Subject Code: H0501/R13

M. Tech –II Semester Regular/ Supply Examinations, October, 2015
DATA WAREHOUSING AND DATA MINING.
(Common to CS and CS&E)

Time: 3 Hours   **Max Marks: 60**

Answer any FIVE questions
All questions carry EQUAL marks
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1. a) What are the Steps involved in data preprocessing
   b) What is the Data quality? Discuss.

2. a) What is the linear SVM? How it is used in classification?
   b) Discuss the model over-fitting.

3. a) Explain the concept hierarchy.
   b) Discuss the Apriori algorithm with an example.

4. a) Discuss the Naïve Bayesian Classification with an example.
   b) Explain the ANN (Artificial Neural Networks) classification.

5. a) Discuss the F-P Growth Algorithm with an example
   b) Discuss the cluster evaluation

6. a) Explain the Agglomerative Hierarchical clustering with an example
   b) Explain the DB Scan clustering

7. a) Discuss the Proximity based outlier detection
   b) Discuss the Density based outlier detection.

8. Write short notes on the following
      a) Web usage mining
      b) search engines,

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Subject Code: H4304/R13

M. Tech –II Semester Regular/ Supply Examinations, October, 2015
CUSTOM POWER DEVICES
(Common to PE, P&ID, PE&ED, PE&D, EM&D and PE&PS)

Time: 3 Hours   Max Marks: 60

Answer any FIVE questions
All questions carry EQUAL marks
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1 a) Define and explain flicker, impulse, spike and swell.
   b) What are harmonics? Discuss the effect of voltage harmonics on electrical machines.

2 a) Define Power Quality.
   b) Explain in detail the Super Conducting Magnetic Energy Storage systems.

3 List and explain different types of multilevel inverters. Draw and explain the schematic diagram of a five-level cascaded H-bridge inverter.

4 With a neat schematic diagram and operating characteristics, explain the operation of a FC-TCR type var compensator.

5 What are the advantages of static var compensators? Discuss the operation of Static Series Compensators.

6 a) What is hybrid source transfer switch? Explain its operation.
   b) What are the advantages of solid state current limiters compared to conventional current limiters? Discuss.

7 a) What is the need for current limiter? Discuss the operation of a Solid state current limiter.
   b) What is the need for Interline Power Flow Controller (IPFC)? Explain its operation.

8 a) Draw and explain the schematic diagram of a right shunt UPQC.
   b) How UPQC protects the load from harmonic voltages? Discuss.

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Subject Code: H4503/R13

M. Tech –II Semester Regular/ Supply Examinations, October, 2015
WIRELESS COMMUNICATION AND NETWORKS
(Common to SSP, DIP, CE&SP, IP, C&SP, SP&C, M&CE, DECS, E&CE, CS and DECE)

Time: 3 Hours   Max Marks: 60

Answer any FIVE questions
All questions carry EQUAL marks
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1	a.	Mention the significance of frequency reuse in cellular networks. Explain about frequency reuse strategies.	6M
	b.	Distinguish between fixed channel assignment and dynamic channel assignment	6M
2	a.	From the signal coverage point of you explain ground incident angle, elevation angle, ground reflection and reflection point? incident angle, elevation angle, ground reflection and reflection point?	6M
	b.	If h1 = 50mt, h2 = 3mt, d = 5Km, H = 100m use approximate method find incident angle, elevation angle, ground reflection and reflection point?	6M
3	a.	How the received signal strength is predicted using the free space propagation model? Explain	6M
	b.	Name some of the outdoor propagation models?	6M
4	a.	Compare coherence bandwidth and coherence time.	6M
	b.	What is the need for link calculation? Explain with suitable example	6M
5	a.	Explain the Fundamental concept of of Equalization	6M
	b.	Explain Maximum Likelihood Sequence Estimation (MLSE) Equalizer	6M
6	a.	What are the Practical Space Diversity Consideration?	6M
	b.	Explain how Inter Symbol Interference, and cochannel interference is caused and how they are eliminated.	6M
7	a.	What are the Advantages and disadvantages of Wireless Local Area Networks	6M
	b.	Explain, When does a WLAN become a personal area network (PAN)?	6M
8		Write short notes on the following	
		a. IEEE 802.16 and its enhancements	
		b. Blocking probability	6+6M

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