

ICT LEVEL 4

IT/CU/ICTA/CR/02/4/MA

Computer Operations

July/August 2025



**TVET CURRICULUM DEVELOPMENT, ASSESSMENT AND
CERTIFICATION COUNCIL (TVET CDACC)**

ASSESSMENT PROJECT

INSTRUCTIONS TO CANDIDATE

1. Attempt all the tasks on this assessment.
2. You have been given 10 minutes to read through the tasks and confirm the availability of the resources.
3. The assessor will record your performance at critical points during the assessment.

This paper consists of FIFTEEN (15) printed pages.

Candidates should check the question paper to ascertain that all pages are printed as indicated and that no questions are missing.

1. CANDIDATE & ASSESSOR DETAILS

Candidate Name:	_____	Reg. Code:	_____
Assessor Name:	_____	Date:	_____
Venue:	_____		

2. PROJECT BRIEF

The candidate is required to demonstrate the ability to manage computer devices, manage desktop settings, perform file management, manage computer software and perform online jobs. They must complete three hands-on practical sessions (each ranging from 1 - 3 hours) based on real-world tasks and an oral assessment (~1 hour) to confirm conceptual understanding.

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3. SECTION 1 – SESSION 1 (~ 2 HOURS) Word Processing and Spreadsheet

Elements Covered:

- Process computerized word document
- Manipulate computerized Spreadsheet

Tasks 1A: (55 marks)

- (a) Create a folder on the desktop and name it *Interviews*. (2 marks)
- (b) Open a word processing application and key in the following information as it appears. Save it as AI in the folder created above. (10 marks)

Artificial intelligence

Artificial Intelligence, or AI, refers to the ability of machines, particularly computer systems, to perform tasks that typically require human intelligence. This includes *learning, problem-solving, decision-making, and creativity*. In essence, AI is about creating systems that can mimic human cognitive abilities and respond to the world around them.

The main branches of AI include:

- | | |
|--|-------------------|
| ✓ Machine Learning (<i>ML</i>) | ✓ Robotics |
| ✓ Natural Language Processing (<i>NLP</i>) | ✓ Expert Systems |
| ✓ Computer Vision | ✓ Fuzzy Logic |
| | ✓ Neural Networks |

The future of AI is expected landscape, with AI becoming professional lives,



to be a rapidly evolving more integrated into personal and particularly through user-friendly platforms. However, challenges like data privacy and potential job displacement also need to be addressed.

- (c) Format the title of the passage as follows:
- Font type Copper Black size 20 (2 marks)
 - Double underline and centre aligned. (2 marks)
- (d) Format the rest of the passage as follows:
- Font type Book Antiqua size 13 (3 marks)

- Justify aligned and 1.4 space between the lines. (3 marks)

(e) Type the following letter exactly as it appears in a word processor. Save it as *Interview Letter* in the folder created above. (10 marks)

TSEIKURU NATIONAL POLYTECHNIC

P.O. BOX 1732

MACHAKOS

26TH MAY, 2025

<<NAME>>

<<ADDRESS>>

<<TOWN>>

Dear <<NAME>>

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REF: INVITATION FOR INTERVIEW - <<POSITION>>

Following your application for the position of <<POSITION>>, I am happy to inform you that you have been shortlisted to attend interview on <<DATE>> at <<TIME>>.

Kindly bring with you your original documents and testimonials.

Yours truly,



Secretary, Board of Governors

Tseikuru National Polytechnic

(f) Open a spreadsheet application and key in the following data in sheet 1. Save the workbook as *Invitation Data* in the *Interviews* folder created above. (10 marks)

