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1. Introduction

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:

1.1. 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.

1.2. 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.

1.3. 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.

1.4. 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.

1.5. 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.

2. Lesson plans

This manual provides a series of lesson plans that will guide delivery of each module for the Cabinet Maker Level-1 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.

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 plans 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 *Cabinet Maker* 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.

3. 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:

- 1. Read the procedure mentioned in the Trainer Guide for the relevant Learning Unit before demonstration.
- 2. Arrange all tools, equipment and consumable material, which are required for demonstration of a skill.
- 3. Practice the skill before demonstration to trainees, if possible.
- 4. Introduce the skill to trainees clearly at the commencement of demonstration.
- 5. Explain how the skill relates to the skill(s) already acquired and describe the expected results or show the objects to trainees.
- 6. Carry out demonstration in a way that can be seen by all trainees.
- 7. Use the same tools and materials that the learner will be using.
- 8. Go through EACH of the steps involved in performing the skill.
- 9. Go SLOWLY describe each step as it is completed.
- 10. Encourage the learners to move around and watch what you are doing from a number of different angles.

- 11. Identify critical or complex steps, or steps that involve safety precautions to be followed.
- 12. Explain theoretical knowledge where applicable and ask questions to trainees to test their understanding.
- 13. Try to involve the learners: Ask them questions about why they think the process may work that way.
- 14. Repeat critical steps in demonstration, if required.
- 15. 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.

4. Overview of the program

Course: Cabinet Maker Level 1 Total Course Duration: 300 Hours

Course Overview:

In this training program trainee will learn and acquire specialized knowledge and practical skills required to function as a Cabinet Maker both at domestic and commercial levels. Cabinet Maker will be responsible to maintain personal safety standards and maintain tools and equipment. Cabinet Maker will be responsible for ensuring PPE's, Maintaining First aid box and Fire extinguisher, attaining health and safety training, preparing and responding for emergencies, arranging tools and equipment, maintaining toolbox, calibrating measuring tools, and managing inventory of tools and equipment. The specific objectives of developing these qualifications are as under:

- Improve the overall quality of training delivery and setting national benchmarks for training of Cabinet Maker in the country
- Provide flexible pathways and progressions to learners enabling them to receive relevant, up-to-date and recent skills
- Provide basis for competency-based assessment which is recognized and accepted by employers
- Establish a standardized and sustainable system of training for Cabinet Maker in the country

Module Title and Aim	Learning Units	Theory Days/hours	Workplace Days/hours	Timeframe of modules
Module A. Maintain Workplace Safety	LU1. Ensure Personal safety LU2. Ensure workplace safety. LU3. Ensure safety of tools and equipment LU4. Maintain First Aid Box LU5. Ensure Machines Safety LU6. Interpret Environmental Regulation	20	80	100
Module B. Maintain Tools and Equipment	LU1. Maintain tools Cabinet LU2. Arrange tool & Equipment LU3. Calibrate measuring tools LU4. Prepare tools for job LU5. Clean Tools & equipment LU6. Manage Inventory of tools and equipment	10	40	50

Module C.	Prepare Workplace / Housekeeping.	LU2. LU3.	Ensure clear passage Manage safe Storage of allied materials	10	40	50
Module D.	Develop Basic Literacy and Numeracy Skills	LU2. LU3. LU4.	Apply basic Literacy skills Apply basic Numeracy skills Perform Measurement Perform basic mathematical calculations Calculate Area and Volume of Logs	20	80	100
Module E.	Develop basic computer operating skills	LU2. LU3. LU4.	•	20	80	100
Module F.	Interpret Basic Drawing & Design	_	Perform Interconversion of Scales	20	80	100
Module G.	Develop basic communication Skills	LU2.	Adopt effective Listening Develop Nonverbal Communication Skill Develop verbal communication Skill. Develop Written Communication Skills	20	80	100
Module H.	Identify Machines & Its Attachments	LU1. LU2. LU3. LU4. LU5.	Identify Machine and its sizes. Identify components & Attachments Identify capacities & capabilities of Machine Identify basic tools and supplies associated with Machines Maintain Inventory of Machines	20	80	100
Module I.	Prepare Joints Manually	LU1. LU2.	Perform Ripping Perform Cross Cutting	20	80	100

