B.E. Seventh Semester (Information Technology) (C.B.S.)

Data Warehousing & Mining

P. Pages : 2 **NKT/KS/17/7498**

Time : Three Hours * 0 1 5 5 * Max. Marks : 80

Notes : 1. All questions carry marks as indicated.
2. Solve Question 1 OR Questions No. 2.
3. Solve Question 3 OR Questions No. 4.
4. Solve Question 5 OR Questions No. 6.
5. Solve Question 7 OR Questions No. 8.
6. Solve Question 9 OR Questions No. 10.
7. Solve Question 11 OR Questions No. 12.

1. a) What do you mean by strategic Information? Explain the factor that escalated the need for strategic information. **7**

b) Explain Data Warehousing life cycle with neat sketch. **6**

OR

2. a) Explain the components of Data Warehousing in detail. **9**

b) What is Metadata? State and explain its categories. **4**

3. a) What is the need of Data preprocessing. Explain in brief? **6**

b) What is data transformation? Explain different methods of data transformation by Normalization. **8**

OR

4. a) What is Data Integration? Explain correlation analysis for Numeric & Nominal Data. **8**

b) Write short note on Discretization and concept Hierarchy Generation. **6**

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

b) Define the following with example. **6**
i) ROLAP ii) MOLAP
iii) HOLAP

OR

6. a) Differentiate between OLAP and OLTP. **6**

b) Explain OLAP characteristics along with major features and functions. **8**

7. a) List and explain the major issues of data mining. **7**

b) Describe the classification of Data Mining System. **6**

OR

8.	a)	What are several stages involved in knowledge data discovery process.	**6**
	b)	Write short note on:	
		i) Data Mining in Retail Industry.	**3**
		ii) Data Mining functionalities.	**4**
9.	a)	Explain various kinds of association rule mining.	**6**
	b)	Explain Market Basket Analysis with example.	**7**

OR

10.	a)	Define the following with example. i) Frequent Item Sets. ii) Closed Item Sets. iii) Association rules.	**6**
	b)	Explain Apriori algorithm for Frequent Item Sets.	**7**
11.	a)	What is BI? Explain important factors of BI.	**6**
	b)	Explain the core components of Hadoop.	**7**

OR

12.	a)	Draw and explain BI architecture.	**8**
	b)	What is Big-data? What are the different characteristics of Big data.	**5**

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