

M.Tech. Computer Science & Engineering (CBCS Pattern) Semester - I  
**PCSS141 / PCSS14(A) - Data Warehousing and Data Mining**

P. Pages : 1

Time : Three Hours



**GUG/S/23/10944**

Max. Marks : 70

- Notes :
1. All questions carry equal marks.
  2. Due credit will be given to neatness and adequate dimensions.
  3. Assume suitable data wherever necessary.
  4. Solve **any five** questions.

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|-----------|----|---|----------|
| <b>1.</b> | a) | Explain data mining as a step-by-step process of knowledge discovery. Mention the functionalities of Data mining. | <b>7</b> |
|           | b) | What is data visualization and data transformation? Explain with examples.  | <b>7</b> |
| <b>2.</b> | a) | What are OLAP operations in the multidimensional data model? Explain.   | <b>7</b> |
|           | b) | Explain about evaluating the performance of a classifier.   | <b>7</b> |
| <b>3.</b> | a) | Discuss in detail about agglomerative hierarchical clustering.  | <b>7</b> |
|           | b) | Explain about neural network and mining.  | <b>7</b> |
| <b>4.</b> | a) | What are summary statistics? Explain.   | <b>7</b> |
|           | b) | Explain about text mining.  | <b>7</b> |
| <b>5.</b> | a) | What is data preprocessing? Explain in detail.  | <b>7</b> |
|           | b) | How to build a decision tree? Explain.  | <b>7</b> |
| <b>6.</b> | a) | Explain in detail customer relationship management in e-business world.   | <b>7</b> |
|           | b) | What is cluster analysis? Explain different types of clustering.  | <b>7</b> |
| <b>7.</b> | a) | Explain frequent item set generation in the Apriori algorithm.  | <b>7</b> |
|           | b) | What are the methods for expressing attribute test conditions? Explain.   | <b>7</b> |
| <b>8.</b> | a) | Describe the basics of K-means algorithm and explain.   | <b>7</b> |
|           | b) | Explain the web data mining architecture.   | <b>7</b> |

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