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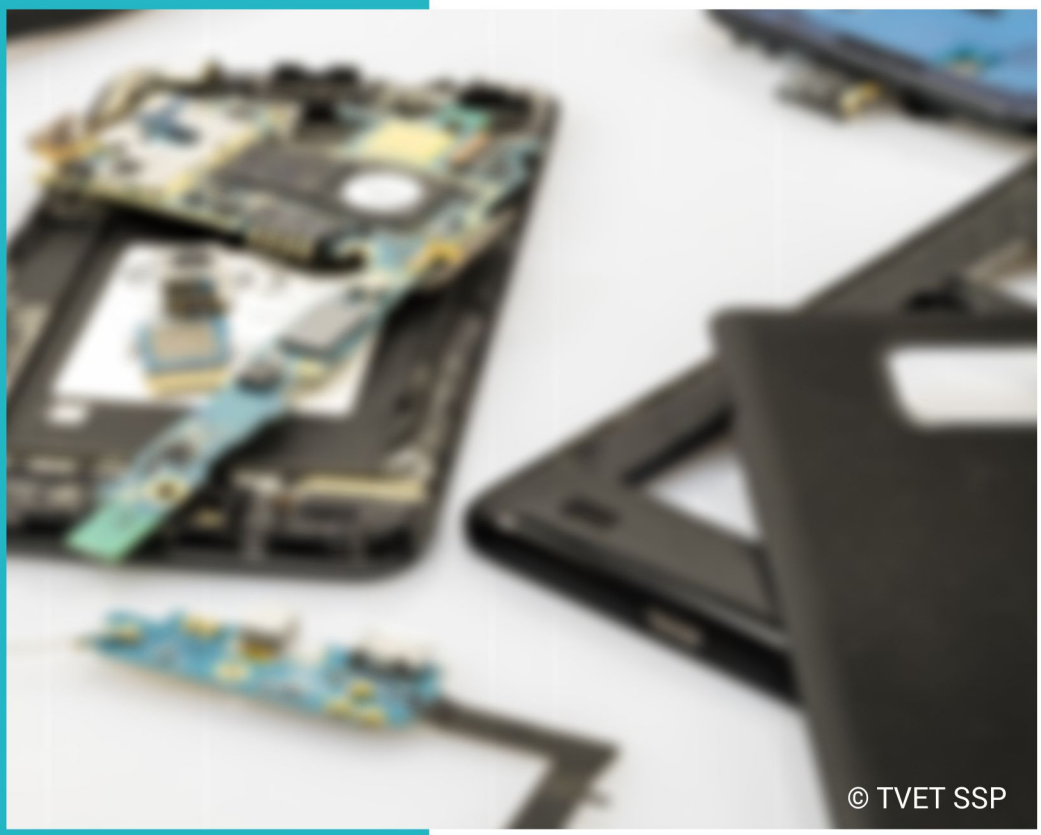

TRAINER GUIDE

National Vocational Certificate Level 3

Version 1 - November, 2019

NAVTTC

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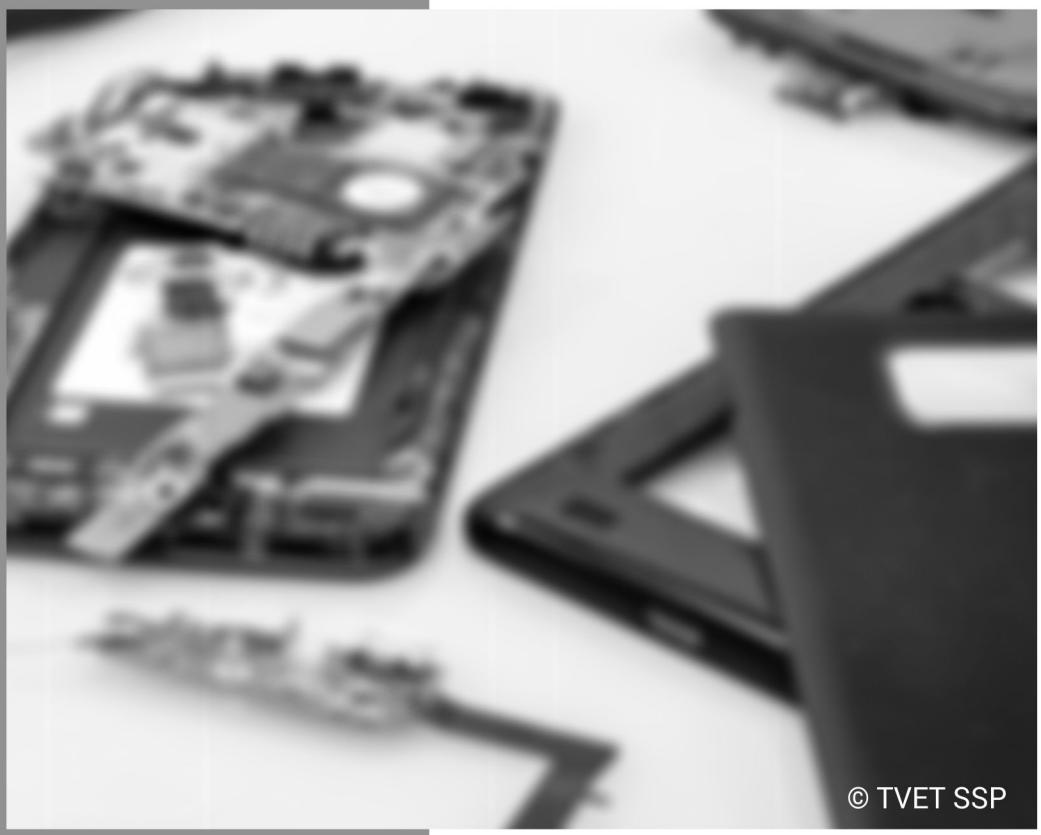

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Introduction

In traditional approach there was a gap between the curricula and the market needs. While Competence-based training helps to bridge the gap between what is taught in training and what tasks will be performed on the job. Training trainees to perform actual job functions helps to ensure that future front-line workers have the skills, knowledge and abilities required to perform their jobs properly, safely and effectively. In addition to competence-based training, assessment based on the performance of actual work competencies helps to ensure that:

- trainees are performing their work tasks as safely as possible
- performance gaps are recognized prior to serious incidents
- training can be implemented to improve competence.

There are significant benefits to competence-based training:

1. Cost effectiveness

Since training activities and assessments in a competence-based approach are goal-oriented, trainers focus on clearly defined areas of skills, knowledge and understanding that their own industry has defined in the competence standards. At the same time, trainees are more motivated to learn when they realize the benefits of improved performance.

