THE REPUBLIC OF UGANDA
Ministry of Education and Sports

Business, Technical, Vocational Education and Training [BTVET] Sub sector Reform

Assessment and Training Package

For

PHONE REPAIRER

Qualification Level:1
Occupational Cluster: Physics, Technology and Design

JANUARY 2022

Under BTVET Act, 2008, the functions of the Directorate of Industrial Training are:

(a) To identify the needs of the labour market for occupational competencies that fall under the UVQF.
(b) To regulate apprenticeship schemes.
(c) To foster and promote entrepreneurial values and skills, as an integral part of the UVQF.
(d) To secure adequate and sustainable financing for the efficient operations of the Directorate.
(e) To accredit training institutions or companies as assessment centres.
(f) To determine fees payable under the Act.
(g) To develop, apply, expand and improve the purposeful application of Uganda vocational qualifications defined in the UVQF.
(h) To assess and award Uganda Vocational Qualifications.
(i) To promote on-the-job training in industry for apprenticeship, traineeship and indenture training and for other training such as further skills training and upgrading.
(j) To prescribe the procedure for the making of training schemes.

Further to the above provisions, there is an established Uganda Vocational Qualifications Framework (UVQF), under part V of the BTVET Act, 2008. It is stated that:

The purpose of the UVQF is to;
(a) Define occupational standards in the world of work.
(b) Define assessment standards.
(c) Award vocational qualifications of learners who meet the set standards of different studies.
(d) Provide guidelines for modular training.

The UVQF shall follow principles of Competence Based Education and Training (CBET), which include:
(a) Flexible training or learning modules.
(b) Positive assessment and Certification.
(c) Assessment of Prior Learning.
(d) Recognition of formal and non-formal training.
(e) Self-paced or individual learning.
(f) Work place learning.

For award and recognition of certificates, the BTVET Act, 2008 provides that:

4.1   The Directorate and other examination boards established under the Act shall award certificates and diplomas for Business, Technical or Vocational Education and Training under the UVQF.

4.2   The Certificates and Diplomas to be awarded shall be in the form prescribed by the Minister on the recommendation of the Industrial Training Council.

4.3   The Certificates and Diplomas awarded under the Act shall be recognized in the Uganda education system and by the labor market.

Under the TVET Implementation Standards 2020, the proposed new mandate of the Directorate of Industrial Training shall be restricted to promoting the highest standards in the quality and efficiency of industrial training in the country and ensuring an adequate supply of properly trained manpower at all levels in the industry and the world of work.

The functions shall include:
   (a)   Regulating Industrial Training and Trainers.
   (b)   Developing Industrial Training Curricula.
   (c)   Harmonizing Curricula and Certificates of competence.
   (d)   Assessing Industrial Training.
   (e)   Development of Occupational Standards and Assessment and Training Packages (ATPs) for Trade Testing for the industry and world of work.
   (f)   Awarding certificates in that respect.

At operational level in the Directorate, the Qualification Standards Department performs development tasks related to concepts, procedures and instruments for establishment of the UVQF in close collaboration with both public and private stakeholders in vocational training.

In particular, the Department organizes and coordinates the development of Assessment and Training Packages for use in competence-based vocational training as well as standards-based assessment and certification.
The Directorate has therefore produced this Assessment and Training Package for use in implementing Competence-Based Education and Training mechanisms.

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Word from Permanent Secretary

The Ministry of Education and Sports (MoES) through the Directorate of Industrial Training conducts Competence Based Assessment.

The foreseen advantages of CBA include improved access, equity and relevance of skills development, reduced unit costs of training, and recognition of Prior Learning (or on-the-job- training), among others.

As the Ministry executes its obligation of ensuring quality in training standards, the public-private partnership is being strengthened to improve occupational competence of the country's workforce without gender bias.

To achieve the set-out targets, the Directorate embarked on the anticipated UVQF design and development piloting its instruments and mechanisms in order to effectively enhance Competence-Based Assessment (CBA) in Uganda.

To date, the Qualifications Standards Department of DIT has produced Assessment and Training Packages (ATP) for various occupations. Each ATP contains 3 parts namely:
1. Occupational/job Profile
2. Training modules and
3. Assessment instruments Banks

The ATP can be used by any training provider and/or those who wish to present themselves for Occupational Assessment and Certification.

Herewith, the Directorate of Industrial Training presents the "Assessment & Training Package (ATP)" for training, assessment and certification of **A PHONE REPAIRER**

Finally, I thank all individuals, organizations and development partners who have contributed and/or participated in the review of this noble document.

Ketty Lamaro
Permanent Secretary

Executive Summary

This Assessment and Training Package is a Competence-Based Education and Training (CBET) tool and consists of three major parts:

0.1. **PART I: The "Occupational Profile" (OP) of a Phone repairer.** This Occupational Profile, which was developed by Phone repairers practicing in the world of work mirrors the duties, and tasks Phone repairers are expected to perform.

0.2. **PART II: "Training Modules"** in the form of guidelines to train **Phone repairers** both on the job as well as in training centers (or combinations of both venues of learning). The Training Modules herein have been developed basing on the Occupational Profile and hence are directly relevant for employment.

0.3. **PART III: "Assessment Instruments"** in the form of performance (Practical) and written (theory) test items that can and should be used to assess whether a person complies with the requirements of employment as a **Phone repairer**. These assessment-based instruments were developed by Job practitioners (phone repairers) based on the occupational profile and training modules.

0.4. While the Occupational Profile (OP) contained in PART I of this document provides the information on **WHAT a person is expected to do** competently in the world of work, the test items, - including performance, criteria- of PART III qualify the **HOW and/or HOW WELL a person must do the job**.

0.5. The modular format of the curriculum (PART II) allows learners to acquire job specific skills and knowledge (i.e., competencies) module by module. A single module can be accomplished within a relatively short duration of time allowing flexibility for learners to move directly into an entry level job, go for further modules or advance to higher levels of training. Modular courses allow more learners to access the training system because training centers as well as companies can accommodate more students in a given periodoftime.

0.6. In addition to improved access, equity and relevance of BTVET, the UVQF will also enable people who are convinced to have acquired competencies laid down in this ATP through prior training and on-the-job experience to access assessment and certification directly; be it on the basis of a single module, a group of modules or all modules pertaining to the occupation at once. This achievement will facilitate Recognition of Prior Learning (RPL).

0.7. The parts of this Assessment and Training Package were sequentially developed as follows:

i   Part 1: Occupational Profile: *JANUARY 2022*
ii   Part 2: Training Modules: *JANUARY 2022*
iii   Part 3: Assessment Instruments: *JANUARY 2022*

This ATP (or parts of it) may be periodically revised to match the dynamic trends in the occupation and hence issued in different versions.

