UNIVERSITY OF JOHANNESBURG

FACULTY OF MANAGEMENT

NOVEMBER 2014 EXAMINATION

DEPARTMENT OF APPLIED INFORMATION SYSTEMS

MODULE	:	**INFORMATION SYSTEMS 2B**
CODE	:	**ILS22B3 / IFS02B1**
DATE	:	**18 NOV 2014**
DURATION	:	**2 HOURS**
TIME	:	**08.30 AM**
TOTAL MARKS	:	**100**

EXAMINER	:	**Dr VENU KUTHADI**
MODERATOR	:	**Ms SREEDEVI.V**
NUMBER OF PAGES	:	**2 PAGES**

INSTRUCTIONS TO CANDIDATES:

- Read the questions carefully and answer ALL questions
- This is a closed book assessment
- Number your answers clearly
- Write neatly and legibly
- The general University of Johannesburg policies, procedures and rules pertaining to written assessments apply to this assessment.

ANSWER THE FOLLOWING QUESTIONS

1 List and Discuss the Five Transaction Properties. **[5]**

2 What is a deadlock and how can it be solved ? Discuss several deadlock avoidance strategies. **[5]**

3 Discuss the different phases of database Design with neat Diagram. **[10].**

4 Define Data Mining? Discuss different phases involved during data mining process with neat diagram. **[10]**

5 Define concurrency control and Explain the problems of simultaneous execution of transaction over a shared database with suitable example . **[10]**

6 Illustrate the Basic DBMs architecture with neat diagram. **[10]**

7 Illustrate the ADO/OLE-DB architecture showing how it interacts with ODBC and native connectivity options. **[10]**

8 Illustrate different data fragment strategies with suitable example. **[10]**

9 Demonstrate the performance improving techniques used to optimize data warehouse design for the star schema. **[10]**

10 Explain DBMs query processing with neat diagram. **[10]**

11 Define the following terms **[10]**

a) Heap files organization
b) Sequential file organization
c) B Trees
d) Bitmap indexes
e) Hashed File organization

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