

B.E. (Information Technology) Seventh Semester (C.B.S.)
Data Warehousing & Mining

P. Pages : 2

Time : Three Hours



NRT/KS/19/3582

Max. Marks : 80

- Notes :
1. Solve Question 1 OR Questions No. 2.
 2. Solve Question 3 OR Questions No. 4.
 3. Solve Question 5 OR Questions No. 6.
 4. Solve Question 7 OR Questions No. 8.
 5. Solve Question 9 OR Questions No. 10.
 6. Solve Question 11 OR Questions No. 12.

1. a) Differentiate between. 8
i) Data warehouse and data mart.
ii) Operational Database system and Decision support system.

- b) Explain three tier architecture of Datawarehouse with neat diagram. 6

OR

2. a) Justify, data warehouse is an environment, not a product. Give the desired features of new type of environment. 6

- b) What do you mean by strategic Information? Explain the factor that escalated the need for strategic information. 8

3. a) What is the need of data preprocessing. Explain in brief? 5

- b) What are the measures of data dispersion. 4

- c) What is data reduction? Explain different methods of data reduction. 4

OR

4. a) Explain MIN-MAX normalization and Z-score normalization with example. 6

- b) Write note on discretization and concept Hierarchy Generation. 7

5. a) What is OLAP? Discuss basic operations of OLAP with example. 8

- b) Differentiate between OLTP and OLAP. 6

OR

6. a) Describe STAR and snowflake schema with example. 8

- b) Differentiate 6

i) MOLAP.

ii) ROLAP

iii) HOLAP.

7. a) Explain KDD process. Draw the architecture. 5
b) Differentiate between clustering & classification? 4
c) Discuss various issues in data mining. 4

OR

8. a) Explain the application of data mining at least two in details. 8
b) Describe the classification of data mining system. 5
9. a) Explain market basket analysis in detail with example. 7
b) Explain the procedure to generate association rules from frequent itemset. 6

OR

10. a) Explain how frequent itemsets are generated using Apriori algorithm. 7
b) Explain Advantages and disadvantages of FP-growth tree. 3
c) Write note on closed itemsets. 3
11. Define Big data & its challenges in details. Explain ecosystem of Hadoop in depth. 13

OR

12. a) Write short note on BI framework 2020. 7
b) Explain two Approaches in development of BI system. 6
