

**TILAK MAHARASHTRA VIDYAPEETH, PUNE**  
**MASTER OF SCIENCE (M.SC) IN COMPUTER APPLICATIONS**  
**EXAMINATION : JUNE / JULY - 2022**  
**SEMESTER - I**

**Sub.: Advanced Database Management System (MSC-101-19)**

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**Date : 30/06/2022**

**Total Marks : 60**

**Time: 10.00 am to 12.30 pm**

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**Instruction:**

1. All questions are compulsory unless and otherwise stated.
  2. Bold figures to the right of every question are the maximum marks for that question.
  3. Candidates are advised to attempt questions in order.
  4. Answers written illegibly are likely to be marked zero.
  5. Use of scientific calculators, Log tables, Mollier Charts is allowed.
  6. Draw neat and labelled diagram wherever necessary.
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**Q. 1. Answer the following in 2 - 3 lines. (Any 5) (10)**

1. Define Cursor. Write down its types
2. What are stored and derived attributes?
3. What is meant by data warehouse?
4. What is meant by trigger?
5. What is E-R model in database?
6. What is a NoSQL database?
7. What is Distributed database?

**Q. 2. Answer the following in short. (Any 4) (20)**

1. What is the use of DROP command? What are the differences between DROP, TRUNCATE and DELETE commands?
2. Write a note on aggregate functions
3. What are different types of Constraints in Relational Model?
4. What is transaction? What are ACID properties?
5. Explain 3-tier architecture of database
6. What is a data warehouse? List its main characteristics.

**Q. 3. Answer the following in detail. (Any 3) (30)**

1. What is normalization? Explain types with example.
2. What is a view? How will you create, update and delete views.
3. Write a detail note on DDL , DML and DCL statements with syntax and examples.
4. Write notes on backup and recovery.
5. Explain procedure. Write in detail about creating, invoking and dropping procedures with example.

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