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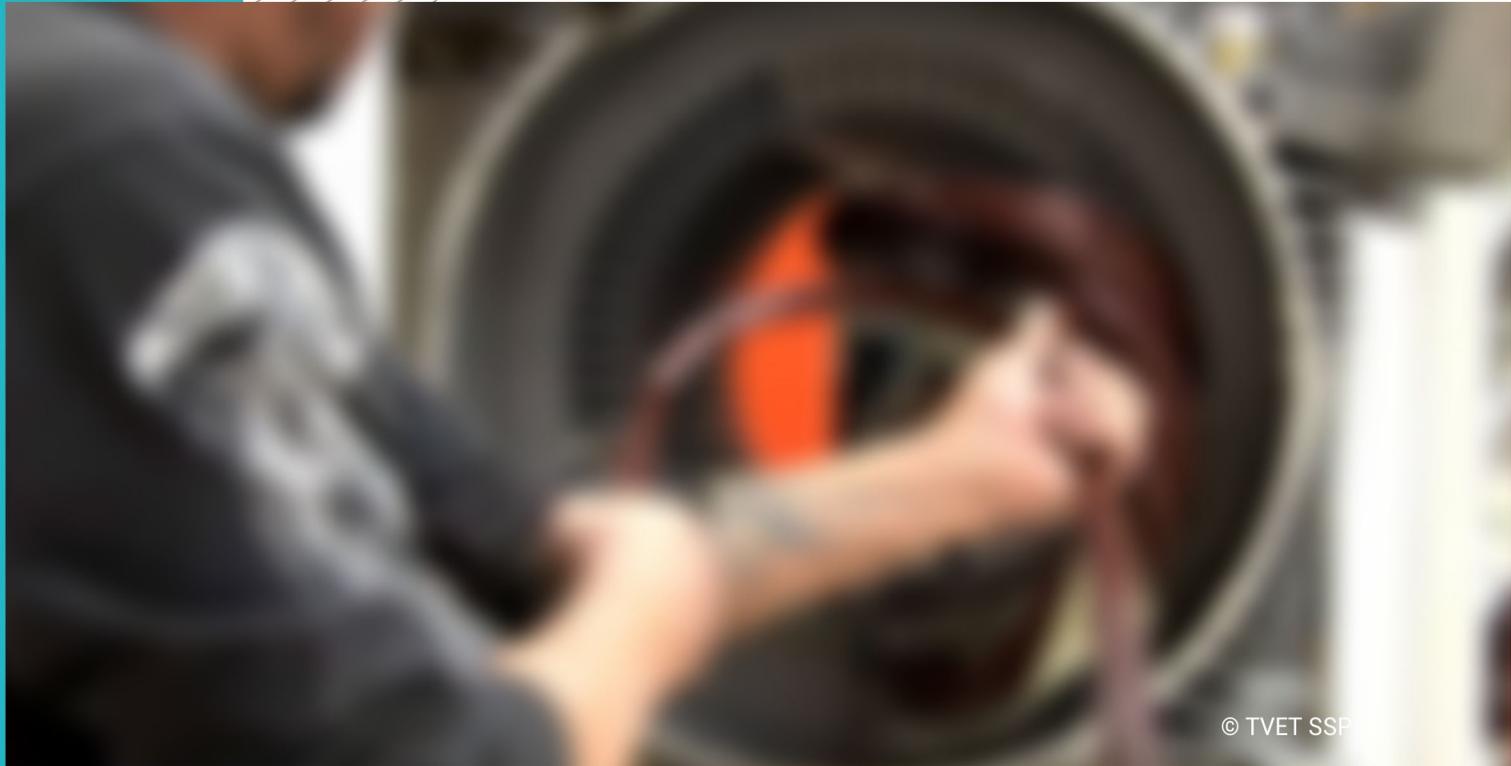
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ELECTRICAL MACHINE WINDING TECHNICIAN



