

Hall Ticket No:

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Question Paper Code: 22MCAP111

MADANAPALLE INSTITUTE OF TECHNOLOGY & SCIENCE, MADANAPALLE
(UGC-AUTONOMOUS)
MCA II Year I Semester (R22) Supplementary End Semester Examinations, July-2025
MOBILE APPLICATION DEVELOPMENT

Time: 3Hrs

Max Marks: 60

Attempt all the questions. All parts of the question must be answered in one place only.
In Q.No 1 to 5 answer either A or B only

Q.No	Question	Marks	CO	BL
Q.1(A)	Discuss in detail different android Flavors with example.	12M	1	2
OR				
Q.1(B)	Explain the following terms a.HAL b.ART	6M	1	2
		6M	1	2
Q.2(A)	How to create Alert Dialogues? Explain with example program.	12M	2	2
OR				
Q.2(B)	Explain the different types of Menus in Android.	12M	2	2
Q.3(A)	Illustrate the functions of Loader in Android application.	12M	3	3
OR				
Q.3(B)	Explain the following internet components in detail a. JSON b. HTTP API	6M	3	2
		6M	3	2
Q.4(A)	What are the Different File systems in Android application?	12M	4	2
OR				
Q.4(B)	Briefly explain about SQLite operations with necessary examples.	12M	4	2
Q.5(A)	How to implement App Widgets in android application with an example program.	12M	5	2
OR				
Q.5(B)	Discuss the Different types of Sensors with example.	12M	5	2

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Question Paper Code: 22MCAP112

MADANAPALLE INSTITUTE OF TECHNOLOGY & SCIENCE, MADANAPALLE
(UGC-AUTONOMOUS)
MCA II Year I Semester (R22) Supplementary End Semester Examinations, July - 2025
FUNDAMENTALS OF DATA SCIENCE

Time: 3Hrs**Max Marks: 60**

Attempt all the questions. All parts of the question must be answered in one place only.
In Q.No 1 to 5 answer either A or B only

Q.No	Question	Marks	CO	BL
Q.1(A)	a) Describe life cycle of Data Science with neat diagram.	6M	1	2
	b) Explain data Science Toolkit in python	6M	1	2
OR				
Q.1(B)	Define Exploratory Data Analysis (EDA) and how missing data and outliers are handled in EDA using python libraries.	12M	1	2
Q.2(A)	How simple and multiple linear regression model is used to predict a continuous target variable.	12M	2	2
OR				
Q.2(B)	What is meant by clustering and explain K-Means clustering with suitable example	12M	2	2
Q.3(A)	How to perform Data cleaning and preprocessing in noisy data using python libraries.	12M	3	3
OR				
Q.3(B)	Explain how to Deal with data inconsistencies and conflicts using python libraries.	12M	3	3
Q.4(A)	Explain the Perceptual and Cognitive Principles of data visualization.	12M	4	2
OR				
Q.4(B)	How to create geospatial visualization using GeoPandaslibrary discuss with relevant python code.	12M	4	3
Q.5(A)	Define feature extraction in Natural Language Processing and explain about bag-of-words and TF-IDF techniques in details	12M	5	4
OR				
Q.5(B)	Analyze the role of data science in healthcare and finance applications	12M	5	4

***** END*****

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Question Paper Code: 22MCAP113

MADANAPALLE INSTITUTE OF TECHNOLOGY & SCIENCE, MADANAPALLE
(UGC-AUTONOMOUS)
MCA II Year I Semester (R22) Supplementary End Semester Examinations, July - 2025
JAVA PROGRAMMING

Time: 3Hrs**Max Marks: 60**

Attempt all the questions. All parts of the question must be answered in one place only.

In Q.No 1 to 5 answer either A or B only

Q.No	Question	Marks	CO	BL
Q.1(A)	Define a Constructor and develop a Parameterized Constructor for sum of integer, float, double values	12M	1	2
OR				
Q.1(B)	Analyze the concept of Method Over loading in java and explain Method Overloading with a java Program?	12M	1	3
Q.2(A)	Develop a program to create interface "MyInterface" in this interface we have two method getDetails() and setDetails(). Implements this interface in another class named "MyClass".	12M	2	3
OR				
Q.2(B)	What is an exception? How are exceptions handled in Java programming? Explain with suitable program.	12M	2	2
Q.3(A)	Define a Generic Class and Explain the importance of Generic Class in java	12M	3	2
OR				
Q.3(B)	Explain The Life cycle of a Thread with a Neat Diagram and discuss various thread Life cycle methods with different Thread States?	12M	3	3
Q.4(A)	What is a Collection in java and write about collection interface?	12M	4	2
OR				
Q.4(B)	Identify various File writer classes and its constructors in java with suitable examples?	12M	4	3
Q.5(A)	Discuss javax. Swing package and develop a java program to create a frame layout with JLabel and JButton UI components.	12M	5	3
OR				
Q.5(B)	Examine Event Handling mechanisms in java, and analyze Event Delegation Model with Source and Action Listener?	12M	5	4
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Hall Ticket No:

