

# GOVERNMENT DEGREE COLLEGE GANDERBAL

Assignment for BCA 4th Semester Regular Batch 2018, Backlog Batch 2017

**Subject:** Database Management System (DBMS)

**Course Code:** BCA416C3

**Marks:** 60

*Attempt any 03 Questions and Question no. 4 is compulsory. Each question carries equal weightage.*

**Question 1:** Answer each of the following in not more than 150 words:

- a) What is a Database Management System?
- b) What are its advantages over traditional File system?
- c) What are the different levels of abstraction in the DBMS?

**Question 2:**

- a) Explain Entity, Entity Type, and Entity Set in DBMS?
- b) What are different types of keys in DBMS? Give a one-line definition of each key.
- c) What is database Normalization? Explain different types of normal forms.

**Question 3:**

- a) Explain the concept of ACID properties in DBMS.
- b) What are different types of languages used in DBMS. Explain the difference between Drop, Delete and Truncate commands with the help examples.

**Question 4: (Compulsory Question)**

- a) Suppose you are designing a database for your College to store information about Students, Teachers and Employees.
  - A student has Roll No. Name, Class and Subject, age etc.
  - An Employee has employee-id, name, address and Subject, Department, Date of joining etc.

- A Teacher can teach multiple students/classes.

Draw an ER Diagram for this database. Make sure you include all entities, their relations and indicate all primary keys.

- b) Write an SQL query to display all the students from registered in the college in 2020.
- c) Write a query to extract the records of all the students who are registered in BCA 4<sup>th</sup> Semester.

**Instructions:**

1. The assignment is to be submitted through google class room having code **nr2buaw**
2. Students who have not joined the G-classroom can mail assignment on [khanasifiqbal7@gmail.com](mailto:khanasifiqbal7@gmail.com).
3. Last date of assignment submission is 26/06/20.
4. The assignment must be handwritten. (Do not copy share or copy assignments from other students)
5. Students must write page no., roll no., registration no. on the top right corner of each page.
6. A4 size ruled paper with not more than 10 pages converted into a single PDF file using camscanner will be only accepted.
7. While scanning the assignment pages, make sure the images are illuminated and the content is properly visible
8. Students are advised to preserve hard copy of Assignment.
9. Do not copy answers from other students.
10. Assignments should be scanned properly for clear visibility.

**11. Title page of assignment must contain**

- Name of the candidate.....
- Semester.....
- Category: Fresh/Backlog .....
- Batch: .....
- Roll No.....
- Regd no.....
- Subject.....
- Cell no.....
- e-mail address.....
- Date of Submission.....
- Signature of Candidate.....