Time: Three hours

Maximum: 75 marks

PART A — $(10 \times 2 = 20 \text{ marks})$

Answer any TEN questions.

- 1. What are the advantages of time series analysis?
- 2. Write a note on prediction.
- 3. What is sequence discovery?
- 4. Define: "Hypothesis Testing".
- 5. Mention the advantages of neural networks.
- 6. Show the example of activation functions in neural networks.
- 7. What are the uses of ID3?
- 8.' Give the purpose of C4.5 in decision tree.
- 9. State the clustering with genetic algorithms.
- 10. What do you mean by divisive clustering?
- 11. Define: "Data Parallelism".
- 12. What are generalized association rules?

PART B — $(5 \times 5 = 25 \text{ marks})$

Answer any FIVE questions.

- 13. Summarize the major issues of data mining.
- 14. What are the data mining from a database perspectives? Explain.
- 15. Distinguish between the regression and correlation.
- 16. Describe the regression in statistical-based algorithms.
- 17. Elaborate the simple approach of distance-based algorithms.
- 18. Bring out the minimum spanning tree in partitional algorithms.
- 19. Write down the measuring the quality of rules in association rules.

PART C —
$$(3 \times 10 = 30 \text{ marks})$$

Answer any THREE questions.

- 20. Outline the basic data mining tasks in detail.
- 21. Discuss the Bayes theorem in statistical perspective on data mining.

- 22. Illustrate the K nearest neighbors in distance-based algorithms.
- 23. Demonstrate the PAM algorithm in partitional algorithms.
- 24. Examine the large itemsets in association rules.