Total No. of Questions : 5]	SEAT No. :
PD1452	[Total No. of Pages : 2

[6441]-801

T.Y. B.B.A. (Computer Application) CA-601 RECENT TRENDS IN INFORMATION TECHNOLOGY (2019 CBCS Pattern) (Semester - VI)

Time: 2½Hours] [Max. Marks: 70

Instructions:

- 1) Questions: Total number of questions are: 5
- 2) All questions are compulsory.
- 3) Figures to the right indicate full marks.
- Q1) Attempt any EIGHT of the following (Out of TEN).

 $[8 \times 2 = 16]$

- a) What is a data warehouse?
- b) Define database.
- c) What is data preprocessing?
- d) Define OLTP?
- e) Compare data warehouse and data mart.
- f) Define outlier values.
- g) Define business intelligence.
- h) What is Plateau?
- i) Define artificial intelligence.
- j) What is Data Mart?
- **Q2)** Attempt any FOUR of the following (Out of FIVE).

 $[4 \times 4 = 16]$

- a) What are the benefits of a decision tree used for classification?
- b) Compare top down and bottom up approach in data warehouse architecture.
- c) Explain the steps in data preprocessing briefly.

d) Consider the following dataset and we will find frequent itemsets and generate association rules for them.

TID	Items
T1	I1,I2,I5
T2	I2,I4
Т3	I2,I3
T4	I1,I2,I4
T5	I1,I3
T6	I2,I3
T7	I1,I3
T8	I1,I2,I3,I5
Т9	11,12,13

Minimum support count is 2. Find frequent itemsets and generate association rules for them.

- e) Write the advantages of Bidirectional search.
- *Q3*) Attempt any FOUR of the following (Out of FIVE)

 $[4 \times 4 = 16]$

- a) Draw and explain the three tier data warehouse architecture.
- b) Discuss classification in data mining with example.
- c) Explain the advantages and disadvantages of clustering in data mining.
- d) Explain the data cleaning in detail.
- e) What is Data warehouse? Describe any two applications in brief.
- **Q4)** Attempt any FOUR of the following (Out of FIVE).

 $[4 \times 4 = 16]$

- a) Differentiate between supervised and unsupervised learning.
- b) What is descriptive and predictive data mining?
- c) What is the difference between database and data warehouse?
- d) How does data mining help in business management?
- e) What are components of spark? Explain.
- **Q5)** Write a short note on any TWO of the following (Out of THREE) $[2\times3=6]$
 - a) What is outlier analysis?
 - b) Explain WEKA and its benefits.
 - c) Explain J48 algorithm.

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