NAME	ADDRESS	TOWN	POSITION	DATE	TIME
Peter Ogolla	P.O Box 24	Meru	Technician	02/06/2025	8:30 AM
David Kamau	P.O Box 54	Kitui	Technician	02/06/2025	11:00AM
Phillip Owino	P.O Box 172	Thika	Cook	03/06/2025	8:30 AM
Alice Kwamboka	P.O Box 142	Bungoma	Cook	03/06/2025	11:00AM
Isaack Mango	P.O Box 002	Kisumu	HR intern	03/06/2025	8:30 AM
Agnes Gombe	P.O Box 489	Taveta	HR intern	03/06/2025	11:00AM
James Okoti	P.O Box 190	Webuye	Driver	04/06/2025	8:30 AM
Stanley Mbote	P.O Box 643	Nairobi	Driver	04/06/2025	11:00AM
Ibrahim Ondieki	P.O Box 141	Kitale	Cleaner	05/06/2025	8:30 AM
Mary Mwai	P.O Box 790	Molo	Cleaner	05/06/2025	11:00AM

(g) Using the letter created in (b) above and the spreadsheet created in (c) above, apply Mail Merge feature to produce copies of the same letter to the persons whose details are given in the table above. Save the merged document as *Interview Letter Merge*. (10 marks)

(h) Print individual letters for Peter Ogolla, Alice Kwamboka and Ibrahim Ondieki. (3 marks)

Tasks 1B: (35 marks)

- (a) Using a spreadsheet application, enter the following data in sheet 1. Save the workbook as *CAT MARKS* in the *Interviews* folder. (14 marks)

	A	B	C	D	E	F	G
1	CAT 1 SCORES						
2	Name	Maths	English	Chemistry	Physics	Total	Average
3	Bob	67	45	78	60		
4	Andrew	80	64	45	59		
5	Betty	49	67	61	50		
6	Tom	45	30	47	32		
7	AVERAGE SCORE						
8	HIGHEST SCORE						
9	LOWEST SCORE						

- (b) Sort the data in ascending order of the names. (3 marks)
- (c) Using the CAT MARKS created above, perform the following:
- (i) Using appropriate function and cell references, calculate the total score for each student. (2 marks)
 - (ii) Using appropriate function and cell references, calculate the average score for each student. (2 marks)
 - (iii) Using an appropriate function and cell references, calculate the average score for each subject. (2 marks)
 - (iv) Using an appropriate function and cell references, calculate the highest score for each subject. (2 marks)
 - (v) Using an appropriate function and cell references, calculate the lowest score for each subject. (2 marks)
- (d) Insert a line chart showing the performance of all the students in the various subjects. Ensure that the chart has an appropriate title, legend, and horizontal and vertical axis titles. (7 marks)
- (e) Change the page orientation to landscape and print the worksheet. (3 marks)

4. SECTION 2 – SESSION 2 (~ 2 HOURS)**Elements Covered:**

- Maintain computerized database
- Prepare PowerPoint Presentation

Task 2A: (45 marks)

(a) Create a folder named *MidTerm* on the Desktop. (2 marks)

(b) You are required to create a simple Library Management System using **Microsoft Access**. The system will help keep records of books and track who has borrowed them. Use the given instructions to create tables, enter sample data, and generate queries, forms, and reports.

Open a database program and create a database file named *Masomo* in the folder created in the *MidTerm* folder created above. (2 marks)

(c) Create a table named *Books* using the following details: (8 marks)

Field Name	Data Type	Description
BookID	Text	Primary Key
Title	Short Text	
Author	Short Text	
Genre	Short Text	
PublishedYear	Number	Date/ Time
Status	Short Text	

(d) Create another table named *Borrowers* using the following details: (7 marks)

Field Name	Data Type	Description
BorrowerID	AutoNumber	Primary Key
FullName	Short Text	
ContactNumber	Short Text	
BookID	Number	Lookup to BookID (foreign key)
DateBorrowed	Date/Time	Date the book was borrowed

(e) Create appropriate relationship between the tables. (2 marks)

(f) Enter the following data in the respective table: (6 marks)

Books Table					
Book ID	Title	Author	Genre	Published Year	Status
Bk1	The River and the Source	Margaret Ogola	Fiction	1994	Borrowed
Bk2	Introduction to Sociology	Peter M. Blau	Non-Fiction	2001	Available
Bk3	Things Fall Apart	Chinua Achebe	Fiction	1958	Borrowed