Patrick Byakatonda
Ag. Director DIT

Acknowledgement

The Qualifications Standards Department of DIT wishes to sincerely acknowledge the valuable contributions to the development of this Assessment and Training Package by the following persons, Institutions and organizations:

- Members of the DIT Industrial Training Council;

- The Director and staff of DIT;

- Ministry of Education and Sports;

- The practitioners from the world of work;

- Art and Design Curriculum Specialists from NCDC

- Examination Specialists from UNEB

- The facilitators involved in guiding the review panel in their activities

- The Government of Uganda for financing the review of this ATP

Abbreviations and Acronyms

A&C	Assessment & Certification
ATP	Assessment & Training Packages
BTVET	Business, Technical and Vocational Education and Training
CBA	Competence Based Assessment
CBET	Competency Based Education and Training
DACUM	Develop a Curriculum
DIT	Directorate of Industrial Training
ITC	Industrial Training Council
GoU	Government of Uganda
LWA	Learning-working Assignment
MC	Modular Curriculum
MoES	Ministry of Education and Sports
OP	Occupational Profile
PEX	Practical Exercise
PTI	Performance (Practical) Test Item
QS	Qualification Standards
RPL	Recognition of Prior Learning
TIB	Test Item Bank
TVET	Technical and Vocational Education and Training
UVQ	Uganda Vocational Qualification
UVQF	Uganda Vocational Qualifications Framework
WTI	Written (Theory) Test Item

Key Definitions

Assessment	Assessment is the means by which evidence is gathered and judged to decide if an individual has met the stipulated assessment standards or not. Testing is a form of formal assessment.
Certification	Certification is a formal procedure to issue a certificate (qualification) to an individual that has demonstrated during formal assessment that he/she is competent to perform the tasks specified in the occupational profile.
Competence	Integration of skills, knowledge, attitudes, attributes and expertise in doing/ performing tasks in the world of work to a set standard.
Competency	(Occupational) competency is understood as the ability to perform tasks common to an occupation to a set standard.
CBET	Competence-based education and training means that programmes: 1. have content directly related to work 2. focus is on 'doing something well' 3. assessment is based upon industry work standards, and 4. curricula are developed in modular form
Duty	A Duty describes a large area of work in performance terms. A duty serves as a title for a cluster of related Tasks (see also: TASK).
Learning-Working Assignment (LWA)	LWA are simulated or real job situations / assignments that are suitable for learning in a training environment (e.g. "small projects"). In a working environment LWA are real work situations/assignments.
Modules	Modules are part(s) of a whole curriculum. Modules can be considered as "self-contained" partial qualifications which are described by learning outcomes or competencies and which can be assessed and certified individually.
Occupational Profile (OP)	An Occupational Profile is an overview of the duties and tasks a job incumbent is expected to perform competently in employment.

Occupational Profiles developed by practitioners from the world of work enhance the relevance of training and learning to the requirements of the world of work.

Occupational Profiles define WHAT a person is supposed to do in performance terms. It also contains generic information regarding related knowledge and skills, attitudes/behaviour, tools, materials and equipment required to perform as well as trends/ concerns in the occupation.

Occupational profiles are the reference points for developing modular curricular and assessment standards

Qualification

A qualification is a formal reward for demonstrating competence, based on formal assessment against set standards and provided to the individual in the form of a certificate specifying the nature of the competence.

Task

Job TASKS represent the smallest unit of job activities with a meaningful outcome. Tasks result in a product, service, or decision. They represent an assignable unit of work and have a definite beginning and ending point. Tasks can be observed and measured. *(see also: Duty)*

1.0   ATP-PART I

Occupational Profile for PHONE REPAIRER

1.1   The OCCUPATIONAL PROFILE (OP) for "**PHONE REPAIRER**" below defines the *Duties* and *Tasks* a competent **a PHONE REPAIRER** is expected to perform in the world of work (on the job) in Uganda and the East African region today.

1.2   Since it reflects the skill requirements of work life, the Occupational Profile is the reference document for the subsequent development of training modules and assessment instruments (test items) which are directly relevant to employment in Ugandan and the East African businesses and industries.

1.3   To ensure that the Occupational Profile is relevant for employment in Uganda and East Africa, the DIT used the method of "occupational/job profiling.

This approach involves the brainstorming of a panel of 8 to 12 competent job practitioners guided by trained and experienced facilitators. During a two-day workshop the panellists define the duties and tasks performed in employment, as well as the prerequisite skills, knowledge, attitudes, tools and equipment, and the future trends and concerns in the occupation/job.

1.4   The panellists, facilitators and coordinators who participated in developing this Occupational Profile for **a Phone repairer** are listed on the following page.

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[1] *The DACUM-method was used. DACUM is an acronym for 'Develop A Curriculum'*

Expert Panel

Dungu Abdu
MoES

Mujurizi Vincent
NCDC

Tumwizere Nelson
Seeta High School,Mukono

TumusiimeSilbert
Iganga S.S.

Kabali Frank
Naalya S.S, Bweyogerere Campus

NansambaKuluthum
Kawempe Moslem S.S.

Kayongo Grace
Silver Telecom and Computers Ltd.

KiingiSulaiman
Fonetec Phone and Computer systems

Ggingo Stephen
Why Tomorrow Ltd.

MugenyiSwalik
Swalicom Phone Repair

Facilitators
Kirabira Yusuf
Directorate of Industrial Training

Kyokolera Dinansi
Directorate of Industrial Training

Co-ordinator
Elizabeth Ruth Mukyala
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Funded by
Government of Uganda

THE REPUBLIC OF UGANDA
Ministry of Education and Sports

Business, Technical, Vocational Education and Training (BTVET) Sub sector Reform

Occupational Profile

For a

"PHONE REPAIRER"

Reviewed by: Directorate of Industrial Training (Qualifications Standards)
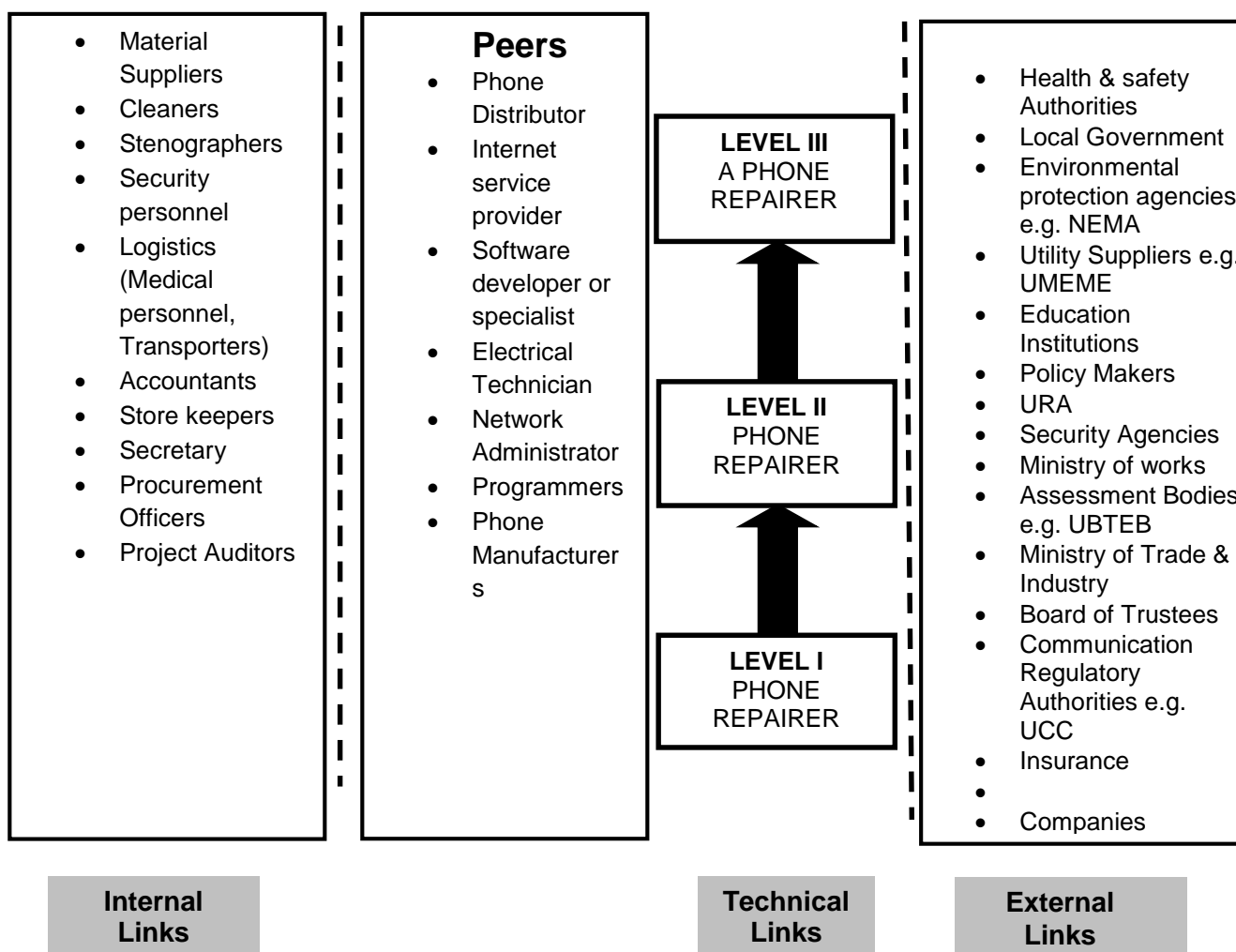
Dates of workshop: 10th - 14ᵗʰ January 2022

