



Kasarani Campus
Off Thika Road
Tel. 2042692 / 3
P. O. Box 49274, 00100
NAIROBI
Westlands Campus
Pamstech House
Woodvale Grove
Tel. 4442212
Fax: 4444175

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

KBI 2310 – DISTRIBUTED INFORMATION SYSTEMS AND DATA
PROTECTION

Date: 8th December, 2022
Time: 2:30PM – 4:30PM

INSTRUCTIONS TO CANDIDATES

ANSWER QUESTION ONE (COMPULSORY) AND ANY OTHER TWO QUESTIONS

QUESTION ONE COMPULSORY (30 MARKS)

- a) Discuss any five services on how the kernels and server processes manage resources and present clients with an interface to the resources. (5 marks)
- b) State and explain any five types of feasibility analysis for organization security risk assessments. (5 marks)
- c) Describe any five components to be factored in in designing a useful risk assessment. (5 marks)
- d) State and explain any five primary requirements in the design and development of distributed systems. (5 marks)
- e) Describe any five Specific issues for distributed systems. (5marks)
- f) Discuss any five desirable features of a good global scheduling algorithms. (5 marks)

QUESTION TWO (20 MARKS)

- a) State and explain any four layers of Operating System in a distributed system comprise. (5 marks)
- b) Describe any five ways Database Management System provides controlled access to the database. (5 marks)
- c) Describe any five challenges to intellectual property rights. (5 marks)
- d) State and explain any five threats to Confidentiality. (5 marks)

QUESTION THREE (20 MARKS)

- a) Describe the tools that help search engines performance (10 marks)
- b) Explain the alternatives that can be explored in case of zero search results (10 marks)

QUESTION FOUR (20 MARKS)

- a) Describe any five reasons why we have an Increase in Cyber Intelligence. (5 marks)
- b) State and explain any characteristics distributed system. (5 marks)
- c) State and explain any five steps to assessed cyber security risks in organizations. (5 marks)
- d) State and explain the five-step process in ethical analysis. (5 marks)

QUESTION FIVE (20 MARKS)

- a) State and explain any six rights of data subjects as best Practices Guidance on Data Protection for System Designers. (6 marks)
- b) Describe any four disadvantages of distributed systems. (4 marks)
- c) Describe any three technique types of process allocation in distributed operating systems. (6 marks)
- d) Describe any five Basic concepts for ethical analysis. (4 marks)