



DDD-1730
B. Sc. (I.T.) (Sem. IV) Examination
March / April - 2016
RDBMS - I

Time : 3 Hours]

[Total Marks : 70

Instruction :

<p>नीचे दृशवित्त निशानीवाणी विगतो उत्तरवडी पर अवश्य कपवी. Fillup strictly the details of signs on your answer book.</p> <p>Name of the Examination : ☛ B. Sc. (I.T.) (SEM. 4)</p> <p>Name of the Subject : ☛ RDBMS - 1</p> <p>☛ Subject Code No. : 1 7 3 0 ☛ Section No. (1, 2,.....) : NIL</p>	<p>Seat No. : <input type="text"/><input type="text"/><input type="text"/><input type="text"/><input type="text"/><input type="text"/><input type="text"/></p> <div style="border: 1px solid black; border-radius: 15px; padding: 10px; text-align: center; width: 100%;">Student's Signature</div>
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- 1 (a) Justify true or false. Give justification in both the cases : 10
(any five)
- (i) A non-trivial functional dependency implies dependent to be a proper subset of determinant.
 - (ii) The aggregate function sum only works with group by clause.
 - (iii) Main query will be executed first by oracle when sub query is present in the query string.
 - (iv) A view is physically located in the system.
 - (v) The composite primary key may results in partial functional dependency in a relation.
 - (vi) NULL values is same as 0.
- (b) The website like olx.com deals with sales and purchase 8
of used and old items. The registered user can only
perform the transaction of selling or purchasing product
or item. There are different options available for payment.
Create the ER diagram for this type of system.

- 2** Answer any three questions in detail : **18**
- (i) Define Normalization process. Which normal form is critical in DB design process ? Explain 2NF and 3NF with example.
 - (ii) How to implement integrity and referential integrity constraint ? Can we add the referential integrity constraint after table creation ? Explain with example.
 - (iii) Explain CREATE TABLE command with all options.
 - (iv) What are the different types of privileges ? Explain the grant and revoke command with example.
- 3** Answer the following questions : (any six) **18**
- (i) Explain any 6 rules of CODD's rule.
 - (ii) Explain any 3 numeric and string functions of the SQL.
 - (iii) Which query is executed by the oracle engine first ? Subquery or Main query ? Why ?
 - (iv) What is the difference between where clause and having clause ?
 - (v) Prove the union and decomposition rule of Armstrong axiom.
 - (vi) What is total participation of the entity ? Explain with example.
 - (vii) What is the use of rollup operator ?
- 4** Answer the following questions : (any four) **16**
- (i) What is data dictionary ? Why it is important ? Create the data dictionary for the real estate information system.
 - (ii) Explain ALTER table command with all options.
 - (iii) What is lossless and lossy decomposition ? Explain dependency preservation.
 - (iv) Explain 4NF with MVD.
 - (v) Solve the following queries with the assumption of having 2 tables : employee and department.
 - (a) Find the 2nd highest salary of the employee in IT department.
 - (b) Find the employee detail receiving salary more than the average salary of PURCHASE department.