Cast	Na.	Englacent No.				
Seat	Seat No.: Enrolment No  GUJARAT TECHNOLOGICAL UNIVERSITY  ME – SEMESTER II (NEW) – • EXAMINATION – SUMMER 2016					
Subject Code: 2722311 Date: 25/05/2 Subject Name: Advance Database			016			
Time: 10:30 am to 01:00 pm Instructions:  Total Marks: 70						
	2.	Attempt all questions.  Make suitable assumptions wherever necessary.  Figures to the right indicate full marks.				
Q.1	(a) (b)	Write a note on Transaction Server Process Architecture using a neat diagram. List and discuss various parallel database architectures using diagram.	07 07			
Q.2	(a) (b)	Compare centralized and distributed database with relative pros and cons.  Write a note on following:  i) Hash partitioning  ii) Range partitioning	07 07			
	(b)	OR Discuss following terms.  i) Fragmentation Transparency ii) Replication Transparency iii) Location Transparency	07			
Q.3	(a)	List and discuss various OLAP operations. Support your answer using a neat diagram.	07			
	(b)		07			
Q.3	(a) (b)	What is meant by skew? Discuss attribute value skew and partition skew. Elaborate Star, Snow Flake and Fact Constellation schemas of multidimensional data model with suitable diagram.	07 07			

Q.4 (a) Explain XPath and XQuery. Support your answer by taking an appropriate

**(b)** Give the DTD for an XML representation of following nested relational schema.

Emp= (ename, ChildrenSet setoff(Children), SkillsSet setof(Skills))

example.

Children = (name,Birthday) Birthday = (day,month,year)

Exams = (year, city)

Skills = (type,ExamsSet setof(Exams))

**07** 

**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>(b)</b>	Write a note on two phase commit protocol in Distributed Database.	07
Q.5	(a)	Explain Transaction Processing Monitor architectures with help of proper diagram.	07
	<b>(b)</b>	Write a note on spatial and geographic Data.	07
		OR	
Q.5	(a)	Write a short note on Time in Database and Multimedia Database.	<b>07</b>
	<b>(b)</b>	Discuss Transactional Workflows.	<b>07</b>

\*\*\*\*\*\*