

Roll No. \_\_\_\_\_

**23728**

**M. Tech. 1st Semester (Artificial  
Intelligence and Data Science)  
Examination – February, 2022**

**DATA MINING & BIG DATA ANALYTICS**

**Paper : 21MTA121C3**

**Time : Three Hours ]**

**[ Maximum Marks : 100**

*Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.*

**Note :** Attempt *five* questions in all, selecting *one* question from each Unit. Question No. 1 is compulsory. All questions carry equal marks.

**1.** Write short notes on the following : 5 × 4 = 20

- (a) Data visualization
- (b) Clustering
- (c) Digital data
- (d) Hive shell

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UNIT - I

2. (i) Define Data Mining. Explain different types of Data Mining Techniques in detail. 10
- (ii) What are the applications and issues in Data Mining? 10
3. Explain the following:
- (i) Multilevel pattern mining 10
- (ii) Multidimensional space 10

UNIT - II

4. (i) What is Bayesian classification and how does it works? 10
- (ii) What is Lazy Learners? Explain in detail. 10
5. Describe the following:
- (i) WEKA features 10
- (ii) Partitioning methods of clustering 10

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UNIT - III

6. Define Big Data. Explain challenges for Big Data. Also explain modern data analytic tools. 20
7. Describe the concept of Hadoop Data File system. 20

UNIT - IV

8. What is Map Reduce Technique? What type of input format does map reduce accept. 20
9. Describe the following: 10 + 10 = 20
- (i) Pig
- (ii) Hbase

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