

S.No. : 98

BBAP 3602

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Following Paper ID and Roll No. to be filled in your Answer Book.

PAPER ID : 37333

Roll
No.

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B. B. A. (P) Examination 2021-22

(Even Semester)

DATABASE MANAGEMENT SYSTEM

Time : Three Hours]

[Maximum Marks : 60

Note :— Attempt all questions.

SECTION – A

1. Attempt all parts of the following : $8 \times 1 = 8$

- (a) Define the term database management system.
- (b) What are the different types of DBMS architecture?
- (c) Define the term entities and entity sets in database design.
- (d) Define the term ER model.

[P. T. O.]

- (e) What is first normal form?
- (f) What are functional dependencies?
- (g) Define the terms tables and queries.
- (h) What is the full form of SQL?

(iii)

Note:-

SECTION – B

2. Attempt any two parts of the following : $2 \times 6 = 12$

(a) What are the advantages of DBMS over file system?

(b) Explain the different types of keys used in a database management system.

(c) What is normalization? Explain second and third normal form using suitable examples.

(d) Consider the following table :

Student (student_name, rollno, age, marks, subject) Write SQL statements for the following:

- (i) List the students whose name starts with alphabet 'S' and age is-20
- (ii) Find the name of the student who has scored highest marks.

- (iii) Find the student who are studying the same subject.

SECTION - C

Note:- Attempt all questions. Attempt any two parts from each questions. $8 \times 5 = 40$

3. (a) Explain the hierarchical data model.
(b) Explain client server architecture in detail.
(c) Define the structure of a DBMS. Also explain the queries in a DBMS.
4. (a) Draw E-R diagram for the educational institute.
(b) Compare entity with attributes and relationship.
(c) Define the Codd's rules.
5. (a) What are the different types of functional dependencies? Explain the multivalued and transitive functional dependency.
(b) What is schema refinement? Define the decomposition technique of schema refinement.
(c) What are the problems faced without normalization in a database management system.

[P. T. O.]

6. (a) Define the terms objects, tables, forms and reports in database management system.
- (b) Give an introduction to nested queries.
- (c) What do you understand by aggregate operators and define the null values in a DBMS?
