



FACULTY/COLLEGE	College of Business and Economics
SCHOOL	School of Consumer Intelligence and Information Systems
DEPARTMENT	Applied Information Systems
CAMPUS(ES)	APB
MODULE NAME	Information Systems 2B
MODULE CODE	IFS02B1
SEMESTER	Second
ASSESSMENT OPPORTUNITY, MONTH AND YEAR	Supplementary Summative Assessment Opportunity December 2019

ASSESSMENT DATE	December 2019	SESSION	2
ASSESSOR(S)	Dr Kenneth Nwanua Ohei		
MODERATOR(S)	Dr Roelien Brink		
DURATION	2 hours	TOTAL MARKS	100

NUMBER OF PAGES OF QUESTION PAPER (Including cover page)	3
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INFORMATION/INSTRUCTIONS:

- Read the questions carefully and answer ALL questions in Section A and Section B.
- 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.

SECTION A [SHORT COMPREHENSION]**[40 MARKS]****Question 1**

When concurrent control of simultaneous transactions are not properly managed, it can create several data integrity and consistency problems. Discuss these problems and give example of each

[10 MARKS]**Question 2**

Describe the minimum desirable features of DDBMS transparency

[10 MARKS]**Question 3**

a. Identify the three (3) components of ODBC Architecture

[3 MARKS]

b. Write the full meaning of the following abbreviations:

a. ODBC

b. DAO

c. RDO

d. OLE-DB

e. ADO.NET

f. JDBC

g. SQL

[7 MARKS]**Question 4**

a. Define Hadoop and how it came into existence

[2 MARKS]

b. Explain the two important components of Hadoop

[4 MARKS]

c. Define NoSQL

[2 MARKS]

d. Describe Data analytics

[2 MARKS]**SECTION B [LONG COMPREHENSION]****[60 MARKS]****Question 5**

a. Explain the concept of Big Data

[3 MARKS]

b. Discuss in detail the “3 Vs” of Big Data. How has the definition of Big Data regarding these items changed over time?

[9 MARKS]**Question 6**

- a. Describe security vulnerability and give example of security vulnerability [3 MARKS]
- b. Describe security threat and give example of security threat [3 MARKS]
- c. Describe security breach and give example of security breach [3 MARKS]
- d. Rapid changes in information technology and the Internet revolution led to the introduction of advanced BI systems. Define Business Intelligence [3 MARKS]
- e. Name the three (3) basic components of Business Intelligence framework [3 MARKS]

Question 7

- a. Discuss deadlock embrace and give example?
- b. In the event to be able to control and ensure that simultaneous or concurrent transactions taking do in a multiuser database environment do not conflict with each other. Discuss in detail the three (3) basic techniques to control deadlocks

[15 MARKS]**Question 8**

- a. Using the data table below, write SQL code to create a table called “**Employee**”
- b. Write SQL code to insert into the **employee table** as shown in the above employee table
- c. Write SQL code to insert into the **employee table** as shown in the above employee table

emp_id	emp_name	street	city
1	Thabo	05 Rus road	Johannesburg
2	Steven	22 De Kock Str	Durban
3	John	08 Kubu Str	Pretoria
4	Anna	23 Oxford road	Cape Town
5	Adolf	05 Caroline Str	Johannesburg
6	Jacob	12 Stanley road	Pretoria

[18 MARKS]**Total: 100 Marks**
