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**JOMO KENYATTA UNIVERSITY**

**OF**

**AGRICULTURE AND TECHNOLOGY**

 **UNIVERSITY EXAMINATIONS 2016/2017**

**YEAR I SEMESTER III EXAMINATION FOR THE DIPLOMA IN INFORMATION TECHNOLOGY**

**DIT 0205: PRINCIPLES OF PC SUPPORT AND MAINTENANCE**

**DATE: APRIL 2017 TIME: 1 ½ HOURS**

**INSTRUCTIONS: ANSWER QUESTION ONE AND ANY OTHER TWO QUESTIONS**

**QUESTION ONE (30 MARKS)**

1. Explain any TWO specification you need to consider when choosing a mother board. [4 marks]
2. Explain the functions of an expansion slot. [4 marks]
3. Discuss the following acronyms as used in computer hardware;
4. BIOS [3 marks]
5. CMOS [3 marks]
6. POST [3 marks]
7. What are some of the factors that you need to consider when buying a hardware component. [5 marks]
8. Explain the FOUR types of computer maintenance. [8 marks]

**QUESTION TWO**

1. With the aid of a diagram, describe the steps the CPU takes in fetching and processing an instruction. [6 marks]
2. What are some of the factors that you need to consider when buying a hardware component. [4 marks]
3. Explain the following types of hard disks;
4. ATA [ 2 marks]
5. SATA [2 marks]
6. SCSI [2 marks]

**QUESTION THREE**

1. Ian Too’s computer is experiencing random lock ups and spontaneous reboots. He suspects that the power supply unit is faulty.

 **Required:**

1. Identify two methods of testing the power supply unit errors. [4 marks]
2. Indicate four safety precautions that Ian Too might need to observe commencing on troubleshooting his computer. [4 marks]
3. Explain the functions of the following motherboard components;
4. SATA connectors. [3 marks]
5. CMOS battery [3 marks]
6. Identify SIX advantages of computer based staff training. [6 marks]

**QUESTION FOUR**

1. Anita Deng fitted her computer with a new processor. However, she has continued to experience show processing and computer freezing. Her computer has no risks and no excess programs. Suggest FIVE possible actions that she could take to rectify this problem. [9 marks]
2. Differentiate between SIMM and DIMM [5 marks]
3. Explain the functions of an expansion slot. [3 marks]
4. Explain the difference between Cache and Buffer memory. [3 marks]

**QUESTION FIVE**

1. Briefly explain the purpose of the following in relation to a computer processor;
2. Hit sink compound [4 marks]
3. Processor fan [4 marks]
4. Suggest FIVE likely causes of “out of memory” error in computing. [5 marks]
5. Describe TWO methods used by windows operating system defender to protect a computer against \*\*\*\*\*\*\* [4 marks]
6. Define a jumper and explain its functions. [3 marks]