
CHUKA



UNIVERSITY

UNIVERSITY EXAMINATIONS

EXAMINATION FOR THE AWARD OF DEGREE OF BACHELOR
OF SCIENCE IN LIBRARY SCIENCE

LINS 450: INFORMATION SYSTEMS ANALYSIS

STREAMS: BSC (LINS)

TIME: 2 HOURS

DAY/DATE: FRIDAY 07/12/2018

2.30 P.M. – 4.30 P.M.

INSTRUCTIONS: Answer question ONE and any other TWO

QUESTION 1 (30 MARKS)

- (a) Using a diagram, illustrate the phase of system analysis and design [5 marks]
- (b) Explain the prototyping methodology [5 marks]
- (c) Explain five advantages of using interview as a fact finding technique [10 marks]
- (d) Explain “Economic feasibility” of a library project [5 marks]
- (e) Explain five benefits of using relational database in system implementation [5 marks]

QUESTION 2 (20 MARKS)

In the library management system, the following entities and attributes can be identified.

- (i) **Book**-the set all the books in the library. Each book has a Book-id, Title, Author, Price and available (y or n) as its attributes.
- (ii) **Member**-the set all the library members. The member is described by the attributes member_id, Name, Street, City, Zip_code, Mem_type, Mem_date (date of membership), Expiry_date.

LINS 450

- (iii) **Publisher**-the set of all the publishers of the books. Attributes of this entity are Pub_id, Name, Street, City, and Zip_code.
- (iv) **Supplier**-the set of all the suppliers of the books. Attributes of this entity are Sup_id, Name, Street, City, and Zip_code.

Assumptions: a publisher publishes a book. Supplier supplies book to library. Members borrow the book (only issue). Return of book is not taken into account
Return book is not taken into account

- (a) What is an Entity? [2 marks]
- (b) Draw an Entity Relationship (E-R) diagrams for the above Library Management System. [18 marks]

QUESTION 3 (20 MARKS)

Discuss the various stages in Dynamic System Development Method (DSDM)

QUESTION 4 (20 MARKS)

Discuss three different tools of collecting data and show the strength of each tool

QUESTION 5 (20 MARKS)

- (a) Discuss the components of a system [12 marks]
 - (b) Explain four benefits of post-implementation of Library System [8 marks]
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