

Instructions: Answer four (04) questions.

: This paper consists of 02 pages.

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01. i) List down five advantage of DBMS. (10 Marks)
- ii) List down three major components of a Database Management System and briefly explain them. (15 Marks)
02. i) Name three cardinalities. (06 Marks)
- ii) For what does 'SQL' stand for. (04 Marks)
- iii) Using example briefly explain the difference between 'Primary Key' and 'Foreign Key'. (15 Marks)
03. i) Draw a suitable ER diagram with suitable relations, for the following details. (15 Marks)
- Product : (ProductID, ProductName, Description, UnitPrice)
- Order : (OrderID, CustomerID, DateOrdered, DateRequired)
- OrderDetail : (ProductID, OrderID, Quantity)
- ii) Transform the above ER diagram in to a relational schema. (10 Marks)
04. Customer

First Name	Last Name	Address	City	Age
Mickey	Mouse	123 Fantasy Way	Anaheim	73
Bat	Man	321 Cavern Ave	Gotham	54
Wonder	Woman	987 Truth Way	Paradise	39
Donald	Duck	555 Quack Street	Mallard	65
Bugs	Bunny	567 Carrot Street	Rascal	58
Wiley	Coyote	999 Acme Way	Canyon	61
Cat	Woman	234 Purrfect Street	Hairball	32
Tweety	Bird	543	Itotltaw	28

Considering the above 'Customer' table, write SQL statements for the following.

- i) Create the above table called 'Customer' and fields by giving suitable data types. (10 Marks)
  - ii) Select all customer details where the Age is above 50. (05 Marks)
  - iii) Add the following record as new record to the customer table. (05 Marks)  
(Tweety, Bird, 543, Itotitaw, 28)
  - iv) Delete all records with the LastName that is equal to Woman. (05 Marks)
- 05.
- i) Briefly explain Functional dependency and Transitive dependency. (10 Marks)
  - ii) Name three anomalies in database normalization. (06 Marks)
  - iii) Briefly explain them. (09 Marks)

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