



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 WOMEN'S UNIVERSITY OF SCIENCE AND TECHNOLOGY
UNIVERSITY EXAMINATION, 2024/2025 ACADEMIC YEAR
FIRST YEAR, FIRST SEMESTER EXAMINATION
FOR THE BACHELOR OF SCIENCE IN INFORMATION TECHNOLOGY
KIT 2101 – FUNDAMENTALS OF INFORMATION TECHNOLOGY

Date: 10TH December 2024
Time: 2:30APM – 4:30PM

INSTRUCTIONS TO CANDIDATES

ANSWER QUESTION ONE (COMPULSORY) AND ANY OTHER TWO QUESTIONS

QUESTION ONE (30 MARKS)

Elton Hotel, a luxury chain in the hospitality industry, is leveraging advanced computer systems and networking technologies to improve its operations. The hotel utilizes information systems to streamline reservation processes, enhance customer service, and optimize its pricing strategies. Furthermore, the hotel has implemented internet-based services to improve guest experiences, facilitate online bookings, and maintain a competitive edge.

- a) Using two relevant examples, explain how Elton hotel can use information systems to analyse market trends, optimize registration, manage pricing strategies, and improve customer service experiences. (4 Marks)
- b) Evaluate two roles of information systems in shaping Elton hotel's competitive strategy and responding to dynamic market conditions in the hospitality sector. (4 Marks)
- c) Discuss how internet-based services in hospitality are influencing the entry of new competitors in the hotel industry. (5 Marks)
- d) Explain four regulatory challenges that new entrants in the hospitality industry may face regarding data privacy, networking, and internet use. (4 Marks)
- e) Discuss how these challenges can be overcome by hotels using advanced networking and data management solutions. (4 Marks)
- f) Explain how the need for high capital investment in it infrastructure and networking can affect the entry of new players in the hotel industry. (4 Marks)
- g) Discuss five types of information systems being used in the hospitality sector and their role in enhancing guest experiences and operational efficiency at Elton hotel. (5 Marks)

QUESTION TWO (20 MARKS)

Gatondo Primary School aims to enhance its educational capabilities by integrating various types of computers and technology into its teaching and administrative processes. As the school explores options for computer procurement, it is essential to understand the different generations of computers, their specifications, and the specific needs of an educational environment. The school seeks to implement systems that can manage student records, support e-learning platforms, and facilitate communication among staff, students, and parents.

- a) Discuss 3 key specifications Gatondo primary school should consider when procuring computers for educational purposes. (6 Marks)
- b) Explain 4 hardware and software features essential for smooth online learning and student data privacy at Gatondo primary school. (4 Marks)
- c) Identify 2 types of computers (from different generations) that are suitable for Gatondo primary school and discuss their uses. (4 Marks)
- d) Discuss the benefits and challenges of using computers in an educational setting like Gatondo primary school. (3 Marks)

- e) Explain how the integration of modern computer systems can transform teaching and learning at Gatondo primary school. (3 Marks)

QUESTION THREE (20 MARKS)

Panda Hospital, a rapidly growing healthcare facility, is exploring the integration of artificial intelligence (AI) into its operations to enhance patient care and streamline administrative tasks. As the hospital aims to improve diagnosis accuracy, optimize resource allocation, and enhance patient experiences, it faces several challenges related to implementing AI technologies effectively.

- Discuss how the use of artificial intelligence can enhance workplace productivity and efficiency at panda hospital. provide 2 examples of ai applications in healthcare. (4 Marks)
- Explain how ai technologies can improve communication and collaboration among healthcare teams at panda hospital. list any 2 specific tools and explain their contribution. (4 Marks)
- Discuss any 2 challenges that panda hospital might face in integrating artificial intelligence into its operations. (5 Marks)
- Evaluate the importance of training staff in ai technology to ensure successful implementation at panda hospital. what key areas should be covered in the training? (3 Marks)
- Analyze the role of ai in enhancing patient care at panda hospital. what specific outcomes can be expected? (4 Marks)
- Discuss the ethical considerations of using Artificial Intelligence in patient care at Panda hospital. What measures should be implemented to address these concerns? (2 Marks)

QUESTION FOUR (20 MARKS)

Kawempe Library, a community-driven institution, aims to upgrade its digital infrastructure by adopting cloud computing to manage its growing volume of digital resources, user records, and administrative processes. The library also plans to offer cloud-based access to e-books, research articles, and digital media for its patrons. While cloud computing offers significant benefits, Kawempe Library must address potential challenges such as data security, internet connectivity, and the cost of transitioning to the cloud.

- Discuss 3 key benefits of cloud computing for Kawempe library's digital resource management and daily operations. (6 Marks)
- Explain 4 challenges Kawempe library might face when implementing cloud computing solutions and how they can be mitigated. (4 Marks)
- Identify and discuss 2 types of cloud computing services that Kawempe library should use for efficient data management and user services. (4 Marks)
- Discuss the role of cloud computing in enhancing user experience and accessibility at Kawempe library. provide examples. (3 Marks)
- Explain how Kawempe library can ensure data privacy and compliance when using cloud computing for user records and digital resources. (3 Marks)

QUESTION FIVE (20 MARKS)

Elite Digital Company specializes in managing social media accounts for various clients, ranging from small businesses to large corporations. As part of their services, they gather, analyze, and share data related to user engagement, brand performance, and online interactions. While data collection is essential for social media management, ethical concerns have arisen regarding the use of user data, especially around issues such as privacy, consent, and the manipulation of information. Elite Digital is committed to maintaining ethical standards while balancing business goals with responsible use of social media data.

- Discuss 3 key ethical issues related to the use of user data by social media management companies like elite digital. (6 Marks)
- Explain 4 challenges elite digital might face in balancing business goals with ethical data use on social media. how can these challenges be addressed? (4 Marks)
- Identify and discuss 2 methods elite digital can use to ensure data privacy and ethical social media practices. (4 Marks)
- Discuss the role of ethical rules in shaping social media strategies for elite digital and provide two examples. (4 Marks)
- Explain how elite digital can ensure compliance with social media regulations and maintain ethical standards while managing clients' social media accounts. (2 Marks)