**Database Management System – cs422 DE**

**Assignment 10 – Week 14**

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**This assignment is based on lecture 12 (chapter 24 – Distributed Databases)**

* Submit your *own work* on time. No credit will be given if the assignment is submitted after the due date.
* Note that the completed assignment should be submitted in .doc, .docx, .rtf or .pdf format only.
* In MCQs, if you think that your answer needs more explanation to get credit then please write it down.
* You are encouraged to discuss these questions in the Sakai forum.

1. Compare and contrast a DDBMS with distributed processing. Under what circumstances would you choose a DDBMS over distributed processing?

ANS:

1. Compare and contrast a DDBMS with a parallel DBMS. Under what circumstances would you choose a DDBMS over a parallel DBMS?

ANS:

1. Discuss the advantages and disadvantages of a DDBMS.

ANS:

1. What is the difference between a homogeneous and heterogeneous DDBMS? Under what circumstances would such systems generally arise?

ANS:

1. What functionality do you expect in a distributed DBMS?

ANS:

1. One problem area with DDBMSs is that of distributed database design. Discuss the issues that have to be addressed with distributed database design. Discuss how these issues apply to the global system catalog.

ANS:

1. What are the strategic objectives for the definition and allocation of fragments?

ANS:

1. Describe alternative schemes for fragmenting a global relation. State how you would check for correctness to ensure that the database does not undergo semantic change during fragmentation.

ANS:

1. What layers of transparency should be provided with a DDBMS? Give examples to illustrate your answer. Justify your answer.

ANS:

1. A DDBMS must ensure that no two sites create a database object with the same name. One solution to this problem is to create a central name server. What are the disadvantages with this approach?Propose an alternative approach that overcomes these disadvantages.

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