NOMENCLATURE –

UVQ Level I: A Phone Repairer Level I is a person who assembles and disassembles phones, conducts simple maintenance, diagnoses and rectifies minor faults.

UVQ Level II: A Phone Repairer Level II is a person who uses advanced equipment to rectify hardware and software faults.

UVQ Level III: A Phone Repairer Level III is a person who uses advanced techniques to build, modify phone circuits and rectify hardware and software faults.

JOB ORGANISATION CHART FOR A PHONE REPAIRER

Internal Links	Peers (Technical Links)		External Links
• Material Suppliers • Cleaners • Stenographers • Security personnel • Logistics (Medical personnel, Transporters) • Accountants • Store keepers • Secretary • Procurement Officers • Project Auditors	**Peers** • Phone Distributor • Internet service provider • Software developer or specialist • Electrical Technician • Network Administrator • Programmers • Phone Manufacturers	**LEVEL III** A PHONE REPAIRER ↑ **LEVEL II** PHONE REPAIRER ↑ **LEVEL I** PHONE REPAIRER	• Health & safety Authorities • Local Government • Environmental protection agencies e.g. NEMA • Utility Suppliers e.g. UMEME • Education Institutions • Policy Makers • URA • Security Agencies • Ministry of works • Assessment Bodies e.g. UBTEB • Ministry of Trade & Industry • Board of Trustees • Communication Regulatory Authorities e.g. UCC • Insurance • • Companies

ATP: PartI
[Occupational Profile]

A. PLAN PHONE REPAIR WORK	**A1.** Make Consultations	**A2.** Make a business plan	**A3.** SourceforCapital,personnel
	A4. Prepare Budget	**A5. Deter**mine tools, equipment & materials	**A6.** Purchase tools, equipment & materials
	A7. Determine workshop	**A8**. Determine workshop layout	**A9.** Prepare work area
	A10. Assign Work	**A11.** Prepare work schedule	

B. KEEP RECORDS	**B1.** Obtain Service manuals	**B2**. Make Receipts	**B3.** Lable phones
	B4. Prepare Job cards	**B5.** Maintain Inventory	**B6.** Generate Invoices
	B7. PrepareDispatch documents	**B8.** File Records	**B9.** Update Records.
	B10. Keep personal records	**B11.** Prepare Income & expenditure records.	**B12.** Make Reports.

C. DIAGNOSE PHONE FAULTS	**C1**. Interview Clients	**C2.** Diagnose power system for faults	**C3.** Diagnose phone charging system
	C4. Diagnose light system faults	**C5.** Diagnose network faults	**C6.** Diagnose display system faults
	C7. Diagnose flex cable faults	**C8.** Diagnose audio system faults	**C9.** Diagnose Sim card system faults
	C10. Diagnose keypad system faults	**C11.** Diagnose camera system faults	**C12.** Diagnose light system faults
	C13. Diagnose TV system faults	**C14.** Diagnose Torch system faults	**C15.** Diagnose accessory system faults

	C16. Diagnose memory card system faults	C17. Diagnose touch screen system faults	C18. Diagnose vibrator system faults
	C19. Diagnose operating system faults		

D. REPAIR & REPLACE HARDWARE COMPONENTS ON PHONE	**D1.** Disassemble/ assemble phone components	**D2.** Repair/ replace phone charging system components e.g. ports	**D3.** Repair/ replace network system components e.g. network antennas
	D4. Replace/ replace ringer	**D5.** Repair/ replace display system components	**D6.** Repair/ replace mouth piece/ ear piece
	D7. Repair/ replace sim card slot	**D8.** Repair/ replace local test mode	**D9.** Repair contact service
	D10. Repair /replace housing	**D11.** Rebuild, repair or replace phone battery	**D12.**Repair/ replace camera components
	D13. Repair /replace Torch components	**D14.** Repair /replace audio visual components e.g. radio, TV antenna	**D15.** Repair /replace light system components
	D16. Repair /replace motherboard	**D17.** Repair /replace Touch screen sensor components	**D18.** Repair /replace Vibrator components
	D19. Repair /replace chassis	**D20.** Change CPU/UAM	**D21.** Replace, repair, or replace phone
	D22. Separate screens i.e. LCD from Touch		

E. MAINTAIN PHONE SOFTWARE	**E1.** Repair contact service	**E2.** Flash phone memory	**E3.** Format phone memory
	E4. Lock/ unlock phone memory e.g. Network codes, security**codes**	**E5.** Add/ remove phone restrictions	**E6.** Write PM files
	E7. Restore IMEI and serial numbers	**E8.** Down load applications & software	**E9.** Install Applications
	E10. Backup and restore data	**E11.** Upgrade/ downgrade software	**E12.** Update software
	E13. Read and write flash files	**E14**. Restore phone setting	**E15**. Set Internet
	E16. Clean phone	**E17**. Dry phone	**E18**. Replace accessories
	E19. Spray colour on phone housing	**E20.** Customise phone	

F. PERFORM ADMINISTRATIVE TASKS	**F1**. Obtain licences and permits	**F2.** Set rules and regulations	**F3**. Recruit workers
	F4. Assign works	**F5.** Supervise works	**F6.** Store tools, equipment and materials
	F7. Pay workers	**F8.** Register business	**F9.** Pay taxes

ATP: PartI
[Occupational Profile]

G. PRACTICE OCCUPATIONAL HEALTH, SAFETY AND ENVIRONMENTAL PROTECTION	**G1**. Install Power stabiliser	**G2**. Wear protective gear e.g. grounded strap	**G3**. Administer first aid
	G4. Operate fire extinguisher	**G5**. Manage phone waste	**G6**. Maintain hygiene and sanitation

H.MARKETING PHONE REPAIR SERVICES	**H1.** Advertise Business	**H2.** Issue Business cards	**H3**. Display sign posts
	H4. Display stickers	**H5.** Issue brochures	**H6.** Advise customers
	H7. Sell Service	**H8.**Perform exhibitions	**H9.**Cost services

I. PERSUE PROFFESSIONAL DEVELOPMENT	**I1.**Carry out research	**I2.** Train workers	**I3**. Mentor workers
	I4. Appraise workers	**I5.** Attend workshops and seminars	**I6.** Network with peers
	I7. Attend ToT		

Additional Information

Generic Knowledge & Skills

1. Phone Types
2. Different phone types
3. Computer knowledge and skills
4. Various software devices
5. Various components of a phone motherboard
6. Technical terminologies used
7. Different tool, equipments and materials used
8. Measurement of continuity, polarity, voltage and resistance
9. Phone systems
10. Classification of phones
11. Basic electronics
12. Rebelling, soldering and dis-soldering techniques
13. How phones work
14. Entrepreneurship skills
15. Numeracy
16. Literacy
17. Interpersonal skills
18. Managerial skills
19. Time management
20. Planning skill
21. Communication skills
22. Marketing skills
23. Marketing procedures and techniques
24. Workshop regulations