	LU3.	Perform Curve Cutting			
		Perform Surface Plaining			
	LU5.	Perform Edge Plaining			
		Perform Size Plaining			
	LU7.	Make Joints Manually			
	LU1.	Load log for cutting (by crane/manual)			
	LU2.	Cut slab with log band saw			
	LU3.	Cut planks with log band saw			
Module J. Perform Wood	LU4.	Stack planks for seasoning	20	90	100
Cutting	LU5.	Perform cross cutting of planks with Pendulum saw	20	80	100
	LU6.	Perform Pattern Cutting on Band Saw			
	LU7.	Perform ripping of planks			
		Perform board cutting			
	LU1.	Perform surface planning			
Module K. Perform Wood	LU2.	Perform edge plaining	20	80	
Planning by	LU3.	Perform plaining for desired thickness			100
Machine	LU4.	Perform plaining for desired width			
		Cut to size (cross cutting)			
	LU1.	Identify job as per drawing			
	LU2.	Make Joints by machine			
	LU3.	Perform Drilling/Boring			
Module L. Prepare Job on	LU4.	Perform Profiling/ shaping		00	400
machine	LU5.	Perform Turning on Wood Lathe	20	80	100
	LU6.	Perform Lipping			
	LU7.	Perform Sanding			
	LU8.	Install Hardware (Woodworking)			
	LU1.	Perform Pre-assembly of job			
		clamp the job	10 40		
Module M. Assemble the Job		Test accuracy of the assembled job		40	50
	LU4.	Perform Final Assembling of job Test Firmness of Joints			
	LU1.				
Module N. Perform Polishing	LU2.	Arrange Polishing tools & Material	20	80	50
	LU3.	Perform Lacquer Polishing			

	LU4. Perform Staining			
	LU5. Perform Spirit/French Polishing			
	LU6. Perform Paint Finishing			
	LU7. Perform Varnish Finishing			
	LU8. Perform High Gloss Finishing			
	LU1. Replace Machine Belts/chains			
	LU2. Perform Sharpening of Cutting Blades			
Module O. Maintain Machines	LU3. Perform Lubrication of machine parts.	20	80	100
	LU4. Replace Drilling/ boring bits			
	LU5. Replace Profile Cutters			
	LU1. Interpret Drawing & Design using CAD			
	LU2. Draw & Design the job using CAD		80	
Module P. Perform CAD/CAM	LU3. Load the desired Tools	20		100
Operations	LU4. Perform Simulation	20		100
	LU5. Perform Material Loading			
	LU6. Perform CAM Operations			
	LU1. Resolve problems or disagreements with others			
	LU2. Demonstrate work ethic		40	100
Module Q. Develop	LU3. Work with others	10		
Professionalism.	LU4. Work independently	10		
	LU5. Communicate with signals			
	LU6. Interpret documentation			
	LU1. Conduct Market survey			
	LU2. Develop basic marketing skills			
Module R. Develop	LU3. Identify needs of the market.			
Entrepreneurial	LU4. Prepare Business plan	20	80	100
skills	LU5. Implement marketing activities	20	00	100
Skills	LU6. Evaluate marketing performance.			
	LU7. Develop Business promotion technique			
	LU8. Develop Business competition Skills			
	TOTAL	L 320	1280	1600

4.1. **Lesson Plan of Module** (Sample)

Module 05:

Maintain Tools & Equipment

Learning Unit

LU-1: Arrange tools and equipment

LU-2: Maintain Tool Box

LU-3: Calibrate measuring tools

LU-4: Manage Inventory of tools and equipment

Learning Outcomes

Trainee will be able to maintain tools and equipment for Pine Nuts Processor. Trainee will be able to understand various tools and equipment and their maintenance. Trainee will be able to Arrange tools and equipment maintain tool box, insulate tools and equipment, calibrate measuring tools and Manage Inventory of tools/Equipment.

Methods: Key Notes: Media: Time:
Through Tools and Equipment 50 hrs.

Multimedia Maintaining Tool Box

Presentations and Physical demonstration Insulation of Tools and Equipment Calibration of measuring Tools

of machines Managing Inventory of Tools/Equipment

Introduction

Introduction to Maintaining Tools and Equipment, Identification of Tools and equipment, Maintaining Tool Box, Insulating Tools and Equipment, Calibrating measuring tools, Managing inventory of tools and equipment.

Main Body

- Define various tools and equipment and their functions
- Describe arrangement of tools/equipment as per job
- Differentiate between corrective and preventive maintenance
- Describe arrangements of tools and equipment in tool box
- Explain storage methods of tools and equipment
- Describe types of calibration
- Describe methods of equipment calibration
- Explain methods of tools and equipment inventory
- Elaborate writing of faulty tools and equipment.

Conclusion

Various tools and equipment and their function, Maintenance of toolbox, Insulation of Tools and equipment, Calibration of measuring tools, Managing inventory of tools and equipment.

Assessment

Ask learners

Name various tools and equipment and their function?

What is the importance of insulating tools and equipment?

What is the importance of calibrating measuring tools?

Total time: 35 Hrs.