2. Efficiency

The transfer gap between the training environment and working on the job is reduced substantially in a competence-based approach. This is because training and assessment are relevant to what needs to be done on the job. As a result, it takes less time for trainees to become competent in the required areas. This, in turn, contributes to improved efficiency where training and assessment are concerned.

3. Increased productivity

When trainees become competent in the competence standards that their own industry has defined, when they know what the performance expectations are and receive recognition for their abilities through successful assessments, they are likely to be more motivated and experience higher job satisfaction. The result is improved productivity for organizations. The communication and constructive feedback between future employers and employees will improve as a result of a competence-based approach, which can also increase productivity.

4. Reduced risk

Using a competence-based approach to training, development, and assessment, employers are able to create project teams of people with complementary skills. A trainee’s record of the skills, knowledge and understanding relating to the competence standards they have achieved can be used by a future employer to identify and provide further relevant training and assessment for new skills areas. Competence standards can shape employee development and promotional paths within an organization and give employees the opportunity to learn more competencies beyond their roles. It can also provide organizations with greater ability to scale and flex as needed, thereby reducing the risk they face.

5. Increased customer satisfaction

Employees who have been trained and assessed using a competence-based approach are, by the definition of the relevant competence standards, able to perform the required tasks associated with a job. The knock-on effect is that, in service-related industries, they are able to provide high service levels, thereby increasing customer satisfaction. In production or manufacturing industries, they are able to work closely to industry standards in a more effective and efficient way.

Lesson plans

This manual provides a series of lesson plans that will guide delivery of each module for the *Mobile phone technician qualification*. It is important for trainers to be flexible and be ready to adapt lesson plans to suit the context of the subject and the needs of their trainees. A simple lesson plan format is given below for your guidance .the Trainer will make it for very learning unit.

Good teachers acknowledge that CBT means each and every trainee in the class learns at a different speed. The good teacher is prepared to throw aside the day's lesson plan and do something different (and unplanned) for the class even if it means 'writing' a lesson plan for each trainee to match their learning pace for that day or week.

Learning by doing is different from learning theory and then applying it. To learn to do something, trainees need someone looking over their shoulder saying 'it's not quite like that, it's like this', 'you do it like this because …', or even 'tell me why you chose to do it like this?'.

In this way, trainees learn that theoretical knowledge is meaningless if it is not seen in the context of what they are doing. In other words, if a trainee doesn't know why they do something, they will not do it competently (skills underpinned by knowledge = competent performer).

This is how a Mobile technician *acquires* a practical grasp of the standards expected. It's not by learning it in theory, but because those standards are acquired through correction by people who show what the standards are, and correct the trainee where they do not meet those standards, and where they repeat it correction until they have internalized those standards.

Demonstration of skill

Demonstration or modeling a skill is a powerful tool, which is used, in vocational training. The instructions for trainers for demonstration are as under:

a) Read the procedure mentioned in the Trainer Guide for the relevant Learning Unit before demonstration.
b) Arrange all tools, equipment and consumable material, which are required for demonstration of a skill.
c) Practice the skill before demonstration to trainees, if possible.
d) Introduce the skill to trainees clearly at the commencement of demonstration.
e) Explain how the skill relates to the skill(s) already acquired and describe the expected results or show the objects to trainees.
f) Carry out demonstration in a way that can be seen by all trainees.
g) Use the same tools and materials that the learner will be using.
h) Go through EACH of the steps involved in performing the skill.
i) Go SLOWLY - describe each step as it is completed.
j) Encourage the learners to move around and watch what you are doing from a number of different angles.
k) Identify critical or complex steps, or steps that involve safety precautions to be followed.
l) Explain theoretical knowledge where applicable and ask questions to trainees to test their understanding.
m) Try to involve the learners: Ask them questions about why they think the process may work that way.
n) Repeat critical steps in demonstration, if required.
o) Summarize the demonstration by asking questions to trainees.

Involvement in the process (actively seeing) is important at this stage. When you work on getting involved, getting people to participate, you make them a part of what is happening. Questions for clarification or explanation are important throughout the demonstration. It is up to the learners to ask questions about things they do not understand, but it is also important for trainers to seek out and elicit questions from learners. A trainer may need to do repeated demonstrations of difficult or complex skills.

Remember that the learner will learn a lot from your demonstration - and not just the demonstration itself. Learners will learn about how to perform the skills, but they will also learn from watching demonstrations how trainers treat the tools or materials and how they follow safety procedures.

After the demonstration, it is important to again seek out questions - be sure all questions are answered. The trainer should ask the learner if they are ready to try the skill. If not, there may be a need for recycling the demonstration (or part of it), and clarifying some of the information.

Overview of the program

Course: NVQ Certificate Level 3 Mobile Phone Technician	Total Course Duration: 40 credit hours
Course Overview:	
Mobile technology has become one of the fastest growing technologies in the world. Today people use mobile phones to stay in touch with friends and family, to share stories and photographs in social media, and to carry out financial transactions. This widespread ownership and use of mobile phones have created a need for professionals who can repair and service mobile phones. This course development will address this need. The Mobile phone technician program is to engage young people with a programme of development that will provide them with the knowledge, skills and understanding to start this career in Pakistan.	

Module	Learning Unit	Duration
➢ **Module H**: Diagnose fault in Data Section. **Aim:** The aim of this module is to develop basic knowledge, skills and understanding of working and repair of different sections of mobile so that students are able to understand the repairing technics that is use in mobile repairing market	**LU1.** Diagnose fault nature **LU2.** Check Key Pad Connector **LU3.** Check Key Pad IC **LU4.** Check SIM Connector **LU5.** Check SIM IC **LU6.** Check camera **LU7.** Check memory Card Connector and slot **LU8.** Check RAM, ROM and CPU	70 hours

Module	Learning Unit	Duration
➢ **Module I:** Detect fault in Network Section **Aim:** it is important to know network section of mobile phone. On the completion of this module students are able to Know about network section its basic function and repair.	**LU1.** Check voltage **LU2.** Check Antenna **LU3.** Check Network filters **LU4.** Check Power Amplifier / PFO **LU5.** Check Bluetooth & Wi Fi section	70 hours
Module J: Diagnose fault in Audio Section **Aim:** This module discuss about basic repair technics of audio section. Students also familiar with different components like vibrator ringer MIC etc of audio section **.**	**LU1.** Check Ear Piece **LU2.** Check Micro Phone **LU3.** Check Speaker (Ringer) **LU4.** Check Hand free Section **LU5.** Check Vibrator **LU6.** Check Audio IC	60 hours

