



## **GARISSA UNIVERSITY COLLEGE**

*(A Constituent College of Moi University)*

**UNIVERSITY EXAMINATION 2016/2017 ACADEMIC YEAR ONE  
SECOND SEMESTER EXAMINATION**

**SUPPLEMENTARY/SPECIAL EXAMINATION**

**SCHOOL OF INFORMATION SCIENCES**

**FOR THE DIPLOMA IN INFORMATION TECHNOLOGY**

**COURSE CODE: DIT 020**

**COURSE TITLE: RELATIONAL DATABASE MANAGEMENT SYSTEMS**

**EXAMINATION DURATION: 3 HOURS**

**DATE: 25/09/17**

**TIME: 02.00-05.00 PM**

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### **INSTRUCTION TO CANDIDATES**

- **The examination has SIX (6) questions**
- **Question ONE (1) is COMPULSORY**
- **Choose any other THREE (3) questions from the remaining FIVE (5) questions**
- **Use sketch diagrams to illustrate your answer whenever necessary**
- **Do not carry mobile phones or any other written materials in examination room**
- **Do not write on this paper**

**This paper consists of TWO (2) printed pages**

*Supplementary / special exam\_*

1

***please turn over***

*Good Luck – Exams Office*



### QUESTION ONE (COMPULSORY)

- (a) What is DBMS **2 marks**
- (b) Define the following terms **4 marks**
- a) Data Definition Language
  - b) Data Manipulation Language
- (c) What is the difference between DBMS and RDBMS? **4 marks**
- (d) Explain 4 advantages of Database. **4 marks**
- (e) Distinguish between data analysis and functional analysis. **4 marks**
- (f) What are the two Notations used in ER diagram **3 marks**
- (g) A lecturer has a personal number, name, phone, address, create and normalize a table for them **4 marks**

### QUESTION TWO

- (a) Describe 5 components of database environment **10 marks**
- (b) Create and normalize a table for a student **5 marks**

### QUESTION THREE

- (a) Garissa University College Maintains a file for every employee explain to them the benefits they will accrue by moving to database. **10 marks**
- (b) Differentiate between Database design and Database analysis **5 marks**

### QUESTION FOUR

- (a) Describe the Database design process **10 marks**
- (b) What are the advantages of using ER Diagram **5 marks**

### QUESTION FIVE

- (a) Define the terms: **12 marks**
- i. relationship
  - ii. entity
  - iii. attribute



- iv. d)record
- v. e)Primary Key
- vi. f)Foreign Key

(b) What are current Trends in Database Management

**3 marks**

### **QUESTION SIX**

Analyze, Design and implement a database for Garissa University staff (use ER diagram to design it)

**15 marks**

