

KASNEB

DICT LEVEL II

COMPUTER SUPPORT AND MAINTENANCE

PILOT PAPER

September 2015.

Time Allowed: 3 hours.

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

QUESTION ONE

- (a) (i) Describe the function of a “logic pulser”. (2 marks)
- (ii) Highlight six personal computer (PC) problems related to the power supply. (6 marks)
- (b) Outline six factors to consider when selecting a motherboard. (6 marks)
- (c) Tabulate three key differences between DRAM and SRAM. (6 marks)
- (Total: 20 marks)**

QUESTION TWO

- (a) Differentiate between “incremental backups” and “differential backups”. (4 marks)
- (b) Cosmic rays and other radiation events are the major cause of soft errors.
- Required:**
List five other causes of soft errors. (5 marks)
- (c) Explain the function of transient response as used in power supply. (2 marks)
- (d) (i) Describe a protected mode processor. (3 marks)
- (ii) Write six key features of a PCI express bus. (6 marks)
- (Total: 20 marks)**

QUESTION THREE

- (a) (i) Describe a memory mapped file. (2 marks)
- (ii) Differentiate between persistent memory mapped file and a non-persistent memory mapped file. (4 marks)
- (b) Highlight five events that could be diagnosed as resource conflicts. (5 marks)
- (c) Outline four main local buses found in a computer. (4 marks)
- (d) List five PC maintenance tools. (5 marks)
- (Total: 20 marks)**

QUESTION FOUR

- (a) (i) Define a “refurbished computer”. (1 mark)
- (ii) Highlight two advantages and three disadvantages of refurbished computers. (5 marks)
- (b) Differentiate between an “implied warranty” and an “express warranty”. (4 marks)
- (c) Describe the following types of flat panel display technology:
- (i) Liquid crystal panels. (5 marks)
- (ii) Plasma panels. (5 marks)
- (Total: 20 marks)**

QUESTION FIVE

(a) Explain functions of the following software programs:

(i) Scandisk. (2 marks)

(ii) Chkdsk. (2 marks)

(b) Explain three challenges of electronic waste management in developing countries. (6 marks)

(c) (i) Identify two motherboard form factors. (2 marks)

(ii) Outline the steps involved when installing a motherboard on a computer. (8 marks)

(Total: 20 marks)

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