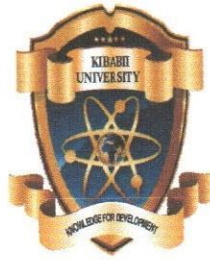


1.5



Knowledge for Development

**KIBABII UNIVERSITY
(KIBU)**

**UNIVERSITY MAIN EXAMINATIONS
2020/2021 ACADEMIC YEAR**

**END OF SEMESTER EXAMINATIONS
YEAR ONE SEMESTER ONE EXAMINATIONS**

**FOR THE DIPLOMA IN
(INFORMATION TECHNOLOGY)**

COURSE CODE: DIT 057

**COURSE TITLE: COMPUTER SYSTEMS
MAINTENANCE**

DATE: 22/07/2021

TIME: 9.00 AM- 11.00 AM

**INSTRUCTIONS TO CANDIDATES
ANSWER QUESTIONS ONE AND ANY OTHER TWO
TIME: 2 HOURS**

QUESTION ONE [COMPULSORY] [24 MARKS]

- (a) Define the following terms [6 marks]
- i. Motherboard
 - ii. Heatsink
 - iii. CMOS
 - iv. POST
 - v. BIOS
 - vi. UPS
- (b) Differentiate between Computer Repair and Computer Maintenance [4 marks]
- (c) Discuss the probable causes of overheating in computer system [4 marks]
- (d) Computer software can be divided into various categories, describe at least 3 of these categories [6 marks]
- (e) Discuss factors one should consider when selecting a computer system [4 marks]

QUESTION TWO [18 MARKS]

- (a) As a computer system maintenance officer, describe factors a user should consider when buying or replacing the following items for system upgrade [6 marks]
- (i) CPU
 - (ii) RAM
 - (iii) Hard drive
 - (iv) Monitor
 - (v) Printer
 - (vi) Motherboard
- (b) Without the operating system, a computer remains to be just pieces of metals and plastics. Discuss. [6 marks]
- (c) What are commonly errors displayed during POST [6 marks]

QUESTION THREE [18 MARKS]

- (a) Explain factors that may prevent a computer from booting. [6 marks]
- (b) Mention and describe functions of various utility programs [4 marks]
- (c) What causes a monitor to stop Displaying? [4 marks]
- (d) Explain factors that may prevent a computer from booting. [4 marks]

QUESTION FOUR [18 MARKS]

- (a) Discuss THREE different types of data backups [6marks]
- (b) Discuss how the following devices works [6marks]
- i. Optical mouse
 - ii. Capacitive keyboard
 - iii. LCD monitor
- (c) Explain preventative measures that can be put in place to protect a computer system from viruses. [6 marks]

QUESTION FIVE [18 MARKS]

- (a) What are safety precautions to be observed when repairing a computer? [6 marks]
- (b) Your managers have been complaining about his laptop performance. He says that it overheats, freezes and shuts down. He has decided to sort help from you to help troubleshoot, repair and maintain the laptop to optimize its performance. Discuss the procedures you should follow. [6 marks]
- (c) Computer systems always experience threats like theft, data loss, virus attacks and hacking. Discuss ways how this can be avoided. [6 marks]