

Tribhuvan University
Institute of Science and Technology

2069

Bachelor Level/ Fourth Year/ Seven Semester/ Science
Computer Science and Information Technology (CSc. 401)
(Advanced Database Management System)

Full Marks: 60
Pass Marks: 24
Time: 3 hours

*Candidates are required to give their answers in their own words as far as practicable.
The figures in the margin indicate full marks.*

Attempt all questions.

- 1.) Explain the following terms:
 - Data mining
 - ECA model
 - Spatial database
 - Specialization and generalization in an ERR model
 - XML and HTML
 - GIS
- 2.) How can you convert an ERR design to relational design? Discuss with suitable example.
- 3.) What is OID? How persistent objects are maintained in OODatabase?
- 4.) Discuss the relative advantages of centralized and distributed database.
- 5.) Describe different implementation issues with object relational database system.
- 6.) Discuss the different techniques for executing equijoin of two files located at different sites.
What main factors affect the cost of data transfer?
- 7.) Differentiate between attributes and elements in XML? List some of the important attributes used in specifying elements in XML schema.
- 8.) Distinguish object oriented database and object relational databases.
- 9.) What is a data warehouse? How does it differ from a database?
- 10.) Explain mobile computing architecture with suitable diagram.