

# KENYA CERTIFICATE OF BASIC EDUCATION

## SENIOR SCHOOL ASSESSMENT

### AUGUST ASSIGNMENT 2026

#### GRADE 10 – INFORMATION COMMUNICATION TECHNOLOGY

Time: 2 Hours



#### LEARNER'S DETAILS

Name: \_\_\_\_\_ School: \_\_\_\_\_

Assessment Number: \_\_\_\_\_ Date: \_\_\_\_\_

School Code: \_\_\_\_\_ Signature: \_\_\_\_\_

#### INSTRUCTIONS TO CANDIDATES

1. Write your details as required in the spaces provided above.
2. This paper consists of two sections: A and B.
3. Answer all questions in section A and section B.
4. Answer the questions in English.
5. All answers MUST be written in the spaces provided in the paper.
6. Do NOT remove any page from this question paper.

#### FOR OFFICIAL USE ONLY

| SECTION               | SECTION A | SECTION B | % SCORE | EE1      | EE2      | ME1      | ME2      | AE1      | AE2      | BE1      | BE2     |
|-----------------------|-----------|-----------|---------|----------|----------|----------|----------|----------|----------|----------|---------|
| SCORE RANGE           | 30 MARKS  | 50 MARKS  |         | 90-100   | 75-89    | 58-74    | 41-57    | 31-40    | 21-30    | 11-20    | 1-10    |
| POINTS                |           |           |         | 8 POINTS | 7 POINTS | 6 POINTS | 5 POINTS | 4 POINTS | 3 POINTS | 2 POINTS | 1 POINT |
| LEARNER'S TOTAL SCORE |           |           |         |          |          |          |          |          |          |          |         |

#### SECTION A (30 MARKS)

Answer **ALL** questions in this section.

1. Three learners from **Alliance High School** are visiting a local supermarket in **Kikuyu town** to observe ICT in action.

**Kendi:** "I see the cashier scanning barcodes to get prices instantly."

**Juma:** "The manager is using a system to track how many packets of milk are left in the store."

**Sifa:** "I noticed a security camera at the entrance connected to a monitor in the back office."

- (a) Match the learners' observations to the correct ICT application area: (3 marks)

- i. Kendi is observing: Point of Sale
- ii. Juma is observing: Inventory Control
- iii. Sifa is observing: Surveillance

(b) **Identify and Name** the components of the ICT infrastructure shown below: (4 marks)



i



ii



iii



iv

- i. \_\_\_\_\_
- ii. \_\_\_\_\_
- iii. \_\_\_\_\_
- iv. \_\_\_\_\_

(c) state whether the following statement is **True or False**: (3 marks)

- i. ICT can be used to solve community water shortages through remote sensor monitoring. [ \_\_\_\_\_ ]
- ii. Technology refers only to computers and excludes mobile phones. [ \_\_\_\_\_ ]
- iii. Information is the result of processing raw data. [ \_\_\_\_\_ ]

2. (a) **Define** the term "Operating System" as used in digital devices. (2 marks)

(b) **Identify** the following Operating System logos and **Name** the device type they primarily run on (Mobile or Desktop): (4 marks)



- i. M: \_\_\_\_\_ Device Type: \_\_\_\_\_
- ii. N: \_\_\_\_\_ Device Type: \_\_\_\_\_

(c) **Distinguish** between a **GUI (Graphical User Interface)** and a **Command Line Interface (CLI)** based on the visuals below. (4 marks)

| GUI | CLI |
|-----|-----|
|     |     |

3. (a) **Identify** the following icons found in a Word Processing ribbon: (3 marks)

**B**

X



Y



Z

- i. **Icon X:** \_\_\_\_\_
- ii. **Icon Y:** \_\_\_\_\_
- iii. **Icon Z:** \_\_\_\_\_

(b) **Outline** the steps taken by a learner at **Maseno School** to insert a Table of Contents automatically in a document. (4 marks)

- i. \_\_\_\_\_
- ii. \_\_\_\_\_
- iii. \_\_\_\_\_
- iv. \_\_\_\_\_

(c) **Mention** three formatting features that can be applied to a paragraph to make it professional. (3 marks)

- i. \_\_\_\_\_
- ii. \_\_\_\_\_
- iii. \_\_\_\_\_

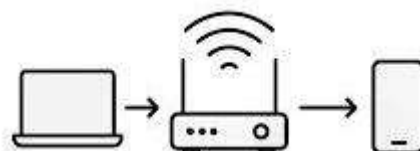
## SECTION B (50 MARKS)

