

Hall Ticket No:

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Question Paper Code: 20MCAP111

MADANAPALLE INSTITUTE OF TECHNOLOGY & SCIENCE, MADANAPALLE

(UGC-AUTONOMOUS)

MCAII Year I Semester (R20) Regular & Supplementary End Semester Examinations, March - 2023

FULL STACK WEB 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)	(a) What is the role of tables in HTML with example?	6M	1	2
	(b) What is the use of HTML Attributestag?	6M	1	2
OR				
Q.1(B)	What is CSS? Explain all its Types with example.	12M	1	1
Q.2(A)	Explain all the Data Types in Java script.	12M	2	3
OR				
Q.2(B)	Explain briefly the Java script Decision making and looping statements with example.	12M	2	1
Q.3(A)	Explain the Angular JS directives with example.	12M	3	3
OR				
Q.3(B)	Explain how to create animations in Angular JS.	12M	3	3
Q.4(A)	Explain Web servers with example?	12M	4	3
OR				
Q.4(B)	Explain all the components of Express Frame work.	12M	4	3
Q.5(A)	How to update the Database using Node JS.	12M	5	2
OR				
Q.5(B)	Explain the Architectural Structure of MERN Stack with neat diagram.	12M	5	3

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Question Paper Code: 20MCAP112

MADANAPALLE INSTITUTE OF TECHNOLOGY & SCIENCE, MADANAPALLE

(UGC-AUTONOMOUS)

MCA II Year I Semester (R20) Regular & Supplementary End Semester Examinations, March 2023

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)	Explain the Data Visualization plots and graphs.	12M	1	4
OR				
Q.1(B)	Discuss in detail about skewness and kurtosis with suitable diagrams.	12M	1	3
Q.2(A)	What is meant by confidence? Explain an apriori algorithm with an illustration.	12M	2	2
OR				
Q.2(B)	Write Elbow method and explain K-Means clustering with suitable example.	12M	2	1
Q.3(A)	Define classification. How logistic regression is useful for classification problem? Describe.	12M	3	2
OR				
Q.3(B)	What is ensemble method? Explain K-Nearest Neighbor Algorithm with suitable example.	12M	3	3
Q.4(A)	Explain moving average, weighted moving average and single exponential smoothing method with example.	12M	4	4
OR				
Q.4(B)	Discuss the Holt's method, Winter's method and AR(p) model	12M	4	3
Q.5(A)	Draw and explain the single layer perceptron and multi-layer perceptron for an example.	12M	5	2
OR				
Q.5(B)	What is meant by feed backward neural network? How feed backward neural network used in back propagation neural network? Illustrate.	12M	5	2

*** END***

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Question Paper Code: 20MCAP113

MADANAPALLE INSTITUTE OF TECHNOLOGY & SCIENCE, MADANAPALLE

(UGC-AUTONOMOUS)

MCAII Year I Semester (R20) Regular & Supplementary End Semester Examinations, March - 2023

CLOUD COMPUTING

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 the characteristics and disadvantages of cloud computing.	12M	1	2
	OR			
Q.1(B)	Illustrate and describe cloud service models	12M	1	3
Q.2(A)	(a) Analyze public, private and hybrid clouds.	6M	2	3
	(b) Explain the features of Amazon EC2.	6M	2	2
	OR			
Q.2(B)	(a) Explain in detail of Cloud Computing Architecture with neat diagram.	6M	2	2
	(b) Explain the architecture of Cloud Computing Stack	6M	2	2
Q.3(A)	What is virtualization? What are the types of VM?	12M	3	1
	OR			
Q.3(B)	Explain the concept of OpenStack	12M	3	2
Q.4(A)	Explain the concept of Data Management in Cloud computing.	12M	4	2
	OR			
Q.4(B)	What is SLA and explain different types of SLA?	12M	4	1
Q.5(A)	Explain in detail about Data Security and Storage.	12M	5	2
	OR			
Q.5(B)	Discuss detail on cloud Simulator	12M	5	2

*** END***

MADANAPALLE INSTITUTE OF TECHNOLOGY & SCIENCE, MADANAPALLE

(UGC-AUTONOMOUS)

MCA II Year I Semester (R20) Regular & Supplementary End Semester Examinations, March 2023

