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Total No. of Pages : 02

Total No. of Questions : 09

**MCA (2014 Batch) (Sem.-3)**  
**DATABASE ADMINISTRATION**

Subject Code : MCA-301

M.Code : 70772

Time : 3 Hrs.

Max. Marks : 100

**INSTRUCTION TO CANDIDATES :**

1. SECTIONS-A, B, C & D contains TWO questions each carrying TWENTY marks each and students have to attempt any ONE question from each SECTION.
2. SECTION-E is COMPULSORY consisting of TEN questions carrying TWENTY marks in all.

**SECTION-A**

- 1) a) What is Database Administration? Explain in detail the role and responsibilities of DBA.  
b) Discuss various database packages. How can they be installed?
- 2) What is client server model? What are its advantages? Explain the different types of client server models in detail with examples.

**SECTION-B**

- 3) How do you implement :
  - a) Database compression
  - b) Upgrade strategy and data integrity as a DBA?
- 4) What is database replication? Provide step by step instructions for setting up and managing replication using various database packages.

**SECTION-C**

- 5) a) What is database security? How is it achieved in a database server?  
b) What are user accounts? How can they be created and modified?
- 6) Discuss the role of database encryption. What is the need of database encryption? How do you implement database encryption in a database?





**SECTION-D**

- 7) Explain the different aspects of database tuning in relational databases. How query tuning helps in database tuning.
- 8) Write short notes on :
  - a) Database clustering
  - b) Table optimizations

**SECTION-E**

- 9) Write briefly :
  - a) Compare oracle with MySQL database.
  - b) What is a subquery?
  - c) Why is database backup required?
  - d) What is the use of revoke privileges?
  - e) Discuss various communication protocols.
  - f) What are the steps involved in database startup?
  - g) Define High Availability in database.
  - h) What is an index? How can we declare an index with Sql?
  - i) What is database mirroring?
  - j) How can we identify full table scans?

**NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.**