4. A student in **Lodwar** wants to set up an internet connection to attend an online class. He has the following equipment on his desk:

(a) **Identify** the two methods of connection shown in the picture. (2 marks)



i



ii

- i. \_\_\_\_\_
- ii. \_\_\_\_\_

(b) **Explain** the function of an **ISP** in this scenario. (3 marks)

- i. \_\_\_\_\_
- ii. \_\_\_\_\_
- iii. \_\_\_\_\_

(c) **Compare** a **Web Browser** and a **Search Engine** as illustrated below: (4 marks)

| Web browser | Search engine |
|-------------|---------------|
|             |               |
|             |               |

(d) **Describe** two positive impacts of the internet on the society in Kenya. (4 marks)

- i. \_\_\_\_\_
- ii. \_\_\_\_\_

(e) **Name** the part of the email address highlighted: learner@school.ac.ke (2 marks)

- i. \_\_\_\_\_
- ii. \_\_\_\_\_

5. (a) **Identify and Name** the online platforms represented by these icons: (4 marks)



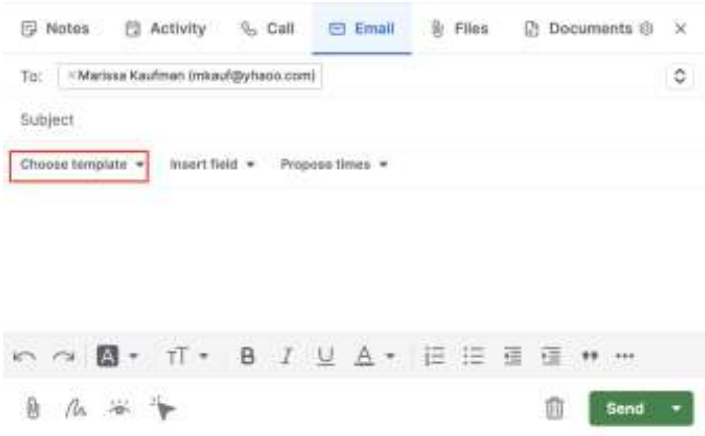
A



B



C



D

- A. : \_\_\_\_\_
- B. : \_\_\_\_\_
- C. : \_\_\_\_\_
- D. : \_\_\_\_\_

(b) **Explain** how Artificial Intelligence (AI) is currently being used in digital communication platforms like Gmail or WhatsApp. (4 marks)

- i. \_\_\_\_\_
- ii. \_\_\_\_\_
- iii. \_\_\_\_\_
- iv. \_\_\_\_\_

(c) **Outline** the procedure for creating a collaborative document on **Google Docs** for a group project. (4 marks)

- i. \_\_\_\_\_
- ii. \_\_\_\_\_
- iii. \_\_\_\_\_
- iv. \_\_\_\_\_

(d) **State** three advantages of using video conferencing for school meetings in Kenya. (3 marks)

- i. \_\_\_\_\_
- ii. \_\_\_\_\_
- iii. \_\_\_\_\_

6. (a) **Identify** the healthy ergonomic practice shown in the diagram below: (4 marks)

- i. Eye level should be: \_\_\_\_\_
- ii. Back should be: \_\_\_\_\_
- iii. Feet should be: \_\_\_\_\_
- iv. Wrist position: \_\_\_\_\_

(b) **Identify and Name** the DTP features in the newsletter layout below: (4 marks)

- 1. Large letter at the start: \_\_\_\_\_
- 2. The title of the newsletter: \_\_\_\_\_
- 3. Text arrangement style: \_\_\_\_\_
- 4. Text flowing around the photo: \_\_\_\_\_

(c) **Define** "Netiquette" and give one example of bad netiquette in an online forum. (4 marks)

\_\_\_\_\_

\_\_\_\_\_

(d) **Explain** two ways ICT users in Kenya can conserve the environment through "Green ICT." (4 marks)

- i. \_\_\_\_\_.
- ii. \_\_\_\_\_.

