

Tribhuvan University
Institute of Science and Technology
2075

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 questions. (10 x 60=60)

- 1. How do you increase performance of the database? Explain any one database performance tuning technique with example. (2+4)**
- 2. What is query processing? How is it different from query optimization? Discuss heuristic query optimization.(1+2+3)**
- 3. What are the benefits of using distributed databases? Discuss different types of distributed database systems. (3+3)**
- 4. What are the benefits of using object oriented databases over relational databases? Discuss different type of constructors used in object oriented databases. (2+4)**
- 5. Discuss different implementation issues related with object relational database. (6)**
- 6. Define GIS. Discuss different data modeling and representation for GIS data. (1+5)**
- 7. Define multimedia database. Discuss benefits of multimedia databases. How do you query image database? (1+2+3)**
- 8. Discuss data warehouse and its functionality. Discuss association rule mining with example. (3+3)**
- 9. What is web service? Discuss SOAP in detail. (2+4)**
- 10. Write short notes on:(2x3)**
 - a) Integrity constraint**
 - b) Mobile database**