Module	Learning Unit	Duration
Module K: Repair/ Replace Hard ware Parts **Aim:** This module discuss about basic repair and replacement technics used in mobile phone. Many important sections of mobile phone is in modular form which is completely replace in case of faults in that section. This module is all about repair as well as replacement of these modular sections **.**	**LU1.** Perform chemical washing **LU2.** Replace Fix Battery **LU3.** Replace Charging Connector / Base / NFC **LU4.** Replace Display / Glass **LU5.** Replace display Light IC **LU6.** Replace Key-pad / Connector **LU7.** Replace SIM Card Connector / Slot **LU8.** Replace Audio Components **LU9.** Replace Camera **LU10.** Replace Flash Light **LU11.** Replace Antenna Components **LU12.** Replace Blue-Tooth and Wi-Fi IC **LU13.** Replace Sensors. **LU14.** Repair / Replace Mother Board **LU15.** Replace Housing	200 Hours

Lesson Plan Template – Example

Module			
Learning unit			
Learning outcome			
Methods	**Key Notes**	**Media**	**Time**
	Introduction		
Introduce the topic and its daily applications to motivate the learner to attain his/her full consideration towards the topic.Recal the previous lesson and then connect with new topic.			
	Main Body		
Present the new information .divide the topic into small section like define, describe To make learning as well as delivering easy .demonstrate the skill relevant to the learning unit.			
	Conclusion		
Summarize the complete lesson to memorize the learners the key. notes			
	ASSESSMENT		
How this lesson will be assessed? Feedback from students and for students.			
			Total time

SAMPLE FOR LESSON PLAN

Module: Adopt Health and Safety

Learning Unit> Ensure personal protective equipment (PPE)

Learning Outcomes> Trainee will be able to:

- Arrange personal protective equipment as per requirements
- Wear correct personal protective equipment
- Store PPE at appropriate place after use.

Methods :Presentation/Lecture(Theory),Demonstration(practical**) Key Notes: PPE's**	Media: Multimedia ,presentation	Time: 03 hrs.
Introduction Time: 30 Minute		
Objectives. After completing the Learning unit you will able to know about PPE'S, Use of 'PPES as per requirements of job and store PPES at appropriate place after use. Motivate the students by videos/quotes/or through brain storming and then connect the topic with previous one to establish connection with previous lesson/unit and new one.		
Main Body Time: 2:00 hrs.		
• Describe what is PPE, s. • Discuss why we are using PPE, s. • Explain the PPE,s and correct uses • Demonstrate the use of PPE, s. Group Activity: what will happened if we don't use gloves or goggles • **Group Discussion**	.	
Conclusion Time: 15 Minute.		

	Summarize the topic and discussion
	Assessment **Time :15 Minute** Questions Answering Session
	Total time: 03 Hrs.

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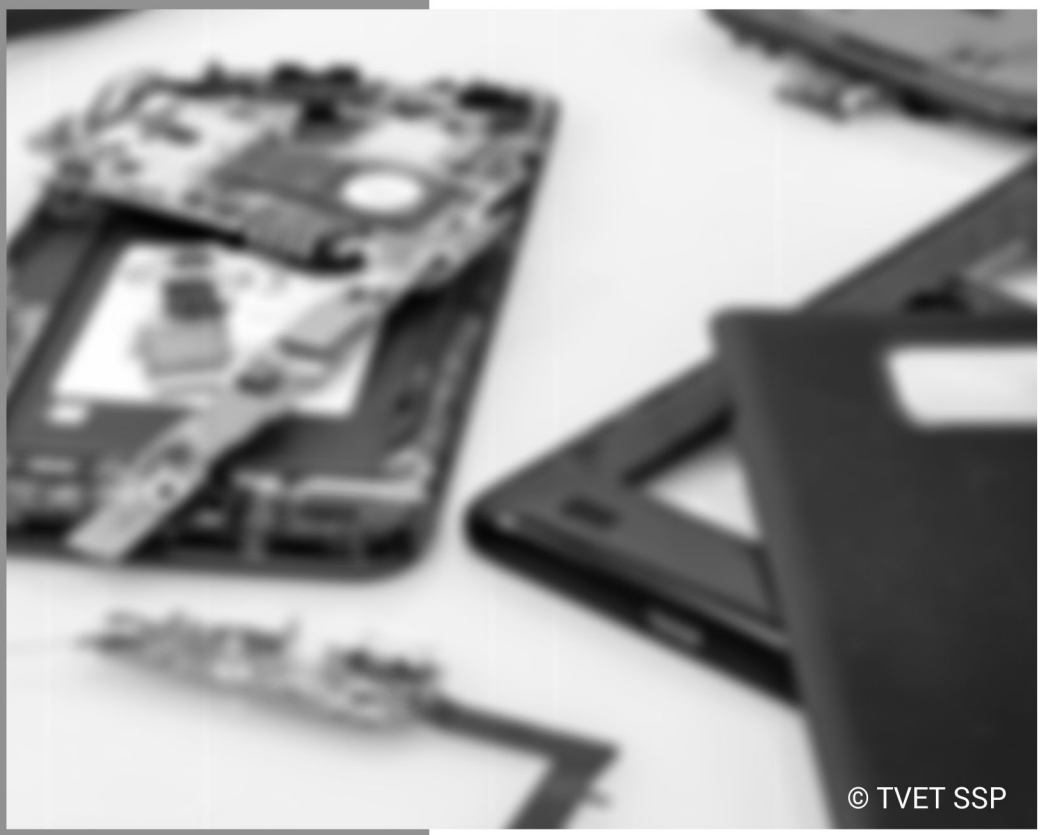

Module-H
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Trainer's guidelines

Module H: Diagnose fault in Data Section			
Learning Unit	**Suggested Teaching/ Learning Activities**	**Delivery Context**	**Media**
LU1. Diagnose fault nature	Give an illustrative presentation on to diagnose fault nature then describe and demonstrate the following • Check mobile phone for software fault • Check mobile phone for hardware fault Divide the students in group for role play to check the phone for above faults. Observe the students when practicing and give feedback for improvements.	Classroom/ lab	○ Multi media ○ Learner guide ○ Different types of Mobile ○ Hand outs ○ Different types of software and hardware and their standard operating procedures.