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TRAINER GUIDE

National Vocational Certificate Level 1

Version 1 - September, 2018



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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 **Electrical Machine Winding Technician**. 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 every 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 an **Electrical Machine Winding 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 1 Electrical Machine Winding Technician	Total Course Duration: 24 Credit hours
Course Overview:	
<p>The purpose of the training (level 1-4) in Electrical Machine Winding Technician” is to provide skilled manpower to improve the existing capacity of Electrical sector. This training will provide the requisite skills, knowledge and ability to the trainees to rewind Electrical Machines (Motor & Transformer) and Repair/replace its allied parts. It will enable the participants to meet the challenges in the field as “Electrical Machine Winding Technician” in the industry. Furthermore, it would improve the skill level of the technician and will prepare such a competitive skilled workforce who will be globally acceptable.</p>	

Module	Learning Unit	Duration
<p>Module A: Perform Safe Transportation of Faulty Machine</p> <p>Aim: The aim of this module is to develop basic knowledge, skills and understanding required to Prepare for work to perform safe transportation of faulty machine, installation/adjustment of Tri pod and chain block, loading and unloading the machine on Loader/ lifter and safe shifting of machine to the work shop.</p>	<p>LU1. Prepare for work to perform safe transportation of fault machine</p> <p>LU2. Install/Adjust Tri Pod and chain Block to lift the Machine</p> <p>LU3. Lift the Machine through Tri Pod and chain block</p> <p>LU4. Load Machine on the Loader</p> <p>LU5. Load machine on Fork Lifter</p> <p>LU6. Ensure safe shifting of Machine to Workshop</p> <p>LU7. Ensure safe unloading of Machine at Workshop</p> <p>LU8. Maintain Inventory Record</p>	90

Module	Learning Unit	Duration
<ul style="list-style-type: none"> Module B: Comply with Work Health and Safety Policies Aim: The aim of this module is to develop basic knowledge, skills and understanding regarding adhering to work health and safety policies required for maintaining safe working conditions at the work place. 	<p>Lu1.Work safely at work place Lu2.Communicate work health and safety (WHS) assess at work place Lu3.Minimize risks to personal safety at work place Lu4.Minimize risks to public safety</p>	30hours
<ul style="list-style-type: none"> Module C: Obey the Workplace Policies and Procedures Aim: The aim of this module is to develop basic knowledge, skills and understanding to follow, demonstrate , communicate and review the work place policies and procedures. 	<p>LU1.Obey the workplace personal appearance and hygiene LU2.Follow work ethics LU3.Demonstrate the Work place behaviors LU4. Communicate workplace policy & procedures LU5. Review the implementation of workplace policy & procedures</p>	20 hours

Module	Learning Unit	Duration
<ul style="list-style-type: none"> Module D: Follow Basic Communication Skills (General) Aim: The aim of this module is to develop basic knowledge, skills and understanding to adopt effective listening skills, develop non verbal communication with peers, preparation for interview and identification of communication barriers. 	LU1. Adopt Effective listening to Skills LU2. Develop Non verbal communication with peers LU3. Prepare for Interview to get a job LU4. Use communication platform at workplace LU5. Identify communication barriers to improve interpersonal skills	50 hours
<ul style="list-style-type: none"> Module E: Operate Computer Functions (General) Aims: The aim of this module is to develop basic knowledge, skills and understanding required for operation of basic computer functions like setting up the computer for use, files organization in a folder and shut down the computer system. 	LU1. Set up the computer for use LU2. Organize files in folder LU3. Shut down computer system	50

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. Recall 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			

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Module-A

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SAMPLE FOR LESSON PLAN

Module A: Perform Safe Transportation of Faulty Machine

Learning Unit 2>. Install/Adjust Tri Pod and chain Block to lift the Machine

Learning Outcomes>Trainee will be able to:

- **Identify the tools, equipment and PPE's required for installation of Tripod and chain block.**
- **Pick the required tools/equipment and PPE's**
- **Wear the required PPE's**
- **Prepare place for installation of tripod and chain block**
- **Install tripod and chain block**
- **Adjust tripod and chain block**

Methods	:Presentation /Lecture(Theory),Demonstration(practical) chain Block to lift the Machine	Key Notes: Install/Adjust Tri Pod and	Media: Multimedia presentation	Time:90 Minutes
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Introduction Time: 30 Minute

Introduce the topic and its daily applications to motivate the learner 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 to attain his/her full consideration towards the topic.

