LOYOLA COLLEGE (AUTONOMOUS), CHENNAI – 600 034

B.C.A. DEGREE EXAMINATION – **COMPUTER APPLICATIONS**

SIXTH SEMESTER – **APRIL 2022**

UCA 6502 – DATA MINING

Date: 17-06-2022   Dept. No.   Max. : 100 Marks
Time: 01:00 PM - 04:00 PM

PART-A

ANSWER ALL THE QUESTIONS: **(10x2=20)**

1. Define Data mining.

2. State on pre-pruning.

3. What is Association rule?

4. Write any two applications of Data mining.

5. What are Outliers?

6. Define Clustering.

7. What do you understand by anomaly?

8. List any two approaches for anomaly detection.

9. What is Testing?

10. State on Hypothesis testing.

PART-B

ANSWER ALL THE QUESTIONS: **(5x8=40)**

11. a) Discuss about classification. Give example.
    (OR)
    b) Bring out the general framework for Classification.

12. a) Write the basic concept of Association Rule mining.
    (OR)
    b) Explain about FP-growth algorithm with example.

13. a) Discuss about Prototype-Based Clustering.
    (OR)
    b) Illustrate on Density based clustering method.

14. a) Briefly discuss about Proximity based Approaches for anomaly detection.
    (OR)
    b) Write short notes on One-class classification for anomaly detection.

15. a) Write a brief note on how the statistical testing used for cluster analysis.
    (OR)
    b) How do you apply statistical testing for anomaly detection?

1

PART-C

ANSWER ANY TWO QUESTIONS: **(2x20=40)**

16. a) Discuss in detail about various data mining tasks. **(10)**

    b) Explain the concept of Nearest Neighbor algorithm. **(10)**

17. a) Explain about the Apriori algorithm for finding frequent item sets with an example. **(10)**

    b) Discuss the key features of methods adopted for outlier detection. **(10)**

18. a) Illustrate on evaluation of anomaly detection. **(10)**
    b) Discuss in detail about Hypothesis testing. **(10)**

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