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KIRIRI WOMENS' UNIVERSITY OF SCIENCE AND TECHNOLOGY
UNIVERSITY EXAMINATION, 2022/2023 ACADEMIC YEAR
THIRD YEAR, SECOND SEMESTER EXAMINATION
FOR THE DEGREE OF BACHELOR OF BUSINESS INFORMATION TECHNOLOGY

Date:

Time: 8.30am –10.30am

KBI 2309 - BUSINESS DECISION SUPPORT SYSTEMS

INSTRUCTIONS TO CANDIDATES

ANSWER QUESTION ONE (COMPULSORY) AND ANY OTHER TWO QUESTIONS

QUESTION ONE (30 MARKS)

- a) Explain the following as used in business information systems.
 - i. Data mining (4 marks)
 - ii. OLAP tools (4 marks)
- b) Explain any three advantages of business Intelligent systems (6 marks)
- c) Describe the following service models as used in cloud computing
 - i. Infrastructure-as-a-Service (IaaS) (3 marks)
 - ii. Platform-as-a-Service (PaaS) (3 marks)
- d) Explain three types of reports generated by the Management Reporting System(MRS) (6 marks)
- e) Differentiate between knowledge management and expert systems as used in business applications (4 marks)

QUESTION TWO (20 MARKS)

- a) Describe the major components of Decision Support Systems (9 marks)
- b) Explain the following learning techniques as used in artificial neural networks
 - i) Supervised learning (5 marks)
 - ii) Unsupervised learning (5 marks)

QUESTION THREE (20 MARKS)

- a) Explain the following mathematical/statistical models as used in decision support systems
 - i) Forecasting Model (3 marks)
 - ii) Optimization Analysis Model (3 marks)
 - iii) Backward Analysis Sensitivity Model (3 marks)
- b) Explain any five advantages of Business Intelligence Systems (5 marks)
- c) Differentiate between a data warehouse and a data mart using an appropriate illustration (6 marks)

QUESTION FOUR (20 MARKS)

- a) With an aid of a diagram explain the components of a data warehouse. (12 marks)
- b) Explain any four advantages of cloud computing as used in modern businesses. (8 marks)

QUESTION FIVE (20 marks)

- a) Differentiate between the following
 - i) Structured and unstructured decisions (4 marks)
 - ii) Transaction processing systems and executive information systems (4 marks)
- b) Explain the following data mining techniques
 - i) Classification (3 marks)
 - ii) Clustering (3 marks)
 - iii) Regression (3 marks)
 - iv) Association rules (3 marks)