Module H: Diagnose fault in Data Section

Learning Unit	Suggested Teaching/ Learning Activities	Delivery Context	Media
LU2. Check Key Pad Connector	Give an illustrative presentation on to check key pad connector and demonstrate the following points: • Check physical condition of key pad connector for damage • Check physical condition of key pad circuit for damage • Check metallic plate tags for discontinuity • Ask learners to work in small groups and practice for the above tasks. Observe them and provide feedback where necessary to enhance the knowledge and skill.	Classroom/lab	• Learner guide • Tools kit for Mobile phone • Different types of connectors • SOP
LU3: Check Key Pad IC	Demonstrate / role play that how you will check the Phone and clear the following points: • Check physical condition of key pad IC for damage • Check physical condition of key pad IC prints on PCB for worn out. Following the discussion, arrange the trainees in small groups. Provide each group with a role play situation, observe them for improvement.	Classroom/lab	• Learner guide • Standard Operating procedures for ICs. • Magnifier Glass • Different Connector and batteries

Module H: Diagnose fault in Data Section

Learning Unit	Suggested Teaching/ Learning Activities	Delivery Context	Media
LU 4. Check SIM Connector	Give an illustrative presentation on to check SIM Connector and demonstrate the following points • Check physical condition of SIM connector for damage • Check physical condition of SIM connector on PCB for connectivity Divide the students into group of 03 students and ask to do the above, observe the trainees and give feedback to improve the understanding and skill.	Classroom /Lab	• Learner guide • Multi meters • Volt Meter • Magnifier • Contact Spray All others material like cable ,connectors or Jumper Wire should be readily available
LU5. Check SIM IC	The trainer should start the session with a quote, picture or video to attain the attention of the learners. then presents and Demonstrate the following points : • Check physical condition of SIM IC for damage • Check physical condition of PCB SIM connector for connectivity Divide the learners into group of 03 students and practice on the above and observe the students for improvement.	Class Room /Lab	• Multi media • Presentation • Learner guide • Hand out • Different tools and equipment • Sign boards • Multi meter or volt Meter • variable DC Supply

Module H: Diagnose fault in Data Section			
Learning Unit	**Suggested Teaching/ Learning Activities**	**Delivery Context**	**Media**
LU6. Check camera	Give an illustrative presentation on to check camera and demonstrate the following points: • Check physical condition of camera for damage • Check camera lens and focus for proper function • Check Camera Connector for connectivity • Check specific voltage on power supply Divide the learners into group of 03 students and practice on the above and observe the students for improvement in KSA.	Class room /workshop	• Multi Media • Presentation • Learner guide • Hand out Different types of software, programmers and cables. Different types of camera ,lens and connectors
LU7. Check memory Card Connector and slot	Deliver an illustrated presentation and demonstration on how to check the phone for the following key points : • Check physical condition of memory card slot for damage • Check memory card IC for damage Give an activity to do the above tasks. Check the work and give feedback.	Class room /Workshop	• Multi Media • Presentation • Learner guide • Hand out • Memory Card slots • Memory card IC

Module H: Diagnose fault in Data Section			
Learning Unit	**Suggested Teaching/ Learning Activities**	**Delivery Context**	**Media**
LU8. Check RAM, ROM and CPU	Deliver an illustrated presentation and demonstration on how to check the phone for the following key points : • Check RAM, ROM and CPU-IC for physical damage • Check RAM, ROM and CPU-IC pin connections for continuity with PCB Give an activity to do the above tasks. Check the work and give feedback	Class room /Workshop	• Multi Media • Presentation • Learner guide • Hand out • Memory Card slots Memory card IC

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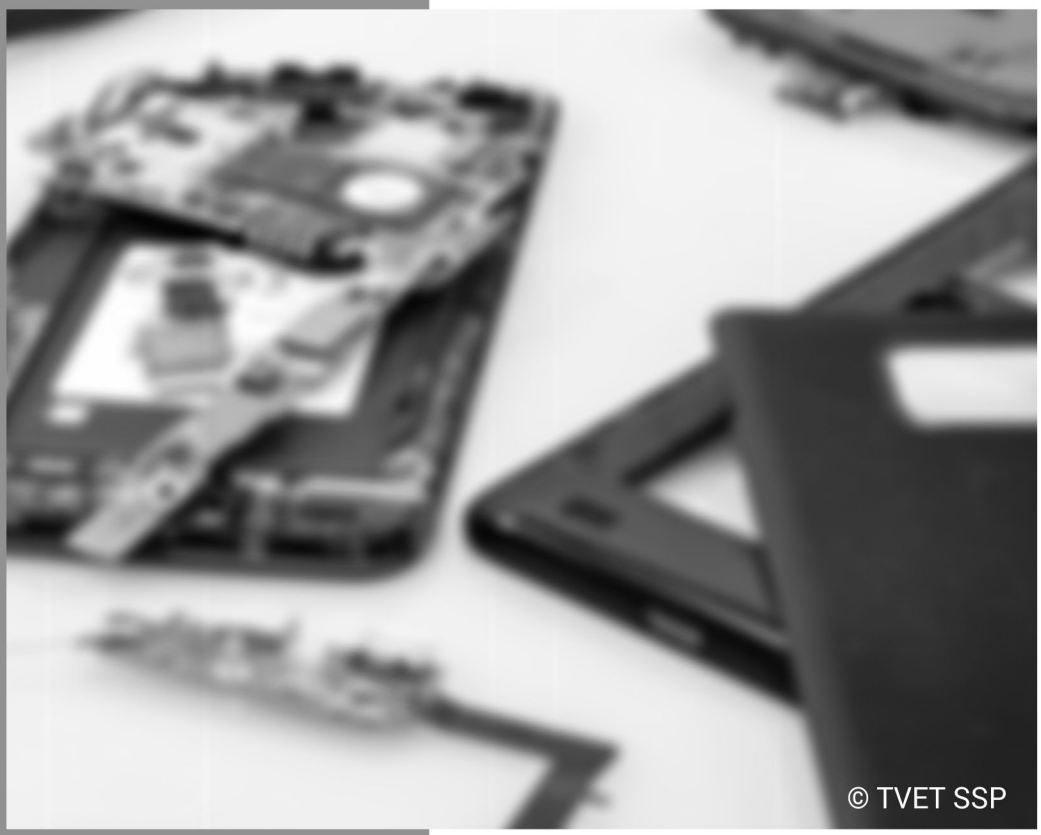

Module-I

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Module I: Detect fault in Network Section

