



DICT LEVEL II

COMPUTER SUPPORT AND MAINTENANCE

TUESDAY: 31 August 2021.

Time Allowed: 3 hours.

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

QUESTION ONE

(a) Citing an example in each case, differentiate between the following terms:

- (i) "Primary storage devices" and "secondary storage devices". (4 marks)
- (ii) "Corrective computer maintenance" and "preventive computer maintenance". (4 marks)
- (b) Highlight three functions of a power supply unit in a computer system. (3 marks)
- (c) Examine five duties of the main Basic Input Output System (BIOS) during power on self test (POST). (5 marks)
- (d) Propose four reasons that could lead to "an illegal operation" command message while working on a computer. (4 marks)

(Total: 20 marks)

QUESTION TWO

- (a) (i) Explain the term "computer support". (2 marks)
- (ii) Enumerate three benefits that organisations could realise after adopting computer support services. (6 marks)
- (b) Summarise four compatibility issues that should be considered when installing or replacing a system motherboard. (4 marks)
- (c) Explain the following terms as used in computer security:
 - (i) Software piracy. (2 marks)
 - (ii) Unauthorised access. (2 marks)
- (d) Judy Malete was required to back up her computer during a routine preventive maintenance.

Required:

Outline four types of backup she could consider during the process. (4 marks)

(Total: 20 marks)

QUESTION THREE

- (a) Explain one reason why computer technicians are warned against opening the monitor and power supply unit during computer repairs. (2 marks)
- (b) (i) The number of bits a processor can operate at a time determines which operating system to install. Citing two reasons, justify why you would choose a 64-bit processor over a 32-bit processor. (4 marks)
- (ii) Outline four symptoms of a failing processor. (4 marks)
- (c) Mary Wacuka would like her computer to run faster. The computer has 4GB of memory installed on the motherboard. She decided to install additional 4GB of memory, but does not see any improvement in the performance.

Required:

- (i) Discuss the problem with the above memory upgrade. (2 marks)
- (ii) Examine the role of device manager in the above case. (2 marks)
- (d) Highlight six roles performed by a computer help desk analyst. (6 marks)

(Total: 20 marks)

QUESTION FOUR

(a) Compare a “hard disk drive” and “solid state drive” under the following criteria:

- (i) Weight. (2 marks)
- (ii) Dealing with vibration. (2 marks)
- (iii) Components. (2 marks)

(b) John Babu, a manager at ABC Ltd. has approached you to check on why his personal computer is operating slowly.

Required:

- (i) Suggest to the manager four possible reasons that could be making his computer slow. (4 marks)
- (ii) Propose remedy for any two suggestions mentioned in (b) (i) above. (2 marks)

(c) Outline two similarities between “Erasable programmable Read Only Memory (EPROM)” and “Electrically Erasable Programmable Read Only Memory (EEPROM)”.

(d) Distinguish between a “computer” and a “smartphone” under the following criteria:

- (i) Software. (2 marks)
- (ii) Power. (2 marks)
- (iii) Storage. (2 marks)

(Total: 20 marks)

QUESTION FIVE

(a) Explain the term “service level agreement”. (2 marks)

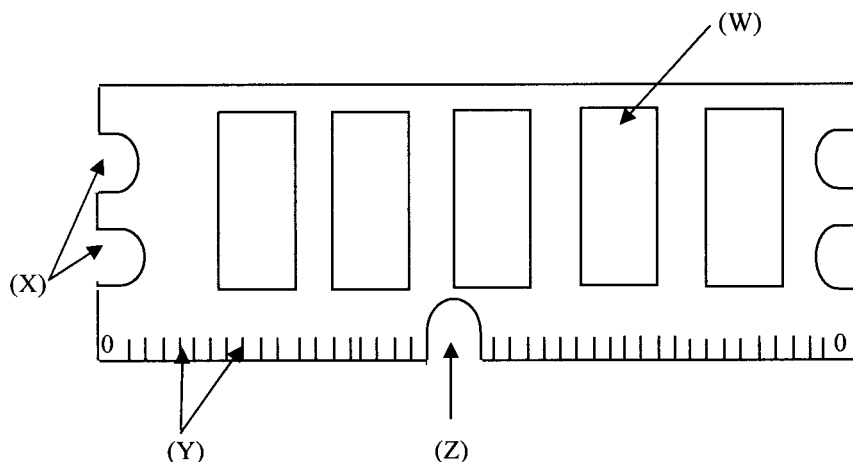
(b) Computer casings are known to house and secure computer motherboards.

Required:

- (i) List three types of computer casings. (3 marks)
- (ii) Analyse three factors that should be considered when selecting computer casings other than cost. (3 marks)

(c) Explain two environmental concerns in relation to unregulated electronic waste disposal. (4 marks)

(d) The figure below shows a computer component memory module (RAM).



Required:

- (i) Name the parts labelled W, X, Y and Z. (4 marks)
- (ii) Outline in four steps how the component is installed in a computer. (4 marks)
- (Total: 20 marks)**

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