

Tribhuvan University
Institute of Science and Technology
2069

Bachelor Level / seventh-semester / Science

Computer Science and Information Technology(O-CSC401)

(Advanced Database Management System(old syllabus))

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.

Full marks: 60

Pass marks: 24

Attempt all the questions.

1) Explain the following terms:

- a) Data mining
- b) ECA model
- c) Spatial database
- d) Specialization and generalization in an ERR model
- e) XML and HTML
- f) 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 OO Database?

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.