

**CICT PART I SECTION 1**  
**INTRODUCTION TO COMPUTING**

**MONDAY: 26 November 2018.**

**Time Allowed: 3 hours.**

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

**QUESTION ONE**

- (a) Assess five effects of information communication technology (ICT) on employment patterns. (5 marks)
- (b) David Mwamba has acquired a laptop which had Windows operating system installed at source. He has purchased Microsoft Office Suite on a DVD, but does not know how to install it.

**Required:**

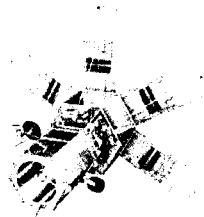
Advise David on how to install the software on his laptop. (5 marks)

- (c) (i) Explain the meaning of the term “shelfware”. (2 marks)
- (ii) Highlight two reasons that might cause a software to become shelfware. (2 marks)
- (d) (i) Identify the following communication devices:

I (1 mark)



II (1 mark)



- (ii) Citing two reasons in each case, justify the choice of communication devices in (d) (i) above. (4 marks)
- (Total: 20 marks)**

**QUESTION TWO**

- (a) Recommend the suitable application area for each of the following data transmission category:
  - (i) Narrowband. (1 mark)
  - (ii) Voiceband. (1 mark)
  - (iii) Broadband. (1 mark)
- (b) Consider three sets; A, B, and C. For each of these sets, draw a venn diagram and shade the area representing the following sets:
  - (i)  $A \cup B \cup C$ . (1 mark)
  - (ii)  $A \cap B \cap C$ . (2 marks)
  - (iii)  $A \cup (B \cap C)$ . (2 marks)

- (c) Compute the values of the number systems in the table below:

Binary	Octal	Decimal	Hexadecimal
-	24 <sub>8</sub>	-	-
-	-	39 <sub>10</sub>	-

(6 marks)

- (d) Citing three reasons, justify the use of a flash disk as a bootable device as opposed to the use of a compact disk (CD).

(6 marks)

**(Total: 20 marks)**

### QUESTION THREE

- (a) Distinguish between the following:

(i) "QWERTY keyboard" and "AZERTY keyboard". (4 marks)

(ii) "Optical mouse" and "trackball mouse". (4 marks)

- (b) Intensive typing on a keyboard may give rise to numerous health related complications to employees if not properly addressed.

**Required:**

(i) Identify two health related complications associated with intensive typing. (2 marks)

(ii) Suggest two preventive measures for the complications in (b) (i) above. (2 marks)

- (c) Discuss how you would troubleshoot the following computer problems:

(i) The printer is not working. (4 marks)

(ii) The computer is slow. (4 marks)

**(Total: 20 marks)**

### QUESTION FOUR

- (a) Explain the following terms as used in data security:

(i) Data encryption. (2 marks)

(ii) Cybercrime. (2 marks)

(iii) Spyware. (2 marks)

(iv) Phishing. (2 marks)

- (b) Identify the six stages of data processing cycle. (6 marks)

- (c) Distinguishing between "SRAM" and "DRAM" based on the following criteria:

(i) Application. (2 marks)

(ii) Decay. (2 marks)

(iii) Access time. (2 marks)

**(Total: 20 marks)**

### QUESTION FIVE

- (a) Draw a logic gate for each of the following Boolean expressions:

(i)  $F = (A.B)' + C.D$  (3 marks)

(ii)  $F = C.(A + B)'$  (3 marks)

- (b) Explain the following program errors:

(i) Syntax errors. (2 marks)

(ii) Semantic errors. (2 marks)

(iii) Logical errors. (2 marks)

- (c) (i) Define the term "cyber security". (2 marks)

(ii) Explain three areas covered in cyber security. (6 marks)

**(Total: 20 marks)**