5. Trainer's guidelines

Module 1 : Maintain Workplace Safety

Learning Unit	Suggested Teaching / Learning Activities	Delivery Context	Media
LU-1: Ensure Personal Safety	Deliver an illustrated presentation on how to Ensure Personal Safety. Ensure you address the importance of the following points: • Arrange personal protective equipment as per requirements • Wear correct personal protective equipment. • Store PPE at appropriate place after use. Display a slide or flip chart with a key question relating to Ensure Personal Safety. Step 1 – Think Working on their own, each learner thinks about the question and makes notes of their responses or key points which they believe to be important. Step 2 – Pair For the next step, each learner pairs up with a partner. The two learners exchange their ideas and make further notes to add clarity to their own ideas. Step 3 – Share The final step is for you to invite different pairs to share the ideas they have discussed in response to the key question relating to Ensure Personal Safety Learners must be able to practice and develop their knowledge and skills relating to Ensure Personal Safety in an appropriate practical setting. Ensure that learners have the opportunity to ask questions to support their understanding.	Class room with multimedia aid, audio-visual facilities and flip charts Workshop or Workplace	 PPT Presentations. Videos Whiteboard Learning guide eyewear, gloves overalls, Fire extinguishers, Fire blankets, Respirators, masks, Fire hoses,

Learning Unit	Suggested Teaching / Learning Activities	Delivery Context	Media
LU-2: Ensure workplace safety.	Deliver an illustrated presentation on Ensure Workplace Safety. Ensure you address the following points: Clean the workplace as per SOP Apply electrical hazardous safety precautions as per standard. Apply chemical hazardous safety precautions as per standard. After key topics briefly and then allocate one key topic to each group. Learners need to work in their small groups discussing the key topic that has been allocated to their group. 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. Ask one group to come to the front of the class with their flipchart. Put up the flipchart where it can be easily seen by other learners. Ask the group to share the main points they have recorded for their key topic for Ensure Workplace Safety. 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. Then ask the next group to share their flipchart showing the main points they have recorded for the next key topic. Repeat the discussion process. Continue until you have covered all the key topics. End the group discussion activity with a summary. Photograph or scan all the flipcharts and use these to create a handout to distribute to all learners. Learners must be able to practice and develop their knowledge and skills relating to Ensure Workplace Safety in an appropriate practical setting.	Class room with multimedia aid, audio-visual facilities and flip charts Workshop or Workplace	PPT Presentations Videos Whiteboard Learning guide First aid box and items
TG (L-1)	Page 12		

Learning Unit	Suggested Teaching / Learning Activities	Delivery Context	Media
LU3: Ensure safety of tools and equipment	Lead a brainstorm on Ensure safety of tools and equipment. Use ideas from the brainstorm to explain the following key points: • Ensure insulation of tools and equipment • Ensure safe storing of tools and equipment • Perform Cleaning of tools and equipment on regular basis. • Ensure use of specific tool as per requirement of job Prepare either: • A flip chart / A PowerPoint slide / A handout showing key topics for Ensure safety of tools and equipment. Learners need to work in small groups discussing the key topics. Each group should make notes from their discussions that identify three main points that related to each key topic. After the discussion, begin the feedback session. Ask one group to share the main points they have recorded for the first key topic for Ensure safety of tools and equipment. Discuss these main points briefly with the whole group. Learners should make additional notes to record additional points their group had not identified. Then ask the next group to share the main points they have recorded for the second key topic. Repeat the discussion process. Continue until you have covered all the key topics. End the group discussion activity with a summary. Learners must be able to practice and develop their knowledge and skills relating to Ensure safety of tools and equipment in an appropriate practical setting. Ensure that learners have the opportunity to ask questions to support their understanding.	Class room with multimedia aid, audio-visual facilities and flip charts Workshop or Workplace	 PPT Presentations. Videos Whiteboard Learning guide Fire Extinguisher

Learning Unit	Suggested Teaching / Learning Activities	Delivery Context	Media
LU.4 Maintain First aid Box	Begin this session with an illustrated presentation on Maintain First Aid Box. Ensure that the presentation addresses the following points: • Ensure availability of first aid box • Check first aid box for Emergency Medicines. • Check Expiry date of the Medicines • Perform first aid treatment/bandages against minor injury. • Ensure availability of emergency/Rescue numbers Display a flip chart showing the following key question related to Maintain First Aid Box: 'What are the important steps involved in Maintaining First Aid Box?' Give each learner a sheet of paper and asked them to write their name at the top. Explain to learners that they will be sharing their work with other learners. Ask learners to write silently for 3-5 minutes answering the question displayed on the flip chart. When learners have completed writing, instruct them to pass their paper to the learner on their left. Each learner will read what their partner has passed to them and write a response. This will also be done silently. After another 2-3 minutes, instruct the learners to pass the paper to their left a second time. Repeat the same procedure, also done in silence At the end of the activity, ask the learners to return the paper to the original writer. Allow learners a few moments to read over the responses to their writing. Ask learners to work in pairs to reflect on and discuss the responses to the question on the flip chart. When this activity is concluded, collect the papers and make copies for each learner. Learners must be able to practice and develop their knowledge and skills relating to Maintain First Aid Box in an appropriate practical setting. Ensure that learners have the opportunity to ask questions to support their understanding.	Class room with multimedia aid, audio-visual facilities and flip charts Workshop or Workplace	PPT Presentations Videos Whiteboard Learning guide First Aid Box

