools.com/MySQL/default.asp
4. https://www.mysqltutorial.org/

Suggested equivalent online courses:

1. https://onlinecourses.nptel.ac.in/noc21_cs04/preview
2. https://onlinecourses.swayam2.ac.in/aic20_sp32/preview
3. https://in.coursera.org/courses?query=mysql
4. https://www.mygreatlearning.com/academy/learn-for-free/courses/my-sql-basics
5. https://www.simplilearn.com/official/site

Part D-Assessment and Evaluation

Suggested Continuous Evaluation Methods:

Maximum Marks : 100

Continuous Comprehensive Evaluation (CCE) : 30 Marks University Exam (UE):70 Marks

Internal Assessment : Continuous Comprehensive Evaluation (CCE)	Class Test Assignment/Presentation	30
External Assessment : University Exam Section Time : 03.00 Hours	**Section(A)** : Very Short Questions **Section (B) :** Short Questions **Section (C) :**Long Questions	70

Any remarks/ suggestions:

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Directorate of Higher Education

Practical Paper

Part A Introduction				
Program: Degree		Class :	Year: III	Session: 2023-24
Subject: BCA				
1	Course Code	S3-BCAC4R		
2	Course Title	MYSQL (Practical)		
3	Course Type (Core Course/ Discipline Specific Elective/Elective/Generic Elective/Vocational/.....)	Elective		
4	Pre-requisite (if any)			
5	Course Learning outcomes (CLO)	**On successful completion of this course, the students will be able to:** 1. Understand basic concepts of how a database store information. 2. Gain knowledge Of SQL syntax with MySQL. 3. Design database for an organization and apply various SQL Queries and constructs. 4. Apply queries to retrieve and manipulate data from one or more tables. 5. Learn how to filter data based upon multiple conditions		
6	Credit Value	2		
7	Total Marks	Max. Marks: 100	Min. Passing Marks:35	

Part B- Content of the Course
MYSQL (Practical)

Total No. of Practical =30 (each of 2 hours duration (1 Practical per week))

Practical will be conducted based on the theory Syllabus

List of Practical

1.	Create multiple Tables to design a database in MYSQL.
2.	Insert Data into tables using Queries
3.	Update table in MYSQL
4.	Apply Delete and truncate query on table.
5.	Alter schema using MYSQL
6.	Display records using different form of select statement.
7.	Apply aggregate functions on tables.
8.	Implement various constraints on database tables.
9.	Import and export data in MYSQL
10.	Create views using queries in MYSQL
11.	Apply Group operations on tables.
12.	Sort data in tables using query.
13.	Implement various string functions on Tables
14.	Apply different types of join operations on tables

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15.	Generate report in MySQL

Keywords/Tags:

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Text Books, Reference Books, Other resources

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3. https://www.w3schools.com/MySQL/default.asp
4. https://www.mysqltutorial.org/

Suggested equivalent online courses:

1. https://onlinecourses.nptel.ac.in/noc21_cs04/preview
2. https://onlinecourses.swayam2.ac.in/aic20_sp32/preview
3. https://in.coursera.org/courses?query=mysql
4. https://www.mygreatlearning.com/academy/learn-for-free/courses/my-sql-basics
5. https://www.simplilearn.com/official/site

Part D-Assessment and Evaluation

Suggested Continuous Evaluation Methods:

Internal Assessment	Marks	External Assessment	Marks
Class Interaction /Quiz	30	Viva Voce on Practical	70
Attendance		Practical Record File	
Assignments (Charts/ Model Seminar / Rural Service/ Technology Dissemination/ Report of Excursion/ Lab Visits/ Survey / Industrial visit)		Table work / Experiments	
	Total Marks : 100		

Any remarks/ suggestions:

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