Learning Unit	Suggested Teaching/ Learning Activities	Delivery Context	Media
LU1. Check voltage	Give an illustrative presentation on to check Voltage and demonstrate the following points • Check physical condition of network-section components for damage • Check rated Voltage at network-section with multi-meter Divide the learners into group of 03 students and practice on the above and observe the students for improvement in KSA.	Class Room and workshop	• Learner guide • Handout of key points • Multi media • Presentation • Network related components. • Multi Meter
LU2. Check Antenna	Deliver an illustrated presentation and demonstration on ways to ensure to cover the following points: • Check antenna connection for signals • Check antenna wire for connectivity • Check antenna IC switch for networking Arrange learners in pairs to perform the above task and observe the learners to use correct SOP for the task.	Classroom and work shop	• Learner guide • Handout • Multi media • Presentation • Multi meter • Power supply • Antenna switch and IC

Module I: Detect fault in Network Section			
Learning Unit	**Suggested Teaching/ Learning Activities**	**Delivery Context**	**Media**
LU3. Check Network filters	Give an illustrative presentation and demonstrate the method and techniques how to do the following points • Check burn out components of Rx/TX filters • Check filter components with LCR meter / Oscilloscope for proper function • Check Power Frequency Oscillator for network signals Divide students to perform the above and observe them for improvements.	Classroom/ Workshop	• Learner guide • Hand outs • Multi media • Presentation • Different tools and equipment • Connectors • Contact spray • Multi meter • Oscilloscope
LU4. Check Power Amplifier / PFO	Checking is an art. starts with this to gain the attention of the trainees and then illustrate and demonstrate the following points • Check burn out components at amplifier section • Check burn out components of Power Frequency Oscillator (PFO) / Power Amplifier for rated output • Check Baseband IC for damage	Classroom/ workshop	• Learner guide • Hand outs • Multi media • Presentation • Different tools and equipment • Screw drivers • Multi meters • Connectors • Different types of

Module I: Detect fault in Network Section

Learning Unit	Suggested Teaching/ Learning Activities	Delivery Context	Media
	• Check Voltage Controlled Oscillator (VCO) for rated signals Divide students to perform the above, observe them and give feedback to enhance the Knowledge, skill and attitude.		components (PFO,VCO)
LU5. Check Bluetooth & Wi Fi section	Give an illustrative presentation and demonstrate the method and techniques how to do the following points • Check Bluetooth and Wi-Fi antenna for signals • Check Bluetooth and Wi-Fi connectors for continuity • Check Bluetooth and Wi-Fi circuit section for signals Divide students to perform the above, observe them and give feedback to enhance the Knowledge, skill and attitude.	Classroom/Lab	• Learner guide • Hand outs • Multi media • Presentation • Different tools and equipment • Screw drivers • Multi meters • Connectors

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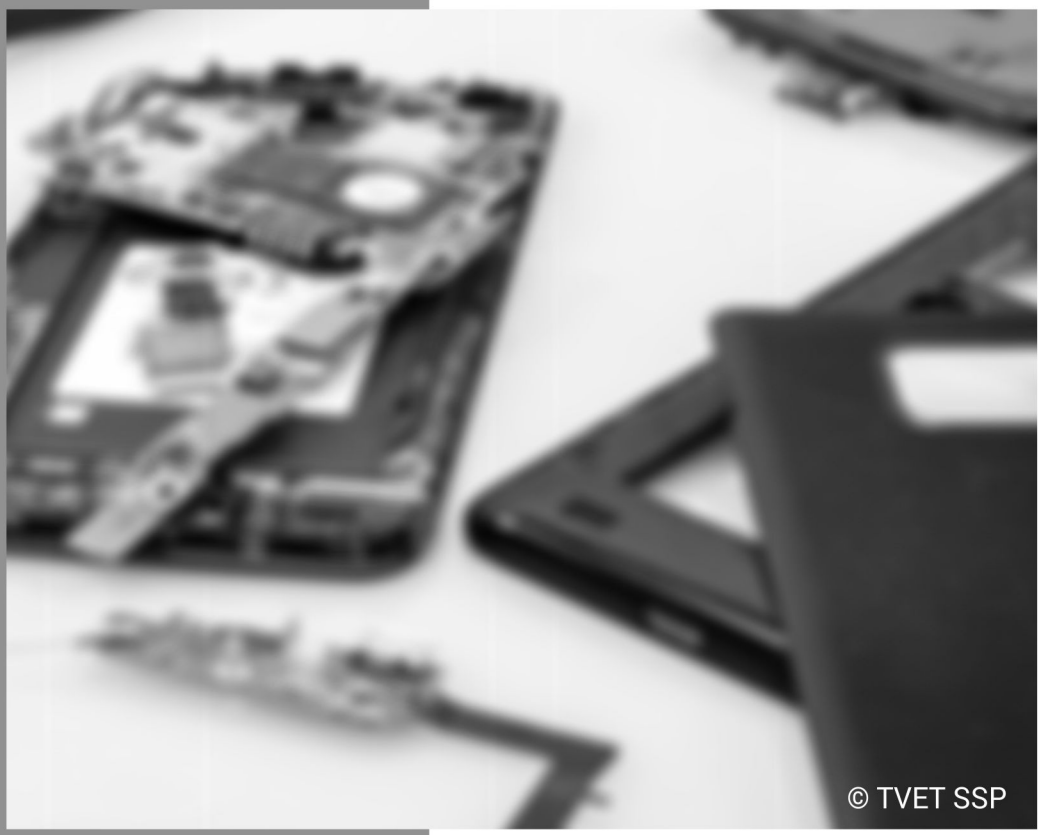

Module-J

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Module J: Diagnose fault in Audio Section			
Learning Unit	**Suggested Teaching/ Learning Activities**	**Delivery Context**	**Media**
LU1. Check Ear Piece	Deliver a presentation and demonstration on the importance of measuring. Ensure that the presentation addresses the following points: • Check dust for blockage • Check Ear piece terminals for continuity • Check Ear piece coil for rated resistance Give an activity to group of students to practice on the above .observe the learner and Give Feedback for improvement.	Classroom /Workshop	• Learner guide • Hand outs • Multi media • Presentation • Different tools and equipment • Screw drivers • Multi meters • Connectors • Different ear piece.