Objectives. After completing the Learning unit you will be able to know about how to Install/Adjust Tri Pod and chain Block to lift the Machine for loading /unloading at the work place/W.shop.

Main Body Time: 30:00 Minutes.

- Discuss why do we use PPE, s
- Describe why do we Install/Adjust Tri Pod and chain Block at the work place/W.shop..
- Explain the importance of functional /working condition of PPE's
- Explain why it is important to ensure safe working condition.

Group Activity: What will happen if we don't prepare place for installation/Adjustment of Tri Pod and chain Block at the work place/W.shop.

- **Group Discussion**

Conclusion Time: 15 Minute.

Summarize the topic and discussion for the purpose to memorize the Learners the key notes.

Assessment Time :15 Minute

Questions Answering Session

Total time:90 Minutes

Trainer's guidelines

Module A: 0713001124 Perform Safe Transportation of Faulty Machine			
Learning Unit	Suggested Teaching / Learning Activities	Delivery Context	Media
LU1. Prepare for work to perform safe transportation of faulty machine	<ul style="list-style-type: none"> • Description/Demonstration: <ul style="list-style-type: none"> ○ Give a brief description on the importance of safe working conditions and the precautionary measures to be adopted required for safe transportation. ○ Perform demonstration of the following to: <ul style="list-style-type: none"> • Identify the required PPE's • Collect the required PPE's • Identify the required tools and equipment • Collect the required tools and equipment • Ensure functional condition of PPE's/Tools and equipment • Ensure safe working conditions <ul style="list-style-type: none"> ➤ Clear Passage ➤ Cleanliness ➤ Adequate light ➤ Ventilation • Activity: Divide the Trainees into small groups and allocate at least one key topic to each group for discussion on the topic. Each group should use a sheet of flip chart paper to record three main points from their discussions that relate to their key topic After the discussion, begin the feedback session. Facilitate all the 	Classroom /LAB	<ul style="list-style-type: none"> • Media • Lecture • Multi Media presentation/ Workshop

