Seat No.:	Enrolment No.

## **GUJARAT TECHNOLOGICAL UNIVERSITY**

ME - SEMESTER-IV • EXAMINATION - SUMMER • 2014

Subject Code: 740201 Date: 04-06-2014

**Subject Name: Advance Databases** 

Time: 02:30 pm - 05:00 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) Explain 3NF with example. Draw E-R Diagram for the same.
  (b) Explain Querying and Transformation with respect to XML
  07
- O.2 (a) Explain Inter-query and Intra-query parallization in parallel databases. 07
  - (b) Explain partitioning techniques in parallel database 07

## OR

- (b) Map object oriented System with Object Oriented Database design with example. 07
- Q.3 (a) What is the difference between OLAP and Data Mining with example? 07
  - (b) Explain Fact Constellation schema with Example 07

## OR

- Q.3 (a) 1. Explain various OLAP operations.
  - 2. Explain Curse of Dimensionality Explain technique to eliminate the same.
    (b) Classify the following instance
    07

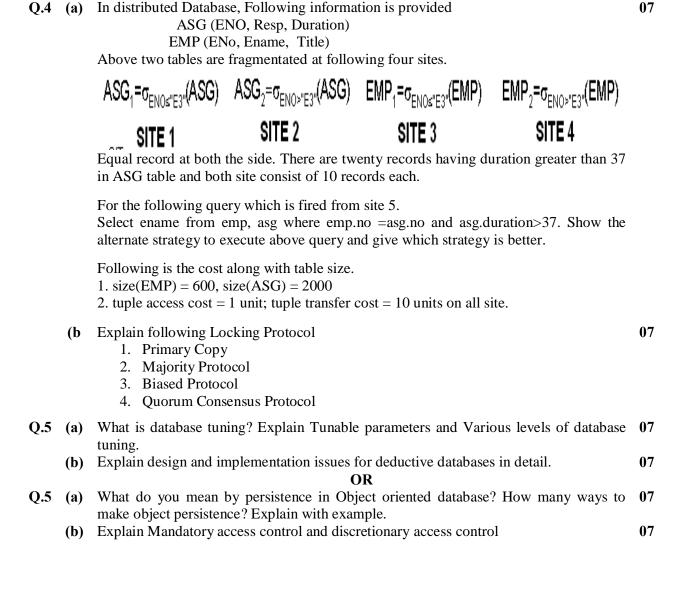
Outlook=sun, Temperature=cool, Humidity=high, Wind=strong

Using naïve bayes classifier. (Use following data)

Day	Outlook	Temperature	Humidity	$_{ m Wind}$	PlayTennis
D1	Sunny	$\operatorname{Hot}$	$\mathbf{High}$	Weak	No
D2	$\operatorname{Sunny}$	$\mathbf{Hot}$	$\mathbf{High}$	Strong	No
D3	Overcast	$\mathbf{Hot}$	$\mathbf{High}$	Weak	Yes
D4	Rain	$\operatorname{Mild}$	$\mathbf{High}$	Weak	Yes
D5	Rain	Cool	Normal	Weak	Yes
D6	Rain	Cool	Normal	Strong	No
D7	Overcast	Cool	Normal	Strong	Yes
D8	$\operatorname{Sunny}$	$\operatorname{Mild}$	$\mathbf{High}$	$\mathbf{Weak}$	No
D9	$\operatorname{Sunny}$	Cool	Normal	Weak	Yes
D10	Rain	$\operatorname{Mild}$	Normal	$\mathbf{Weak}$	Yes
D11	$\operatorname{Sunny}$	$\operatorname{Mild}$	Normal	Strong	Yes
D12	Overcast	$\operatorname{Mild}$	$\mathbf{High}$	Strong	Yes
D13	Overcast	$\operatorname{Hot}$	Normal	Weak	Yes
D14	$\operatorname{Rain}$	$\operatorname{Mild}$	$\mathbf{High}$	Strong	No

- Q.4 (a) Explain various fragmentations techniques with example and explain correctness of 07 Fragmentation?
  - **(b)** Explain Two phase commit protocol for Distributed Database system.

07



\*\*\*\*\*