



PART 1

Item 1

Element of construct: A learner appreciates and manages the computer system

Competence	Evaluation	Expected responses
	A focused introduction	
T1, T2, T15, T16, T9, T10, T12	Mentioning necessary ICT tools Demonstrating how to use the tools	<ul style="list-style-type: none"> • Projector/display unit/screen/smart board;- to display the key messages to the audience • Computer set/laptop/desktop computer/tablet;- to run the presentation (e,g power point slides, store and retrieve digital records and manage feedback surveys. • Public address system;- to amplify the speakers voice so that all participate in the large hall and can also hear clearly. • Printer/photocopier; - to produce hardcopies of the educational materials from the outreach for participants to take home. • Software (Word processors, presentation software, publications, spreadsheets. Presentation software will be used to prepare educational materials for each participant. • Feedback collection tools (google forms, MS forms, Survey monkey); - provide a platform for capturing feedback and attendance records from the session. • Storage media (cloud storage, google drive, flash disks, compact disks); - to provide back up of the presentation material/contents. Ease sharing of digital resources from the presentation. • Internet access (mobile internet, WIFI hotspot, Internet cables; - to enable connection to the internet for access of outreach resources. • Digital camera; - to capture visual records from the presentation • Scanning tools e.g scanner and scanning software;- to capture or convert records of attendance in digital format. Also to capture support resources required for the presentation.
	Management /maintenance	<ul style="list-style-type: none"> • Train users on the safe use of the tools to regulate accidental damage on the software and hardware. • Installing anti-malware to regulate software and hardware corruption.

- Using the tools (hardware) from comfortable positions to regulate falls that may lead to mechanical damages.
- Protecting tools from dust to reduce chances of hardware malfunction.
- Using power surge protectors to reduce hardware and software damage due to unstable power supply.
- Updating software to shield from malfunction.
- Ensuring supervised use to combat any chances of further malfunction.
- Checking tools/pre testing tools to ensure that they are in good condition.
- Using tools from properly aerated places to regulate the effect of heat to the tools.

A relevant conclusion

Item 2:

Element of construct: A learner appreciates ICT safety and manages electronic waste .

Competence	Basis of evaluation	Expected responses
	A learner provides a focused introduction.	
T1, T2, T16	Explains the causes of break down in ICT infrastructure at UNIX institute.	<ul style="list-style-type: none"> • Software issues/ concerns;- outdated software, corrupted software, incomplete installation which will lead to freezing, failure to start and taking long to respond. • Hardware age;- some computer hardware may fail to respond to commands and even fail to process the required tasks hence leading to the issues mentioned • Power surges; power surg may lead to boot failure and data loss. • Human errors;- this can be experienced due to accidental deletion of information, failure to interpret the right command. • Malware attacks;- these will lead to loss of records, failure to boot and system breakdown. • Poor aeration; - this can be experienced from blockage of the air outlet of the computer. • Cyber-attacks; this will involve unauthorized access to a computer system leading to hacking, phishing, cracking hence system breakdown. • Accumulation of dust; - this will bring about constant freezing eventually leading to system breakdown. • Improper connections; - this can be experienced due to use of improper cables hence leading to system failure. • Inappropriate hardware positioning; - this will lead to hardware failure that will eventually lead to freezing and system breakdown.

	<p>Explains the solutions to the causes of break down in ICT infrastructure at UNIX technical institute.</p>	<ul style="list-style-type: none"> • Software updates and upgrades to overcome the software concerns • Should service, repair, replace worn out hardware components • Ensure proper electrical conventions, use of surge power protectors to guard against power surges. • The institute should train users regularly, retooling them to prevent human errors. • Should install and update anti-malware e.g. anti-virus to guard against malware attacks. • Should provide good aeration system in order to overcome the poor aeration related problems. • Should install firewalls, design a good security policy and protect information from unauthorized access thus overcoming cyber-attacks. • Should use vacuum cleaners, blowers and also cover the devices to protect them from dust clogs • The institute should advice technicians o following the ergonomic standards and practices in order to overcome inappropriate hardware positioning.
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Item 3

Element of construct: A learner appreciates ICT safety and manages electronic waste.

Possible causes of the incident

<ul style="list-style-type: none"> • Weak security measures 	<p>The school may lack adequate security features such as surveillance cameras, motion detectors, alarms or even strong locks for the ICT lab.</p>
<ul style="list-style-type: none"> • Insider involvement 	<p>There could have been someone with internal access or knowledge of the lab who assisted or informed the vandals.</p>
<ul style="list-style-type: none"> • Lack of inventory management 	<p>Poor tracking of ICT equipment may have made it easier for items to be taken unnoticed.</p>
<ul style="list-style-type: none"> • Ignorance about the value of damaged components 	<p>The laboratory assistant's decision to dispose of broken parts without assessment may indicate a lack of awareness about the potential reuse or salvage of components.</p>

Practical measures to prevent similar incidents.