	<p>groups one by one to come to the front of class with their flipcharts, display their flipcharts visible to all the learners and ask them to share their main points they have recorded for their key points. Discuss these main points briefly with the whole group. Learners should make additional notes on the flip chart to record additional points their group had not identified. End the group discussion activity with a summary. Photograph or scan of all the flipcharts and use these charts to create a handout for distribution amongst all the learners.</p> <ul style="list-style-type: none">• Assessment: Observe the students and give feedback to Improve their Knowledge and skill. Learners must be able to practice and develop their knowledge and skills relating to Work safely. Ensure that learners have the opportunity to ask questions to support their understanding.		
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<p>LU2.Install/Adjust Tri Pod and chain Block to lift the Machine</p>	<ul style="list-style-type: none"> • Description/Demonstration: Describe the installation/adjustment procedure of Tri Pod and chain Block to lift the Machine. <ul style="list-style-type: none"> ○ Perform demonstration of the following to: <ul style="list-style-type: none"> • Wear the required PPE's • Pick the required tools and equipment • Prepare place for installation of tripod and chain block • Install tripod and chain block • Adjust tripod and chain block • Activity: Divide the Trainees into small groups and allocate at least one key topic to each group for discussion on the topic. Each group should use a sheet of flip chart paper to record three main points from their discussions that relate to their key topic After the discussion, begin the feedback session. Facilitate all the groups one by one to come to the front of class with their flipcharts, display their flipcharts visible to all the learners and ask them to share their main points they have recorded for their key points. Discuss these main points briefly with the whole group. Learners should make additional notes on the flip chart to record additional points their group had not identified. End the group discussion activity with a summary. Photograph or scan of all the flipcharts and use these charts to create a handout for distribution amongst all the learners. • Assessment: Observe the students and give feedback to Improve their Knowledge and skill. Learners must be able to practice and develop their knowledge and skills relating to Work safely. Ensure that learners have the opportunity to ask questions to support their understanding. 	<p>Lab/Workshop</p>	<ul style="list-style-type: none"> • Media • Lecture • Multi Media presentation
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<p>LU3. Lift the Machine through Tri Pod and chain block</p>	<ul style="list-style-type: none"> • Description/Demonstration: <ul style="list-style-type: none"> ○ Describe the procedure for Lifting the Machine through Tri Pod and chain block and also state the importance of safe working conditions. ○ Perform demonstration of the following to: • Wear the required PPE's • Pick the required tools and equipment • Identify eye bolt/hook of the machine • Fasten chain using U bolt shackle with eye bolt/hook of machine • Lift the machine up to safe and required height <ul style="list-style-type: none"> • Activity: Divide the Trainees into small groups and allocate at least one key topic to each group for discussion on the topic. Each group should use a sheet of flip chart paper to record three main points from their discussions that relate to their key topic After the discussion, begin the feedback session. Facilitate all the groups one by one to come to the front of class with their flipcharts, display their flipcharts visible to all the learners and ask them to share their main points they have recorded for their key points. Discuss these main points briefly with the whole group. Learners should make additional notes on the flip chart to record additional points their group had not identified. End the group discussion activity with a summary. Photograph or scan of all the flipcharts and use these charts to create a handout for distribution amongst all the learners. <ul style="list-style-type: none"> • Assessment: Observe the students and give feedback to Improve their Knowledge and skill. Learners must be able to practice and develop their knowledge and skills relating to Work safely. Ensure that learners have the opportunity to ask questions to support their understanding. 	<p>Lab/Workshop</p>	<ul style="list-style-type: none"> • Learner guide • All PPE ready available • Handouts Regarding to personal protective Equipment.
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<p>LU4.Load Machine on the Loader</p>	<ul style="list-style-type: none"> ● Description/Demonstration: <ul style="list-style-type: none"> ○ Describe procedure for loading machine on the Loader keeping in view the importance of safe working conditions. ○ Give a presentation and demonstration on loading of machine on the Fork lifter for knowledge/ understanding and skill .The presentation should cover the following points: ● Wear the required PPE's ● Pick the required tools and equipment ● Ensure right positioning of loader for loading the machine ● Perform loading of machine on the loader ● Un-bolt the U bolt shackle of chain from eye bolt/hook of machine ● Fasten the machine at loader ● Activity: <p>Divide the Trainees into small groups and allocate at least one key topic to each group for discussion on the topic. Each group should use a sheet of flip chart paper to record three main points from their discussions that relate to their key topic</p> <p>After the discussion, begin the feedback session. Facilitate all the groups one by one to come to the front of class with their flipcharts, display their flipcharts visible to all the learners and ask them to share their main points they have recorded for their key points. Discuss these main points briefly with the whole group. Learners should make additional notes on the flip chart to record additional points their group had not identified. End the group discussion activity with a summary. Photograph or scan of all the flipcharts and use these charts to create a handout for distribution amongst all the learners.</p>	<p>Lab/Workshop</p>	<ul style="list-style-type: none"> ● Learner guide ● Multi media ● Presentation ● Loader ● Loading accessories ● Instruction sheets
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	<ul style="list-style-type: none">• Assessment: Observe the students and give feedback to Improve their Knowledge and skill. Learners must be able to practice and develop their knowledge and skills relating to Work safely. Ensure that learners have the opportunity to ask questions to support their understanding.		
