

# KASNEB

## CICT PART I SECTION 2

### COMPUTER SUPPORT AND MAINTENANCE

WEDNESDAY: 23 November 2016.

Time Allowed: 3 hours.

Answer ALL questions. Marks allocated to each question are shown at the end of the question.

#### QUESTION ONE

(a) Describe the roles performed by the following motherboard components:

- (i) CMOS RAM. (3 marks)
- (ii) Chipset. (2 marks)
- (iii) Switches and jumpers. (3 marks)

(b) A computer located in the same room with a cement testing equipment has the following problem:

- The computer will boot up but locks up after 5 to 10 minutes of use.
- After a lock-up, it will not reboot immediately.

The room has adequate cooling facilities.

#### Required:

- (i) Suggest two possible causes of the problem. (2 marks)
- (ii) For each of the causes identified in (b)(i) above, suggest a possible solution. (2 marks)
- (c) Outline three techniques of managing computer memory. (3 marks)
- (d) Suggest five reasons why it may be better to repair or upgrade a computer than replace it. (5 marks)

**(Total: 20 marks)**

#### QUESTION TWO

(a) Outline two advantages of each of the following methods of acquiring computer hardware:

- (i) Hire-purchase. (2 marks)
- (ii) Rental. (2 marks)
- (iii) Leasing. (2 marks)

(b) Summarise eight parameters which could be used to measure the performance of a computer monitor. (8 marks)

(c) Analyse six factors which should be considered when acquiring computer hardware. (6 marks)

**(Total: 20 marks)**

#### QUESTION THREE

(a) Highlight six common operations performed during software installation apart from the actual installation. (6 marks)

(b) To troubleshoot or repair computer systems properly, a few basic tools are required.

#### Required:

Identify six basic computer systems maintenance tools. (6 marks)

- (c) (i) Formulate three questions which you would ask a prospective computer repair technician before making a hiring decision. (6 marks)
- (ii) Suggest two services offered by a computer technician. (2 marks)
- (Total: 20 marks)**

**QUESTION FOUR**

- (a) A wide range of problems can damage the data on a computer hard drive.
- Required:**  
Enumerate five data damaging problems. (5 marks)
- (b) Identify three ways computer systems connect to liquid crystal display (LCD) panels. (3 marks)
- (c) Describe four steps that could assist in solving common power supply related problems. (4 marks)
- (d) (i) Describe the term “ROM shadowing” in the context of computer memory. (2 marks)
- (ii) Outline the steps involved in isolating computer memory defects. (6 marks)
- (Total: 20 marks)**

**QUESTION FIVE**

- (a) (i) Outline three functions of a computer processor. (3 marks)
- (ii) Examine three key components in a processor, (6 marks)
- (iii) Explain the connection between a computer program and the processor. (5 marks)
- (b) Highlight the general procedure of handling electrostatic-sensitive devices (ESD). (6 marks)
- (Total: 20 marks)**
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