

9. (a) What is star and snowflake schema ? Explain with the help of example.

(b) What is OLAP ? Discuss the different types of OLAP operations.

Roll No.

67057-N

MCA 2nd Semester 2yr. Course w. e. f. 2020-21

Examination – July, 2022

ADVANCE DATABASE SYSTEMS & DATA

WAREHOUSE

Paper : 20MCA22C1

Time : Three hours]

[Maximum Marks : 80

Before answering the questions, candidates should ensure that they have been supplied the correct and complete question paper. No complaint in this regard, will be entertained after examination.

Note : Attempt *five* questions in all. Question Number **1** is *compulsory*. In addition to *compulsory* question, student has to attempt *four* more questions selecting *one* question from each Unit. All questions carry equal marks.

1. (a) What is object identity ?
- (b) What is type inheritance ?
- (c) What is difference Inter and Intra query parallelism ?

- (d) What is transparency feature of DDBMS ?
- (e) What is structured and semi structured data ?
- (f) What is temporal database ?
- (g) What is data cube ?
- (h) What is OLTP ?

UNIT – I

- 2. (a) What are the enhancements that distinguish the EER model from the ER model ?
- (b) What is the difference between specialization and generalization ? Why do we not display this difference in schema diagram ?
- 3. (a) Differentiate the following with respect to the object-oriented data model :
 - (i) Objects and attributes
 - (ii) Classes, subclasses and superclasses
- (b) What are the different ways of transaction management and concurrency control in OODBMS ?

UNIT – II

- 4. What is parallel database ? Explain various architectures of parallel databases along with their advantages and disadvantages.

- 5. What is distributed database ? Explain following in the context of distributed databases :
 - (i) Data Fragmentation
 - (ii) Data Replication
 - (iii) Data allocation techniques
 - (iv) Concurrency control

UNIT – III

- 6. Explain in detail the following with their advantages and applications :
 - (a) Mobile databases
 - (b) Multimedia databases
- 7. (a) What is XML ? What are its advantages ? Explain the three main types of XML documents.
- (b) What is deductive database ? How rules are interpreted in deductive database ?

UNIT – IV

- 8. What is data warehouse ? Explain and compare following types of data warehouse :
 - (i) Data Mart
 - (ii) Virtual Warehouse
 - (iii) Enterprise Warehouse