Tools, Materials and Equipment

1. Software dongle and keys
2. Anti-glare glass
3. Anti-static matt (magnetic matt)
4. Screw driver sets
5. Pins
6. Blades
7. Cleaning brushes
8. Tweezers
9. Allen keys
10. Cutter
11. Sim card cutter
12. Pliers
13. Magnifying glass and light
14. Multi meter
15. SMD work station
16. Soldering Iron
17. Computer set
18. External drives
19. Flash devices
20. User manuals
21. Flash cable
22. Fire extinguishers
23. First aid box
24. Waste bin
25. Short killer
26. Repair server accounts
27. Sim card copy device
28. Software compact disc
29. Internet modem and routers
30. Phone mother
31. Spare parts
32. Solder wire
33. Cleaning detergents e.g. foam cleaner, benzene / thinner
34. Sand paper
35. Internet service
36. Looping wire
37. Stationary
38. Sim card reader
39. LDC separators
40. Clamp tools
41. Stabilizers
42. Power back ups
43. Power banks
44. Soldering flux & paste
45. Regulated power supply
46. Safety equipment
47. Anti-static brushes
48. Microscope
49. Holding clamp
50. Battery testers
51. Bubble remover

Attitudes/ Traits/ Behaviour	Future Trends and Concerns
1. Self-motivated	1. Self-criticism
2. Trustworthy	2. Customer care
3. Honesty	3. Bench marking with phone repairers in other countries
4. Tolerant	4. Computer literacy
5. Hardworking	5. Need to have cattle farming products on the international markets
6. Team player	6. Need for advanced technology
7. Disciplined	7. Skills competition in cattle farming products
8. Good time manager	8. Public awareness of cattle farming and its benefits
9. Committed	9. Open line of progression/ career development
10. Good listener	10. Value addition to cattle products
11. Flexible	11. Poor extension services
12. Result oriented	12. Price fluctuations of cattle products and inputs
13. Curious	13. Fake/ expired drugs on the market
14. Competitive	14. imposter veterinary personnel
15. cooperative	15. Lack of vaccines
16. Innovative and creative	16. Limited management skills
17. Physically fit	17. High prices for exotic breeds
18. Knowledgeable	18. Inadequate land for expansion of cattle farming
19. Patient	19. Seasonal markets
20. Must be able to pay rent, taxes, licenses, permits and power bills	
21. Customer care services	
22. Ability to set and follow rules & regulations e.g. sim cards, batteries, jackets & memory cards are left out at owner's risk and soft ware updating is done at owner's risk	

2.0 ATP – PART II
Training Modules for PHONE REPAIRER

2.1   A curriculum is a "guide /plan for teaching and learning" which provides a guide to teachers, instructors and learners. In the envisaged system of competence-based or outcome-oriented education and training (CBET), Curricula are no longer the benchmark against which assessment is conducted. It is rather the Occupational Profile that provides the benchmark for Curriculum development as well as assessment.

2.2   This modular format of the curriculum allows learners of a PHONE REPAIRER to acquire job specific skills and knowledge (i.e., competencies) module by module. A single module can be accomplished within a relatively short duration of time allowing learners to move directly into an entry level job, do further modules and advance to higher levels of training. Modular courses allow more learners to access the training system because training centers, as well as companies can accommodate more students in a given period of time.

2.3   The modules were developed jointly by both instructors and job practitioners. They were developed using the Occupational Profile as a reference point and taking into account the specifications of training and learning outcomes.

2.4   The modules contain "Learning-Working Assignments" (LWAs) and related "Practical Exercises" (PEXs) as key elements.

        LWAs are simulated or real job situations/assignments that are suitable for learning in a training environment (e.g., "small projects"). In a working environment, LWAs are real work situations.

        PEXs are therefore sub-sets of an LWA.

2.5   In principle, and following the philosophy of Competence-Based Education and Training (CBET), the modules can be used as a guide for learning in a training Centre, at the workplace; or a combination of both.

WHO IS A PHONE REPAIRER QUALIFICATION LEVEL 1?

A level 1 Phone Repairer is a person who assembles and disassembles phones, conducts simple maintenance, diagnoses and rectifies minor faults.

OVERVIEW OF MODULES FOR A PHONE REPAIRER UVQ LEVEL 1

Code	Module Title	Average duration	
		Contact hours	**Weeks**
UE/PR/M1.1	Set up phone repair business	80	2
UE/PR/M1.2	Perform minor phone maintenance	200	5
UE/PR/M1.3	Manage phone repair tools, equipment and materials	80	2
UE/PR/M1.4	Entrepreneurship skills	80	2
Summary	**4 Training modules**	**440 Hours**	**11 Weeks**

Note: Average duration is contact time but NOT calendar duration
It is assumed that:
- 1 day is equivalent to 8 hours of nominal learning and
- 1 month is equivalent to 160 hours of nominal learning.

Information given on the average duration of training should be understood as a guideline. Quick learners may need less time than indicated or vice versa.

At completion of a module, the leaner should be able to satisfactorily perform the included Learning Working Assignments, their Practical Exercises and attached theoretical instruction, as the minimum exposure.

Prior to summative assessment by recognised Agencies, the users of these Module Guides are encouraged to carefully consider continuous assessment using samples of (or similar) performance (practical) and written test items available in part 3 of this ATP for **Phone Repairer**.

Code	**UE/PR/M1.1**
Module title	**M1.1: Set up phone repair business**
Related Qualification	Part of: Uganda Vocational Qualification (PHONE REPAIRER UVQ1)
Qualification Level	1
Module purpose	By the end of the of this module, the trainee will be able to set up a profitable phone repair business in accordance with the law and regulations e.g. occupational safety, health and environmental protection rules and regulations.

Learning-Working Assignments (LWAs)	**LWA1/1: Procure tools, equipment and materials**
	 LWA1/2: Set up phone repair workshop
	 LWA1/3: Perform administrative tasks
	 LWA1/4: Perform occupational health, safety and environmental protection practices
	 Note:
	     1. *The learning exercises may be repeated till the trainee acquires a targeted competence.*
	     2. *The trainer is advised to deliver relevant theoretical instruction with demonstrations as required to perform each learning working assignment.*

Related Practical Exercises (PEXs)	**LWA1/1: Procure tools, equipment and materials** PEX 1.1: Determine tools, equipment and materials PEX 1.2: Identify source of tools, equipment and materials PEX 1.3: Negotiate payment terms PEX 1.4: Acquire tools, equipment and materials PEX 1.5: Transport tools, equipment and materials PEX 1.6: Store tools, equipment and materials **LWA1/2: Set up phone repair workshop** PEX 2/1: Prepare budget PEX 2/2: Determine workshop location PEX 2/3: Source capital PEX 2/4: Furnish workshop PEX2/5: Install tools and equipment PEX2/6: Register business PEX2/7: Acquire operational permits and licenses.

