

Tribhuvan University
Institute of Science and Technology
2077

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 6 = 60)

1. Discuss query optimization with suitable examples. What is the importance of query optimization in a database? (4 + 2)
2. How can you convert an EER design to a relational design? Discuss with suitable example.(6)
3. Discuss various type constructors used in object-oriented databases. How are they used to create complex objects?(4+2)
4. What is a complex object? What is the difference between structured and unstructured complex objects?(1+5)
5. Define object relational database. Discuss different types of knowledge discovered during data mining.(1+5)
6. What is an active database ? Discuss generalized mode for active databases?(2+4)
7. Discuss how time is represented in temporal databases and compare the different time dimensions.(3+3)
8. What is data mining ? Discuss different types of knowledge discovered during data mining.(1+5)
9. What is a data warehouse ? How does it differ from a databases ?(2+4)
10. What is a mobile database? Discuss mobile computing architecture in detail.(1+5)

