

Total No. of Questions : 8]

SEAT No. :

**P823**

**[5870] - 1145**

[Total No. of Pages : 2

**T.E. (Information Technology)**

**ADVANCED DATABASE AND MANAGEMENT SYSTEM**

**(2019 Pattern) (Semester - I) (Elective - I) (314445B)**

*Time : 2½ Hours]*

*[Max. Marks : 70*

*Instructions to the candidates:*

- 1) Answer Q. 1 or Q. 2, Q. 3 or Q. 4, Q. 5 or Q. 6, Q. 7 or Q. 8.
- 2) Neat diagrams must be drawn wherever necessary.
- 3) Figures to the right side indicate full marks.
- 4) Assume Suitable data if necessary.

**Q1) a)** Compare relational and NoSQL databases. **[9]**

b) Explain features and advantages of MongoDB. **[9]**

OR

**Q2) a)** Describe NoSQL database development tools. **[9]**

b) What is JSON ? Explain data types and features of JSON. **[9]**

**Q3) a)** What is OLAP? Explain type of OLAP. **[9]**

b) Draw and explain Datawarehouse Architecture. **[8]**

OR

**Q4) a)** Explain data warehouse scheme with example. **[8]**

b) Explain in brief characteristics and limitations of data warehouse. **[9]**

**Q5) a)** Explain architecture of data mining system. **[9]**

b) What are different applications of data mining. **[9]**

OR

**P.T.O.**

- Q6)** a) What is data mining? What are different challenges in implementation of data mining. [9]
- b) What is data preprocessing? Explain data preprocessing techniques. [9]

- Q7)** a) Compare Spatial and Temporal databases. [8]
- b) Explain multimedia databases in detail with respect to characteristics and challenges. [9]

OR

- Q8)** a) Explain Deductive Databases. [8]
- b) What are active databases? Elaborate with example. [9]