Module J: Diagnose fault in Audio Section

Learning Unit	Suggested Teaching/ Learning Activities	Delivery Context	Media
LU2. Check Micro Phone	Demonstrate the method to measure the voltage and describe the following points • Check dust for blockage • Check Micro Phone terminals for continuity • Check Micro Phone for rated resistance Divide the trainees into group of 3 students and let them to do the above task. Observe them and give feedback where necessary.	Classroom/workshop	• Learner guide • Contact Spray • Multi meter • Log book • Voltage sources • Different types of connectors

Module J: Diagnose fault in Audio Section

Learning Unit	Suggested Teaching/ Learning Activities	Delivery Context	Media
LU3. Check Speaker (Ringer)	Give an illustrative presentation and Demonstrate the method how the trainee will do to cover the following points: • Check dust for blockage • Check Speaker terminals for continuity • Check Speaker coil for rated resistance Divide the trainees into group of 3 students and let them to perform the task. Observe them, guide them for task and give feedback where necessary.	Classroom/workshop	• Learner guide • Multi meter • Log book • Voltage sources • Digitizer strips • Different types of speakers and coils

Module J: Diagnose fault in Audio Section

Learning Unit	Suggested Teaching/ Learning Activities	Delivery Context	Media
LU4. Check Hands free Section	Give an illustrative presentation and Demonstrate the method how the trainee will do to cover the following points • Check dust for blockage • Check Hands free terminals for continuity. • Divide the trainees into group of 3 students and let them to perform the task. Observe them, guide them for task and give feedback where necessary.	Classroom/workshop	• Learner guide • Multi meter • Log book • Voltage sources • Digitizer strips • Different types of Hands free.

Module J: Diagnose fault in Audio Section

Learning Unit	Suggested Teaching/ Learning Activities	Delivery Context	Media
LU5. Check Vibrator	Give an illustrative presentation and Demonstrate the method how the trainee will do to cover the following points • Check Vibrator connectivity with PCB • Check Vibrator coil for rated resistance • Check connectivity between Vibrator and Vibrator IC Divide the trainees into group of 3 students and let them to perform the task. Observe them, guide them for task and give feedback where necessary .	Class room /workshop	• Learner guide • Multi meter • Log book • Voltage sources • Digitizer strips • Different types of Hands free. •

Module J: Diagnose fault in Audio Section			
Learning Unit	**Suggested Teaching/ Learning Activities**	**Delivery Context**	**Media**
LU6. Check Audio IC	Give an illustrative presentation and Demonstrate the method how the trainee will do to cover the following points: • Check Audio IC for Physical damage • Check audio-section components for burn out • Check audio IC points connectivity with PCB Divide the trainees into group of 3 students and let them to perform the task. Observe them, guide them for task and give feedback where necessary	Class room /workshop	• Learner guide • Multi meter • Log book • Voltage sources • Digitizer strips • Different types components (audio IC, PCB).

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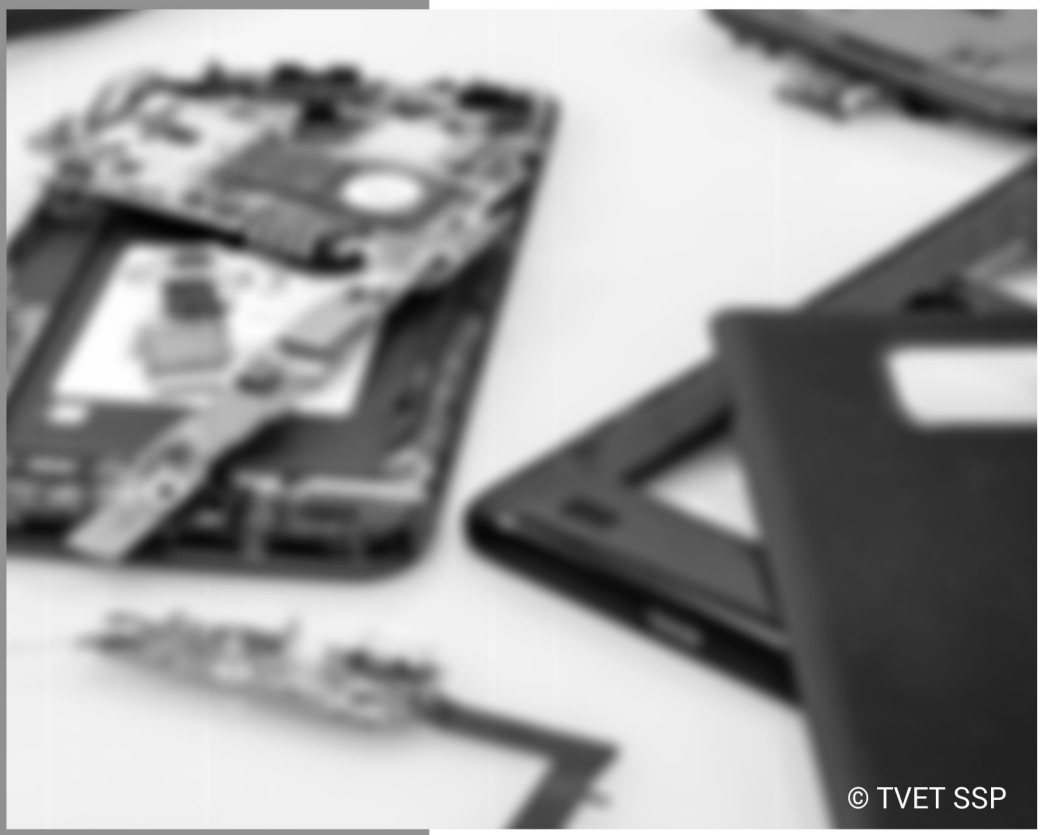

Module-K
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Module K: Repair/ Replace Hard ware Parts

Learning Unit	Suggested Teaching/ Learning Activities	Delivery Context	Media
LU1.. Perform chemical washing	Give an illustrative presentation on chemical washing and Demonstrate the method how the trainee will do to cover the following points: • Arrange tools for cleaning and washing • Select chemicals for washing • Clean PCB from dust and moisture • Cover microphone, sensors and remove cameras before washing • Wash PCB and its components • Dry PCB and its components Divide the trainees into group of 3 students and let them to perform the task. Observe them, guide them for task and give feedback where necessary	Class room /workshop	• Learner guide • Multi meter • Log book • Voltage sources • Carbon tetrachloride chemical(CTC) • Thinner • Petrol • WD-40 • Cleaning cloth

LU2. Replace Fixed Battery	Give an illustrative presentation and Demonstrate the method how the trainee will do to cover the following points: • Disassemble mobile phone without damage • Replace fix Battery Connectors if required • Replace fix battery as per requirement Divide the trainees into group of 3 students and let them to perform the task. Observe them, guide them for task and give feedback where necessary	Class room /workshop	• Adhesive removing liquid/spray • Learner guide • Multi meter • Log book • Voltage sources •
LU3. Replace Charging Connector / Base / NFC	Give an illustrative presentation and Demonstrate the method how the trainee will do to cover the following points: • Remove existing charging port / base without damage of PCB • Replace new charging port / base as per standard • Replace Near Field Communication (NFC) antenna and its connectors • Check rated voltage as per specification Divide the trainees into group of 3 students and let them to perform the task. Observe them, guide them for task and give feedback where necessary	Class room /workshop	• Charging base/port • Soldering wire • Flux paste • Thinner • NFC antenna • CTC • Cleaning cloth