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<p>LU5.Load machine on Fork Lifter</p>	<ul style="list-style-type: none"> ● Description/Demonstration: <ul style="list-style-type: none"> ○ Describe procedure for loading of machine on the Fork Lifter keeping in view the importance of safe working conditions. ○ Give a presentation and demonstration on loading of machine on the Fork lifter for knowledge/ understanding and skill .The presentation should cover the following points: <ul style="list-style-type: none"> ● Wear the required PPE's ● Pick the required tools and equipment ● Ensure right positioning of fork lifter to load the machine ● Ensure safe loading of machine on the fork lifter ● Activity: <p>Divide the Trainees into small groups and allocate at least one key topic to each group for discussion on the topic. Each group should use a sheet of flip chart paper to record three main points from their discussions that relate to their key topic</p> <p>After the discussion, begin the feedback session. Facilitate all the groups one by one to come to the front of class with their flipcharts, display their flipcharts visible to all the learners and ask them to share their main points they have recorded for their key points. Discuss these main points briefly with the whole group. Learners should make additional notes on the flip chart to record additional points their group had not identified. End the group discussion activity with a summary. Photograph or scan of all the flipcharts and use these charts to create a handout for distribution amongst all the learners.</p> ● Assessment: <p>Observe the students and give feedback to Improve their Knowledge and skill. Learners must be able to practice and develop their knowledge and skills relating to Work safely. Ensure that learners have the opportunity to ask questions to support their understanding..</p> 	<p>LAB/Work shop</p>	<ul style="list-style-type: none"> ● Learner guide ● Multi media ● Presentation ● Fork lifter ● Log book ● Instruction sheets
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<p>LU6.Ensure safe shifting of Machine to Workshop</p>	<ul style="list-style-type: none"> ● Description/Demonstration: <ul style="list-style-type: none"> ○ Explain the function and importance of the safe shifting of Machine to Workshop. ○ Perform demonstration on the safe shifting through presentation/physical activity to cover the following points: <ul style="list-style-type: none"> ● Wear the required PPE's ● Pick the required tools and equipment ● Fasten properly machine at loader / fork lifter to avoid slipping during transportation ● Perform safe shifting of Machine to Workshop ● Activity: <p>Divide the Trainees into small groups and allocate at least one key topic to each group for discussion on the topic. Each group should use a sheet of flip chart paper to record three main points from their discussions that relate to their key topic</p> <p>After the discussion, begin the feedback session. Facilitate all the groups one by one to come to the front of class with their flipcharts, display their flipcharts visible to all the learners and ask them to share their main points they have recorded for their key points. Discuss these main points briefly with the whole group. Learners should make additional notes on the flip chart to record additional points their group had not identified. End the group discussion activity with a summary. Photograph or scan of all the flipcharts and use these charts to create a handout for distribution amongst all the learners.</p> ● Assessment: <p>Observe the students and give feedback to Improve their Knowledge and skill. Learners must be able to practice and develop their knowledge and skills relating to Work safely. Ensure that learners have the opportunity to ask questions to support their understanding.</p> 	<p>Class room / Lab/Workshop</p>	<ul style="list-style-type: none"> ● Learner guide ● Multi media ● Presentation
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<p>LU7. Ensure safe unloading of Machine at Workshop</p>	<ul style="list-style-type: none"> • Description/Demonstration: <ul style="list-style-type: none"> ○ Give a brief description on the importance of safe unloading of Machine at Workshop ○ Perform demonstration of the following points required for safe unloading of Machine at the work shop. • Wear the required PPE's • Pick the required tools and equipment • Prepare site for safe unloading/placing of machine • Un load the machine from fork lifter • Prepare place for installation of tripod and chain block • Install tripod and chain block • Adjust tripod and chain block • Ensure right positioning of loader for unloading the machine • Bolt the U bolt shackle of chain with eye bolt/hook of machine • Un-fasten the machine at loader • Perform unloading of machine from the loader • Un-bolt the U bolt shackle of chain from eye bolt of machine • Activity: Divide the Trainees into small groups and allocate at least one key topic to each group for discussion on the topic. Each group should use a sheet of flip chart paper to record three main points from their discussions that relate to their key topic After the discussion, begin the feedback session. Facilitate all the groups one by one to come to the front of class with their 	<p>Lab/Workshop</p>	<ul style="list-style-type: none"> • Learner guide • Multi media • Presentation • Tripod and chain block • Loader and accessories
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	<p>flipcharts, display their flipcharts visible to all the learners and ask them to share their main points they have recorded for their key points. Discuss these main points briefly with the whole group. Learners should make additional notes on the flip chart to record additional points their group had not identified. End the group discussion activity with a summary. Photograph or scan of all the flipcharts and use these charts to create a handout for distribution amongst all the learners.</p> <ul style="list-style-type: none">• Assessment: Observe the students and give feedback to Improve their Knowledge and skill. Learners must be able to practice and develop their knowledge and skills relating to Work safely. Ensure that learners have the opportunity to ask questions to support their understanding.		
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<p>LU8. Maintain Inventory Record</p>	<ul style="list-style-type: none"> • Description/Demonstration: <ul style="list-style-type: none"> ○ Elaborate the steps required to be initiated for maintaining inventory record. ○ Perform demonstration of the following to: <ul style="list-style-type: none"> • Record receiving of machine • Allot inventory number to machine • Tag machine according to inventory number • Activity: <p>Divide the Trainees into small groups and allocate at least one key topic to each group for discussion on the topic. Each group should use a sheet of flip chart paper to record three main points from their discussions that relate to their key topic</p> <p>After the discussion, begin the feedback session. Facilitate all the groups one by one to come to the front of class with their flipcharts, display their flipcharts visible to all the learners and ask them to share their main points they have recorded for their key points. Discuss these main points briefly with the whole group. Learners should make additional notes on the flip chart to record additional points their group had not identified. End the group discussion activity with a summary. Photograph or scan of all the flipcharts and use these charts to create a handout for distribution amongst all the learners.</p> • Assessment: <p>Observe the students and give feedback to Improve their Knowledge and skill. Learners must be able to practice and develop their knowledge and skills relating to Work safely. Ensure that learners have the opportunity to ask questions to support their understanding..</p> 	<p>Class room / Lab/work shop</p>	<ul style="list-style-type: none"> • Learner guide • Multi media • Presentation • Log book • Instruction sheets
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Module-B