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Question Paper Code: 22MCAP408

MADANAPALLE INSTITUTE OF TECHNOLOGY & SCIENCE, MADANAPALLE
(UGC-AUTONOMOUS)
MCA II Year I Semester (R22) Supplementary End Semester Examinations, July - 2025
DEEP LEARNING

Time: 3Hrs**Max Marks: 60**

Attempt all the questions. All parts of the question must be answered in one place only.
In Q.No 1 to 5 answer either A or B only

Q.No	Question	Marks	CO	BL
Q.1(A)	Explain the Types of Machine Learning Algorithms.	12 M	1	2
OR				
Q.1(B)	Explain the Neural Network layers with Feed Forward Propagation in detail.	12 M	1	2
Q.2(A)	Write short notes on the following activation functions: (i) ReLU (ii) LReLU (iii) PReLU	12M	2	3
OR				
Q.2(B)	Differentiate between Machine Learning and Deep Learning.	12M	2	4
Q.3(A)	Explain the Architecture Overview of CNN with neat diagram.	12M	3	2
OR				
Q.3(B)	Explain the Motivation, Layers, Filters, Parameter Sharing and Regularization techniques in CNN.	12M	3	3
Q.4(A)	Explain the concept of Contractive Auto-encoder in detail.	12M	4	3
OR				
Q.4(B)	Explain the Long Short-Term Memory (LSTM) Network in detail.	12M	4	2
Q.5(A)	Explain the following: (i) Boltzmann Machine (ii) Deep Boltzmann Machine	6M 6M	5	3
OR				
Q.5(B)	Explain Deep Belief Network in detail	12M	5	2

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Question Paper Code: 22MCAP410

MADANAPALLE INSTITUTE OF TECHNOLOGY & SCIENCE, MADANAPALLE
(UGC-AUTONOMOUS)
MCA II Year I Semester (R22) Supplementary End Semester Examinations, July - 2025
SOFTWARE QUALITY ASSURANCE AND TESTING

Time: 3Hrs**Max Marks: 60**

Attempt all the questions. All parts of the question must be answered in one place only.

In Q.No 1 to 5 answer either A or B only

Q.No	Question	Marks	CO	BL
Q.1(A)	Explain the term software testing. What are the different software testing strategies performed on a target software?	12M	1	3
OR				
Q.1(B)	(i). Explain how software quality assurance is ensured in a software firm.	6M	1	2
	(ii). Define Quality. Explain briefly Concept of Software Quality.	6M		
Q.2(A)	Analyze	4M	2	4
	(i). Guidelines for BVA			
	(ii). Steps in developing test cases using the decision table technique.	8M		
OR				
Q.2(B)	Explain about	6M	2	3
	(i). Functional testing.			
	(ii). Testing a function in context.	6M		
Q.3(A)	i. Differentiate between Functional and Non-functional testing. (4 Marks)	12M	3	2
	ii. Discuss the Database Testing in detail .(8 Marks)			
OR				
Q.3(B)	Explain different types of Non-functional testing.	12M	3	2
Q.4(A)	What do you mean by Software quality standards? Illustrate their essence as well as benefits.	12M	4	2
OR				
Q.4(B)	What is the relationship between quality, correctness, defects, and quality attributes?	12M	4	4
Q.5(A)	(i). Describe the major software quality assurance activities and indicate their importance.	8M	5	2
	(ii). What is the difference between reliability and safety.	4M		
OR				
Q.5(B)	Compare both the entry and exit levels of quality for individual QA alternatives. That is, what is the defect level before and after applying these specific QA alternatives?	12M	5	5

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Question Paper Code: 22MCAP415

MADANAPALLE INSTITUTE OF TECHNOLOGY & SCIENCE, MADANAPALLE
(UGC-AUTONOMOUS)
MCA II Year I Semester (R22) Supplementary End Semester Examinations, July - 2025
REINFORCEMENT LEARNING