LU4.Replace Display / Glass	Give an illustrative presentation and Demonstrate the method how the trainee will do to cover the following points: • Arrange tools and equipment as per requirement • Remove glass without damaging display • Remove display • Install display / glass as per standard Divide the trainees into group of 3 students and let them to perform the task. Observe them, guide them for task and give feedback where necessary	Class room /workshop	• Display • Glass • Polarizer paper • OCA paper • Ultraviolet (UV) gum • CTC cleaner • Double tap • Adhesive glue • Cleaning cloth
LU5. Replace display Light IC	Give an illustrative presentation and Demonstrate the method how the trainee will do to cover the following points: • Remove faulty display light IC without damaging other components on PCB • Install new display light IC as per standard Divide the trainees into group of 3 students and let them to perform the task. Observe them, guide them for task and give feedback where necessary	Class room /workshop	• Soldering wire • Display light IC • Flux paste • Jumper wire • CTC cleaner • heat resistance tape • Cleaning cloth Solder paste • Learner Guide • Multi media • presentation

LU6. Replace Key-pad / Connector	Give an illustrative presentation and Demonstrate the method how the trainee will do to cover the following points • Remove key-pad / connector / ribbon as per requirement • Install new key-pad / connector / ribbon as per standard Divide the trainees into group of 3 students and let them to perform the task. Observe them, guide them for task and give feedback where necessary	Class room /workshop	• Soldering wire • Key-pad connectors • Flux paste • CTC cleaner • Cleaning cloth • Learner Guide • Multi media Presentation
LU7. Replace SIM Card Connector / Slot	Give an illustrative presentation and Demonstrate the method how the trainee will do to cover the following points: • Remove Sim Card slot / Connector as per requirement • install new Sim Card slot / Connector as per standard Divide the trainees into group of 3 students and let them to perform the task. Observe them, guide them for task and give feedback where necessary	Class room /workshop	• Soldering wire • SIM card connectors • Flux paste • CTC cleaner • Heat resistance tape Cleaning cloth • Learner Guide • Multi media Presentation

LU8. Replace Audio Components	Give an illustrative presentation and Demonstrate the method how the trainee will do to cover the following points • Remove Ear Piece / Microphone / Ringer / Head phone Jack / Vibrator as per requirement • Install new /Ear Piece / Microphone / Ringer / Head phone Jack / Vibrator as per standard Divide the trainees into group of 3 students and let them to perform the task. Observe them, guide them for task and give feedback where necessary	Class room /workshop	• Soldering wire • Ringer • Head phones jack • Vibrator • Micro phone • Ear piece • Flux paste • CTC cleaner • Heat resistance tape Cleaning cloth
LU9. Replace Camera	Give an illustrative presentation and Demonstrate the method how the trainee will do to cover the following points • Remove Camera as per requirement Remove camera-connector if required • Install camera / connector as per standard Divide the trainees into group of 3 students and let them to perform the task. Observe them, guide them for task and give feedback where necessary	Class room /workshop	• Soldering wire • Cameras • Camera • CTC cleaner • Heat resistance tape • Flux paste Cleaning cloth

LU10. Replace Flash Light	Give an illustrative presentation and Demonstrate the method how the trainee will do to cover the following points • Remove Flash light as per requirement • Install new flash light as per standard Divide the trainees into group of 3 students and let them to perform the task. Observe them, guide them for task and give feedback where necessary	Class room /workshop	• Soldering wire • Flash light • CTC cleaner • Heat resistance tape • Flux paste Cleaning cloth
LU11. Replace Antenna Components	Give an illustrative presentation and Demonstrate the method how the trainee will do to cover the following points • Remove Antenna / Cable / Connector as per requirement • Install Antenna / Cable / Connector as per standard Divide the trainees into group of 3 students and let them to perform the task. Observe them, guide them for task and give feedback where necessary	Class room /workshop	• Soldering wire • Antenna • Antenna cables • Antenna connector • CTC cleaner • Heat resistance tape • Flux paste • Cleaning cloth

LU12. Replace Blue-Tooth and Wi-Fi IC	Give an illustrative presentation and Demonstrate the method how the trainee will do to cover the following points • Remove Blue-Tooth / Wi-Fi IC as per requirement. • Install Blue-Tooth / Wi-Fi IC as per standard Divide the trainees into group of 3 students and let them to perform the task. Observe them, guide them for task and give feedback where necessary	Class room /workshop	• Soldering wire • Blue-tooth/Wi-Fi IC • CTC cleaner • Heat resistance tape • Flux paste • Cleaning cloth
LU13. Replace Sensors.	Give an illustrative presentation and Demonstrate the method how the trainee will do to cover the following points • Remove light sensor / sound sensor / proximity sensor / Finger Print sensor as per requirement . • Install light sensor / sound sensor / proximity sensor / Finger Print sensor as per standard Divide the trainees into group of 3 students and let them to perform the task. Observe them, guide them for task and give feedback where necessary	Class room /workshop	• Soldering wire • Different types of sensor • CTC cleaner • Heat resistance tape • Flux paste • Cleaning cloth

LU14. Repair / Replace Mother Board	Give an illustrative presentation and Demonstrate the method how the trainee will do to cover the following points • Repair Motherboard for connectivity • Replace new Motherboard as per standard if required Divide the trainees into group of 3 students and let them to perform the task. Observe them, guide them for task and give feedback where necessary	Class room /workshop	• Soldering wire • Thinner • Petrol • Jumper wire • WD-40 • Mother board • CTC cleaner • Heat resistance tape • Flux paste • Double tape • Cleaning cloth
LU15. Replace Housing	Give an illustrative presentation and Demonstrate the method how the trainee will do to cover the following points • Remove Housing as per requirement • Install new Housing as per standard Divide the trainees into group of 3 students and let them to perform the task. Observe them, guide them for task and give feedback where necessary	Class room /workshop	• Housing • CTC cleaner • Double tape • Adhesive removing liquid • Glue • Cleaning cloth

