Total number of printed pages–5

1 (Sem–4/FYUGP) COM 41 MN/(B)

2026

COMPUTER SCIENCE

(Minor)

SET–B

Kanaram Dhekial Phookan College Library
Acc. No.
Date
Nagaon

Paper : COM4400504MN

(Database Management System)

Full Marks : 45

Time : 2 hours

The figures in the margin indicate full marks for the questions.

SET–B

1. Answer the following questions : 1×5=5

(a) Relations produced from E-R Model will always be in—

(i) 1NF

(ii) 2NF

(iii) 3NF

(iv) 4NF

(b) Which of the following command is used to delete a table in SQL ?

(i) delete

(ii) truncate

(iii) remove

(iv) drop

(c) In a Hierchical database, a hashing function is used to locate the—

(i) Collision

(ii) Root

(iii) Foreign key

(iv) Records

(d) Which type of data can be stored in the database ?

(i) Image oriented data

(ii) Texts file containing data

(iii) Data in the form of audio or video

(iv) All of the above

(e) What does an RDBSM consist of ?

(i) Collection of Records

(ii) Collection of Keys

(iii) Collection of Tables

(iv) Collection of Fields

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2. Answer the following questions : ***(any five)*** 2×5=10

(i) What is tuple and attributes ?

(ii) Define DBA.

(iii) Define multivalued attribute and derived attribute.

(iv) What is a foreign key ?

(v) What is the use of Group by Clause ?

(vi) Define alternate key.

(vii) Write the syntax of Update command.

(viii) What is domain integrity constraints?

(ix) Define integrity constraint.

(x) What is data independence?

3. Answer the following questions : ***(any four)*** 5×4=20

(a) Explain the functions of DBA.

(b) Write 5 built-in-functions of the following categories :

(i) Aggregate function

(ii) String function

(c) Explain the difference between strong and weak entity.

(d) Describe the various types of Data Model.

(e) Explain Data Definition Language (DDL) and Data Manipulation Language (DML) with *three* examples of each.

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(f) Briefly discuss the entity relationship in DBMS.

(g) Explain the three level architecture of DBMS.

(h) Write briefly about select, project and join.

4. Answer the following questions : ***(any one)*** 10

(a) Explain the need of concurrency control.

(b) What is functional dependency? Explain the types of functional dependency.

(c) What is normalization? Explain 1NF, 2NF, 3NF with suitable example.

(d) Explain the advantages of DBMS.
