

**AKENTEN APPIAH-MENKA UNIVERSITY OF SKILLS TRAINING AND
ENTREPRENEURIAL DEVELOPMENT**

FACULTY OF APPLIED SCIENCES AND MATHEMATICS EDUCATION

DEPARTMENT OF INFORMATION TECHNOLOGY EDUCATION

END OF FIRST SEMESTER EXAMINATIONS, APRIL, 2021

COURSE CODE/TITLE	ITC 231 DATABASE CONCEPTS AND DESIGN
DURATION	1 HOUR 25 MINUTES
LECTURER(S)	BOANSI, KUFUOR OLIVER
INSTRUCTIONS	SECTIONS A, B & C: ATTEMPT ALL QUESTIONS. All Answers must be on the Question paper. No need for Answer Booklet. For section A, CIRCLE NEATLY, the correct option on the question paper.

INDEX NUMBER:

SECTION A [30 MARKS]

- 1. An entity that is related to itself is known as.....**
 - A. Sub types
 - B. Recursive relationship
 - C. Exclusive relationship
 - D. Associative relationship
- 2. A key that contains two or more attributes is known as.....**
 - A. Composite Key
 - B. Strong Key
 - C. Candidate Key
 - D. Surrogate Key
- 3. Which of the following are importance of database normalization?**
 - I. It improves the integrity of data
 - II. It reduces the complexity of programming logic
 - III. It minimizes storage of redundant data
 - IV. It is easy to perform normalization
 - A. II and IV only
 - B. I and II only
 - C. I, II and III only
 - D. I and III only
- 4. The phrase “a student’s GPA must be between 0.00 and 4.00” is a/an..... in data modelling.**
 - A. Attribute
 - B. Relationship
 - C. Block
 - D. Constraint

5. Which of the following statements best describes a good business rule? A good business rule.....
- I. Is a statement of policy
 - II. Marks one statement and not several
 - III. Can have parts standing on their own as rules
 - IV. Uses natural language to avoid misinterpretation
- A. I, II, IV only
B. None of the above
C. I and IV only
D. All of the above
6. Which of the following statements are true about keys in relational models?
- I. They are used to create columns in a relation
 - II. They are used to create tables in a database
 - III. They are used to ensure that each row in a relation is uniquely identified
 - IV. They are used to establish relationships among tables
- A. All of the above
B. I and II only
C. I, II and III
D. III and IV only
7. In an E-R diagram, an entity is represented by a.....
- A. Square
B. Oval
C. Rectangle
D. Diamond-shaped box
8. The self-describing nature of the database that provides program-data independence is.....
- A. Attribute
B. Data integrity
C. Metadata
D. Relational data
9. Pick the odd one out
- A. Column
B. Attribute
C. Record
D. Field
10. The select operator in relational algebra is denoted by.....
- A. Alpha
B. Beta
C. Sigma
D. Pi
11. Which of the following relationship types are allowed to be implemented in a DBMS?
- I. M:N
 - II. M:M
 - III. 1:M
 - IV. 1:1
- A. I, III and IV
B. I and II only