(e) **Distinguish** between **Open Source** and **Non-Open Source** DTP software. (4 marks)

| Open source | Non open source |
|-------------|-----------------|
|             |                 |
|             |                 |

# ANSWERS / MARKING SCHEME

## SECTION A (30 MARKS)

1:

(a) **Matching Application Areas:** (1 mark each)

1. Kendi: **E-commerce / Point of Sale (POS) / Barcode Scanning**
2. Juma: **Inventory Control / Stock Management**
3. Sifa: **Security Surveillance / CCTV Monitoring**

(b) **Infrastructure Components:** (1 mark each)

- i. Component A: **Server**
- ii. Component B: **Transmission Media / Ethernet Cable**
- iii. Component C: **Router / Wireless Access Point**
- iv. Component D: **Output Device / Monitor / VDU**

(c) **True/False:** (1 mark each)

- i. **True** (Internet of Things/Sensors)
- ii. **False** (Mobile phones are significant ICT devices)
- iii. **True**

2:

(a) **Definition:** A set of system software that manages computer hardware resources and provides common services for computer programs. (2 marks)

(b) **OS Identification:** (2 marks each)

1. Logo 1 (Android): **Mobile / Tablet**
2. Logo 2 (Windows): **Desktop / Laptop**

(c) **Distinguish (GUI vs CLI):** (4 marks)

**GUI:** Uses visual elements like icons, windows, and menus; operated primarily with a mouse/touch.

**CLI:** Uses text-based commands; operated strictly via the keyboard.

3:

• (a) **Icon Identification:** (1 mark each)

- ✓ **Icon X:** Bold
- ✓ **Icon Y:** Center Alignment
- ✓ **Icon Z:** Cut (Scissors)

**(b) Steps for Table of Contents: (4 marks)**

- i. Apply **Heading Styles** (Heading 1, 2, etc.) to the document titles.
- ii. Place the cursor where the table is needed.
- iii. Go to the **References** Tab.
- iv. Click **Table of Contents** and select an automatic style.

**(c) Formatting Features: Line spacing, Alignment (Justification), Indentation, Bullet points.**  
(Any three - 3 marks)

**SECTION B (50 MARKS)**

**4:**

**(a) Connection Methods: Wired** (Ethernet/Cables) and **Wireless** (Wi-Fi/Hotspot). (2 marks)

**(b) ISP Function:** An Internet Service Provider acts as the gateway that connects the user's local network to the global internet infrastructure for a subscription fee. (3 marks)

**(c) Comparison:** A **Web Browser** is the software application used to access websites (e.g., Chrome), while a **Search Engine** is a website within the browser used to find specific information (e.g., Google). (4 marks)

**(d) Positive Impacts:** (2 marks each)

- ✓ **Education:** Access to online research materials and virtual classrooms.
- ✓ **E-government:** Accessing services like KRA or e-Citizen remotely.

**(e) Email Part:** school.ac.ke is the **Domain Name** (specifically a sub-domain for an academic institution in Kenya). (2 marks)

**5:**

**(a) Platform Icons:** (1 mark each)

A: **Cloud Storage**

B: **Video Conferencing**

C: **Instant Messaging**

D: **Email**

**(b) AI Use:** Used for **Predictive Text** (Smart Compose), **Spam Filtering**, and **Language Translation** in real-time. (4 marks)

**(c) Collaboration Steps:** Open the document, click the **Share** button, enter the collaborators' email addresses, and set permissions (Viewer, Commenter, or Editor). (4 marks)



(d) **Advantages:** Reduces travel costs, enables real-time document sharing, and allows participants from different counties (e.g., Nairobi and Mombasa) to meet instantly. (3 marks)

6:

(a) **Ergonomics:** (1 mark each)

- i. **Eye level:** Level with the top third of the monitor.
- ii. **Back:** Straight and supported by the chair backrest.
- iii. **Feet:** Flat on the floor or on a footrest.
- iv. **Wrist:** Neutral and straight (not bent).

(b) **DTP Features:** (1 mark each)

- i. **Drop Cap**
- ii. **Masthead / Banner**
- iii. **Columns**
- iv. **Text Wrap / Wrap Around**

(c) **Netiquette:** Short for "Internet Etiquette." It is the code of polite behavior online. **Example of bad netiquette:** Cyberbullying or using offensive language in forums. (4 marks)

(d) **Environmental Conservation:** **E-waste recycling** (disposing of old tech properly) and **Energy efficiency** (turning off monitors when not in use). (4 marks)

(e) **Distinguish: Open Source** (Code is free to modify/distribute e.g., Scribus); **Non-Open Source** (Proprietary software that requires a license/payment e.g., MS Publisher). (4 marks)