

Time – Three hours
(Maximum Marks: 100)

[N.B. Answer all the questions, choosing any two subdivision from each question. Each subdivision carries 10 marks.]

1.
 - (a) Explain about the components of DBMS.
 - (b) Define key in DBMS. Write about any two types of keys with suitable examples.
 - (c) Discuss about any three types of data constraints.
 - (d) List and explain the commands used in MySQL Admin.

2.
 - (a) Write about any three numeric and string data types in MySQL.
 - (b) Explain Select, Insert and Update Commands with examples.
 - (c) Explain the Arithmetic and Comparison Operators in MySQL.
 - (d) List and explain the aggregate functions in MySQL.

3.
 - (a) Write a note on IF(), IF NULL(), CASE flow controls of MySQL.
 - (b) Discuss order by, group by with examples.
 - (c) Discuss about sub queries.
 - (d) Explain creating and updating views with example.

[Turn over....]

4.
 - (a) What is sequence? Explain the creation of sequence with an example.
 - (b) Explain about natural join, inner join and self join.
 - (c) Explain about Union in SQL.
 - (d) Discuss about grant and revoke commands with examples.
5.
 - (a) Discuss about creating and executing a stored procedure.
 - (b) Write about triggers with an example.
 - (c) What is a stored function? Give an example. List its advantages.
 - (d) Write notes about cursors and its creation with example.