Time: 3Hrs

Max Marks: 60

Attempt all the questions. All parts of the question must be answered in one place only.
In Q.No 1 to 5 answer either A or B only

Q.No	Question	Marks	CO	BL
Q.1(A)	With a neat diagram, explain Markov Decision Process.	12M	1	4
OR				
Q.1(B)	Explain the concept of Bellman equation with an example.	12M	1	3
Q.2(A)	Differences between the Monte-Carlo (MC) Learning and Temporal-Difference (TD) Learning.	12M	2	4
OR				
Q.2(B)	Describe the On-Policy TD Learning and Off-Policy Learning.	12M	2	3
Q.3(A)	Differentiate between DQN and Double Q learning.	12M	3	4
OR				
Q.3(B)	Discuss the Incremental Methods and Batch Methods.	12M	3	2
Q.4(A)	Explain Reinforcement Learning with Options in semi-Markov Decision Processes	12M	4	4
OR				
Q.4(B)	Illustrate the Integrated Architecture and Simulation-based Search	12M	4	3
Q.5(A)	Explain Proximal Policy Optimization (PPO) with an example.	12M	5	2
OR				
Q.5(B)	Describe steps in Double Q-Learning with an example.	12M	5	3

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Hall Ticket No:

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Question Paper Code: 22MBAP304

MADANAPALLE INSTITUTE OF TECHNOLOGY & SCIENCE, MADANAPALLE
(UGC-AUTONOMOUS)
MCA II Year I Semester (R22) Supplementary End Semester Examinations, July - 2025
E-COMMERCE & DIGITAL MARKETS

Time: 3Hrs**Max Marks: 60**

Attempt all the questions. All parts of the question must be answered in one place only.

In Q.No 1 to 5 answer either A or B only

Q.No	Question	Marks	CO	BL
Q.1(A)	Write a detail about business models with suitable examples.	12M	1	3
OR				
Q.1(B)	i) Discuss the role of IT in E-Commerce? Briefly discuss functional business systems.	6M	1	2
	ii) Detail about cross-functional enterprise systems & its applications.	6M		
			1	2
Q.2(A)	Identify the industry structure and the forces which determines industry attractiveness.	12M	2	2
OR				
Q.2(B)	Interpret in detail about E-Commerce Infrastructure with suitable examples.	12M	2	2
Q.3(A)	Assess the changes in supply chain management practices post-COVID-19.	12M	3	5
OR				
Q.3(B)	Explain in detail about the steps involved in building a Powerhouse Ecommerce Presence.	12M	3	2
Q.4(A)	Discuss the influence of social networks on e-commerce business models.	12M	4	2
OR				
Q.4(B)	Examine the ethical challenges posed by online auctions and media platforms.	12M	4	3
Q.5(A)	Compare and contrast e-markets and traditional markets.	12M	5	2
OR				
Q.5(B)	Design a clicks-and-bricks strategy for a hybrid e-commerce system.	12M	5	4

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Question Paper Code: 22MBAP501

MADANAPALLE INSTITUTE OF TECHNOLOGY & SCIENCE, MADANAPALLE
(UGC-AUTONOMOUS)
MCA II Year I Semester (R22) Supplementary End Semester Examinations, July - 2025
MANAGEMENT INFORMATION SYSTEMS

Time: 3Hrs

Max Marks: 60

Attempt all the questions. All parts of the question must be answered in one place only.
In Q.No 1 to 5 answer either A or B only

Q.No	Question	Marks	CO	BL
Q.1(A)	Explain the components of management information systems	12M	1	2
OR				
Q.1(B)	Explain the information systems for linking the enterprise	12M	1	2
Q.2(A)	Illustrate how database improve business performance and decision making	12M	2	3
OR				
Q.2(B)	Explain the perspectives on information systems	12M	2	2
Q.3(A)	Discuss the software development in the context of information systems	12M	3	2
OR				
Q.3(B)	Explain the system development life cycle	12M	3	2
Q.4(A)	Elucidate what value business organizations draw through security and control in the context of IS.	12M	4	3
OR				
Q.4(B)	Explain Office automation in Management Information System?	12M	4	2
Q.5(A)	Explain the framework for information security management.	12M	5	2
OR				
Q.5(B)	Explain internet-based security measures available for business organizations	12M	5	2

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