Borrowers Table				
Borrower ID	FullName	Contact Number	Book Borrowed	DateBorrowed
1	Jane Chege	0722123456	Bk2	2024-10-05
2	Kevin Otieno	0733344455	Bk3	2024-11-12
3	Mercy Wanjiku	0711223344	Bk1	2025-01-20

(g) Create two forms named *BooksForm* and *BorrowersForm* using the two tables. (6 marks)

(h) Create a query named *Borrowed* to show books that have been borrowed. The query should display the following fields: *Title*, *Author*, *Status* and *Borrower Name*. (6 marks)

(i) Generate a report named *BooksRpt* to display all the books in the library. (4 marks)

(j) Print *BooksRpt* and *BorrowersForm*. (2 marks)

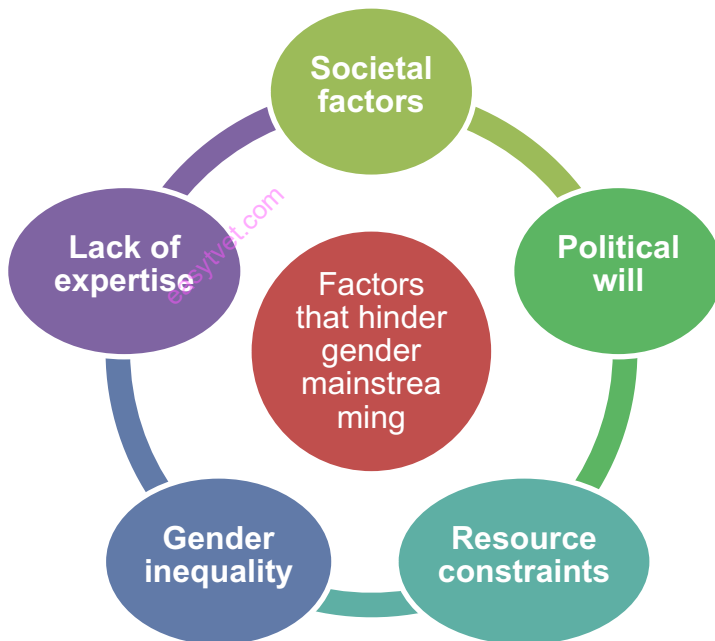
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Task 2B: (45 marks)

- (a) Using a presentation software, create a presentation titled *Gender mainstreaming* and save it in the folder created above. Use the structure and content provide below to create the presentation. (22 marks)

Slides Structure:

Slide number	Content
1	GENDER MAINSTREAMING 
2	WHAT IS GENDER MAINSTREAMING? Gender mainstreaming is a strategy that integrates a gender equality perspective into all stages and levels of policies, programs, and projects. Gender Mainstreaming is a globally accepted strategy for promoting gender equality.
3	THE FIVE PRINCIPLES OF GENDER MAINSTREAMING (i) Equality (ii) Integration (iii) Systematic (iv) Transformative (v) Monitoring and Evaluation
4	IN PRACTICE, GENDER MAINSTREAMING INVOLVES: ▪ Analyzing policies and programs: ✓ Assessing their potential impact on men and women. ▪ Making adjustments:

	✓ Modifying policies and programs to ensure that they are beneficial for all genders. ▪ Incorporating gender perspectives: ✓ Including gender considerations in all stages of policy-making and implementation.																				
5	TIME NEEDED TO CLOSE GLOBAL GENDER GAPS <table><tr><td></td><td>2020</td><td>2021</td><td>2022</td><td>2023</td></tr><tr><td>Economic</td><td>257</td><td>268</td><td>151</td><td>169</td></tr><tr><td>Political</td><td>95</td><td>146</td><td>155</td><td>162</td></tr><tr><td>Educational</td><td>12</td><td>14</td><td>22</td><td>16</td></tr></table>		2020	2021	2022	2023	Economic	257	268	151	169	Political	95	146	155	162	Educational	12	14	22	16
	2020	2021	2022	2023																	
Economic	257	268	151	169																	
Political	95	146	155	162																	
Educational	12	14	22	16																	
6	FACTORS AFFECTING GENDER MAINSTREAMING 																				
7	THE END Questions, comments and compliments.																				

