

Enrolment No.

SCA24-801030123



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**SCHOOL OF COMPUTER APPLICATIONS
DEPARTMENT OF MCA**

UNIT TEST-I SEPTEMBER-2025

PROGRAM: MCA	SEMESTER: JM	BATCH: 2024-2026
COURSE NAME: CLOUD COMPUTING	COURSE CODE: PMC201	
MAXIMUM MARKS: 20	DATE: - 18-09-2025	TIME OF EXAM: - 12:10 P.M

Course Outcomes:

1. Identify the basics of cloud computing, cloud models and its applications.
2. Understand cloud application architectural styles and examine cloud-native approaches.
3. Analyse cloud architecture layers, service models, and deployment models to build applications.
4. Apply cloud simulators to simulate cloud environments and analyze performance.
5. Design and implement virtualization using VMware tools like workstation and managing VMs.

Instructions: Give Proper Instructions.

1. All questions are compulsory as per instructions given.
2. The paper is divided into two sections:
Q.1: Attempt any 2 out of the given sub-questions.
Q.2: Attempt any 2 out of the given sub-questions.
3. Each sub-question carries 5 marks.

QUESTIONS		CO	BTL	Marks
Q.1 Attempt the following (Any 2)		Max Marks: 10 (2*5)		
A	Explain the term cloud computing with neat Diagram.	CO1	BL2	05
B	Illustrate three major Cloud Services	CO2	BL3	05
C	Define concept of virtualization with its types.	CO3	BL1	05
Q.2 Attempt the following (Any 2)		Max Marks: 10 (2*5)		
A	State the cloud computing architecture	CO1	BL1	05
B	Discuss the term load balancing in cloud computing.	CO2	BL2	05
C	Define grid computing with diagram	CO3	BL3	05

*****All the Best*****

Enrolment No. (1.50)

Vinod Salmi



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**SCHOOL OF COMPUTER APPLICATIONS
DEPARTMENT OF MCA**

Unit Test-I SEPTEMBER-2025

Program:MCA	Semester: III	Batch:2024
Course Code & Name:	PMC206/ DATA MINING & DATA WAREHOUSING	
Maximum Marks:	20	Date of Exam: - 18 th Sept. 2025 Time of Exam: -4:45 P.M

Course Outcomes:

1. Identify the scope and necessity of Data Mining & Warehousing for the society
2. Describe the designing of Data Warehousing so that it can be able to solve the root problems.
3. Understand various tools of Data Mining and their techniques to solve the real time problems. .
4. Develop the ability to design various algorithms based on data mining tools.
5. Develop further interest in research and design of new Data Mining techniques.

Instructions: Give Proper Instructions.

- Solve any two question form each questions.
- Figures to the right most column indicates marks.
- Draw neat & clean diagram wherever necessary.

QUESTIONS		CO	BTL	Marks
Q.1 Attempt the following (Any 2)		Max Marks: 10 (2*5)		
A	Explain the Data Warehouse architecture in details.	CO	1	05
<input checked="" type="checkbox"/> B	Compare and contrast the advantages of snowflake schema vs. star schema.	CO	1	05
<input checked="" type="checkbox"/> C	Explain the purpose of a staging area in building a data warehouse.	CO	1	05
Q.2 Attempt the following (Any 2)		Max Marks: 10 (2*5)		
<input checked="" type="checkbox"/> A	Explain the importance of data pre-processing in data mining.	CO	2	05
B	Summarize the steps involved in data transformation.	CO	2	05
<input checked="" type="checkbox"/> C	Explain data mining & its techniques.	CO	2	05

*****All the Best*****

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SCHOOL OF COMPUTER APPLICATIONS
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Unit Test-I SEPTEMBER-2025

Program: MCA

Semester: 3rd

Batch:2024-2026

Course Code & Name: PMC205 A/MAJE SOFTWARE TESTING

Maximum Marks:20

20

Date of Exam: -20th Sept 2025
Time:12.10 pm-1.10pm**Course Outcomes:**

1. To identify various software testing methods and strategies.
2. To understand a variety of software metrics and identify defects and manage those defects for improvement in quality for given software.
3. To design test cases and test plans, review reports of testing for qualitative software.
4. To analyze different functional methods for software.
5. To create the latest testing methods used in the software industries.

Instructions:

Each Question Carries 10 Marks.

Attempt any two Questions from Q1 and Q2.

Figure to the right Indicate full marks.

Give proper Examples where required.

QUESTIONS		CO	BTL	Marks
Q.1 Attempt the following (Any 2)		Max Marks: 10 (2*5)		
A	Define faults, errors, and failures in software testing with suitable examples.	1	1	05
B	Explain the principles of software testing with suitable examples.	1	2	05
C	Explain different types of software testing with examples.	1	2	05
Q.2 Attempt the following (Any 2)		Max Marks: 10 (2*5)		
A	Describe the different levels of software testing with suitable examples.	2	2	05
B	Explain the concept of Boundary Value Analysis (BVA), Using the scenario of a bank application that accepts transactions only between ₹100 and ₹5000, design valid and invalid test cases.	2	3	05
C	A social media app requires username length between 1–100 characters. Using Equivalence Partitioning, identify valid and invalid partitions with examples.	2	3	05

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SCHOOL OF COMPUTER APPLICATIONS
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UNIT TEST-I SEPTEMBER-2025

PROGRAM: MCA	SEMESTER: III	BATCH: 24-26
COURSE CODE & NAME: PMC203	MACHINE LEARNING USING PYTHON	
MAXIMUM MARKS: 20	DATE OF EXAM:-19 th SEPTEMBER 2025 TIME OF EXAM: -4:45 P.M	

Course Outcomes:

- To recall the ability to comprehend the concept of supervised and unsupervised learning techniques
- To analyze, differentiate regression, classification and clustering techniques and to implement their algorithms.
- To explain the performance of various machine learning techniques and to select appropriate features for training machine learning algorithms.
- To Apply structured thinking to unstructured problems.
- To be able to evaluate the efficacy of a range of reinforcement learning methods.

