cmp509_DBMS_Sem3_Jan2019

P131/P142/CMP509/EE/20190227

Time : 3 Hours **Marks : 80**

Instructions :

1. All Questions are Compulsory.
2. Each Sub-question carry 5 marks.
3. Each Sub-question should be answered between 75 to 100 words. Write every questions answer on separate page.
4. Question paper of 80 Marks, it will be converted in to your programme structure marks.

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1. Solve any **four** sub-questions.
   a) What is a string operation? Explain following string operations with syntax and example: 5
      i) Substring ii) REPLACE
      iii) REPLICATE iv) STUFF
      v) UPPER
   b) What is normalization? Why we need normalization? 5
   c) Explain following operations on transaction: 5
      i) Read-item (X)
      ii) Write-item (X)
   d) Give any four differences between DBMS and RDBMS? 5
   e) What is Metadata? 5

2. Solve any **four** sub-questions.
   a) Convert following student table into 1NF and 2NF: 5

Student	Age	Subject
Adam	15	Biology, Maths
Alex	14	Maths
Stuart	17	Maths

   b) Explain types of relationships. 5
   c) Define with example and syntax: group by clause. 5
   d) What are the advantages of PL-SQL? 5
   e) What is DDL? Explain any two DDL commands with example. 5

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3. Solve any **four** sub-questions.

a) What is a stored Procedure in SQL? Write the syntax for a stored Procedure. 5

b) Explain three level architecture (abstractions) in DBMS. 5

c) Explain the following terms: 5

i) Entity

ii) Attribute

iii) Domain

iv) Instance

v) Tuple

d) Explain with example: weak entity and strong entity. 5

e) Consider relational database: 5

Course (c_no., cname, faculty_no., price, advance)

i) Display course name, price, advance fee of course where advance is greater than 20000.

ii) Display all the details of courses whose name start with letter of any character between a and e.

iii) Calculate the total of unique value for the price for the course.

iv) Display the entire courses name in descending order.

v) Display all the courses details where price is null.

4. Solve any **four** sub-questions.

a) What is Data Constraints? Explain check constraint with example. 5

b) Write a short note on primary key with syntax and example. 5

c) Explain any five data types in SQL. 5

d) Explain Hierarchical Model with example. 5

e) What are different types of user that play different roles in a database environment? 5

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