

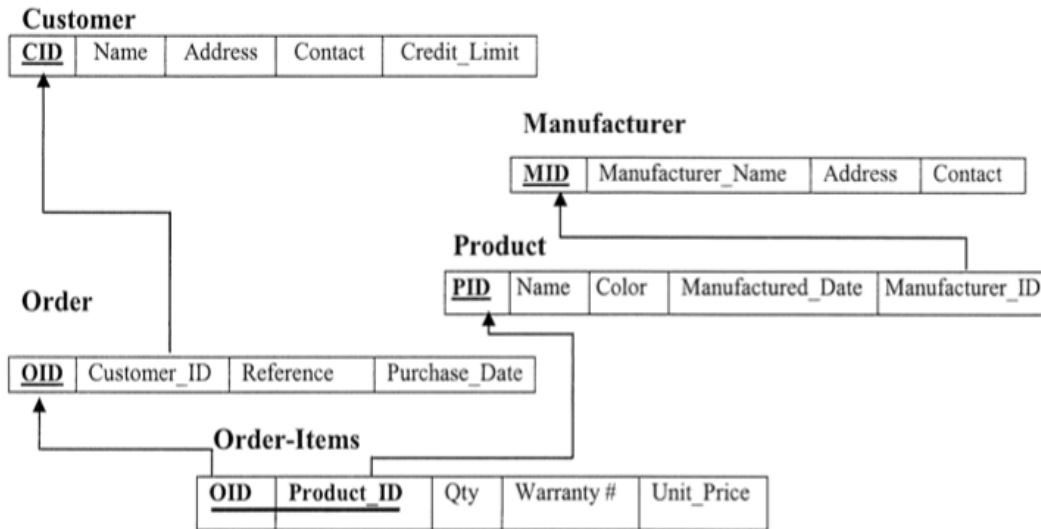


Database (630323) Second Exam

Student Name: -

ID: -

Question 1: The following relational schema represent an electrical machines store data base. Answer the following questions depending on the schema bellow.



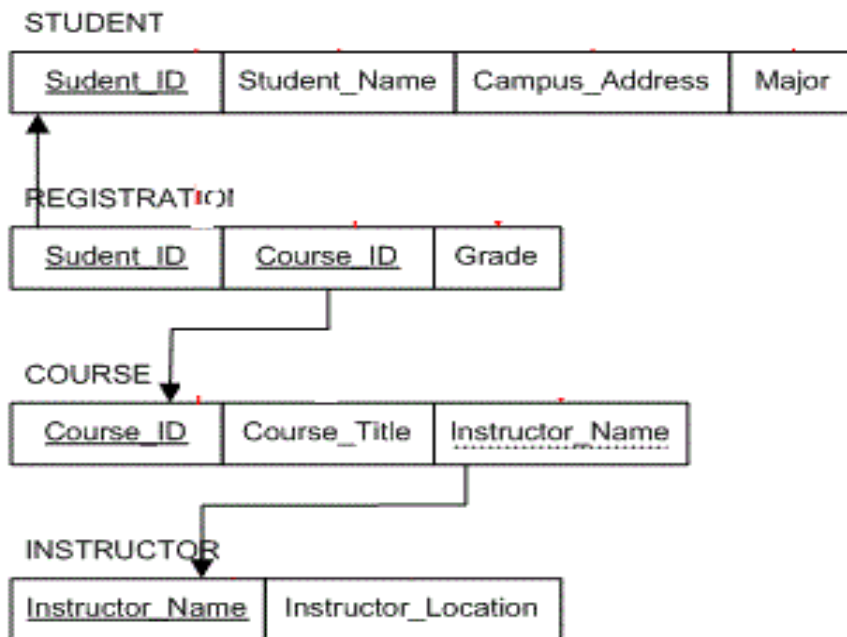
A) Write a relational algebra expressions for the following tasks

- 1- Select customers' names who purchase a product manufactured in 2010. 1 point
- 2- Select the OID and the sum of Qty purchased by that order (use aggregate function). 1point
- 3- Select MID whose addresses in Amman but do not manufacture a yellow products. 1point
- 4- Select the CID of customers that their addresses in 'Aqaba, or purchased o product in 2014. 1point

B) Write a relational calculus expressions for the following tasks

- 1- Select customers' names and addresses who bought a products in 2016. 1point
- 2- Select PID of product that unit price is more than 100 and manufactured date is 2012. 1 point
- 3- Select the Manufacturer names that have a products with unit price more than 200 1 points

Question 2: The following relational schema represents a simple university department registration system,



Write SQL statements that perform the followings:

- 1- Select student ID and name whose major is 'computer engineering' 2 point
- 2- Select students names who got a grade 80 or higher in any course. 2 point
- 3- Select course ID and Course title registered by student 'sami' 2 points
- 4- Select students' names and ID with their instructor name for 'databases' course. 2 points
- 5- Select the Course ID and Course Title for courses whose instructor 'ali' 2 points
- 6- Create course relation using appropriate data types and . 3 points

Good Luck

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