DATA WAREHOUSING AND DATA MINING

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) How can Data Mining help business analyst? (b) What are the Advantages of data Mining?	6M 6M	1	2												
OR																
Q.1(B)	Give Brief description of following: (a) Mining (b) regression (c) Clustering (d) Smoothing.	12M	1	2												
Q.2(A)	For the following given Transaction Data-set, Generate Rules using Apriori Algorithm. Consider the values as Support=50% and Confidence=75%	12M	2	4												
<table border="1" style="margin: auto;"><thead><tr><th>Transaction ID</th><th>Items Purchased</th></tr></thead><tbody><tr><td>1</td><td>Bread, Cheese, Egg, Juice</td></tr><tr><td>2</td><td>Bread, Cheese, Juice</td></tr><tr><td>3</td><td>Bread, Milk, Yogurt</td></tr><tr><td>4</td><td>Bread, Juice, Milk</td></tr><tr><td>5</td><td>Cheese, Juice, Milk</td></tr></tbody></table>					Transaction ID	Items Purchased	1	Bread, Cheese, Egg, Juice	2	Bread, Cheese, Juice	3	Bread, Milk, Yogurt	4	Bread, Juice, Milk	5	Cheese, Juice, Milk
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5	Cheese, Juice, Milk															
OR																
Q.2(B)	Discuss the approaches for mining multi level association rules from the transactional databases. Give relevant example?	12M	2	3												
Q.3(A)	What is prediction? Explain about Linear regression method?	12M	3	1												
OR																
Q.3(B)	Describe the data classification process with a neat diagram. How does the Naive Bayesian classification works? Explain?	12M	3	3												
Q.4(A)	Explain about Types of Data in Cluster Analysis with Example?	12M	4	3												
OR																
Q.4(B)	What is the goal of clustering? Explain the types of clustering algorithms?	12M	4	2												

- Q.5(A) Explain the various types of web mining? 12M 5 2
- OR
- Q.5(B) Discuss about the grid based methods? 12M 5 3

***** END*****

Hall Ticket No:

Question Paper Code: 20MCAP404

MADANAPALLE INSTITUTE OF TECHNOLOGY & SCIENCE, MADANAPALLE
(UGC-AUTONOMOUS)

MCAII Year I Semester (R20) Regular & Supplementary End Semester Examinations, March - 2023

AGILE SOFTWARE DEVELOPMENT PROCESS

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 about SDLC and its variations in detail.	12M	1	2
	OR			
Q.1(B)	With a neat sketch, describe the different phases of the Unified Process Life Cycle	12M	1	2
Q.2(A)	Write a note on the following: (i) Object Oriented Modeling (ii) Documenting System Requirements	6M 6M	2	2
	OR			
Q.2(B)	Explain about Use Case and Sequence diagram with the help of examples.	12M	2	2
Q.3(A)	Explain with the help of suitable example how the Agile helps to build quality products.	12M	3	2
	OR			
Q.3(B)	What is meant by User stories? How are they used in Agile. Discuss with the help of suitable example.	12M	3	2
Q.4(A)	What is EVO? Explain in detail.	12M	4	2
	OR			
Q.4(B)	Explain about Agile Unified Process.	12M	4	2
Q.5(A)	Explain about Continuous Delivery and Continuous Integration in DevOps.	12M	5	2
	OR			
Q.5(B)	Explain about Design organization and architecture outcomes by integrating operations.	12M	5	2

*** END***

MADANAPALLE INSTITUTE OF TECHNOLOGY & SCIENCE, MADANAPALLE

(UGC-AUTONOMOUS)

MCA II Year I Semester (R20) Regular & Supplementary End Semester Examinations, March - 2023

MACHINE 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)	Summarise different perspectives and issues in Machine Learning.	12M	1	2
OR				
Q.1(B)	Explain Maximum Likelihood Hypothesis for predicting probabilities	12M	1	2
Q.2(A)	Why pre-processing of data was needed? Explain in detail about linear regression with an example.	12M	2	3
OR				
Q.2(B)	How support vector machine is helpful in classification? Discuss.	12M	2	3
Q.3(A)	Explain in detail about Belief propagation.	12M	3	2
OR				
Q.3(B)	How Hidden Markov model apply to in the application of speech recognition? Illustrate the process.	12M	3	3
Q.4(A)	Illustrate the process of Hierarchical Clustering in detail with an example.	12M	4	3
OR				
Q.4(B)	List out the disadvantages of K -Means clustering. Elaborate Functioning of Gaussian model with an example.	12M	4	2
Q.5(A)	Discuss on neural network representation with suitable diagram.	12M	5	2
OR				
Q.5(B)	How back propagation is used in multi-layer perceptron? Explain with an illustration and example.	12M	5	3

