

# SWAMI VIVEKANANDA DEGREE COLLEGE

## Computer Science - Important Questions

### Database Management System

(Paper – IV)

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#### Unit – I

##### Short answer Questions

- 1) What is Database and DBMS
- 2) What is entity integrity and referential integrity
- 3) Define data model. List different data models
- 4) What is relational Algebra? What are unary operators?
- 5) Write a short note on Aggregation and Grouping operation
- 6) Define i) Data independence                      ii) Mappings
- 7) What are major components of DBMS environment?
- 8) Write a short note on Integrity constraint

##### Long answer questions

- 9) Explain advantages and disadvantages of DBMS
- 10) What is Three level ANSI – SPARC Architecture discuss in brief
- 11) What are the functions of DBMS?
- 12) Explain about various database languages
- 13) Write a short note on  
i) Database    ii) DBMS    iii) Traditional file band system
- 14) Explain Join operations with example
- 15) What is relational algebra? Explain unary and set operations.
- 16) Explain the different roles in Database environment

#### Unit – II

##### Short answer Questions

- 1) What is SQL? List datatypes in SQL.
- 2) Define trigger. List advantages of trigger
- 3) What is sub query?. Give an example
- 4) Explain GRANT & REVOKE with example
- 5) What is a cursor? What are its types?
- 6) Write a short note on transactions
- 7) What are ANY and ALL, EXIST and NOT EXISTS
- 8) Write a short note on updating view (View updatability)

##### Long answer questions

- 9) Explain in detail about integrity enhancement feature (Integrity constraints)
- 10) Explain DML commands with suitable examples
- 11) What is join? Explain different types of joins with examples
- 12) Explain DDL commands along with suitable example
- 13) What is PL/SQL? Explain control statements in PL/SQL
- 14) Write a short note on i) Function/procedures ii) Packages with example
- 15) Write a short note on  
i) WHERE CLAUSE            (ii) ORDER BY                      (iii) GROUP BY
- 16) Explain views in SQL

## UNIT – III

### Short answer Questions

- 1) What is functional dependency? What are its types?
- 2) What is transaction support? What are its properties?
- 3) Define Attribute and its types
- 4) Write a short note on aggregation and composition
- 5) Define entity. Draw and ER diagram for binary reaction
- 6) What is composite and derived attribute?
- 7) Define entity. What are types of entities (Strong, Weak)
- 8) What are Anomalies(types)

### Long answer questions

- 9) What is ER modeling? Explain basic concepts of ER – Model
- 10) Briefly explain the process of specialization and Generalization
- 11) Define normalization. Explain the process of Normalization
- 12) What is relationship? What are its types (Structural Constants)
- 13) Briefly explain functional dependencies.
- 14) Discuss the problems with ER –models
- 15) Write a brief note on 1NF, 2NF, 3NF with example
- 16) How Normalization supports Database designing? Discuss

## UNIT – IV

### Short answer Questions

- 1) What are different states of transaction?
- 2) Write a short note on 2PL protocol
- 3) What are different states of transaction?
- 4) Write a short note on 2PL protocol
- 5) What are threats?
- 6) What is Time stamping?
- 7) Define data redundancy.
- 8) What is BCNF?

### Long answer questions

- 9) What is locking? Discuss different method of locking
- 10) Write a short note on
  - a) Access control
  - b) Encryption
  - c) Backup & recovery
- 11) Define serializability? Explain conflict and view serializability.
- 12) What is database recovery? What are different recovery facilities?
- 13) Briefly explain
  - i) Recovery techniques
  - (ii) Nested transactions
  - (iii) Optimistic technique
- 14) Briefly explain Granularity of data items
- 15) What is Dead Lock? What are the different techniques used to control deadlock
- 16) What is RAID? Explain different levels involved in RAID