

**DIPLOMA - VIEP - COMPUTER SCIENCE AND
ENGINEERING (DCSVI)**

Term-End Examination

December, 2017

00344

BICS-038 : DATABASE MANAGEMENT SYSTEM

Time : 2 hours

Maximum Marks : 70

Note : Attempt any **seven** questions. All questions carry equal marks.

1. (a) Describe the database system concept with a neat diagram. 5
(b) Explain database design with an example. 5
2. Draw an ER-diagram for a train berth reservation system. 10
3. (a) Discuss integrity constraints over relations. 5
(b) Differentiate between tables and views. 5
4. (a) Explain selection and projection operations of Relational Algebra with an example. 5
(b) What do you mean by Algebra overviews ? 5

5. (a) Describe complex integrity constraints in SQL triggers. 5
- (b) Explain in detail about active databases. 5
6. (a) Describe logical connectivities in relations with example. 5
- (b) Explain a basic SQL query with an example. 5
7. Explain the process of Normalization with suitable example. 10
8. (a) Describe in detail about comparison of file organisation over database. 5
- (b) Explain indexes and performance tuning. 5
9. Write short notes on the following :
- (a) ACID Properties 3
- (b) Transaction and Schedules 3
- (c) Concurrent Execution of Transactions 2
- (d) Locks 2
10. (a) Explain concurrency control with the help of an example. 5
- (b) Explain conflict serializability with suitable example. 5