

INDIAN INSTITUTE OF INFORMATION TECHNOLOGY, DESIGN & MANUFACTURING, JABALPUR

DBMS Assignment 10

1 Suppose we have the following database schema:

INVENTORY (ITEMID, DESCRIPTION, MANF, QUANTITY, PRICE)

MANF (MANFID, NAME, ADDR)

In INVENTORY, the five attributes are, in order:

- A unique integer identifying the item.
- A (not necessarily unique) description of the item, e.g., “half sleeved shirt”.
- The ID of the manufacturer of the item.
- The quantity of the item in stock.
- The price at which the item is sold.

(a) In the MANF relation, the attributes are the (unique) manufacturer’s ID, name (also assumed unique), and address, respectively. Write the following queries and modifications in SQL.

Find the names of the manufacturers of items whose description includes *cosmetics* as a substring.

(b) Find, for each manufacturer, the average quantity of their items in inventory. Manufacturers can be represented by their ID.

(c) Set to 0 the quantity of all items supplied by the manufacturer named Amit.

(d) Find the item ID’s such that there is another item with the same description sold at a lower price.

(e) Create table INVENTORY including the following constraints:

- ITEM ID is primary key.
- The ITEMID must be an integer in the range 0 to 32,000.
- If the price of an item is greater than Rs. 1000, then the quantity on hand must be less than 10.