Learning Unit	Suggested Teaching / Learning Activities	Delivery Context	Media
LU.5 Ensure Machines Safety	Lead a discussion about Ensure Machines Safety. Use real examples to support the discussion and ensure the discussion considers:	Class room with multimedia aid, audio-visual facilities and flip charts	
	Display a flip chart showing the following key question: 'How do we ensure Machine Safety?' Give each learner a sheet of paper and asked them to write their name at the top. Explain to learners that they will be sharing their work with other learners. Ask learners to write silently for 3-5 minutes answering the question displayed on the flip chart. When learners have completed writing, instruct them to pass their paper to the learner on their left. Each learner will read what their partner has passed to them and write a response. This will also be done silently. After another 2-3 minutes, instruct the learners to pass the paper to their left a second time. Repeat the same procedure, also done in silence. At the end of the activity, ask the learners to return the paper to the original writer. Allow learners a few moments to read over the responses to their writing. Ask learners to work in pairs to reflect on and discuss the responses to the question on the flip chart. When this activity is concluded, collect the papers and make copies for each learner. Learners must be able to practice and develop their knowledge and skills relating to Ensure Machines Safety in an appropriate practical setting.	Workshop or Workplace	

Learning Unit	Suggested Teaching / Learning Activities	Delivery Context	Media
LU6: Interpret Environmental Regulation	Deliver an illustrated presentation on Interpret Environmental Regulation. Ensure you address the importance of the following points: • Ensure work friendly environment. • Adopt environmental regulation Display a slide or flip chart with a key question relating to Interpret Environmental Regulation. Step 1 – Think Working on their own, each learner thinks about the question and makes notes of their responses or key points which they believe to be important. Step 2 – Pair For the next step, each learner pairs up with a partner. The two learners exchange their ideas and make further notes to add clarity to their own ideas. Step 3 – Share The final step is for you to invite different pairs to share the ideas they have discussed in response to the key question relating to Interpret Environmental Regulation. Learners must be able to practice and develop their knowledge and skills relating to Interpret Environmental Regulation in an appropriate practical setting. Ensure that learners have the opportunity to ask questions to support their understanding.	Class room with multimedia aid, audio-visual facilities and flip charts Workshop or Workplace	 PPT Presentations. Videos Whiteboard Learning guide Environmental regulations guide



Module 2: Maintain Tools and Equipment

Learning Unit	Suggested Teaching / Learning Activities	Delivery Context	Media
LU1: Maintain tools Cabinet	Deliver an illustrated presentation on Maintain Tools Cabinet. Ensure you address the importance of the following points: • Identify the tools to be stored in the cabinet. • Identify partitions for specific tools • Place tools and equipment at appropriate place Display a slide or flip chart with a key question relating to Maintain Tools Cabinet. Step 1 – Think Working on their own, each learner thinks about the question and makes notes of their responses or key points which they believe to be important. Step 2 – Pair For the next step, each learner pairs up with a partner. The two learners exchange their ideas and make further notes to add clarity to their own ideas. Step 3 – Share The final step is for you to invite different pairs to share the ideas they have discussed in response to the key question relating to Maintain Tools Cabinet. Learners must be able to practice and develop their knowledge and skills relating to Maintain Tools Cabinet in an appropriate practical setting. Ensure that learners have the opportunity to ask questions to support their understanding.	Class room with multimedia aid, audio- visual facilities and flip charts Workshop or Workplace	PPT Presentations. Videos Whiteboard Learning guide Tools Cabinet
LU2: Arrange tool &	Deliver an illustrated presentation on Arrange tool & Equipment. Ensure you address the importance of the following points:	Class room with	PPT PresentationVideos

Equipment	Identify Tools and Equipment Interpret job card Collect tools and equipment from store as per job requirement. Prepare either: A flip chart / A PowerPoint slide / A handoutshowing the key topics about Arrange tool & Equipment. Go through all the key topics briefly and then allocate one key topic to each group. Learners need to work in their small groups discussing the key topic that has been allocated to their group. 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. Ask one group to come to the front of the class with their flipchart. Put up the flipchart where it can be easily seen by other learners. Ask the group to share the main points they have recorded for their key topic for Arrange tool & Equipment. 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. Then ask the next group to share their flipchart showing the main points they have recorded for the next key topic. Repeat the discussion process. Continue until you have covered all the key topics. End the group discussion activity with a summary. Photograph or scan all the flipcharts and use these to create a handout to distribute to all learners. Learners must be able to practice and develop their knowledge and skills relating to Arrange tool & Equipment in an appropriate practical setting. Ensure that learners have the opportunity to ask questions to support their understanding.	multimedia aid, audio-visual facilities and flip charts Workshop or Workplace	Whiteboard Learning guide Tools Box
LU3: Calibrate measuring	Lead a discussion about importance of calibrating measuring tools. Use real examples to support the discussion and ensure the discussion considers the following points: Calibrate the moisture meter Calibrate the Vernier calipers 	Class room with multimedia aid, audio-	 PPT Presentations. Videos Whiteboard Learning guide

