

**Goa Vidyaprasarak Mandal's**  
**GOPAL GOVIND POY RAITURCAR COLLEGE OF COMMERCE AND**  
**ECONOMICS, PONDA - GOA**  
**B.C.A. (SEMESTER- III) EXAMINATION, OCTOBER 2017**  
**DATABASE MANAGEMENT SYSTEM**

Duration: 2hrs

Marks: 50

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**Instruction** a) *All the questions are compulsory.*

b) *Draw diagram with pencil wherever necessary.*

**Q1.A) Select the correct option and rewrite the statement: (5\*1=5)**

i) In the \_\_\_\_\_ normal form, a composite attribute is converted to individual attributes.

- a) First                      b) Second                      c) Third                      d) Fourth

ii) An \_\_\_\_\_ is a set of entities of the same type that share the same properties, or attributes.

- a) attribute Set      b) entity Set      c) Relation set      d) entity Model

iii) DML means \_\_\_\_\_

- a) Data Manipulation Language      b) Data Merge Language  
c) Data Merge Link

iv) A relational database consists of a collection of \_\_\_\_\_

- a) Table                      b) Field                      c) Records                      d) Key

v) Due to loss of Information, Decomposition is called \_\_\_\_\_  
Decomposition

- a) Lossless                      b) lossy                      c) less

**Q1.B) Answer the following: (5\*1=5)**

1. Define DBMS
2. What is Normalization?
3. What is Data marts?
4. What is an entity?
5. What is Degree of relation?

**Q2. Answer the Following: (10)**

- A) Explain the types of Database users. (2)  
B) Explain the comparison between Logical data independence and Physical data independence. (3)  
C) Explain with proper example conversion of 3NF to BCNF. (5)

**Q3. Answer the following : (10)**

- A) Explain Multimedia Database. (2)  
B) Explain ACID Property. (3)  
C) Explain Data Models and compare the different Models. (5)

**Q4. Answer the Following: (10)**

- A. List the principle of Security. (2)  
B. Differentiate between OLAP and OLTP (3)  
C. Explain the concept of Distributed Database and Data warehouse . (5)

**Q5. Answer the Following : (10)**

- A. Explain Data Mining. (2)  
B. Explain comparison between entity integrity and Referential integrity. (3)  
C. Draw ER Diagram for online College admission process and accordingly design tables for the same. Write query to fetch the data where students Location is Ponda. (5)