



DICT LEVEL II

COMPUTER SUPPORT AND MAINTENANCE

TUESDAY: 22 May 2018.

Time Allowed: 3 hours.

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

QUESTION ONE

(a) Define the following terms as used in computing:

(i) Computer support. (2 marks)

(ii) Computer maintenance. (2 marks)

(b) John Busuti, a technician at Mafunzo College was asked to replace a faulty optical drive.

Required:

Outline five components or tools necessary for the task. (5 marks)

(c) (i) Describe the term "incremental backup" as used in computing. (2 marks)

(ii) Highlight three advantages of incremental backup. (3 marks)

(d) Joyce Maleki suspects that her desktop computer has overheating problems.

Required:

(i) Identify two indicators of an overheating computer. (2 marks)

(ii) Suggest four possible causes of overheating in a computer. (4 marks)

(Total: 20 marks)

QUESTION TWO

(a) Outline two disadvantages of integrated motherboards. (2 marks)

(b) Explain four ways of determining the type of processor that a computer is using. (4 marks)

(c) Describe two methods of cooling a computer memory. (4 marks)

(d) Examine five roles of a technical checklist in system selection and acquisition. (5 marks)

(e) Outline the steps involved in installing a computer monitor. (5 marks)

(Total: 20 marks)

QUESTION THREE

(a) Sarah Maputo acquired a software product and found some installation specification requirements which she could not understand:

Required:

Explain to her the meaning of each of the specifications below:

(i) WOW 64. (2 marks)

- (ii) XGA (1024 x 768). (2 marks)
- (iii) Intel ® Core 2 duo 3.33 GHZ. (2 marks)
- (iv) EULA. (2 marks)
- (b) Distinguish between a “hard disk drive (HDD)” and a “solid state drive (SSD)” based on each of the following criteria:
- (i) Speed. (2 marks)
- (ii) Components. (2 marks)
- (iii) Noise. (2 marks)
- (c) Tom Mluba is troubleshooting a computer and suspects a power supply related problem.
- Required:**
- (i) Outline two indicators of a computer that has a power supply related problem. (2 marks)
- (ii) Propose four diagnostic techniques and procedures that could help Tom Mluba determine the possible power related problems. (4 marks)
- (Total: 20 marks)**

QUESTION FOUR

- (a) Propose four safety precautions you should observe when installing a motherboard. (4 marks)
- (b) Examine four methods of installing BIOS updates. (4 marks)
- (c) Summarise three advantages and three disadvantages of a screenless display. (6 marks)
- (d) Analyse three categories of technical support used in computing technology. (6 marks)
- (Total: 20 marks)**

QUESTION FIVE

- (a) Explain how the computer operating system could manage the following occurrences:
- (i) Computer running out of RAM. (2 marks)
- (ii) A newly added peripheral device. (2 marks)
- (iii) Correcting a hardware error during the booting process. (2 marks)
- (b) Jeff Kingi would like his new computer and mobile devices to assist him complete his assignments, pay bills, edit digital photos, post social media updates, and play games.
- Required:**
- Propose four programs and applications that Jeff Kingi should install in his computer and mobile devices. (4 marks)
- (c) With reference to question (b) above, describe how Jeff Kingi would address the following:
- (i) Detect computer viruses. (2 marks)
- (ii) Backup his computer. (2 marks)
- (iii) Use firewall. (2 marks)
- (iv) Defragment hard disks. (2 marks)
- (v) Uninstall an application program. (2 marks)
- (Total: 20 marks)**
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