

Tribhuwan University
Institute of Science and Technology
2075

Bachelor Level / eighth-semester / Science Full marks: 60 **Computer Science and Information Technology(CSC461)** Pass marks: 24
(Advanced Database) 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. (10 x 60=60)

1. How do you increase performance of the database? Explain any one database performance tuning technique with examples.

(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 to object relational databases. (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 an image database?

(1+2+3) 8. Discuss data warehouse and its functionality. Discuss association rule mining with examples. (3+3) 9. What

is a web service? Discuss SOAP in detail. (2+4)

10. Write short notes on:(2x3)

a) Integrity constraint

b) Mobile database