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**KIRIRI WOMEN'S UNIVERSITY OF SCIENCE AND TECHNOLOGY**  
**UNIVERSITY EXAMINATION, 2023/2024 ACADEMIC YEAR**  
**FIRST YEAR, SECOND SEMESTER EXAMINATION**  
**FOR THE DIPLOMA IN INFORMATION COMMUNICATION TECHNOLOGY**  
**DIT 1014 – COMPUTER MAINTENANCE AND SUPPORT**

Date: 14<sup>TH</sup> December, 2023  
Time: 8:30AM- 10:30AM

**INSTRUCTIONS TO CANDIDATES**

**ANSWER QUESTION ONE (COMPULSORY) AND ANY OTHER TWO QUESTIONS**

**QUESTION ONE (30 MARKS)**

1. Define computer maintenance and explain why it is important for the longevity and performance of computer systems (7 Marks)
2. What is data backup, and why is it crucial in computer maintenance? Discuss different backup methods and their advantages and disadvantages (8 Marks)
3. Describe the key components of a computer system that require regular maintenance and explain the specific tasks involved in maintaining each component (7 Marks)
4. What are the common signs that a computer may be experiencing hardware problems? Provide examples and explanations for each (8 Marks)

**QUESTION TWO (20 MARKS)**

1. Explain the concept of preventive maintenance for computers. Provide a list of tasks that should be included in a routine preventive maintenance schedule (8 Marks)
2. Discuss the importance of software updates and patches in computer maintenance. How can users ensure that their software is up-to-date? (7 Marks)
3. What is the role of antivirus software in computer maintenance and security? Explain how it works and why it is essential for protecting a computer system (5 Marks)

**QUESTION THREE (20 MARKS)**

1. Describe the steps involved in troubleshooting common computer issues. Provide examples of problems and the steps followed to resolve them (10 Marks)
2. Explain the concept of system optimization in computer maintenance. Provide examples of techniques and tools that can be used to optimize computer performance (10 Marks)

**QUESTION FOUR (20 MARKS)**

1. Discuss the ethical considerations and professional responsibility of computer maintenance professionals (8 Marks)
2. Discuss the importance of continuous improvement in helpdesk operations and how you plan to implement it in your organization (8 Marks)
3. Explore the following current trends and advancements in computer maintenance and support; cloud-based support, remote monitoring, and artificial intelligence (4 Marks)

**QUESTION FIVE (20 MARKS)**

1. Imagine you are the IT manager of a large multinational corporation with employees working across different time zones; discuss the key considerations and best practices for implementing an effective remote support system (10 Marks)
2. Explain how remote support tools, communication strategies, and security measures can be integrated to ensure seamless IT support for remote employees (10 Marks)