



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, 2024/2025 ACADEMIC YEAR
FIRST YEAR, SECOND SEMESTER EXAMINATION
FOR THE CERTIFICATE IN INFORMATION TECHNOLOGY
CIT 1006 COMPUTER MANTAINANCE AND SUPPORT

Date: 8TH AUGUST 2024

Time: 11:30AM – 1:30PM

INSTRUCTIONS TO CANDIDATES

ANSWER QUESTION ONE (COMPULSORY) AND ANY OTHER TWO QUESTIONS

QUESTION ONE (30 MARKS)

IT Solutions Ltd. is a prominent IT services provider specializing in offering comprehensive support and maintenance solutions to a diverse client base. As the senior technician, you are tasked with ensuring smooth operations and resolving various computer system issues effectively.

Required:

- a) List and explain three common software issues that can affect a computer's performance at IT Solutions Limited. (6 Marks)
- b) Discuss six steps involved in installing and configuring a new hardware component in a computer system at IT Solutions Limited. (6 Marks)
- c) Explain the importance of performing regular software updates and patches in computer systems at IT Solutions Limited. (4 Marks)
- d) Differentiate between hardware maintenance and software maintenance in a computer system. (2 Marks)
- e) How can IT Solutions Ltd. implement sustainable practices in managing electronic waste generated from outdated or discarded hardware and devices? (6 Marks)
- f) Clients of IT Solutions Limited are experiencing blue screen errors occasionally. Explain what the Blue Screen of Death (BSOD) is and discuss basic troubleshooting steps used at IT Solutions Ltd. (6 Marks)

QUESTION TWO (20 MARKS)

- a) Discuss the importance of data recovery and backup solutions in maintaining data integrity for both individual users and businesses. (4 Marks)
- b) Describe at least two different types of backup strategies and two recovery methods. Provide examples of scenarios where each method would be most effective. (6 Marks)
- c) Explain the concept of security best practices in computer maintenance. (2 Marks)
- d) Identify and discuss four common security threats faced by computer systems. For each threat, outline a specific method or tool that can be used to mitigate it. (8 Marks)

QUESTION THREE (20 MARKS)

XYZ Tech Solutions specializes in providing customized IT solutions to businesses of varying sizes. As a senior technician at XYZ Tech Solutions, you are responsible for managing software installation processes efficiently.

- a) Including considerations for different operating systems and types of software, describe the steps involved in installing and configuring software on a new computer system at XYZ Tech Solutions. (8 Marks)
- b) Outlining methods to troubleshoot, discuss common challenges or issues technicians may encounter during software installations. (6 Marks)
- c) Explain the importance of software licensing and compliance in IT systems management at XYZ Tech Solutions. (6 Marks)

QUESTION FOUR (20 MARKS)

- a) Compare and contrast different types of storage devices used in computers, including examples of situations where each type of storage device would be most suitable. (6 Marks)
- b) Explain the process of software maintenance and updates in computer systems. (6 Marks)
- c) Giving examples of software update tools, discuss the importance of keeping software up-to-date. (4 Marks)
- d) Describe methods for installing updates and patches securely. (4 Marks)

QUESTION FIVE (20 MARKS)

IT Solutions Ltd. is integrating emerging trends in computer user support into its service offerings to enhance client satisfaction and operational efficiency. As a senior technician, you are tasked with designing strategies and implementing these trends effectively.

- a) Explaining the potential benefits of each trend, discuss three emerging trends in computer user support that IT Solutions Ltd should adopt. (6 Marks)
- b) Outline the steps involved in implementing these emerging trends in computer user support at IT Solutions Ltd. (6 Marks)
- c) Providing examples of AI tools or technologies that can be integrated into IT Solutions Ltd.'s support framework, explain the role of AI (Artificial Intelligence) and automation in enhancing computer user support services. (6 Marks)
- d) Identify potential challenges or risks associated with adopting these emerging trends in computer user support. (2 Marks)