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Module B: Comply with Work Health and Safety Policies			
Learning Unit	Suggested Teaching/ Learning Activities	Delivery Context	Media
Lu1.Work safely at work place	<ul style="list-style-type: none"> • Description/Demonstration: • Activity: • Assessment: 	Classroom/workshop/ lab with Multi media	<ul style="list-style-type: none"> ○ Learner guide ○ All PPE ready available ○ Handouts Regarding to personal protective Equipment.
Lu2.Communicate work health and safety (WHS) assess at work place	<ul style="list-style-type: none"> • Description/Demonstration: • Activity: • Assessment: 	Class room / Lab/work shop	<ul style="list-style-type: none"> ○ Learner guide ○ All PPE ready available ○ Handouts Regarding to personal protective Equipment.
Lu3.Minimize risks to personal safety at work place	<ul style="list-style-type: none"> • Description/Demonstration: • Activity: • Assessment: 	Classroom/lab	Learner guide <ul style="list-style-type: none"> ○ Learner guide ○ All PPE ready available ○ Handouts Regarding to personal protective Equipment.
Lu4.Minimize risks to public safety	<ul style="list-style-type: none"> • Description/Demonstration: • Activity: • Assessment: 	Class room / Lab/work shop	Learner guide <ul style="list-style-type: none"> ○ Learner guide ○ All PPE ready available ○ Handouts Regarding to personal protective Equipment.

