Hall Ticket Number :										

R-19

Code: 19B522T

M.Tech. II Semester Regular Examinations November 2020

Soft Computing

(Computer Science and Engineering)

Max. Marks: 60 Time: 3 Hours

Answer *any five* questions from the following (5 x 12 = 60 Marks)

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			Marks	CO	Blooms Level
1.	a)	Explain with an example perceptron learning rule?	6M	CO1	L2
	b)	List the applications of soft computing?	6M	CO1	L1
2.		What is an expert system? Explain in brief components of expert system. What are the applications of expert system?	12M	CO1	L3
3.		Analyze the importance of approximate reasoning in fuzzy logic and justify with your explanation	12M	CO2	L4
4.	a)	Explain error back propagation training algorithm with the help of a flow chart?	6M	CO3	L5
	b)	What is supervised learning and how it is differ from unsupervised learning?	6M	CO3	L2
5.	a)	Explain the RBF (Radial Base Function) Network and give the comparison between RBF and MLP (Multilayer perceptron)?	6M	CO3	L5
	b)	Write an algorithm for training Adaptive Linear Neuron (Adaline)	6M	CO3	L3
6.		Describe the steps involved in unit commitment problem solving using GA application.	12M	CO4	L4
7.		Mention the applications of GA in Machine Learning?	12M	CO4	L2
8.		Identify recent trends in deep learning and explain with suitable examples?	12M	CO5	L2

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M.Tech. II Semester Regular Examinations November 2020

Advanced Algorithms

(Computer Science and Engineering)

Max. Marks: 60 Time: 3 Hours

Answer *any five* questions from the following (5 x 12 = 60 Marks)

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		Marks	CO	Blooms Level
1.	Explain about different Asymptotic notations with examples.	12M	CO1	L2
2.	Generate time complexity for the following equation using recursion trees. $T(n) = T(n/3) + T(2n/3) + \theta(n)$	12M	CO1	L6
3.	Write Johnson's algorithm for sparse graphs and derive its time complexity.	12M	CO2	L3
4.	Discuss about Primality Testing.	12M	CO3	L2
5.	What is meant by Integer factorization? Explain.	12M	CO3	L2
6.	Explain about Naïve String matching algorithm. Illustrate with an example.	12M	CO4	L4
7.	Describe Boyer-Moore string matching algorithm with an example.	12M	CO4	L1
8.	Explain about the following NP problems. a) Clique b) Sum of subsets c) Hamiltonian Cycle	12M	CO5	L2

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M.Tech. II Semester Regular Examinations November 2020

Data Preparation and Analysis

(Computer Science and Engineering)

Max. Marks: 60 Time: 3 Hours

Answer *any five* questions from the following (5 x 12 = 60 Marks)

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			Marks	CO	Blooms Level
1.	a)	Describe briefly about Sources of data and explain how to process for making sense of data.	8M	1	L1
	b)	Explain about Central tendency.	4M	1	L2
2.	a)	Illustrate different data transformation methods with examples	6M	1	L3
	b)	Discuss about various data formats in detail.	6M	1	L2
3.	a)	Explain comparison of segmentation methods based on actual data	6M	2	L2
	b)	Explain about Frequency Distribution	6M	2	L2
4.	a)	Describe briefly about Association Rules.	10M	3	L2
	b)	Define Clustering.	2M	3	L1
5.	a)	Discuss briefly about Clustering methods in analysis of data.	10M	3	L2
	b)	Define Comparative Statistics	2M	3	L1
6.	a)	Explain about Linear Regression in detail.	6M	4	L2
	b)	Give brief description about geo-located data	6M	4	L2
7.	a)	Illustrate the difference between regression and correlation.	6M	4	L3
	b)	Discuss about Logistic Regression in detail.	6M	4	L2
8.	a)	Explain about network analysis in detail.	6M	5	L2
	b)	Give brief description about Preparation Tools to Visualization of data	6M	5	L2

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Hall Ticket Number :										

R-19

Code: 19B52DT

M.Tech. II Semester Regular Examinations November 2020

Human Computer Interaction

(Computer Science and Engineering)

Max. Marks: 60 Time: 3 Hours

Answer *any five* questions from the following (5 x 12 = 60 Marks)

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			Marks	CO	Blooms Level
1.	a)	What are mental models, and why are they important in interface design?	6M	CO1	L1
	b)	Define what is Interaction? List and explain various number of common interface styles.	6M	CO1	L1
2.		Explain how do you think new, fast, high-density memory devices and quick processors have influenced recent developments in HCI? Do they expand the range of applications of computer systems?	12M	CO1	L2
3.	a)	Give a proper definition of Design? Write the Goals and Constraints of Design?	6M	CO2	L1
	b)	What is Interaction? Discuss the Role of prototyping with a neat diagram	6M	CO2	L2
4.		Discuss how Software life cycle is important? Illustrate the activities in the waterfall model of the software life cycle with a neat sketch.	12M	CO2	L4
5.		List and Discuss organizational issues that affect the acceptance and relevance of information and communication systems.	12M	CO3	L2
6.	a)	What are the mobile platforms available list and explain them	6M	CO4	L1
	b)	Discuss what are the new rules to be consider for creating a mobile strategy?	6M	CO4	L6
7.		Explain about the typical flow of information on mobile devices in the mobile design tools.	12M	CO4	L2
8.		Write the best practices for Drag and Drop: Module, List, Object and Action	12M	CO5	L2

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