tools	Record Calibration test results Prepare either:	visual facilities and flip charts	Calibrating Instrument as per requirement
	A flip chart / A PowerPoint slides / A handout showing key topics for calibrating measuring tools. Learners need to work in small groups discussing the key topics. Each group should make notes from their discussions that identify three main points that related to each key topic. After the discussion, begin the feedback session. Ask one group to share the main points they have recorded for the first key topic for calibrating measuring tools. Discuss these main points briefly with the whole group. Learners should make additional notes to record additional points their group had not identified. Then ask the next group to share the main points they have recorded for the second key topic. Repeat the discussion process. Continue until you have covered all the key topics. End the group discussion activity with a summary. Learners must be able to practice and develop their knowledge and skills relating to calibrating measuring tools in an appropriate practical setting. Ensure that learners have the opportunity to ask questions to support their understanding.	Workshop or Workplace	
LU4: Prepare too for job	Lead a discussion about Prepare tools for job. Use real examples to support the discussion and ensure the discussion considers: Collect the required tool as per job demand Check physical condition of tools before use. Prepare/design tools for job Sharp hand saw blade with triangular file Sharp planner blade with oil stone	Class room with multimedia aid, audiovisual facilities and flip charts	 PPT Presentations. Videos Whiteboard Learning guide Inventory Book/ Register

	Sharp chisel blade with oil stone Sharp drill bits with disc grinder machine Display a slide or flip chart with a key question relating to Prepare tools for job. Step 1 – Think Working on their own, each learner thinks about the question and makes notes of their responses or key points which they believe to be important. Step 2 – Pair For the next step, each learner pairs up with a partner. The two learners exchange their ideas and make further notes to add clarity to their own ideas. Step 3 – Share The final step is for you to invite different pairs to share the ideas they have discussed in response to the key question relating to Prepare tools for job. Learners must be able to practice and develop their knowledge and skills relating to Prepare tools for job in an appropriate practical setting. Ensure that learners have the opportunity to ask questions to support their understanding.	Workshop or Workplace	
LU5: Clean Tools & equipment	Discuss and demonstrate the importance of Clean Tools & equipment and prompt learners to consider learn and apply the following: • Basic Urdu reading skills • Basic Urdu writing skills • Basic Urdu speaking skills Prepare either: . A flip chart / A PowerPoint slide / A handout	Class room with multimedia aid, audio- visual facilities and flip charts • Workshop or Workplace	 PPT Presentations. Videos Whiteboard Learning guide Tools and Equipment

	showing the key topics about Clean Tools & equipment. Go through all the key topics briefly and then allocate one key topic to each group.		
	Learners need to work in their small groups discussing the key topic that has been allocated to their group. 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. Ask one group to come to the front of the class with their flipchart. Put up the flipchart where it can be easily seen by other learners. Ask the group to share the main points they have recorded for their key topic for Clean Tools & equipment. 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.		
	Then ask the next group to share their flipchart showing the main points they have recorded for the next key topic. Repeat the discussion process. Continue until you have covered all the key topics.		
	End the group discussion activity with a summary. Photograph or scan all the flipcharts and use these to create a handout to distribute to all learners.		
	Learners must be able to practice and develop their knowledge and skills relating to Clean Tools & equipment in an appropriate practical setting. Ensure that learners have the opportunity to ask questions to support their understanding.		
LU6: Manage Inventory of tools and equipment	Discuss and demonstrate the importance of Manage Inventory of tools and equipment.to and prompt learners to consider learn and apply the following: Check number of tools and equipment as per record Report for faulty tools and equipment Generate demand for defective tools and equipment Maintain record of all tools and equipment.	Class room with multimedia aid, audio- visual facilities and flip charts	 PPT Presentations. Videos Whiteboard Learning guide Inventory Book/ Register
	Prepare either:		
	. A flip chart / A PowerPoint slide / A handoutshowing the key topics about Manage Inventory of tools and equipment. Go through all the key		

topics briefly and then allocate one key topic to each group. Learners need to work in their small groups discussing the key topic that has been allocated to their group. Each group should use a sheet of flip chart paper to record three main points from their discussions that relate to their key topic .	Workshop or Workplace	
After the discussion, begin the feedback session. Ask one group to come to the front of the class with their flipchart. Put up the flipchart where it can be easily seen by other learners. Ask the group to share the main points they have recorded for their key topic for Manage Inventory of tools and equipment. 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.		
Then ask the next group to share their flipchart showing the main points they have recorded for the next key topic. Repeat the discussion process. Continue until you have covered all the key topics.		
End the group discussion activity with a summary. Photograph or scan all the flipcharts and use these to create a handout to distribute to all learners.		
Learners must be able to practice and develop their knowledge and skills relating to Manage Inventory of tools and equipment in an appropriate practical setting. Ensure that learners have the opportunity to ask questions to support their understanding.		