	LWA1/3: Perform administrative tasks
	PEX 3.1: Recruit workers
	PEX 3.2: Train workers
	PEX 3.3: Prepare work schedule
	PEX 3.4: Assign work
	PEX 3.5: Supervise work
	PEX 3.6: Maintain tools and equipment
	PEX 3.7: Pay taxes
	PEX 3.8: Remunerate workers
	PEX 3.9: Renew permits and licenses
	PEX3.10: Manage inventory
	LWA1/4: Perform occupational health, safety and environmental protection practices
	PEX 4.1: Procure first aid kit
	PEX 4.2: Install power stabiliser
	PEX 4.3: Install a grounded strap
	PEX 4.4: Wear protective gear
	PEX 4.5: Install firefighting equipment
	PEX 4.6: Locate waste management point
	PEX 4.7: Display signage
Occupational health and safety	Precautions, rules and regulations on occupational health, safety and environmental protection, included in the related knowledge listings as well as in test items should be observed and demonstrated during LWAs and PEXs.
Pre-requisite modules	None
Related knowledge/ theory	*For Occupational theory suggested for instruction/ demonstration, the Trainer is not limited to the outline below. In any case, related knowledge/ theory may be obtained from various recognised reference materials as appropriate:* • Knowledge about business registration • Business and marketing skills • Knowledge on occupational safety, health and environmental protection practices • Knowledge about tools, equipment and materials • Knowledge on tools, equipment and material storage

	• Workers remuneration skills • Tools, equipment and material sources • Entrepreneurship skills

Average duration of learning	160 hours (15 days) of nominal learning suggested to include: • *5 days of occupational theory and* • *10 days of occupational practice*
Suggestions on organization of learning	The acquisition of competencies (skills, knowledge, attitudes) described in this module may take place at a training centre or its equivalent provided all equipment and materials required for training are in place.
Assessment	Assessment to be conducted according to established regulations by recognised assessment body using related practical and written test items from Item bank
Minimum required tools/ equipment/ implements or equivalent	Work station, soldering wire, hooping wire, blade, soldering, extension cables, pliers, protective gears, brush, furniture, multi meter, magnifying lenses, tweezers, computer, separator wire, phone spares and accessories, short killer, holding clamp, separating machine, Anti-static mat, regulated power supply and cleaning agents.
Minimum required materials and consumables or equivalent	Flip charts, flux, benzene, work station, cleaning detergents, water, masking tape, stationery, receipt books and pens.
Special notes	

Code	UE/PR/M1.2
Module title	**M1.2: Perform minor phone repair**
Related Qualification	<u>Part of:</u> Uganda Vocational Qualification (PHONE REPAIRER UVQ21
Qualification Level	1
Module purpose	By the end of this module, the trainee will be able to perform minor hardware and software phone maintenance
Learning-Working Assignments (LWAs)	**LWA2/1: Maintain phone charging system** **LWA2/2: Maintain card system** **LWA2/3: Maintain phone network system** **LWA2/4: Maintain power system** **LWA2/5: Maintain phone display system** **LWA2/6: Maintain key pad system** **LWA2/7: Maintain audio system** **LWA 2/8: Maintain lighting system** **LWA2/9: Perform minor software** **LWA2/1O: Perform occupational safety, health and environmental protection practices.** **<u>Note:</u>** 1. *The learning exercises may be repeated till the trainee acquires a targeted competence.* 2. *The trainer is advised to deliver relevant theoretical instruction with demonstrations as required to perform each learning working assignment.*
Related Practical Exercises (PEXs)	**LWA2/1: Maintain phone charging system** PEX 1.1: Replace plug and play charging ports PEX 1.2: Clean charging system PEX 1.3: Replace charging fuse PEX 1.4: Replace charger and accessories

LWA2/2: Maintain card system PEX 2.1: Replace plug and play card slots (sim, memory) PEX 2.2: Clean card system
LWA2/3: Maintain phone network system PEX 3.1: Clean network system PEX 3.2: Replace network antenna PEX 3.3: Repair antenna grounds
LWA2/4: Maintain power system PEX 4.1: Replace plug and play battery/phone terminals PEX 4.2: Replace plug and play power on/ off switch PEX 4.3: Clean power system
LWA2/5: Maintain phone display system PEX 5.1: Replace plug and play display screen (LCD) PEX 5.2: Replace plug and play touch screen PEX 5.3: Clean screen area PEX 5.4: Apply screen guards PEX 5.5: Replace plug and play flex cable
LWA 2/6: Maintain phone audio system PEX 6.1: Replace plug and play ringer PEX 6.2: Replace plug and play mouth piece PEX 6.3: Replace plug and play ear piece PEX 6.4: Clean connection grounds
LWA 2/7: Maintain phone keypad system PEX 7.1: Replace plug and play keypad plate PEX 7.2: Clean key pad grounds PEX 7.3: Replace keypad nodes PEX 7.4: Clean keypad area
LWA 2/8: Maintain phone lighting system PEX 8.1: Clean lighting system PEX 8.2: Restore lighting settings PEX 8.3: Replace plug and play bulbs.

	LWA 2/9: Perform minor phone software maintenance
	PEX 9.1: Hard reset phone
	PEX 9.2: Install minor apps (WhatsApp, Facebook, IMO etc.)
	PEX 9.3: Update minor apps
	PEX 9.4: Soft reset phone
	PEX 9.5: Transfer data
	PEX 9.6: Lock and unlock phone e.g. password, pattern etc.
	LWA 2/10: Perform occupational safety, health and environmental protection practices
	PEX 10.1: Clean workplace
	PEX 10.2: Service tools and equipment
	PEX 10.3: Manage waste
	PEX 10.4: Perform fire fighting
	PEX 10.5: Administer first aid
	PEX 10.6:Maintain personal hygiene
	PEX 10.7: Wear protective gears

Occupational health and safety	Precautions, rules and regulations on occupational health, safety and environmental protection, included in the related knowledge listings as well as in test items should be observed and demonstrated during LWAs and PEXs.
Pre-requisite modules	None
Related knowledge/ theory	*For Occupational theory suggested for instruction/ demonstration, the Trainer is not limited to the outline below. In any case, related knowledge/ theory may be obtained from various recognised reference materials as appropriate:* • Different types of phones • Phone systems • Tools, materials and equipment usage • Modern phone technology • Component parts of the phone • Phone systems faults • Entrepreneurship skills
Average duration of learning	200 hours (25 days) of nominal learning suggested to include: • *5 days of occupational theory and* • *20 days of occupational practice*

Suggestions on organization of learning	The acquisition of competencies (Skills-Knowledge, attitudes) described in this module may take place at a training centre or its equivalent provided all equipment and materials required for training are in place.
Assessment	Assessment to be conducted according to established regulations by recognised assessment body using related practical and written test items from Item bank
Minimum required tools/ equipment/ implements or equivalent	Cutter, magnifying glass and light, Allen keys, multi meter, regulated power supply, battery tester and booster, simcard cutter,power bank,Sim card copy drive,tweezers,work station,brush,screw driver set,blade,pins,soldering iron, water container, protective gears, light source, anti-static mats, SMD rework station, holding clamps, pliers.

Minimum required materials and consumables or equivalent	Soldering paste, soldering wire, thinner, phone foam spray,detergents,water,cleaning clothes, phone spares, source of power,spareparts,looping wires,stationary,razor blade, sand paper.
Special notes	

Code	UE/PR/M1.3
Module title	M1.3: Manage phone repair tools, equipment and materials.
Related Qualification	Part of: Uganda Vocational Qualification (Phone repairer UVQ1)
Qualification Level	1
Module purpose	By the end of this module, the trainee will be able to procure, operate, maintain and store various types of phone repair tools, equipment and materials while conforming to occupational safety and health regulations.

