Shahjalal University of Science and Technology | Department of Computer Science and Engineering
CSE 333 (Database Systems) | Term Test 1 | Time : **30 minutes** | Full Marks : **20** | 07-03-2022

Answer all the questions

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1. What are the properties that a primary key should have ? **2**
2. Briefly describe the roles of a database administrator. **3**
3. Consider the following relational database schema consisting of the following relation schemas -

customer (c_id, c_name, c_city)
shop (s_id, s_name, s_city)
product (p_id, p_price, p_rating)
order (o_id, c_id, s_id, p_id)
availability (s_id, p_id)

Answer the following questions using relational algebra queries : **5x3 = 15**

a) Find product ids with rating more than 3.5 that the customer with c_id 150 has ordered.
b) Find the order ids with prices less than 10$.
c) Find the shop names for the shops that are located in the same city as the customer with c_id 150.
d) Find customer names for those who do not have any product orders.
e) Find the product ids and names that are available in all the shops.

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