Module 3: Prepare Workplace / Housekeeping

Learning Unit	Suggested Teaching / Learning Activities	Delivery Context	Media
LU1: Maintain Log yard	Deliver an illustrated presentation on how to Maintain Log yard. Ensure you address the importance of the following points: • Arrange partition for logs (like soft/ hard woods) • Clear travel path • Unload logs safely. Prepare either: • A flip chart / A PowerPoint slide / A handout showing key topic how to Maintain Log yard. Learners need to work in small groups discussing the key topics. Each group should make notes from their discussions that identify three main points that related to each key topic. After the discussion, begin the feedback session. Ask one group to share the main points they have recorded for the first key topic for Check Battery. Discuss these main points briefly with the whole group. Learners should make additional notes to record additional points their group had not identified. Then ask the next group to share the main points they have recorded for the second key topic. Repeat the discussion process. Continue until you have covered all the key topics. End the group discussion activity with a summary. Learners must be able to practice and develop their knowledge and skills relating to Maintain Log yard in an appropriate practical setting. Ensure that learners have the opportunity to ask questions to support their understanding.	Class room with multimedia aid, audio- visual facilities and flip charts Classroom / Work place/Lab	 PPT Presentations Videos Whiteboard Multi media Partition tools Logs Cleaning material

LU2:	Deliver an illustrated presentation on how to Dump Logs. Ensure you address the	Class room	• PPT
Dump Logs	importance of the following points:	with multimedia aid,	PresentationVideos
	 Segregate logs according to: Type (soft/hard) 	audio-visual	Whiteboard
	> Grade	facilities	Learning
	➤ Size (Girth)	flip charts	guide
	 Shape Dump the Logs in proper partitions. 		
	Update Inventory of logs		
	Display a slide or flip chart with a key question relating to Dump Logs.		
	Step 1 – Think		
	Working on their own, each learner thinks about the question and makes notes of their responses or key points which they believe to be important.		
	Step 2 – Pair		
	For the next step, each learner pairs up with a partner. The two learners exchange their ideas and make further notes to add clarity to their own ideas.		
	Step 3 – Share	Workshop or Workplace	
	The final step is for you to invite different pairs to share the ideas they have discussed in response to the key question relating to Dump Logs.	VVOINPIGOO	
	Observe the students and give feedback to Improve the Knowledge and skill.		
	Learners must be able to practice and develop their knowledge and skills relating to Dump Logs in an appropriate practical setting. Ensure that learners have the opportunity to ask questions to support their understanding.		

LU3:		Class room	• PPT
Ensure clear passage	Lead a discussion about importance of how to Ensure clear passage. Use real examples to support the discussion and ensure the discussion considers:	with multimedia aid, audio- visual facilities and flip charts	Presentations
	Remove waste material from the passage		VideosWhiteboard
	Mark the passage with yellow Colour strip.		
	Ensure safe movement of loader/trolley for transfer of logs to log band saw.		Learning guide
	Learners need to devise 10 quiz questions with answers based on Ensure clear passage. They must make sure their questions cover key topics for how to develop and use communication skills in Pine nuts processing.		
	Issue each learner with 10 blank cards. Each learner should number the cards and write their name on one side with a question about how to Ensure clear passage. On the reverse of the card, they should write an appropriate answer to their question.		
	For the quiz, arrange learners in two equal teams. Ask one learner to keep score using a suitable score-card. Player 1 for Team A asks one of their questions to Player 1 of Team B, who needs to answer the question. Discuss the answer with the group and ask the group to determine if the answer is correct. Player 1 of Team A then confirms the answer they had devised. (You need to correct answers if the learner's answer was not wholly correct.)		
	 The scorekeeper records 1 mark for a correct answer under the appropriate team's score column. Play then passes to Player 1 of Team B, who asks their question to Player 1 of Team A, and so on. 	Workshop or Workplace	
	Total the scores at the end of the quiz to see which team won.		
	 After the quiz, collect learners' question/answer cards and check that answers provided were correct. Return any incorrect answers to learners and ask them to change their answer to the correct one. 		
	Learners must be able to practice and develop their knowledge and skills relating to Ensure clear passage in an appropriate practical setting. Ensure that learners have the opportunity to ask questions to support their understanding.		