Measure	Description
Install security Systems	Equip the ICT lab with CCTV cameras, motion sensor, and a proper alarm system to deter unauthorized access.

Strengthen physical security	Secure doors and windows with reinforced locks, grills or metal bars. Limit access to the lab using keys or digital access control systems.
Appoint a night guard or patrols	Hire professional security personnel to monitor school premises during off hours.
Maintain an Up-to-date inventory	Keep a detailed inventory of all ICT equipment, including serial numbers, perform regular audits and keep backups.
Train staff on equipment handling	Conduct sessions for teachers and lab assistants on proper ICT asset management data security and procedures for handling damaged equipment.
Report immediately to Administration	Require that any incident or loss be reported to the school administration immediately, so proper procedures can be followed (including police involvement if necessary)

Responsible Management of damaged ICT components (E – Waste)

E-waste Management measure	Stake holder	Role of stake holder
Land fill (Avoid unnecessary ICT purchases)	School management	Gazeting a specialized area where ICT junk is dumped
Reduce (Limit use and extend lifespan)	Teachers & ICT users	Use ICT equipment responsibly to reduce wear and tear extend its operation life.
Reuse (Use parts from damaged equipment)	Lab Technician	Salvage and repurpose reusable parts such as RAM, hard drives or power cable.
Recycle (send e-waste to certified recyclers)	E-waste recycling companies	Dismantle, recover materials and dispose of non-reusable components in an eco-friendly manner.
Donate (Give old but functional devices or others)	School management and NGOs	Donate working but outdated computers to less privileged schools or community centers.
Refurbishment	School management Lab technician ICT teacher	Replacing damaged components with new ones so as to continue using ICT tools
Sensitization (Create awareness on e-waste handling)	ICT Teachers & Environmental clubs	Educate students and staff on the dangers of improper e-waste disposal and promote safe practices
Acid Bath (Chemical extraction of metals)	Certified Recycling firms (only)	Carefully extract valuable metals (e.g. gold, copper) using controlled and environmentally safe acid baths. Not suitable for school level disposal

Controlled burning/ incineration	Users Leaders Management Environmental agencies like NEMA	Use proper incinerators to avoid pollution of the environment
Take back program	Users Management Manufacturers Importers	Some companies have a policy of allowing customers to take back in exchange of new ones

PART II – CHOOSE ONE

Item 4

Element of construct: A learner Accesses, stores and shares information using ICTs

Competences	Basis of assessment	Expected responses
T3, T7, T11, T13	Describes the necessary procedures required to collect proposals, organize proposals, send a professional email with relevant tools and application	<p>1. Access internet Tools: - Mobile data bundle, Wi-Fi hotspot, internet cable. Application Florence will activate mobile data bundles to enable her access the internet.</p> <p>2. Log into the email to download the document Tools - Web browsers, email client Application Florence will use a web browser (google chrome) to access and store the proposals into her computer device. Organizing files into one folder Tools - File explorer, computer Application Florence will use the fil explorer tools to accommodate proposals into a single folder. Compressing/zipping the folder Tools: - File compression utilities Application Florence will right click on the created folder to access the zipping command. Composing an email Tools: - Email software Application Florence will locate her already open email software to create an email to the event organizers.</p>

Attaching the compressed folder
 Tools
 - Attach icon, email software
 Application
 Florence will use the attach icon provided by the email software to include the compressed folder into the mail.

7. Sending the email and confirming reception.
 Tools
 - Email software, send/submit button
 Application
 With the help of the submit/ send button, Florence will send the complete email to the organisers.