Learning-Working Assignments (LWAs)	**LWA3/1: Maintain records** **LWA3/2:Manage inventory** **LWA3/3: Maintain tools and equipment** **LWA3/4: Perform occupational safety, health and environmental protection practices.** **Note:** 1. *The learning exercises may be repeated till the trainee acquires a targeted competence.* 2. *The trainer is advised to deliver relevant theoretical instruction with demonstrations as required to perform each learning working assignment.*
Related Practical Exercises (PEXs)	**LWA3/1: Maintain records** PEX 1.1: Prepare invoices PEX 1.2: Prepare maintenance schedules PEX 1.3: Prepare job cards PEX 1.4: Prepare maintenance receipts PEX 1.5: Prepare ledgers PEX 1.6: Prepare service manuals PEX 1.7: Prepare inventory cards PEX 1.8: Maintain customer database PEX 1.9: Task documentation e.g. taking videos, photos
	LWA3/2: Mange inventory PEX 2.1: Receive stock PEX 2.2: Perform stock taking PEX 2.3: Dispatch materials PEX 2.4: Organise tools PEX2.5: Procure materials e.g. spare parts, tools and equipment PEX 2.6: Label tools, equipment and materials.
	LWA3/3: Maintain tools and equipment PEX 3.1: Service tools and equipment PEX 3.2: Organise storage facility PEX 3.3: Store tools and equipment PEX 3.4: Repair tools and equipment PEX 3.5: Restock tools and equipment

	LWA3/4: Perform occupational health, safety and environmental protection practices PEX 4.1: Wear protective gear PEX 4.2: Install earthing straps

	PEX 4.3: Provide anti-static mats
	PEX 6.5: Provide waste bins
	PEX 6.6: Ensure personal hygiene

Occupational health and safety	Precautions, rules and regulations on occupational health, safety and environmental protection included in the listed related knowledge should be observed and demonstrated during LWAs and PEXs.
Pre-requisite modules	None
Related knowledge/ theory	*For occupational theory suggested for instruction/ demonstration, the trainer is not limited to the outline below. In any case, related knowledge/ theory may be obtained from various recognised reference materials as appropriate:* • Tools, equipment and materials procurement or acquisition methods • Preparation and management of records • Tools and equipment usage • Knowledge on tools, equipment and material storage • Selection of quality tools, equipment and materials • Preparation of tools and equipment maintenance schedules • Waste management methods • Environmental protection practices, rules and regulations • Tools, equipment and material labelling techniques, general stores management techniques.
Average duration of learning	120 hours (15days) of nominal learning suggested to include • *4days of occupational theory and* • *11 days of occupational practice*
Suggestions on organization of learning	The acquisition of competencies (skills. Knowledge, attitudes) described in this module may take place at a training centre or its equivalent provided all equipment and materials required for training are in place.

Assessment	Assessment to be conducted according to established regulations by recognised assessment body using related practical and written test items from Item bank
Minimum required tools/ equipment/ implements or equivalent	Multi-meter, filing cabinets, computer set, tools and equipment service manuals, holding clamp, desk lamp, power backup system, power stabilisers, extension cables, screw drivers, job cards, USB cables, Ultrasonic cleaner, phone repair box, dryer, digitising machine, separator machine, printer, pliers.
Minimum required materials and consumables or equivalent	Pens, invoice books,vouchers,printing paper,toner,programmers
Special notes	

Code	UE/PR/M1.4
Module title	**M1.4: Perform entrepreneurship skills**
Related Qualification	Part of: Uganda Vocational Qualification (PHONE REPAIRER UVQ1)
Qualification Level	1
Module purpose	By the end of this module, the trainee will be able to acquire and perform entrepreneurship skills
Learning-Working Assignments (LWAs)	**LWA 4/1: Start up phone repair business** **LWA 4/2: Market phone repair business** **LWA4/3:Perform occupational safety, health and environmental protection practices** ***Note:*** 1 *The learning exercises may be repeated till the trainee acquires a targeted competence.* 2 *The trainer is advised to deliver relevant theoretical instruction with demonstrations as required to perform each learning working assignment.*
Related Practical Exercises (PEXs)	**LWA4/1: Start up phone repair business** PEX 1.1: Source capital PEX 1.2: Prepare budget

	PEX 1.3: Determine business location
	PEX 1.4: Obtain operational licenses and permits
	PEX 1.5: Procure tools, equipment and materials
	PEX 1.6: Register business
	PEX 1.7: Insure business
	PEX 1.8: Train workers
	LWA4/2: Market phone repair business
	PEX 2.1: Conduct market research
	PEX 2.2: Advertise products and services
	PEX 2.3: Offer customer care services
	PEX 2.4: Update phone related technology

	LWA4/3: Perform occupational safety, health and environmental protection practices
	PEX 3.1: Maintain personal hygiene
	PEX 3.2: Clean workshop
	PEX 3.3: Manage waste
	PEX 3.4: Wear protective gear
	PEX 3.5: Service tools and equipment

Occupational health and safety	Precautions, rules and regulations on occupational health, safety and environmental protection included in the listed related knowledge should be observed and demonstrated during LWAs and PEXs.
Pre-requisite modules	None
Related knowledge/ theory	*For occupational theory suggested for instruction/ demonstration, the trainer is not limited to the outline below. In any case, related knowledge/ theory may be obtained from various recognised reference materials as appropriate:*

	• Negotiation • Professional ethics • Communication skills • Literacy • Research and innovation

	•
Average duration of learning	80 hours (10 days) of nominal learning suggested to include • *3days of occupational theory and* • *7 days of occupational practice*
Suggestions on organization of learning	The acquisition of competencies (skills. Knowledge, attitudes) described in this module may take place at a training centre/ farm or its equivalent provided all equipment and materials required for training are in place.
Assessment	Assessment to be conducted according to established regulations by recognised assessment body using related practical and written test items from Item bank
Minimum required tools/ equipment/ implements or equivalent	Computers, manual guides, phone accessories
Minimum required materials and consumables or equivalent	Pens, books or paper, transport means
Special notes	

ATP- PART III
Assessment Instruments for PHONE REPAIRER

3.1   Assessment of occupational competence is the procedure by which evidence is gathered and judged to decide if an individual (candidate) has met the stipulated assessment standards.

3.2   Assessment of occupational competence should comprise of both   practical (Performance) testing and written (theory/knowledge) testing.

3.3   Based on the Occupational Profile and Training Modules, a combined panel of job practitioners and Instructors developed a substantial number of test items for assessing (practical) performance as well as items for assessing occupational knowledge (theory) all stored in an electronic Test Item Bank (TIB) at the Directorate of Industrial Training.

3.4   Performance (Practical)Test Items (PTI)are closely related to typical work situations in Ugandan business enterprises. They comprise of a test assignment for candidates and assessment criteria and/or scoring guides for assessors' use.

3.5   Written Test items (WTI) for written testing of occupational theory, (knowledge) are presented in different forms which include:
- short answer test items
- Multiple choice test items
- Matching test items.

These WTIs herein focus on functional understanding as well as trouble-shooting typically synonymous with the world of work.

3.6   Composition of assessment/test papers will always require good choices of different types of WTI in order to ensure the assessment of relevant occupational knowledge required of candidates to exhibit competence.

3.7   The test items contained in the Test Item Bank may be used for continuous/formative assessment during the process of training as well as for summative assessment of candidates who have acquired their competences non-formally or informally.

3.8   In this document, samples of test items for assessing both performance (practical) and occupational knowledge (theory) of a **PHONE REPAIRER** are included. A larger selection of test items can be obtained as electronic or printed copies from designated outlets.

