

KASNEB

DICT LEVEL I

INTRODUCTION TO COMPUTING

PILOT PAPER

September 2015.

Time Allowed: 3 hours.

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

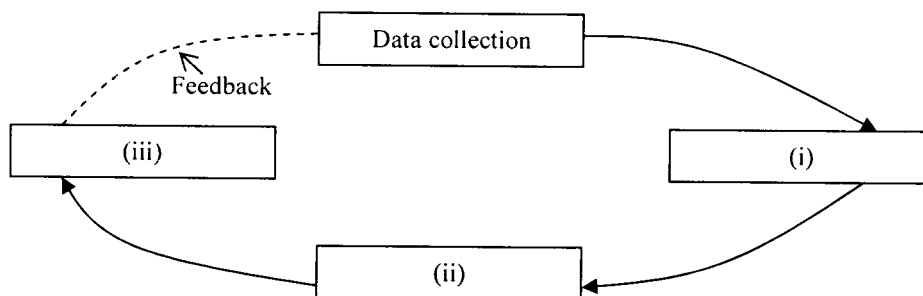
QUESTION ONE

- (a) Highlight four reasons for changing from a manual processing system to a computerised processing system. (4 marks)
- (b) Explain the impact of ICT on the following:
- (i) People with disability. (2 marks)
 - (ii) Working hours. (2 marks)
 - (iii) Learning. (2 marks)
 - (iv) Supermarkets. (2 marks)
- (c) Outline the circuitry technology for each of the following generations of computers:
- (i) First generation. (1 mark)
 - (ii) Third generation. (1 mark)
 - (iii) Fifth generation. (1 mark)
- (d) (i) List down three examples of automated data input devices. (3 marks)
- (ii) Identify two devices that can be used both as input and output devices. (2 marks)

(Total: 20 marks)

QUESTION TWO

- (a) (i) Define the term "batch processing". (2 marks)
- (ii) Propose two reasons why you would recommend batch processing despite the current technological advancement in ICT. (4 marks)
- (b) Explain five components of an information system. (5 marks)
- (c) Differentiate between "system software" and "application software". (4 marks)
- (d) The figure below shows a diagrammatical representation of the data processing cycle:

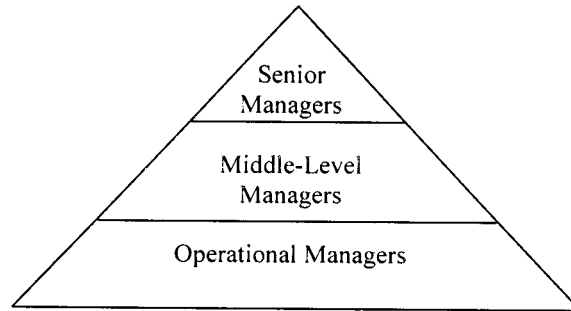


Required:

- (i) Identify the stages labelled (i) to (iii) on the diagram. (3 marks)
 - (ii) Highlight two activities undertaken during the process of data collection. (2 marks)
- (Total: 20 marks)**

QUESTION THREE

- (a) Distinguish between "removable" and "fixed" storage. (4 marks)
- (b) Suggest five causes of computerised information systems failure. (5 marks)
- (c) Outline three disadvantages of serial file organisation method. (6 marks)
- (d) The figure below shows the management hierarchy in an organisation:



Required:

- (i) Identify the kind of information system suitable, for each category of managers above. (3 marks)
 - (ii) Suggest the function of information system for the operational managers category. (2 marks)
- (Total: 20 marks)**

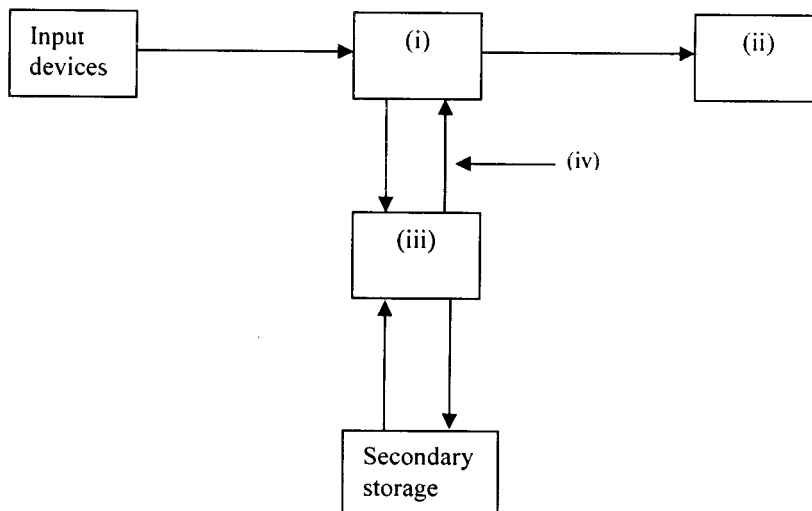
QUESTION FOUR

- (a) Mwanzo Company intends to recruit the following personnel through an advertisement:
 - (i) Computer technician.
 - (ii) Systems analyst.

Required:

Suggest three responsibilities of each personnel they might include in the advertisement. (6 marks)

- (b) The figure below shows the electronic components of a computer:



Required:

Identify the parts labelled (i) to (iv) on the above diagram. (4 marks)

(c) Describe the following computing terms:

- (i) Data pad. (2 marks)
- (ii) Miniaturisation. (2 marks)
- (iii) Mobile computing. (2 marks)
- (iv) Cloud computing. (2 marks)
- (v) Digital migration. (2 marks)

(Total: 20 marks)

QUESTION FIVE

- (a) Highlight five factors to be considered before acquiring a computer or hardware accessories. (5 marks)
- (b) Explain four security risks which should be considered when processing computer files. (8 marks)
- (c) (i) Outline five factors to consider in selecting secondary storage media. (5 marks)
- (ii) Explain the role of an information centre in a computing environment. (2 marks)

(Total: 20 marks)

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