

1481/IV

B.C.A. (Part-II) Examination, 2022

(Fourth Semester)

Paper - I

BCA-401 : Introduction To Database Management System

Time : Three Hours]

[Maximum Marks : 70

Note: (i) Answer *five* questions in all.

(ii) Question No. 1 is compulsory.

(iii) Answer remaining *four* question selecting
two questions form each Section A and B.

(iv) All questions carry equal marks.

1. Answer all Parts of the following :

(a) What are the main function of DBA?

(b) Write the various benefit of SQL.

(c) Define candidate key with example.

(d). What do you mean by weak entity set?

SECTION-A

2. What are the main characteristics of Database Management System that makes it different from traditional file system?
3. What do you mean by three tier architecture of Database Management System? Explain each tier with proper labelled diagram.
4. What is transaction? Explain the properties of transaction (Acid properties of transaction)
5. What is a join? Give various categories of joins with suitable example.

SECTION-B

6. (a) What do you understand by data model?
List out its types and explain in brief.

- (b) Differentiate between physical data independence and logical data independence.
7. (a) Explain the differences between relational algebra and relational calculus.
- (b) Draw an ER diagram for a hospital with a set of patients, a set of doctors and a set of conducted medical tests.
8. (a) Define the term specialization with giving proper example.
- (b) Differentiate between BNF and BCNF.
9. Write notes on any two of the following:
- (a) Database integrity

(b) Data dictionary

(c) DML, DCL,

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