

Uganda Martyrs University
UNIVERSITY EXAMINATIONS

FACULTY OF SCIENCE
DEPARTMENT OF COMPUTER SCIENCE & INFORMATION SYSTEMS
END OF SEMESTER FINAL ASSESMENT
SEMESTER ONE, 2023/2024

COURSE	:	BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY
CLASS/YEAR	:	THREE
EXAM	:	DATE WAREHOUSING AND BUSINESS INTELLIGENCE
CODE	:	CSC 3101
SEMESTER	:	ONE
DATE	:	18th DEC 2023
TIME	:	9:00-12:00 Noon
DURATION	:	3 HOURS

Instructions

1. Attempt any **FIVE** Questions, each question carries 20 marks.
 2. Time Allowed is 3 Hours Only.
 3. Attempt each question on a fresh page.
 4. Write well and space your work widely.
 5. Write your course and registration number on all your answer sheets.
 6. All answers should be written on the answer booklet
 7. All University Examination rules apply.
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Attempt ANY FIVE questions

QUESTION ONE

- (a) Define a Data Warehouse explaining each of the key terms used in that definition.
- (b) Differentiate between Data Warehousing and Business Intelligence.

QUESTION TWO

- (a) **Cross-Industry Standard Process for Data Mining—CRISP-DM** serves as a nonproprietary standard methodology for data mining. Among the steps in this methodology is “model Building”. Explain this step clearly.
- (b) A variety of methods are available for performing data mining studies, including classification, regression, clustering, and association. Write short notes about Classification and Clustering.

QUESTION THREE

- (a) Roll up and drill down are two common concepts in Business Intelligence. With examples, explain those two terms clearly.
- (b) Differentiate between OLAP and OLTP systems.

QUESTION FOUR

- (a) Web Mining is divided into Web content mining, Web structure mining and web usage mining. Write short notes about each of the above.
- (b) In an e-commerce context, what are the potential applications of web usage mining?

QUESTION FIVE

- (a) Explain the term Market Basket Analysis.
- (b) What are the advantages of Market Basket Analysis in the context of a big Supermarket in Masaka City.

QUESTION SIX

- (a) In a Social media application like Tik Tok or WhatsApp, isolate functionalities in any of those applications that are based on topics you have studied in Data Warehousing and Business Intelligence.
- (b) With examples, explain the following terms: Fact table, Dimension table and Measures.

QUESTION SEVEN

- (a) Extract Transform and Load (ETL) is an important process in Data Warehousing. Explain the Transform component of ETL.
- (b) Using your own creativity, draw a well labelled diagram to depict/show the ETL process in a real Data Warehousing scenario.

END