

Reg. No.: .....



W6810

Name: .....

**University of Kerala**

Third Semester FYUGP Degree Examination, November 2025

Discipline Specific Core Course

**COMPUTER SCIENCE**

**UK3DSCCSC209 - Data Mining Concepts and Techniques**

Academic Level: 200-299

2024 Admission

**Time: 1 Hour 30 Minutes(90 Mins.)**

**Max. Marks: 42**

**Part A. 6 Marks.Time:6 Minutes.(Cognitive Level:Remember(RE)/Understand(UN)) Objective Type. 1 Mark  
Each.Answer all questions**

| Qn No. | Question                                                                 | CL | CO |
|--------|--------------------------------------------------------------------------|----|----|
| 1      | Expand OLAP.                                                             | RE | 3  |
| 2      | Identify the function to replace missing values with zeros in a dataset. | RE | 1  |
| 3      | _____ algorithm classifies based on nearest data points.                 | UN | 3  |
| 4      | Describe the meaning of "Frequent pattern".                              | UN | 4  |
| 5      | Why is data pre-processing necessary in data mining?                     | UN | 1  |
| 6      | Define business intelligence?                                            | UN | 2  |

**Part B.8 Marks.Time:24 Minutes.(Cognitive Level:Understand(UN)/Apply(AP))Short Answer. 2 marks each.Answer all questions**

| Qn No. | Question                                                                   | CL | CO |
|--------|----------------------------------------------------------------------------|----|----|
| 7      | Describe any two applications of data mining.                              | UN | 1  |
| 8      | Explain why correlation analysis is needed after mining association rules. | UN | 4  |
| 9      | Differentiate between Prior probability and Posterior Probability          | AP | 3  |
| 10     | Apply the concept of data mining in the field of education.                | AP | 1  |

**Part C. 28 Marks.Time:60 Minutes (Cognitive Level:Apply(AP)/Analyse(AN)/Evaluate(EV)/Create(CR)) Long Answer.7 marks each.Answer all 4 Questions choosing among options \* within each question**

| Qn No. | Question | CL | CO   |
|--------|----------|----|------|
| 11     | A)       | AP | 1, 1 |

| Qn No. | Question                                                                                                                                                                                                                                                                                                        | CL | CO   |
|--------|-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|----|------|
|        | <p>Apply the data mining process to a real-world business problem of your choice. Explain each stage of the process.</p> <p>OR</p> <p>B)</p> <p>Imagine that you need to analyze the sales of a company, You noted that many tuples have no values .How can yo filling that missing values for attributes ?</p> |    |      |
| 12     | <p>A)</p> <p>Analyze various issues regarding classification and prediction.</p> <p>OR</p> <p>B)</p> <p>Analyse how data reduction and data warehousing work together to support Business Intelligence.</p>                                                                                                     | AN | 3, 2 |
| 13     | <p>A)</p> <p>Describe on FP growth approach for mining frequent item set?</p> <p>OR</p> <p>B)</p> <p>Explain the working of naïve Bayesian classifier?</p>                                                                                                                                                      | EV | 4, 3 |
| 14     | <p>A)</p> <p>Demonstrate an appropriate method to clean the given dataset:<br/>[12, 18, 25, 30, 32, 45,19, 50, 58, 62, 70]</p> <p>OR</p> <p>B)</p> <p>Discuss the implications of Data warehousing architecture</p>                                                                                             | CR | 2, 3 |