

Mount Kenya



University

UNIVERSITY EXAMINATION 2012/2013

SCHOOL OF APPLIED AND SOCIAL SCIENCES

DEPARTMENT OF INFORMATION TECHNOLOGY

BACHELOR OF BUSINESS INFORMATION TECHNOLOGY

VIRTUAL CAMPUS

UNIT CODE: BIT 2102

UNIT TITLE: DATABASE SYSTEMS

MARCH 2013

SPECIAL/SUPPLEMENTARY

TIME: 2HRS

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Answer question One and any other Two Questions

1. a) Define the following. (5 Marks)
  - i. Data management.
  - ii. End bar data.
  - iii. Metadata.
  - iv. Database
  - v. DBMS
- b) Explain THREE classes of a basic SQL structure. (3 Marks)
- c) With example define create with command syntax. (5 Marks)
- d) What are aggregations? (2 Marks)
- e) Explain different types of relational keys. (5 Marks)
- f) What is Normalization? (3 Marks)
- g) Explain logical data independence. (3 Marks)
- h) Define different subclass viewpoint. (4 Marks)
2. a) Discuss with examples the E-R model. Examples should be based in a perception over a real world solution. (20 Marks)
3. a) Discuss various major components of DBMS system. (10 Marks)
- b) Discuss with examples various aggregations functions. (10 Marks)

4. a) Explain the three levels of architecture of DBMS. (12 Marks)
- b) Explain the two levels of data independence from conceptual to external level. (8 Marks)
5. Discuss the architecture of a RDBMs system. (20 Marks)