LU-4: Manage safe Storage of allied materials	Lead a discussion about how to Manage Safe Storage of allied materials. Use real examples to support the discussion and ensure the discussion considers: • Identify location for storage of allied material. • Ensure safe unloading of allied materials. • Segregate allied material according to: i. Type, ii. Color iii. Size • Perform safe storage of allied material.	Class room with multimedia aid, audio- visual facilities and flip charts Workshop or	 PPT Presentations Videos Whiteboard Learning guide
	 Ensure easy access to allied material Divide the Trainees into Group and perform the following about how to Manage Safe Storage of allied materials Role play 	Workplace	
	 Group Discussion Brain storming Observe the students and give feedback to Improve the Knowledge and skill. 		
	Learners must be able to practice and develop their knowledge and skills relating to Manage Safe Storage of allied materials in an appropriate practical setting. Ensure that learners have the opportunity to ask questions to support their understanding.		

LU-5: Maintain Inventory	Deliver an illustrated presentation on how to Maintain Inventory. Ensure you address the importance of the following points: • Check Inventory • Update Inventory Prepare either:	Class room with multimedia aid, audio- visual facilities and flip charts	 PPT Presentations Videos Whiteboard Inventory Book
	 A flip chart / A PowerPoint slides / A handout showing the key topics about Maintain Inventory. Go through all the key topics briefly and then allocate one key topic to each group. 		
	Learners need to work in their small groups discussing the key topic that has been allocated to their group. Each group should use a sheet of flip chart paper to record three main points from their discussions that relate to their key topic .	Workshop or Workplace	
	After the discussion, begin the feedback session. Ask one group to come to the front of the class with their flipchart. Put up the flipchart where it can be easily seen by other learners. Ask the group to share the main points they have recorded for their key topic for Maintain Inventory. 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.		
	Then ask the next group to share their flipchart showing the main points they have recorded for the next key topic. Repeat the discussion process. Continue until you have covered all the key topics.		
	End the group discussion activity with a summary. Photograph or scan all the flipcharts and use these to create a handout to distribute to all learners.		
	Learners must be able to practice and develop their knowledge and skills relating to Maintain Inventory in an appropriate practical setting. Ensure that learners have the opportunity to ask questions to support their understanding.		



Module 4 : Basic Literacy and Numeracy

Module 4: Basic L	iteracy and Numeracy		
Learning Unit	Suggested Teaching / Learning Activities	Delivery Context	Media
LU-1: Apply Basic Literacy Skills	Discuss and demonstrate the importance of Apply basic literacy skills and prompt learners to consider learn and apply the following: • Apply basic reading skills • Apply basic writing skills • Apply basic speaking skills	Class room with multimedia aid, audio-visual	Multi mediaWhite BoardStationaryBasic Literacy Module
	Prepare either:	facilities and flip charts	
	. A flip chart / A PowerPoint slide / A handoutshowing the key topics about Apply basic literacy skills. Go through all the key topics briefly and then allocate one key topic to each group.		
	Learners need to work in their small groups discussing the key topic that has been allocated to their group. 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. Ask one group to come to the front of the class with their flipchart. Put up the flipchart where it can be easily seen by other learners. Ask the group to share the main points they have recorded for their key topic for Apply basic literacy skills. 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.		
	Then ask the next group to share their flipchart showing the main points they have recorded for the next key topic. Repeat the discussion process. Continue until you have covered all the key topics.		
	End the group discussion activity with a summary. Photograph or scan all the flipcharts and use these to create a handout to distribute to all learners.		
	Learners must be able to practice and develop their knowledge and skills relating to Apply basic literacy skills in an appropriate practical setting. Ensure that learners have the opportunity to ask questions to support their understanding.		

LU-2: Apply Basic Numeracy Skills

Discuss and demonstrate the importance of Basic Numeracy skills and prompt learners to learn and apply the following:

- Basic principles of addition
- Basic principles of subtraction
- Basic principles of multiplication
- Basic principles of division
 Prepare either:
- . A flip chart / A PowerPoint slide / A handout
- ...showing the key topics about basic Numeracy skills. Go through all the key topics briefly and then allocate **one key topic** to each group.

Learners need to work in their small groups discussing the key topic that has been allocated to their group. 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. Ask one group to come to the front of the class with their flipchart. Put up the flipchart where it can be easily seen by other learners. Ask the group to share the main points they have recorded for their key topic for Basic Numeracy Skills. 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.

Then ask the next group to share their flipchart showing the main points they have recorded for the next key topic. Repeat the discussion process. Continue until you have covered all the key topics.

End the group discussion activity with a summary. Photograph or scan all the flipcharts and use these to create a handout to distribute to all learners.

Learners must be able to practice and develop their knowledge and skills relating to Basic Numeracy Skills in an appropriate practical setting. Ensure that learners have the opportunity to ask questions to support their understanding.

