



kasneb

CAMS LEVEL I

FUNDAMENTAL ICT SKILLS

TUESDAY: 21 May 2019.

Time Allowed: 3 hours.

Answer any FIVE questions.

ALL questions carry equal marks.

QUESTION ONE

- (a) Define the term “topology” in relation to computer networks. (2 marks)
- (b) Differentiate between a “mini computer” and a “micro computer”. (4 marks)
- (c) Identify four disadvantages to an organisation of using conventional file approach as compared to using a database system. (4 marks)
- (d) List two examples of mobile operating system. (2 marks)
- (e) Highlight:
- (i) Two disadvantages of sequential file organisation. (2 marks)
- (ii) Two advantages of random file organisation. (2 marks)
- (f) Differentiate between the following terms:
- (i) “System software” and “application software”. (2 marks)
- (ii) “Warm booting” and “cold booting”. (2 marks)
- (Total: 20 marks)**

QUESTION TWO

- (a) Highlight two functions of a firewall. (2 marks)
- (b) Describe two benefits associated with multiprocessing. (2 marks)
- (c) Internet has contributed greatly to globalisation:
- Required:**
- (i) Highlight two benefits brought about by globalisation. (2 marks)
- (ii) List two challenges of globalisation. (2 marks)
- (d) State two functions of a “digitiser”. (2 marks)
- (e) Explain two features of a presentation software. (4 marks)

- (f) Distinguish between the following terms:
- (i) "Source code" and "object code". (2 marks)
 - (ii) "Interpreter" and "compiler". (2 marks)
 - (iii) "Assembly language" and "high level language". (2 marks)
- (Total: 20 marks)**

QUESTION THREE

- (a) State three benefits of transmitting data in digital form as opposed to analog transmission of data. (3 marks)
 - (b) Outline three advantages associated with the use of email compared to traditional mail. (3 marks)
 - (c) Evaluate four common barriers to the use of information communication technology (ICT) in small businesses. (4 marks)
 - (d) Giving a reason in each case, state the most appropriate input device for each of the tasks below:
 - (i) Entering electricity bills in the utility company's system. (2 marks)
 - (ii) Processing book loans in a computerised library system. (2 marks)
 - (iii) Entering a text description of repairing a car engine whilst carrying out the repair. (2 marks)
 - (e) List four actions which a company should take on a day-to-day basis to ensure data security. (4 marks)
- (Total: 20 marks)**

QUESTION FOUR

- (a) Suggest two factors that are used to determine a file organisation method. (2 marks)
 - (b) Compare the first and third generation computers using the following characteristics:
 - (i) Size. (2 marks)
 - (ii) Programming languages used. (2 marks)
 - (c) State two wireless transmission media. (2 marks)
 - (d) Highlight four reasons why it is important to manage computer files. (4 marks)
 - (e) Ann intends to purchase a desktop computer for her office work. She has approached you seeking advice regarding the computer to buy.

Advice Ann on four factors that she should consider in selecting the best desktop computer for her office work. (4 marks)
 - (f) In modern business perspectives, information systems have far reaching effects for smooth and effective operations.

Outline four uses of information systems in business. (4 marks)
- (Total: 20 marks)**

QUESTION FIVE

- (a) Explain the following terms as used in a networking environment:
 - (i) Network Interface Card (NIC). (2 marks)
 - (ii) Hub. (2 marks)
 - (iii) Router. (2 marks)

- (b) Explain two information systems which are classified based on the mode of data processing. (4 marks)
 - (c) Secondary storage hardware is frequently used by companies to store data:
 - (i) Citing an example, explain the term “secondary storage”. (2 marks)
 - (ii) Evaluate four reasons why secondary storage is used in a computer. (4 marks)
 - (d) ABC Ltd. is a transport company with ten trucks. The company is considering replacing the current manual system being used with a computerised system.

Outline four advantages to ABC Ltd. which would result from the above change. (4 marks)
- (Total: 20 marks)**

QUESTION SIX

- (a) Distinguish between the following pairs of terms:
 - (i) Field and record. (2 marks)
 - (ii) Data and information. (2 marks)
 - (iii) Printer and plotter. (2 marks)
 - (iv) Hardware and firmware. (2 marks)
 - (b) Evaluate four ways in which businesses are using internet today. (4 marks)
 - (c) (i) List four security threats that computer users face today. (4 marks)
(ii) For each threat identified in (c) (i) above, explain how the threat can be mitigated. (4 marks)
- (Total: 20 marks)**

QUESTION SEVEN

- (a) Describe one reason why an organisation would wish to leave a cookie on a customer’s computer. (2 marks)
 - (b) (i) Define the meaning of the term “encryption” in the context of data security. (2 marks)
(ii) Explain why an organisation would wish to encrypt their data. (2 marks)
 - (c) Distinguish between the following terms:
 - (i) A “dumb terminal” and an “intelligent terminal”. (4 marks)
 - (ii) “Online storage” and “off-line storage”. (4 marks)
 - (d) Mr. Kamau is a small scale businessman dealing with clearing and forwarding of customer goods. Recently, a friend advised him to buy a computer to increase his productivity. However, after acquiring the computer hardware, he realised that after connecting all the components, he could not operate the computer since it did not have an operating system installed.

Explain three important factors that Mr. Kamau should consider when selecting the most suitable operating system for his computer. (6 marks)
- (Total: 20 marks)**
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