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Module-C

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Module C: Obey the Workplace Policies Procedures			
Learning Unit	Suggested Teaching / Learning Activities	Delivery Context	Media
LU1.Obey the workplace personal appearance and hygiene	<ul style="list-style-type: none"> • Description/Demonstration: • Activity: • Assessment: 	Classroom / Lab	<ul style="list-style-type: none"> • Learner guide • Handout of key points illustrating ways to ensure the tools and equipment class or types. • Multi media • Presentation
LU2.Follow work ethics	<ul style="list-style-type: none"> • Description/Demonstration: • Activity: • Assessment: 	Class room / Lab/work shop	<ul style="list-style-type: none"> • Learner guide • Handout • Multi media • Presentation
LU3.Demonstrate the Workplace behaviors	<ul style="list-style-type: none"> • Description/Demonstration: • Activity: • Assessment: 	Class room / Lab/work shop	<ul style="list-style-type: none"> ○ Learner guide ○ All PPE ready available ○ Handouts Regarding to personal protective Equipment. ○ Multi Media presentation
LU4. Communicate workplace policy & procedures	<ul style="list-style-type: none"> • Description/Demonstration: • Activity: • Assessment: 	Class room / Lab/work shop	<ul style="list-style-type: none"> • Learner guide • Hand outs • Multi media • Presentation
LU5. Review the implementation of workplace policy & procedures.	<ul style="list-style-type: none"> • Description/Demonstration: • Activity: • Assessment: 	Class room / Lab/work shop	<ul style="list-style-type: none"> • Learner guide • Hand outs • Multi media • Presentation

ELECTRICAL MACHINE WINDING TECHNICIAN



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Module-D

TRAINER GUIDE

National Vocational Certificate Level 1

Version 1 - September, 2018

Module D: Follow Basic Communication Skills			
Learning Unit	Suggested Teaching / Learning Activities	Delivery Context	Media
LU1. Adopt Effective listening to communicate appropriately	<ul style="list-style-type: none"> • Description/Demonstration: • Activity: • Assessment: 		
LU2. Develop Nonverbal communication with peers	<ul style="list-style-type: none"> • Description/Demonstration • Activity: • Assessment: 		
LU3. Prepare for Interview to get a job	<ul style="list-style-type: none"> • Description/Demonstration: • Activity: • Assessment: 		
LU4. Use communication platform at workplace	<ul style="list-style-type: none"> • Description/Demonstration: • Activity: • Assessment: 		
LU5. Identify communication barriers to improve interpersonal skills	<ul style="list-style-type: none"> • Description/Demonstration: • Activity: • Assessment: 		

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Module-E

TRAINER GUIDE

National Vocational Certificate Level 1

Version 1 - September, 2018

Module E: Operator Computer Functions (General)				
Learning Unit	Suggested Teaching Learning Activities	Delivery Context	Media	
LU1. Set up the computer for use	<ul style="list-style-type: none"> • Description/Demonstration: • Activity: • Assessment: 	Classroom /Workshop	Computer accessories	set with
LU2. Organize files in folder	<ul style="list-style-type: none"> • Description/Demonstration: • Activity: • Assessment: 	Computer Labs	Computer accessories	set with
LU3. Shut down computer system	<ul style="list-style-type: none"> • Description/Demonstration: • Activity: • Assessment: 	Computer Labs	Computer accessories	set with

Frequently Asked Questions

<p>1. What is Competency Based Training (CBT) and how is it different from currently offered trainings in institutes?</p>	<p>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.</p>
<p>2. What is the passing criterion for CBT certificate?</p>	<p>You shall be required to be declared “Competent” in the summative assessment to attain the certificate.</p>
<p>3. What are the entry requirements for this course?</p>	<p>The entry requirement for this course is equivalent to middle (School/Grade 8 Certificate).</p>
<p>4. How can I progress in my educational career after attaining this certificate?</p>	<p>You shall be eligible to take admission in level-2, Electrical Machine Winding Technician course.</p>
<p>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?</p>	<p>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.</p>
<p>6. What is the entry requirement for Recognition of Prior Learning program (RPL)?</p>	<p>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.</p>
<p>7. Is there any age restriction for entry in this course or Recognition of Prior Learning program (RPL)?</p>	<p>There are no age restrictions to enter this course or take up the Recognition of Prior Learning program</p>
<p>8. What is the duration of this course?</p>	<p>The duration of the course work is 24 Credit hrs (240 contact Hrs).</p>

9. What are the class timings?	. The classes are normally offered for 5 days a week (08:00 A.M to 01:00 PM) 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, this is a level-1 certificate in Electrical Machine Winding Technician.
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 (NAVTTTC). These standards are also recognized worldwide as all the standards are coded using international methodology and are accessible to the employers worldwide through NAVTTTC 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 Electrical Machine Winding Technician industries/workshops or you can start your own business in the field of Electrical Machine Winding.
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 (NAVTTTC). 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 teaching language of this course is Urdu and English.

