

Remaining Answers to be
forwarded to IT. 16/11/2011



ZIMBABWE

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MINISTRY OF HIGHER AND TERTIARY EDUCATION

**HIGHER EDUCATION EXAMINATIONS COUNCIL
(HEXCO)**

HIGHER NATIONAL DIPLOMA

IN

LIBRARY AND INFORMATION SCIENCE

SUBJECT: Database Concepts and Design PAPER NO: 701/S02

NOVEMBER 2011 EXAMINATION

REQUIREMENTS

INSTRUCTIONS TO CANDIDATE

Answer any four (4) questions

This paper consists of 2 printed pages.

QUESTION 1

Discuss the justification of adopting a database system as opposed to a manual system under the following headings:-

- a) Data sharing
 - b) Data Integrity
 - c) Data independence
 - d) Data security
 - e) Data integration
- (25 marks)

QUESTION 2

Describe the role of the librarian as a database administrator, giving practical examples to support your points. (25 marks)

QUESTION 3

With the aid of a diagram and examples, explain the hierarchical data model sharing.

- a) Root segment
 - b) Levels
 - c) Parent/Child relationships
 - d) Physical pointers
- (25 marks)

QUESTION 4

Discuss the design and implementation phase of databases as a data driven approach as opposed to process driven file oriented systems. (25 marks)

QUESTION 5

- a) Distinguish between metadata and repository.
- b) Explain the significance of metadata in library database system. (25 marks)

QUESTION 6

- a) Using a diagram, illustrate, and explain the three tier model used in database architecture and design. (15 marks)
- b) Distinguish between logical schema and physical schema. (10 marks)

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