

TAKORADI TECHNICAL UNIVERSITY

FACULTIES OF APPLIED SCIENCE

SECOND SEMESTER RESIT EXAMINATION 2018/2019

COURSE NAME: Database Concepts and Technology

COURSE CODE: ICT 112

DURATION: 2 ½ HOURS

AUGUST 2019

ANSWER ALL QUESTIONS

1.
 - i. Explain the term normalization in database. *2 marks*
 - ii. State the 1st, 2nd and 3rd normal forms in database normalization. *8 marks*
 - iii. Draw an example of a table that is not in a 2nd normal form and convert it to second normal form. *10 marks*
2. Define the following terms as used in database: *10 marks*
 - i. concurrency
 - ii. Composite key
 - iii. Referential integrity
 - iv. DBMS
 - v. Database model
3. With the aid of diagram, state and explain the network and hierarchical database models. *20 marks*
4. State what the following abbreviations stand for in Databases. *10 marks*
 - i. ERD
 - ii. DBA
 - iii. DML
 - iv. SQL
 - v. DDL
5.
 - i. Write the SQL code that will produce the Student table below. *10 marks*
5 marks

Index	Department	Age	FirstName	SurName
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 - ii. Write an SQL code that will add the following data values (111201, Mike, Sculpture) to the Student table below. *5 marks*

ID Number	Name	Department
6. List any 5 characteristics a table must have to be considered a relation. *10 marks*
7. Write any five(5) functions of DBMS. *10 marks*