- (b) Convert the text in title slide to a WordArt. (2 marks)
- (c) Apply a slide design of your choice. (2 marks)
- (d) Apply Shape Circle slide transitions to all the slides. (2 marks)
- (e) Apply Wedge animation to all the slides. (2 marks)

- (f) Insert a new slide after slide 5. Using the table in slide 5, insert a 3-D clustered column chart. Ensure that the chart has a legend and horizontal and vertical axes titles. (7 marks)
- (g) Insert slide numbers to appear on every page. (2 marks)
- (h) Insert header reading “Gender mainstreaming” to appear on every slide. (2 marks)
- (i) Create a custom slide show named *Tanzania*, to include slides 1,5, 6 and 7. (2 marks)
- (j) Save the changes made and print a horizontal handout of 4 slides per page. (2 marks)

5. SECTION 3 – SESSION 3 (~3 HOURS)

Elements Covered:

- Manipulate graphic application
- Perform Online Collaboration

Task 3A: (35 marks)

You are required to design a professional **business card** for a freelance graphic designer. You may use either **Microsoft Publisher 2021** or **AutoCAD** to complete the task.

The business card must include the following specifications:

- (a) Set Up the Page or Drawing Area using the following measurements: (4 marks)
3.5" × 2" (90mm × 50mm)
- (b) Include the following details: (10 marks)
- Name: **Beatrice Ondieki**
 - Title: **Freelance Graphic Designer**
 - Phone: **+254 712 345678**
 - Email: **betty.designs@gmail.com**
 - Website: www.beatriceondieki.co.ke

Use appropriate font size and style for readability.

- (c) Add an appropriate logo or symbol (4 marks)
- (d) Apply Design and Layout (12 marks)
- Use colors, shapes, and alignment of objects to create a clean, professional look.
 - Ensure good spacing and contrast between text and background.
- (e) Save the business card as *MyBizCard* in a folder named *BettyCard* on the desktop. (2 marks)
- (f) Export or print the card to PDF format. Save it in the *BettyCard* folder. (3 marks)

Task 3B: (25 marks)

Log in to your Google account and perform the following:

- (a) Upload the pdf file named *MyBizCard* into your Google Drive. (8 marks)
- (b) Assume that you are applying for a freelancing job. Using your Gmail, compose an email using the following details:
 - Subject: Application for a Freelancing Graphics Designing Job (2 marks)
 - To: info@kenyafreelancers.co.ke (2 marks)
 - CC: careers@kenyafreelancers.co.ke (2 marks)

Attach the *MyBizCard* pdf file that you uploaded to Google Drive. Insert the file as a link (4 marks)

- (c) Go to your Gmail settings and perform the following:
 - Change Theme to Candy. (2 marks)
 - Change the maximum page size to show 100 conversations. (5 marks)

6. SECTION 4 – ORAL ASSESSMENT (25 MARKS)

No.	Question	Max Marks	Awarded Marks
1	What is meant by computer ergonomics?	2	
	Why is computer ergonomics important?	2	
2	Differentiate between Save and Save As in word processing.	2	
3	Name and describe any two cell referencing types used in spreadsheets.	4	
4	What is a query in a database?	2	
5	State two advantages of using presentation software.	2	
6	What is a flyer and which software can you use to create one?	2	
8	Explain the process of creating a PDF document when using Microsoft Word.	3	
9	Mention three examples of online collaboration tools and one benefit of using them.	4	
10	What is the difference between a form and a report in a database?	2	
	Total	25	

7. SUMMARY OF ASSESSMENT

S/N	SECTION	Total Marks	Marks Awarded
1.	Assessment 1	90	
2.	Assessment 2	90	
3.	Assessment 3	60	
4.	Oral Assessment	25	
5.	Grand Total	265	

The candidate was found to be:

Competent ☐ Not yet Competent ☐

(Please tick as appropriate)

The candidate is competent if the candidate obtains at least 50%