3.9 Overview of test item samples included:

No.	Type of Test Item	Numbers included
1	Written (Theory)- Short Answer	3
2.	Written (Theory)- Multiple Choice	3
3.	Written (Theory)- Matching item- Generic	3
4.	Written (Theory)- Matching item (Work sequence)	2
5.	Performance (Practical) Test Items	1
	Total	**12**

WRITTEN TEST ITEMS (SAMPLES)

DIT/ QS	Test Item Database Written (Theory) Test Item- No. 1			
Occupational Title:	PHONE REPAIR			
Competence level:	1			
Code no.				
Test Item type:	Short answer	√		
	Multiple choice			
	Matching item	Generic	Cause-Effect	Work-sequence
Complexity level:	C1			
Date of OP:	JANUARY, 2022			
Related module:	M1.1			
Time allocation:	2 minutes			

Test Item	Mention any 6 tools used in disassembling a phone in the workshop.
Answer spaces	1. ………………………………… 2. ………………………………... 3. ………………………………… 4. ……………………………….. 5. ………………………………… 6. …………………………………

Expected key (answers)	1. Allen Key 2. Holding Clamp 3. Magnifying glass 4. Tweezers 5. Screw driver set 6. SMD work station 7. LCD separator 8. Blades 9. Pins 10. Anti-static mat 11. Pliers

DIT/ QS	Test Item Database Written (Theory) Test Item- No. 2		
Occupational Title:	PHONE REPAIR		
Competence level:	1		
Code no.			
Test Item type:	Short answer	√	
	Multiple choice		
	Matching item	Generic	Cause- Effect	Work-sequence
Complexity level:	C1		
Date of OP:	January, 2022		
Related module:	M2.3		
Time allocation:	2minutes		

Test Item 1 b	List 3 essential beneficiaries of a mobile phone repair workshop as a business
Answer spaces	1. ……………………………………. 2. ……………………………………. 3. ………………………………………

Key (answer)	1. Network service providers 2. Government agencies 3. Technologists 4. Community members 5. Spare part manufacturers 6. Spare parts dealers 7. Students 8. Landlords 9. Security companies 10. Programmers 11. Financial institutions 12. Families of the repair technicians 13. Researchers 14. Cleaners 15. Environmentalists

DIT/ QS	Test Item Database Written (Theory) Test Item- No. 3		
Occupational Title:	PHONE REPAIR		
Competence level:	1		
Code no.			
Test Item type:	Short answer	√	
	Multiple choice		
		Generic	Cause- Effect	Work-sequence
	Matching item			
Complexity level:	C2		
Date of OP:	January, 2022		
Related module:	M1.1		
Time allocation:	3 minutes		

Test Item	State any four factors to consider when setting up a phone repair workshop
Answer spaces	1. ………………… 2. ……………….. 3. ……………….. 4. ………………..
Key (answer)	1. Availability of power 2. Availability of phone repair market 3. Accessibility to the public 4. Availability of capital 5. Cost of acquiring operational licences and permits 6. Potential hazards associated with the phone repair business 7. Security of the place

DIT/ QS	Test Item Database Written (Theory) Test Item- No. 4			
Occupational Title:	Phone Repairer			
Competence level:	1			
Code no.				
Test Item type:	Short answer			
	Multiple choice	√		
	Matching item	Generic	Cause-Effect	Work-sequence
Complexity level:	C2			
Date of OP:	January 2022			
Related module:	M2.3			
Time allocation:	2 minutes			

Test Item	A client's Phone has not been switched on for 12 months.
	What tool will be used to test the phone functionality?
Answer spaces	a) Screen separator b) Battery tester/booster c) Phase tester d) Power bank

Key (answer)	b)

DIT/ QS	Test Item Database Written (Theory) Test Item- No. 5			
Occupational Title:	Phone Repairer			
Competence level:	1			
Code no.				
Test Item type:	Short answer			
	Multiple choice	√		
	Matching item	Generic	Cause-Effect	Work-sequence
Complexity level:	C2			
Date of OP:	January, 2022			
Related module:	M1.2			
Time allocation:	2 minutes			

Test Item	Which of the following tools is used for measuring continuity
Answer spaces	a) Short killer b) Battery tester c) Multi-meter d) Screw driver tester

Key (answer)	c)

DIT/ QS	Test Item Database Written (Theory) Test Item- No. 6			
Occupational Title:	Phone Repairer			
Competence level:	1			
Code no.				
Test Item type:	Short answer			
	Multiple choice	√		
	Matching item	Generic	Cause-Effect	Work-sequence
Complexity level:	C1			
Date of OP:	January, 2022			
Related module:	M1.2			
Time allocation:	2 minutes			

Test Item	Which of the following documents is used when capturing phone and customer information?
Answer spaces	a) Invoice b) Payment receipt c) Inventory card d) Job card

Key (answer)	d

DIT/ QS	Test Item Database Written (Theory) Test Item- No. 7			
Occupational Title:	PHONE REPAIR			
Competence level	1			
Code no.				
Test Item type:	Short answer			
	Multiple choice			
	Matching item	Generic	Cause- Effect	Work-sequence
			√	
Complexity level:	C2			
Date of OP:	January, 2022			
Related module:	M1.2			
Time allocation:	5 minutes			

Test item	Match the following tools to their uses

Column A (Tools)		Column B (Uses)	
1.	Microscope	A.	Storage of data and applications
2.	Tweezers	B.	Magnifies small components
3.	Anti glare screen	C.	Displays phone information
4.	External drive	D.	Holding Phone components
		E.	Cleans mother boards
		F.	Protection from excessive light

Key (answer)	1:B, 2:D, 3:F, 4:A

DIT/ QS	Test Item Database Written (Theory) Test Item- no. 8		
Occupational Title:	PHONE REPAIR		
Competence level:	1		
Code no.			
Test Item type:	Short answer		
	Multiple choice		
		Generic	Cause- Effect	Work-sequence
	Matching item		√	
Complexity level:	C2		
Date of OP:	January, 2022		
Related module:	M1.2		
Time allocation:	3mins		

Test item	Match the following components in column A to their respective phone systems in column B.

Column A (Components)		Column B (System)	
1.	Antenna switch	A.	Audio system
2.	Mouth piece	B.	Display system
3.	LCD socket	C.	Light system
4.	Battery terminals	D.	Network System
		E.	Power system
		F.	Key pad system

Key (answer)	1:D , 2:A , 3:B , 4:E

DIT/ QS	Test Item Database Written (Theory) Test Item- No. 9			
Occupational Title:	PHONE REPAIR			
Competence level	1			
Code no.				
Test Item type:	Short answer			
	Multiple choice			
		Generic	Cause- Effect	Work-sequence
	Matching item		√	
Complexity level:	C2			

Date of OP:	January, 2022
Related module:	M1.2
Time allocation:	5 minutes

Test item	Match the following Materials to their uses

Column A (Material)		Column B (Uses)	
1	Soldering Paste	G.	Cooling ICs
2	Compact Disk (CD)	H.	Cleaning agent
3	Solder wire	I.	Bubble removing
4	Benzene	J.	Storage of Data and applications
		K.	Simplifies IC removal
		L.	Reinstating components on the board

Key (answer)	1:E, 2:D, 3:F, 4:B

DIT/ QS	Test Item Database Written (Theory) Test Item- No. 10			
Occupational Title:	PHONE REPAIR			
Competence level:	1			
Code no.				
Test Item type:	Short answer			
	Multiple choice			
	Matching item	Generic	Cause- Effect	Work-sequence
				√

Complexity level:	C3
Date of OP:	January, 2022
Related modules:	M1.2
Time allocation:	7 minutes

Test Item	Arrange the following steps followed in replacing a plug and play charging flex of a Tecno Spark phone in their chronological order.