Conclusion (recommendation/guidance)

Item 5
Element of construct: A learner accesses, stores and shares information using ICT tools

competences	Basis of evaluation	Expected responses
T3, T7, T1, T13	Describes the necessary procedures required to upload the national ID, download the certificate	<p>1. Scanning the ID Tools – scanner, scanning applications Application Obua will use the scanning software to capture his ID in softcopy and store it on a computer</p> <p>2. Establish internet connection Tools Internet access tools such as a Wi-Fi hotspot, active mobile data bundle Application Obua will connect to a Wi-Fi hotspot to gain access to the internet.</p> <p>3. Accessing the website Tools: Web browser Application Obua will use google chrome to search and interact with the agency’s official website.</p> <p>4. Locating the upload option Tools Website tools, upload button Application Using the upload button provided by the agency website, obua will upload the filled form.</p> <p>5. Filling the feedback online form Tools Website, online form, submit button Application</p>

		<p>Obua will access the online form from the agency website to fill it and submit the feedback as required.</p> <p>6. download the certificate</p> <p>Tools Website, download center</p> <p>Application Obua will access the download center on the website to download the certificate from the agency.</p> <p>6. Save/print the certificate</p> <p>Tools Printer, storage media</p> <p>Application Using a printer, obua will make a hardcopy of his downloaded certificate. Using a storage media, Obua will keep a softcopy of the downloaded certificate.</p>
Arrangement of work	<p>Learner should give</p> <ul style="list-style-type: none"> - Focused introduction - Relevant conclusion (recommendation/ guidance) 	
Logical flow	Learner makes a clear flow of procedures.	

END

SCORING GRID

Scoring grid for item 1

Codes

i identifying the tool
d describing the tool
m measure mentioned
md measure described

int introduction
f format
cn conclusion

Competency (Basis of Assessment)	Evidence skill / ability exhibited	Score
Provides a focused introduction	Produces a focused introduction	01
	No response / irrelevant intro	00
Recommends appropriate ICTs	Identifies and explains 6 or more ICTs appropriate for the school. (More than sufficient)	04
	Identifies and explains 4-5 appropriate ICTs [Sufficient]	03
	Identifies and explains 2-3 appropriate ICTs [Less sufficient]	02
	Identifies only tools [Basic]	01
Explains the management measures of the ICTs	Identifies and explains 5 or more measures	04
	Identifies and explains 3-4 measures [sufficient]	03

Format of presentation	Identifies and explains 1-2 measures [Less sufficient]	02
	Identifies only measures	01
	A formal document	01
	Not formally presented responses Cn (Conclusion)	00 01

Maximum score = 11

Scoring grid (Item 2)

Codes

c	cause of breakdown	int	introduction
d	describes the cause of break down	f	format
s	solution/measure to the breakdown	cn	conclusion
sd	measure described		

Competency (Basis of Assessment)	Evidence skill / ability exhibited	Score
Provides a focused introduction		01
Explains the causes	Identifies and explains 7 or more [more than sufficient]	05
	Identifies and explains 4-6	03
	[sufficient]	
	Identifies and explains 3-2	02
	[Basic]	
Explains the measures	Identifies only tools	01
	No response	00
	Identifies and explains 7 or more measures	05
	Identifies and explains 4-6 measures	03
Conclusion	Identifies and explains 2-3	02
	Mentions only	01
	Provides a relevant conclusion	01
Format of presentation	Formal format structure	01

Maximum score = 13

Scoring grid (Item 3)

Codes

c	cause	m	measure
d	describes the cause	sh	stake holder
m	measure	r	role of the stake holder
md	describes the measure		

Competency (Basis of Assessment)	Evidence skill / ability exhibited	Score
Provides a focused introduction		01
Explains the causes	Identifies and explains 6 or more [more than sufficient]	05
	Identifies and explains 5-4	03
	[sufficient]	
	Identifies and explains 3-2	02
	[Basic]	
Identifies only causes		01

	No response	00
Provides measures the school can manage and safely dispose of damaged or absolute ICT equipment stored in the lab or other offices	Identifies and explains 6 or more measures	05
	Identifies and explains 4-5 measures	03
	Identifies and explains 2-3	02
	Mentions only	01
Conclusion	Provides a relevant conclusion	01
Format of presentation	Formal format structure	01

Maximum score = 13

Scoring grid 4/5

Codes

p procedure/step

pf partial flow

n/a not applicable

t tool

Cn conclusion

cf complete flow

Int introduction

Competency (Basis of Assessment)	Evidence skill / ability	Score
Describes a step by step procedure of sending an application	Identifies 6 or more relevant steps with necessary ICT tools [More than sufficient]	06
Recommends appropriate ICTs to the DOS	Identifies 4-5 relevant steps with tools [sufficient]	04
	Identifies 2-3 relevant steps [Basic]	03
	Identifies only tools or only procedures	01
	No response	00
Follows a logical flow	Presents steps in a complete logical sequence.	02
	Presents a partial or incomplete logical flow	01
Introduction	Provides a focused introduction	01
Conclusion	Provides a relevant conclusion emphasizing on the importance of using online application and submissions	01

Maximum score 10 marks

END