

GUJARAT TECHNOLOGICAL UNIVERSITY
ME - SEMESTER– II(New course) • EXAMINATION (Remedial) – WINTER- 2015

Subject Code: 2722311**Date: 09/12/2015****Subject Name: Advance Database****Time: 2:30 pm to 5:00 pm****Total Marks: 70****Instructions:**

1. Attempt all questions.
2. Make suitable assumptions wherever necessary.
3. Figures to the right indicate full marks.

- Q.1** (a) Discuss client server system architecture with suitable diagram. **07**
(b) List various partitioning techniques of I/O parallelism and write differences among them. **07**
- Q.2** (a) Explain distributed database system architecture with suitable diagram. **07**
(b) Write a note on data replication and data fragmentation for data storage of distributed system. **07**
- OR**
- (b) Write a detailed note on two phase commit protocol. **07**
- Q.3** (a) Elaborate star, snow flake and fact constellation schemas of multidimensional data model with suitable diagram. **07**
(b) Compare OLTP with OLAP. **07**
- OR**
- Q.3** (a) List and discuss various OLAP operations. Support your answer using a neat diagram. **07**
(b) Write differences between operational database system and data warehouse. **07**
- Q.4** (a) What is meant by skew? Discuss attribute value skew and partition skew. **07**
(b) Describe parallel sort and range partitioning sort of Interoperation parallelism operations. **07**
- OR**
- Q.4** (a) How many approaches are there to store XML data in database? What are the advantages and disadvantages of each approach? **07**
(b) Explain XPath and XQuery. Support your answer by taking an appropriate example. **07**
- Q.5** (a) Describe time-in database and multimedia database. **07**
(b) Discuss transactional workflows. **07**
- OR**
- Q.5** (a) Write a short note on spatial and geographical database. **07**
(b) Explain Transaction processing monitor architectures with proper diagram. **07**