Column A (chronology)	Column B (work steps) in wrong chronology order	
1.	A	Detach flex
2.	B	Restore cards
3.	C	Switch off phone
4.	D	Switch on phone
5.	E	Insert back cover
6.	F	Replace with working flex
7.	G	Remove cards
8.	H	Restore flex cover
9.	I	Screw phone
10.	J	Unscrew phone
11.	K	Remove back cover
12.	L	Remove flex cover
13.	M	Pre-test phone charging
14.	N	Clean charging area
15.	O	Test phone charging functionality

Key (answer)	1:M, 2:C, 3:G, 4:K, 5:J, 6:L, 7:A, 8:N, 9:F, 10:H, 11:I, 12:E, 13:O 14:B 15:D

DIT/ QS		Test Item Database Written (Theory) Test Item- No. 11		
Occupational Title:		PHONE REPAIR		
Competence level:		1		
Code no.				
Test Item type:		Short answer		
		Multiple choice		
			Generic	Cause- Effect	Work-sequence
		Matching item			√
Complexity level:		C3		
Date of OP:		January, 2022		
Related modules:		M1.2		
Time allocation:		7 minutes		

Test Item	Arrange the following steps followed in cleaning a liquid damaged Infinix Hot 10 phone in their chronological order.

Column A (chronology)	Column B (work steps) in wrong chronology order	
1.	A	Clean phone components
2.	B	Restore cards
3.	C	Reinstall components
4.	D	Switch on phone
5.	E	Insert back cover
6.	F	Remove mother board from chassis
7.	G	Remove cards
8.	H	Disconnect plug and play components
9.	I	Screw phone
10.	J	Test phone functionality
11.	K	Remove back cover

12.	L	Dry components
13.	M	Switch off phone
14.	N	Select tools and materials to be used
15.	O	Wear Protective gear
16.	P	Unscrew phone
17.	Q	Restore Mother board to chassis
18.	R	Collect tools and remaining materials
Key (answer)		1:O, 2:N, 3:M, 4:G,5:K, 6:P, 7:F, 8:H, 9:A, 10:L, 11:Q, 12:C, 13:I 14:E 15:B,16:D, 17:J, 18:R

PERFORMANCE TEST ITEMS (SAMPLES)

DIT/ QS	**Test Item Database** **Performance Test Item- No. 12**
Occupational Title:	PHONE REPAIR
Competence level:	1
Code no.	
Test Item:	A Tecno spark 4 phone does not charge when a customer inserts a charger, Rectify the problem by replacing the plug and play charging flex.
Complexity level:	P2
Date of OP:	January, 2022
Related modules:	M1.2
Related skills and knowledge:	Assembling and Disassembling skills, Knowledge of the phone charging system.
Required tools, Materials and Equipment:	A specimen phone, Test charger, screw driver set, cleaning agent, cleaning brush. SMD rework station, anti static mat, Pin, PPE
Time allocation:	1 hour
Preferred venue:	Workshop
Remarks for candidates	Candidates should provide personal safety gear.

Remarks for assessors	Provide candidates with required tools, equipment and materials. Provide a phone with a similar fault in the absence of a Tecno Spark 4 phone.

#	Assessment criteria	Scoring guide	Max. Score	
			Process	**Result**
1	Preparation for task			
		wore protective gear • Boots • Overall/over coat • Gloves • Nose mask		4
		Cleaned work area		2
		Work table is free from foreign material		1
		. Selected tools and materials		2

2.	Pre-testing the phone	Checked the charging port for dirt and damage	1	
		Plugged charger into power source	1	
		Charger inserted into phone	1	
		Charging behaviour observed		1
3.	Disassembling the phone	Switched off phone	1	
		Power button used when switching off the phone	1	

		Removed the cards		1
		Pin used to remove cards	1	
		Removed back cover	3	
		No damage observed when removing back cover		2

		Un screwed phone		2
		No damage observed on screw heads		1
		Removed Flex cover	1	
		No damage observed on the mid board		1
		Arranged disassembled components in order		2
4	Replacing Flex cable	Disconnected battery		1
		Detached flex	3	
		No damage observed on flex socket		1
		Cleaned charging area		1
		Dried charging area observed		1
		No overheating observed		1
		Replaced with a new flex		3
5	Assembling the Phone	Battery inserted/connected		1
		Flex cover reinstated		1
		Cover firmly fixed with screws		2
		Inserted back cover		2
		Inserted Cards		1
6	Testing Phone	Charger connected		1
		Charging phone observed		3
		Switched on phone		1
		Observed charging on display		1
7		Stored tools, equipment and un used materials		1

ATP: Part III
[Samples For Assessment Instruments]

Re organising work area	Cleaned work area		1
TOTAL		**12**	**43**
MAXIMUM SCORE (Y)	$\frac{X}{Y} X\ 100$	**55**	

4.0 ATP- PART IV
INFORMATION ON REVIEWED PROCESS

4.1 **Occupational Profile Development (January 2022)**
The assessment and Training Package was exclusively developed by job practitioners who were working in the occupation of **Phone Repairer.**
The job expert panel, guided by UVQF facilitators developed the Occupational Profile that mirrors duties and tasks performed in the world of work and also provided additional generic information regarding the occupation.

4.2 **Training Modules Development (January 2022)**
Based on the Occupational Profile for Phone repairer of **January 2022**, Training Modules were developed by job practitioners, guided by UVQF Facilitators.

4.3 **Test Item Development (January 2022)**
Based on the Occupational Profile for Phone repairer of **January 2022**, and Training Modules, Test Items were developed by combined panels of instructors and job practitioners, guided by UVQF Facilitators.

4.4 **Methodology**
The rationale for the Assessment and Training Package review was to link Vocational Education and Training to the real world of work by bridging Occupational Standards to Training Standards through industry-led Standards-Based Assessment.

Active participation of both instructors and job practitioners' panels consolidated the development philosophy.

The panelists worked as teams in workshop settings complemented by off-workshop field research and literature review activities including international benchmarking.

4.5 Developing Panel

The participating panel of Job Practitioners required for different stages of the assessment training package i.e., occupational profile, training modules, assessment instruments were constituted by members from the following organizations;

No.	Name	Institution/ Organization
1.	Mr. Dungu Abdu	MOES
2.	Mr. Mujurizi Vicent	NCDC
3.	Mr. Tumwizere Nelson	Seeta High School Mukono
4.	Mr. Tumusiime Silbert	Iganga SSS
5.	Mr. Kabali Frank	Naalya SS Bweyogere Campus
6.	Ms. Nansamba Kuluthum	Kawempe Moslem SSS
7.	Mr. Kayongo Grace	Silver Telecom and Computer Ltd
8.	Mr. Kiingi Sulaiman	Fonetec Phone and Computer Systems
9.	Mr. Ggingo Stephen	Why Tomorrow Ltd
10.	Mr. Mugenyi Swalik	Swalicom Phone Repair

4.6 Facilitator team

This Assessment and Training Package was reviewed by a Facilitator team listed below:

1. **Team Leader** – Ms. Mukyala Ruth, Ag. Deputy Director, DIT
2. **Facilitators (Occupational Profile Development) -** Mr. Kirabira Yusuf and Mrs. Kyokolera Dinansi
3. **Facilitators (Training Modules Development) -**Mr. Kirabira Yusuf and Mrs Kyokolera Dinansi
4. **Facilitators (Test Item Development) -** Mr. Kirabira Yusuf and Mrs. Kyokolera Dinansi.
5. **Compiled** by Ms. Kaudha Agnes and Mr. Magimbi Paul (Data Entrants, DIT)
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The Assessment and Training Package was compiled in January 2022 and may be periodically revised to match the dynamic trends in the occupation and hence issued in different versions:

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- Ifixit.com
- Allgsmtips.com
- Vkrepair.com (Tutorials and Reviews)
- Mobilerepairingonline.com (For practical jumpers) and
- GSM Forum –Here you can post questions and several members will reply to your questions with different approaches to the problem.