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**University Examinations 2014/2015**

STAGE III EXAMINATIONS FOR DIPLOMA IN INFORMATION TECHNOLOGY

**DIT 0301: PRINCIPLES OF COMPUTER SUPPORT AND MAINTENANCE**

**DATE: DECEMBER 2014 TIME: 1**$^{1}/\_{2}$ **HOURS**

**INSTRUCTIONS:** *Answer question* ***one*** *and any other* ***two*** *questions*

**QUESTION ONE (30 MARKS)**

1. Describe the boot process of a computer (3 marks)
2. If machine is giving continuous beeps during POST state the cause (2 marks)
3. State the meaning of BIOS and explain what it does (3 marks)
4. Describe various PC Busses and how they work (8 marks)
5. Why is important to wear an Anti-static (ESD) wristbands when operating a computer (2 marks)
6. Why is having a correct device driver so important (2 marks)
7. What is the difference in data transmission between the serial and parallel ports

(4 marks)

1. Define the term motherboard form factor. List and explain at least three different types of motherboard form factors (6 marks)

**QUESTION TWO (15 MARKS)**

1. What is the purpose of setup program (2 marks)
2. Explain features that have been put in place to ensure cooling of the processor

(3 marks)

1. List and explain the processor types used in computers today (6 marks)
2. List at least three recommendations to remember when upgrading or replacing a computer motherboard (3 marks)
3. Explain how the CMOS memory is maintained even when the computer is switched off (1 mark)

**QUESTION THREE (15 MARKS)**

1. List SIX common tools found in a preventive maintenance kit (3 marks)
2. Describe the different types of computer memory technologies available today

(4 marks)

1. When powering on a computer, you notice that the hard drive does not spin at all. Describe what you will check (3 marks)
2. What is fragmentation as it relates to hard drives (2 marks)
3. What is the purpose of a flash update (2 marks)
4. What is CHKDSK (1 mark)

**QUESTION FOUR (15 MARKS)**

1. Upon powering up a computer system, you receive a “Disk Boot Failure” error message. What should you do (2 marks)
2. Which tools are usually necessary to disassemble a microcomputer (2 marks)
3. List three purposes of a power supply (3 marks)
4. What features are important in a UPS (2 marks)
5. Name and explain three types of expansion slots (6 marks)

**QUESTION FIVE (15 MARKS)**

1. Name and explain the different types of computers available in the market mentioning advantages and disadvantages of each (8 marks)
2. List and explain at least **SEVEN** measures that a technician should take before opening a computer case (7 marks)