Class room with multimedia aid, audio-visual facilities and flip charts

- Multi media
- White Board
- Stationary

Basic Mathematics Literacy Module

LU-3:	Perform
Measu	urement

Discuss and demonstrate the importance of Perform Measurement and prompt learners to consider learn and apply the following:

- audio-vis facilities
- multimedia aid, audio-visual facilities and flip

charts

Class room with

- Multi media
- White Board
- Stationary
- Measuring tools /Taps

- Collect appropriate measuring tools
- · Identify inch foot and yard
- Identify millimeter, centimeter and meter

Prepare either:

- . A flip chart / A PowerPoint slide / A handout
- ...showing the key topics about basic Urdu literacy skills. Go through all the key topics briefly and then allocate **one key topic** to each group.

Learners need to work in their small groups discussing the key topic that has been allocated to their group. 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. Ask one group to come to the front of the class with their flipchart. Put up the flipchart where it can be easily seen by other learners. Ask the group to share the main points they have recorded for their key topic to Perform Measurement. 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.

Then ask the next group to share their flipchart showing the main points they have recorded for the next key topic. Repeat the discussion process. Continue until you have covered all the key topics.

End the group discussion activity with a summary. Photograph or scan all the flipcharts and use these to create a handout to distribute to all learners.

Learners must be able to practice and develop their knowledge and skills relating to Perform Measurement in an appropriate practical setting. Ensure that learners have the opportunity to ask questions to support their understanding.

LU-4: Perform basic mathematical calculations

Discuss and demonstrate the importance of Perform basic mathematical calculations.to and prompt learners to consider learn and apply the following:

- Perform addition
- Perform subtraction
- Perform multiplication
- Perform division
- perform inter conversion of Measuring units
- Record the results.

Prepare either:

. A flip chart / A PowerPoint slide / A handout

...showing the key topics about Perform basic mathematical calculations. Go through all the key topics briefly and then allocate **one key topic** to each group.

Learners need to work in their small groups discussing the key topic that has been allocated to their group. 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. Ask one group to come to the front of the class with their flipchart. Put up the flipchart where it can be easily seen by other learners. Ask the group to share the main points they have recorded for their key topic for Perform basic mathematical calculations. 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.

Then ask the next group to share their flipchart showing the main points they have recorded for the next key topic. Repeat the discussion process. Continue until you have covered all the key topics.

End the group discussion activity with a summary. Photograph or scan all the flipcharts and use these to create a handout to distribute to all learners.

Learners must be able to practice and develop their knowledge and skills relating to Perform basic mathematical calculations in an appropriate practical setting. Ensure that learners have the opportunity to ask questions to support their understanding.

Class room with multimedia aid, audio-visual facilities and flip charts

- Multi media
- White Board
- Stationary

LU-5: Calculate X-Sectional Area and Volume of logs

Discuss and demonstrate the importance of Calculate X-Sectional Area and Volume of logs and prompt learners to consider learn and apply the following:

- Measure Diameter of Log
- Calculate surface area of log
- Calculate volume of log

Prepare either:

- . A flip chart / A PowerPoint slide / A handout
- ...showing the key topics about Calculate X-Sectional Area and Volume of logs. Go through all the key topics briefly and then allocate **one key topic** to each group.

Learners need to work in their small groups discussing the key topic that has been allocated to their group. 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. Ask one group to come to the front of the class with their flipchart. Put up the flipchart where it can be easily seen by other learners. Ask the group to share the main points they have recorded for their key topic to Calculate X-Sectional Area and Volume of logs. 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.

Then ask the next group to share their flipchart showing the main points they have recorded for the next key topic. Repeat the discussion process. Continue until you have covered all the key topics.

End the group discussion activity with a summary. Photograph or scan all the flipcharts and use these to create a handout to distribute to all learners.

Learners must be able to practice and develop their knowledge and skills relating to Calculate X-Sectional Area and Volume of logs in an appropriate practical setting. Ensure that learners have the opportunity to ask questions to support their understanding.

Class room with multimedia aid, audio-visual facilities and flip charts

- Multi media
- White Board
- Stationary
- Measuring tools /Taps

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 8th 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-2 in Carpentry Sector (Cabinet Maker). You shall be able to progress further to National Vocational Certificate Level-4 in Carpentry Sector (Cabinet Maker) Course; and take admission in a level-5, DAE or equivalent course (if applicable). 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 Prior Learning program (RPL)?	There are no age restrictions to enter this course or take up the Recognition of Prior Learning program

8. What is the duration of this course?	The duration of the course work is 1,510 hrs. (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 qualification's 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 the local or overseas construction companies in heavy machinery operator job profile.
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. The heavy Machinery Operator normally earns 20,000 to 25,000 in the start.
17. Are there any alternative certificates	There are some short courses offered by some training institutes on this subject. Some

which I can take up?	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 by purchasing your own heavy construction machine and can start earning 50,000 per month. You may need additional skills on entrepreneurship to support your initiative.

Test Yourself (Multiple Choice Questions)

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