

KASNEB

CICT PART I SECTION 2

COMPUTER SUPPORT AND MAINTENANCE

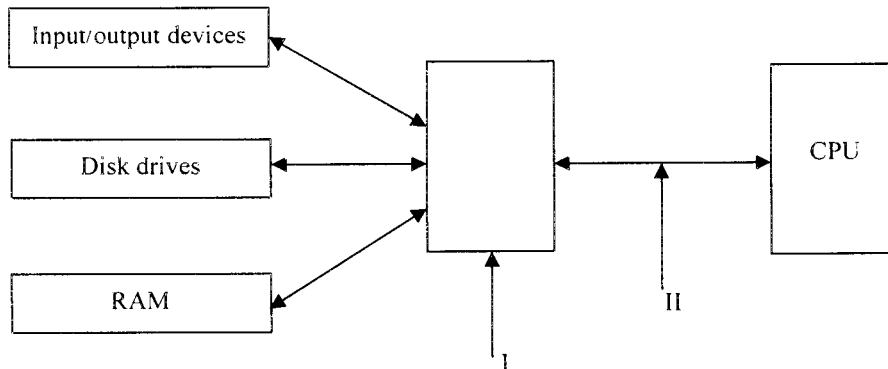
TUESDAY: 24 November 2015.

Time Allowed: 3 hours.

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

QUESTION ONE

(a) The figure below is an extract of the electronic components of a computer. Use it to answer the questions that follow:



Required:

- (i) Identify the parts labelled I and II. (2 marks)
 - (ii) Other than the main memory, outline three functional elements that make the part labelled central processing unit (CPU). (3 marks)
 - (iii) Describe three types of the part labelled II. (3 marks)
- (b) Describe three types of cables found inside the computer system unit. (6 marks)
- (c) Explain three reasons why even the simplest computer upgrade task on portable computers could be difficult. (6 marks)

(Total: 20 marks)

QUESTION TWO

- (a) Explain four characteristics of mobile microprocessors. (4 marks)
- (b) Distinguish between "dead pixel" and "stuck pixel" problems in flat panel displays. (4 marks)
- (c) Joy Nanjara's computer is running low on hard disk space and she intends to install a new software.

Required:

- (i) Describe a type of software installation that she could adopt to cope with low hard disk space problem. (2 marks)
 - (ii) Suggest three possible solutions to the low hard disk space problem. (6 marks)
- (d) Explain the functions of the following components in computer processor assembly:
- (i) Cores. (2 marks)
 - (ii) Clock speed. (2 marks)

(Total: 20 marks)

QUESTION THREE

- (a) Distinguish between the following computer security concepts:
 - (i) "Audit data" and "audit log". (4 marks)
 - (ii) "Authentication code" and "authentication mechanism". (4 marks)
 - (b) Highlight three duties of a personal computer (PC) support staff in relation to each of the following:
 - (i) Hardware. (3 marks)
 - (ii) Software. (3 marks)
 - (iii) Operational. (3 marks)
 - (c) Describe the procedure of replacing a faulty power supply unit. (3 marks)
- (Total: 20 marks)**

QUESTION FOUR

- (a) Summarise six factors that could be considered when purchasing a personal computer (PC) power supply unit. (6 marks)
 - (b) Describe the following emerging trends in computer support and maintenance:
 - (i) Consumerisation of information technology. (2 marks)
 - (ii) Enterprise mobility. (2 marks)
 - (c) Discuss five safety precautions you would take when assembling and disassembling a computer system unit. (10 marks)
- (Total: 20 marks)**

QUESTION FIVE

- (a) (i) Distinguish between "peer support" and "technical support" as used in computer user support. (2 marks)
 - (ii) Explain four compatibility issues to consider when selecting a processor for a motherboard. (8 marks)
 - (b) Upon booting his computer, Tom Owino noticed a strange whirring noise inside the system unit.

Required:

 - (i) Assist him to diagnose the possible source of the problem. (2 marks)
 - (ii) Suggest a solution to the problem identified in (b) (i) above. (2 marks)
 - (c) Citing an example in each case, distinguish between "express warranty" and "extended warranty". (6 marks)
- (Total: 20 marks)**
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