Frequently Asked Questions

1. What is Competency Based Training (CBT) and how is it different from currently offered trainings in institutes?	Competency-based training (CBT) is an approach to vocational education and training that places emphasis on what a person can do in the workplace as a result of completing a program of training. Compared to conventional programs, the competency based training is not primarily content based; it rather focuses on the competence requirement of the envisaged job role. The whole qualification refers to certain industry standard criterion and is modularized in nature rather than being course oriented.
2. What is the passing criterion for CBT certificate?	You shall be required to be declared “Competent” in the summative assessment to attain the certificate.
3. What are the entry requirements for this course?	The entry requirement for this course is 10 th Grade or equivalent.
4. How can I progress in my educational career after attaining this certificate?	You shall be eligible to take admission in the National Vocational Certificate Level-3 in Mobile phone technician program. You shall be able to progress further to National Vocational Certificate Level-4 in Mobile phone technician program; and take admission in a level-5, DAE or equivalent course. In certain case, you may be required to attain an equivalence certificate from The Inter Board Committee of Chairmen (IBCC).
5. If I have the experience and skills mentioned in the competency standards, do I still need to attend the course to attain this certificate?	You can opt to take part in the Recognition of Prior Learning (RPL) program by contacting the relevant training institute and getting assessed by providing the required evidences.
6. What is the entry requirement for Recognition of Prior Learning program (RPL)?	There is no general entry requirement. The institute shall assess you, identify your competence gaps and offer you courses to cover the gaps; after which you can take up the final assessment.
7. Is there any age restriction for entry in this course or Recognition of	There are no age restrictions to enter this course or take up the Recognition of Prior Learning program

Prior Learning program (RPL)?	
8. What is the duration of this course?	The duration of the course work is 6 Month. (11 months)
9. What are the class timings?	The classes are normally offered 25 days a month from 08:00am to 01:30pm. These may vary according to the practices of certain institutes.
10. What is equivalence of this certificate with other qualifications?	As per the national vocational qualifications framework, the level-4 certificate is equivalent to Matriculation. The equivalence certificate can be obtained from The Inter Board Committee of Chairmen (IBCC).
11. What is the importance of this certificate in National and International job market?	This certificate is based on the nationally standardized and notified competency standards by National Vocational and Technical Training Commission (NAVTTC). These standards are also recognized worldwide as all the standards are coded using international methodology and are accessible to the employers worldwide through NAVTTC website.
12. Which jobs can I get after attaining this certificate? Are there job for this certificate in public sector as well?	You shall be able to take up jobs in Mobile phone technician industries ,workshops and you can start business in Mobile phones in house or internationally.
13. What are possible career progressions in industry after attaining this certificate?	You shall be able to progress up to the level of supervisor after attaining sufficient experience, knowledge and skills during the job. Attaining additional relevant qualifications may aid your career advancement to even higher levels.
14. Is this certificate recognized by any competent authority in Pakistan?	This certificate is based on the nationally standardized and notified competency standards by National Vocational and Technical Training Commission (NAVTTC). The official certificates shall be awarded by the relevant certificate awarding body.
15. Is on-the-job training mandatory for this certificate? If yes, what is the duration of on-the-job training?	On-the-job training is not a requirement for final / summative assessment of this certificate. However, taking up on-the-job training after or during the course work may add your chances to get a job afterwards.
16. How much salary can I get on job after attaining this certificate?	The minimum wages announced by the Government of Pakistan in 2019 are PKR 17,500. This may vary in subsequent years and different regions of the country. Progressive employers may pay more than the mentioned amount.

17. Are there any alternative certificates which I can take up?	There are some short courses offered by some training institutes on this subject. Some institutes may still be offering conventional certificate courses in the field.
18. What is the teaching language of this course?	The leaching language of this course is Urdu and English.
19. Is it possible to switch to other certificate programs during the course?	There are some short courses offered by some training institutes on this subject. Some institutes may still be offering conventional certificate courses in the field.
20. What is the examination / assessment system in this program?	Competency based assessments are organized by training institutes during the course which serve the purpose of assessing the progress and preparedness of each student. Final / summative assessments are organized by the relevant qualification awarding bodies at the end of the certificate program. You shall be required to be declared “Competent” in the summative assessment to attain the certificate.
21. Does this certificate enable me to work as freelancer?	You can start your small business of stitching leather garments, gloves of other products. You may need additional skills on entrepreneurship to support your initiative.

Test your self MCQs

Please mark the correct one from the given options.

QNO1: Which of the following is correct for risk assessment?

A. It is a good idea to do, but not essential

B. It is a legal requirement and must always be carried out prior to starting the job

C. Only do it if the job is a big job

D. Only needs to be done for hazardous work

QNO2: What does a risk assessment tell you?

A. How to report accidents

B. Where the first aid box is and the first aiders

C. The working hours of the organization

D. How to do the job safely

QNO3: Why should regular inspections of the workplace take place?

A. To check whether the working environment is safe

B. To prepare for a visit from a Health Safety Execution inspector

C. To check everyone is doing their job

D. To check that all staff are present and correct

QNO4: What is a hazard?

A. Anything with the potential to cause harm

C. Where an accident is likely to cause harm

B. The likelihood of something going wrong

D. An Accident waiting to happen

QNO5: Accidents are best prevented by:

A. The Health and Safety Executive

C. Employers inspecting workplaces

C. People being aware of hazards and working in safe manner

D. The Managing Director

QNO6: What is a Prohibition Notice?

A. When you finish the work you must not start again

C. The work must stop immediately

B. Work is to stop for that day

D. You must complete this day's work and inform your supervisor

QNO7: Who would you expect to carry out a risk assessment in your workplace?

A. A competent person

C. Health and Safety Executive

B. General operative

D. The client

QNO8: The safety regulations require an employer to provide which of the following?

a. Toilet facilities
b. Hand tools
b. Personal protective equipment
d. Lunch

QNO9: An employer is responsible for which of the following persons?

a. Only for the employer's own personnel.
b. For everyone at the construction site and for the local residents
c. Only for the employer's own and hired-in personnel
d. None of them

QNO10: For which actions is the risk of accident the highest?

a. Fashioning steel with an angle grinder.
b. Fashioning steel with a file.
c. Fashioning steel with a hammer
d. None of them

QNO11: Arrange Tools & Equipment it is important to know about

A. Identify of tool and Equipment's
C. specifications of tool
B. Prepare list of tools And equipment
D. none of them

QNO12: to use tool make sure that tools

A. Insulated C. complete
B. Accurate D. all of them

QNO13: the unite of current is

A. volts C. ampere
B. ohms D. all of them

QNO14: voltage is necessary for

A. flow of power C. flow of resistance
B. flow of current D. flow of resistanc

QNO15: The opposing capacity of materials against the current flow is

a) Conductance
b) Inductance
c) Susceptance
d) Resistance

Answers Key	
Number	Correct Answer
1	B
2	D
3	A
4	A
5	C
6	B
7	A
8	A
9	B

10	A
11	A
12	D
13	C
14	B
15	D

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