Paper : DSE-A-2
(Data Mining and its Application)
Full Marks : 50

Answer *question no.* 1 and *any four* questions from the rest.

1. Answer *any five* questions : 2×5
   (a) What do you mean by Classification?
   (b) What is the difference between Data Mining and Data Science?
   (c) What is binning?
   (d) What is Data cleaning?
   (e) What is the difference between Text mining and Web mining?
   (f) What do you mean by Multi-Class Classification?
   (g) What is the need for Data Integration?
   (h) What do you mean by Data Reduction?

2. (a) What do you mean by Activation function? Explain with example.
   (b) Explain the need of performing Data Visualization.
   (c) Distinguish between Regression and Classification. 2+4+4

3. (a) What do you mean by clustering?
   (b) State and explain K-means algorithm for clustering.
   (c) Discuss the drawbacks of K-means algorithm. 2+6+2

4. (a) Differentiate between Supervised and Unsupervised Learning.
   (b) Describe Classification as a two-step process. 5+5

5. (a) Differentiate between Parametric and Non-Parametric Learning.
   (b) Explain the need of dividing the data set into a training set and a test set. 5+5

6. (a) Discuss the importance of Data cleaning in Data mining.
   (b) Discuss different Data Extraction Methods in Data mining. 4+6

Please Turn Over

7. (a) Explain the components of Data Warehouse with proper diagram.

   (b) Discuss the importance of Data Warehousing.

   (c) What are the drawbacks of Decision Support System?   3+3+4

8. Write short notes on *any two* :   5×2

   (a) Neural Networks

   (b) Discriminant Analysis

   (c) Over-fitting and Under fitting

   (d) Data pre-processing.

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