Progressive Education Society's
Modern College of Arts, Science & Commerce Ganeshkhind, Pune – 16
(Autonomous)
End Semester Examination: MAR/APR 2025
Faculty: Commerce

Program: BBA(Computer Application) **Semester: VI** **SET: A**
Program (Specific): BBACA07 **Course Type:CCT-1**
Class: TYBBACA **Max.Marks: 70**
Name of the Course: Recent Trends in Information Technology
Course Code: 24-BBACA361 **Time: 3Hr**
Paper: -

Instructions to the candidate:

1) *There are 4 sections in the question paper. Write each section on separate page.*
2) *All Sections are compulsory.*
3) *Figures to the right indicate full marks.*
4) *Draw a well labelled diagram wherever necessary.*

Q1) Answer the following (MCQ) **[10 x 1 =10 marks]**

1. Which is data warehousing tools:
   a)Word b)Excel c)Microsoft Azure d)Powerpoint

2. Who is known as the -Father of AI?
   a) Fisher Ada b)Alan Turing c)John McCarthy d)Allen Newell

3. _____ is NOT an application of AI.
   a)Robotics b)Dancing c)Gaming d)Speech recognization

4. Which of the following strategy is commonly known as a blind search?
   a)Simple reflex search b) Informed search
   c) Uninformed search d) reflex search

5. Which of the following artificial intelligence algorithm enforces a fixed depth limit on nodes?
   a) Bidirectional search b) Iterative deepening search
   c) Depth-first search d) Depth-limited search

6. Uniform-cost search expands the node n with the
   a)Lowest path cost b) Heuristic cost c) Highest path cost d)Average path cost

7. OLAP stands for
   a) Online Analytical Processing b)Online Transaction Processing
   c) Online Analysis Processing d) Online Aggregate Processing

8. The process of viewing the cross-tab (Single dimensional) with a fixed value of one attribute is
   a) Drill down b) Dicing c) Slicing d) Pivoting

9. Which of the following is used as OLAP operation?
   a)Roll up b)Dice c)Slice d)Splice

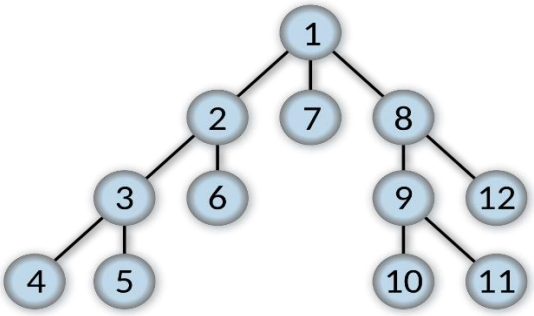
10. Collection of one or more items is called as _____.
    a)Itemset b)Support c)Confidence d)Support Count

Q.2] Answer the Following. (Any 10) [10x2 =20 marks]

1. Justify the need for a Data Warehouse in modern applications.
2. Categorize the three main techniques of Artificial Intelligence.
3. Identify two practical applications of a Data Warehouse.
4. Contrast a Data Mart with a Data Warehouse.
5. Define Data Mining and its purpose.
6. Summarize the role of Metadata in data management.
7. Explain OLTP and its functionality.
8. Discuss the importance of Speech Recognition.
9. Define Text Mining and its applications.
10. Compare the advantages of Breadth First Search over Depth First Search.
11. Describe the structure and importance of Star Schema.
12. Enlist and differentiate the types of Uninformed Search

Q3) Answer the following. (Any 4) [5x4=20 marks]

1. Explain any five applications of data mining.
2. Which methods and models are used in Text mining?
3. Solve by depth limited search (DLS). **D=2**. Also write advantages and disadvantages of DLS.



4. What is start schema explain in detail.
5. Describe the different types of AI search techniques and explain any two heuristic search techniques with examples.
6. Explain Data Pre-processing in Data Mining. Why is it important? Describe the steps involved.

Q4) Answer the Following (Any 4). [5x4=20 marks]

1. Explain means end analysis algorithm with example.
2. Write short note on depth first search with example.

3. What is a multidimensional data model? Explain its structure with examples.
4. Define Accuracy Measures in Data Mining and list its key components such as Precision, Recall, F-measure, Confusion Matrix, and Cross-validation
5. Compare Blockchain and Traditional Databases in terms of architecture, security, data management, and real-world applications.
6. Consider the transaction dataset of a store where each transaction contains the list of items purchased by the customers. Our goal is to find frequent set of items that are purchased by the customers and generate the association rules for them.

Transaction ID	Item Purchased
T1	I1 ,I2 ,I3
T2	I2 ,I5
T3	I4 ,I5
T4	I1 , I2 , I5
T5	I2 , I3 , I5

We are assuming that minimum support count is 2 and minimum confidence is 50%