<p>19. Is it possible to switch to other certificate programs during the course?</p>	<p>Yes, you can switch to other training courses after completion of certain levels in the field and can attain other qualifications in other courses.</p>
<p>20. What is the examination / assessment system in this program?</p>	<p>Competency based assessments are organized by training institutes during the course which serve the purpose of assessing the progress and preparation 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.</p>
<p>21. Does this certificate enable me to work as freelancer?</p>	<p>You can start your small business in the form of services delivery for winding of Electrical Machines (Motor and Transformer). You may need additional skills on entrepreneurship to support your initiative.</p>

Test Yourself (Multiple Choice Questions)

Level- 1

Please mark the correct one from the given options.

QNO1: What is meant by preparation of place before installation of Tripod and Chain block?

- A. Provision of clear passage
- B. Adequate lighting
- B. Provision of ventilation
- D. Place should not slippery

QNO2: Tri pod and Chain block is used to?

- A. Insulate the machine
- C. De insulate the machine
- B. Lift the machine
- D. Test the machine

QNO3: What types of fastener are used to fasten machine at loader?

- A. Jute rope
- C. Wire rope & Old used tier's
- B. Wooden wedges
- C. All of them

QNO4: What type of bolt is used to fasten the machine with chain block for lifting?

- A. U Shackle Type Bolt
- B. V-Shackle Type Bolt
- C. T-Shackle Type Bolt
- D. S-Shackle Type Bolt

QNO5: Safe transportation is ensured through?

- A. Site preparation and proper fastening of machine
- C. Safe loading and unloading of machine
- C. Smooth driving to avoid sharp turn
- D .All of them

Q NO6: Arrangement of Tools & Equipment requires knowing about:

- A. Identification of tool & Equipment's
- C. Specifications of tool
- B. Prepare list of tools & equipment
- D. None of them

Q NO7: Prior to use of tools, make sure that tools are:

- A. Insulated
- C. Complete
- B. Accurate
- D. All of them

Q NO 8: Personal, machine and environmental safety depends upon:

- A. Follow company's health and safety polices
- C. Nature of job
- B. Politeness
- D. Good physique

Q No 9: Speed of motor is measured with the help of:

- A. Growler
- B. Multi-Meter
- C. Tachometer
- D. Watt meter

Q No. 10: Short circuit test of motor is conducted with the help of:

- A. Growler
- B. Multi-Meter
- C. Tachometer
- D. Watt meter

Q No. 11: Which meter is used to measure current without breaking the supply cable

- A. Ammeter
- B. Tong Tester
- C. Multi-Meter
- D. Watt meter

Q No. 12: Tick the tool used for wire twisting?

- A. Wire Cutter
- B. Wire Striper
- C. Pliers
- D. Screw Driver

Q No. 13: which one of the below tools is used for tightening of nuts & bolts?

- A. Pliers
- B. Spanner
- C. Screw Wrench
- D. Scriber

Q No. 14: Which one of the below tools is used for metal cutting?

- A. Steel rule B. Saw C. Hacksaw D. Micrometer

Q No. 15: Which one of the below tools is used for measuring Size of wire ?

- A. Steel rule B. Measuring tape C. Tachometer D. Micrometer

Answers Key	
Question Number	Correct Answer
1	D
2	B
3	D
4	A
5	D
6	C
7	D
8	A
9	C
10	A
11	B
12	C
13	B
14	C
15	D

