Hall Ticket No: | | | | | | | | | | | Question Paper Code: 18MCAP108

MADANAPALLE INSTITUTE OF TECHNOLOGY & SCIENCE, MADANAPALLE

(UGC-AUTONOMOUS)

MCA(2Yrs) I Year I Semester (R18) Supplementary End Semester Examinations – October 2020

(Regulations: R18)

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 Part-A or B only

Q.1(A)	UX Designers are part of the full product design process justify your answer.	12M
	OR	
Q.1(B)	Explain the following in detail. i. Differences and similarities between Scrum and Agile. ii. Different roles in Scrum.	12M
Q.2(A)	i. Create HTML which uses CSS3 that gives all H1 and H2 elements a padding of 0.5 ems; a grooved border style and a margin of 0.5 ems. ii. With the neat block diagram explain the CSS Box Model.	4M 8M
	OR	
Q.2(B)	Explain the following i. Purpose of pseudo-elements. ii. How pseudo classes are different from pseudo-elements. iii. Different sorting methods used in the cascading order.	 4M 4M 4M
Q.3(A)	Write a java script program which reads number and check whether that number is strong or not?	12M
	OR	
Q.3(B)	i. Explain Bootstrap Grid System. ii.How can you create Fixed Layout with Bootstrap? Explain With a program.	6M 6M
Q.4(A)	i. Explain the difference between NOSQL and Relational database. ii. Discuss the different types of NOSQL databases.	6M 6M
	OR	
Q.4(B)	How CRUD works and Explain with Executing Operations and Examples	12M
Q.5(A)	How to build a simple session-based authentication system with NodeJS.	12M
	OR	
Q.5(B)	Explain in brief. Basic and Digest Authentication	12M

***** END*****

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MCA(2Yrs) I Year I Semester (R18) Supplementary End Semester Examinations – October 2020

(Regulations: R18)

INTRODUCTION TO 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 Part-A or B only

Q.1(A)	i. What is Maximum likelihood in Machine Learning? ii. Apply the Maximum likelihood to find a best friend with five properties.	6M 6M
	OR	
Q.1(B)	i. Explain Bayes theorem. ii. An entomologist spots what might be a rare subspecies of beetle, due to the pattern on its back. In the rare subspecies, 98% have the pattern, or P(Pattern | Rare) = 98%. In the common subspecies, 5% have the pattern. The rare subspecies accounts for only 0.1% of the population. How likely is the beetle having the pattern to be rare, or what is P(Rare | Pattern)?	6M 6M
Q.2(A)	Explain various classification methods with an examples.	12M
	OR	
Q.2(B)	What is a Decision Tree and how it is used in Machine Learning? Justify with an example.	12M
Q.3(A)	Discuss about Bayesian networks. Write its applications.	12M
	OR	
Q.3(B)	i. Explain Bayesian belief Networks. ii. Discuss the application of Bayesian belief Networks.	6M 6M
Q.4(A)	i. Explain Hierarchical clustering in detail. ii. Discuss the real world examples of hierarchical clustering.	6M 6M
	OR	
Q.4(B)	Explain Agglomerative clustering in detail with the impact on real world	12M
Q.5(A)	Write the step by step procedure to implement the neural networks	12M
	OR	
Q.5(B)	Define Artificial Intelligence? Discuss real world examples where Artificial intelligence can be applied	12M

***** END*****

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MCA(2Yrs) I Year I Semester (R18) Supplementary End Semester Examinations – October 2020

(Regulations: R18)

COMPUTER NETWORKS

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 Part-A or B only

Q.1(A)	Discuss different layers of OSI model.	12M
	OR	
Q.1(B)	i. What is topology? Discuss different types of topologies.	6M
	ii. Illustrate the functionality of TCP/IP model.	6M
Q.2(A)	What is error control? Discuss different error control methods.	12M
	OR	
Q.2(B)	i. Elaborate the ALOHA in detail.	6M
	ii. Assume that, in a Stop-and-Wait ARQ system, the bandwidth of the line is 1 Mbps, and 1 bit takes 20 ms to make a round trip. What is the bandwidth-delay product? If the system data frames are 1000 bits in length, what is the utilization percentage of the link?	6M
Q.3(A)	i. Describe ICMP protocol.	4M
	ii. Discuss the header format of IP datagram in detail.	8M
	OR	
Q.3(B)	i. Differentiate between IPv4 and IPv6 packet headers.	6M
	ii. Define switching. Discuss datagram networks in detail.	6M
Q.4(A)	i. Describe UDP protocol in detail.	6M
	ii. What is Domain Name System (DNS)? Explain in detail.	6M
	OR	
Q.4(B)	i. What is port number? Discuss their types in detail.	6M
	ii. Write short notes on FTP and SMTP.	6M
Q.5(A)	i. Differentiate the Symmetric and Asymmetric keys.	4M
	ii. Demonstrate the RSA algorithm with suitable example.	8M
	OR	
Q.5(B)	Demonstrate the functionalities of Firewall and its types.	12M

***** END*****