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Hall Ticket No:

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Question Paper Code: 20MCAP410

MADANAPALLE INSTITUTE OF TECHNOLOGY & SCIENCE, MADANAPALLE
(UGC-AUTONOMOUS)

MCA II Year I Semester (R20) Regular & Supplementary End Semester Examinations, March - 2023
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 different types of software testing.	12M	1	2
	OR			
Q.1(B)	Describe the essential ingredients of a good team building.	12M	1	2
Q.2(A)	Discuss the system integration techniques.	12M	2	2
	OR			
Q.2(B)	Discus about the acceptance testing.	12M	2	1
Q.3(A)	Describe in detail about the functional testing.	12M	3	1
	OR			
Q.3(B)	Differentiate between stress test and load test.	12M	3	4
Q.4(A)	Mention the five views of software quality and explain them.	12M	4	2
	OR			
Q.4(B)	Describe the ISO 9126 quality characteristics.	12M	4	2
Q.5(A)	Discuss the root cause analysis for defect prevention.	12M	5	2
	OR			
Q.5(B)	Mention the new techniques for risk identification and explain in detail.	12M	5	2

***** END*****

Hall Ticket No:

Question Paper Code: 20MCAP414

MADANAPALLE INSTITUTE OF TECHNOLOGY & SCIENCE, MADANAPALLE

(UGC-AUTONOMOUS)

MCA II Year I Semester (R20) Regular & Supplementary End Semester Examinations, March - 2023

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 about learning algorithms and machine learning algorithms	12M	1	2
	OR			
Q.1(B)	Illustrate multilayer perceptron and explain.	12M	1	2
Q.2(A)	Explain any two activation functions used in neural networks	12M	2	2
	OR			
Q.2(B)	What refers to width and depth of neural networks, explain.	12M	2	2
Q.3(A)	Describe about layers in CNN with examples.	12M	3	3
	OR			
Q.3(B)	Illustrate AlexNET architecture and explain.	12M	3	2
Q.4(A)	Illustrate encoder-decoder architecture and explain.	12M	4	3
	OR			
Q.4(B)	Explain the working of Bidirectional RNN	12M	4	2
Q.5(A)	Describe the features of Deep Belief Networks.	12M	5	2
	OR			
Q.5(B)	Illustrate under-complete auto-encoder and explain.	12M	5	3

*** END***

MADANAPALLE INSTITUTE OF TECHNOLOGY & SCIENCE, MADANAPALLE

(UGC-AUTONOMOUS)

MCA II Year I Semester (R20) Regular & Supplementary End Semester Examinations, March 2023

SOFTWARE PROJECT MANAGEMENT

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)	(i) Explain the activities involved to identify the scope and objectives of a project.	7M	1	2
	(ii) Discuss categories of software projects.	5M		
	OR			
Q.1(B)	(i) Explain the problems with software management.	6M	1	2
	(ii) Describe the various activities covered by software project management.	6M		
Q.2(A)	Discuss about Software Effort Estimation Techniques.	12M	2	2
	OR			
Q.2(B)	What is risk management? How the risks are evaluated in software projects? Explain.	12M	2	2
Q.3(A)	Illustrate step wise planning activities for a project with neat diagram.	12M	3	3
	OR			
Q.3(B)	Explain with an example how critical path can be identified in precedence networks.	12M	3	3
Q.4(A)	(i) Explain in detail about creating the frame work for monitoring & control.	6M	4	2
	(ii) Discuss about Earned Value Analysis.	6M		
	OR			
Q.4(B)	(i) Illustrate Review process model with a neat sketch.	6M	4	2
	(ii) Write a note on change control procedures.	6M		
Q.5(A)	Explain various models of motivation.	12M	5	2
	OR			
Q.5(B)	List the factors that are involved in making a team. Explain the characteristics.	12M	5	2

*** END***