Instructions: Give Proper Instructions.

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QUESTIONS		CO	BTL	Marks
Q.1 Attempt the following (Any 4)		Max Marks: 5 (2.5*2) Each		
A	1. Differentiate between a Data Scientist and a Data Analyst. 2. What is meant by "dirty data"?	CO1	3	05
B	1. Write a short note on the importance of data visualization in EDA. 2. Give two examples each for structured, semi-structured, and unstructured data.	CO1	3	05
C	1. Define "data pipeline" in the context of data acquisition. 2. Why is duplicate data harmful in analysis?	CO2	4	05
D	1. Write a note on sampling techniques. 2. Write a detailed note on the effective techniques of handling missing values in large datasets	CO1, CO2	3,4	05
E	1. Explain in detailed types of data in data science. 2. Write a detailed note on outlier.	CO1, CO2	3,4	05

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Enrolment No. SCA24901030123



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SCHOOL OF COMPUTER APPLICATIONS
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Unit Test-I SEPTEMBER-2025

Program: MCA	Semester: 3 rd	Batch: 2024-26
Course Code: PMC207	Course Name: Research Methodology	
Maximum Marks:20	Duration: 1 hour	Date Of Exam: 20/09/2025 Time of Exam: 04.45pm to 05.45 pm

Course Outcomes:

1. Define and explain key concepts and methodologies of research and articulate research problems.
2. Analyse and summarize literature reviews, data types, and appropriate data collection techniques.
3. Design suitable sampling strategies and apply research designs for various problem scenarios.
4. Examine and apply hypothesis testing methods using appropriate statistical tools.
5. Develop a complete research report including all standard components using proper academic writing and citation styles.

Instructions: All Question Carries equal marks.

Attempt any 2 questions from Q1 and Q2

Figure to the right Indicate the full Marks.

Give Proper assumptions where necessary.

QUESTIONS		CO	BTL	Marks
Q.1 Attempt the following (Any 2)		Max Marks: 10 (2*5)		
A	Define Research Methodology and explain its importance in solving real-world problems.	CO1	I & II	05
B	Differentiate between Descriptive and Analytical research with suitable examples.	CO1	II	05
C	Analyse the steps involved in the research process and explain how each step contributes to the overall study.	CO1	IV	05
Q.2 Attempt the following (Any 2)		Max Marks: 10 (2*5)		
A	What are primary and secondary data? List and briefly explain any two primary data collection methods with examples.	CO2	I & II	05
B	Explain the difference between theoretical and conceptual frameworks in the context of a literature review.	CO2	II	05
C	A researcher is studying the following data about college students: 1. Their field of study (Computer Science, Commerce, Arts) 2. Their class rank (1st, 2nd, 3rd ...) 3. Their average exam score in percentage 4. Their daily study hours Identify which measurement scale (Nominal, Ordinal, Interval, or Ratio) applies to each data type listed above, and briefly justify your choices.	CO2	III	05

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UNIT TEST-I SEPTEMBER-2025

PROGRAM: MCA	SEMESTER: III	BATCH: 2024-26
COURSE CODE & NAME:	PMCI13A SOFTWARE PROJECT MANAGEMENT	
MAXIMUM MARKS:	20	DATE OF EXAM:-20th SEPTEMBER 2025 TIME OF EXAM: -12:10 P.M

1. Understand the knowledge of the fundamental elements and concepts related to Project Management activities and types of software projects.
2. Identify project risk, monitor and track project deadlines
3. Schedule the activities of the project to get a critical path.
4. Apply different techniques in monitoring and control of project
5. Evaluate Work in teams to evaluate the different modes of communication among people.

Instructions:

1. Each Question carry equal marks *A-D-C-E-D*
2. Draw the necessary diagram wherever necessary *A-D-C-E-D*

QUESTIONS		CLO	BTL	Marks
Q.1 Attempt the following		Max Marks: 10 (2*5)		
A	1. Differentiate between Programming in the Small and Programming in the Large. OR 2. Explain the reasons behind software project failures with suitable examples.	CLO 1, 2	Remember Understand	05
B	1. Discuss the historical development of Software Engineering from Jackson Structured Programming to Agile Development. OR 2. Explain the role of software quality and timely availability in the success of large software projects.	CLO 1	Remember	05
Q.2 Attempt the following		Max Marks: 10 (2*5)		
A	1. Describe the step-wise approach for planning a software project. OR 2. What is Product Breakdown Structure (PBS)? How does it help in project planning?	CLO 3	Apply	05
B	1. Discuss the different approaches to project scheduling: Activity-based, Product-based, and Hybrid approach. OR 2. Explain PERT technique with forward pass and backward pass scheduling.	CLO 3	Apply	05