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PINE NUTS PROCESSOR

Trainer Guide

National Vocational Certificate Level 4

Version 1 - February 2020



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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 Pine Nuts Processor Level 4 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 *Pine Nuts Processor* 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:

- 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.
- I) 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.

4. Overview of the program

Course: Pine Nuts Processor Level 4

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 Pine Nuts Processor both at domestic and commercial levels. Pine Nuts Processor will be responsible for Assure quality of Pine Nuts, Develop Professionalism and Entrepreneurial skills. The specific objectives of developing these qualifications are as under:

- Improve the overall quality of training delivery and setting national benchmarks for training of Pine Nuts Processor 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 Pine Nuts Processor in the country

Module Title and Aim	Learning Units	Theory Days/hours	Workplace Days/hours	Timeframe of modules
	LU1. Apply basic Urdu literacy skills			
	LU2. Apply basic English literacy skills		90	
Module 1: Develop basic literacy & Numeracy skills	LU3. Perform basic numeracy skills	40		130
a Numeracy skins	LU4. Perform basic measurements			
	LU1. Maintain personal protective equipment (PPE)			
Module 2: Maintain Personal	LU2. Maintain First-aid Box	10	30	
Safety Standards	LU3. Maintain Fire Fighting Equipment			40
	LU4. Prepare for emergencies			
	LU5. Respond to emergencies			
	LU1. Arrange Tools and Equipment			
Module 3: Maintain Tools &	LU2. Maintain Tool Box			
Equipment	LU3. Calibrate measuring tools	08 32	40	
	LU4. Manage Inventory of tools and equipment			

	LU1. Operate MS word			
Module 4: Develop basic	LU2. Operate MS Excel			
Computer Operating skills	LU3. Operate MS Power Point	25	135	160
SKIIIS	LU4. Perform Browsing			
	LU5. Print Document			
	LU1. Adopt effective Listening			
Module 5: Develop Basic	LU2. Develop nonverbal communication			
Communication Skills	LU3. Develop verbal communication skills.	10	30	40
	LU4. Develop Written Communication skills			
	LU1. Identify Hazards at Workplace			
Module 6: Maintain Workplace	LU2. Comply with Occupational Health and safety	10	30	
Safety	LU3. Perform safe work practices at work place			40
	LU4. Dispose of hazardous/Waste materials.			
	LU5. Follow emergency procedures at workplace			
	LU1. Arrange Tools for cutting of Pine Nut Cones			
	LU2. Adopt Health and Safety Measures			
Module 7: Collect Pine Nut	LU3. Select appropriate cones for cutting.	12	48	60
Cones From Trees	LU4. Cut Pine nut cones from trees			
	LU5. Sort Pine nut cones according to grades.			
	LU1. Prepare surface for placement of Pine nut cones			
	LU2. Dry Pine nut cones for extraction			
Module 8: Extract Pine Nuts	LU3. Separate Pine nuts from cones			
from cones	LU4. Reduce excessive moisture from Pine nuts	18	72	90
	LU5. Remove Foreign Materials (Impurities)	faterials (Impurities)		
	LU6. Place the Pine nuts in Boxes			

LU1. Arrange tools and equipment for Roasting Pine nut			
LU2. Adopt Health and safety measures for roasting			
LU3. Roast Pine nuts as per requirements			
LU4. Remove infected Pine nuts	20	60	80
LU5. Pack Roasted Pine nuts as per requirements			
LU6. Transport/Store roasted Pine nuts			
LU1. Roast Pine nuts for Kernels			
LU2. Perform peeling of Pine nuts for Kernels extraction			
LU3. Dry Kernels for removing membrane	14	66	80
LU4. Sort Kernels as per requirements			
LU5. Perform Packaging of Kernels			
LU1. Sort Pine nuts according to grading			
LU2. Pack Pine nuts as per requirements.			
LU3. Develop a record of quantity of Pine nuts	08	42	50
LU4. Transport Pine nuts to the desired destination			
LU5. Ensure safe storage			
LU1.Check the quality of Pine Nut Cones before roasting			
LU2.Assure the quality of Pine nuts after the extraction			
from cones.		1.4.4	
LU3.Check quality of Pine nuts with shell after roasting	26	144	470
LU4.Check quality of Pine nuts Kernel during Peeling.	26		170
LU5.Check quality of Packaging of Pine nuts and pine			
nuts Kernels.			
LU6.Maintain laboratory standards			
LU1. Demonstrate Work Ethics	42	40	
LU2. Resolve disagreement with others	12	18	30
	 LU2. Adopt Health and safety measures for roasting LU3. Roast Pine nuts as per requirements LU4. Remove infected Pine nuts LU5. Pack Roasted Pine nuts as per requirements LU6. Transport/Store roasted Pine nuts LU1. Roast Pine nuts for Kernels LU2. Perform peeling of Pine nuts for Kernels extraction LU3. Dry Kernels for removing membrane LU4. Sort Kernels as per requirements LU5. Perform Packaging of Kernels LU1. Sort Pine nuts according to grading LU2. Pack Pine nuts as per requirements. LU3. Develop a record of quantity of Pine nuts LU4. Transport Pine nuts to the desired destination LU5. Ensure safe storage LU1.Check the quality of Pine nuts after the extraction from cones. LU3.Check quality of Pine nuts Kernel during Peeling. LU4.Check quality of Pine nuts Kernel during Peeling. LU5.Check quality of Packaging of Pine nuts and pine nuts Kernels. LU6.Maintain laboratory standards LU1. Demonstrate Work Ethics 	LU2. Adopt Health and safety measures for roasting20LU3. Roast Pine nuts as per requirements20LU4. Remove infected Pine nuts20LU5. Pack Roasted Pine nuts as per requirements20LU6. Transport/Store roasted Pine nuts14LU2. Perform peeling of Pine nuts for Kernels extraction14LU3. Dry Kernels for removing membrane14LU4. Sort Kernels as per requirements14LU5. Pack Pine nuts according to grading8LU2. Pack Pine nuts as per requirements08LU3. Dry Kernels as per requirements08LU4. Transport Pine nuts to the desired destination08LU4. Transport Pine nuts to the desired destination26LU5. Ensure safe storage26LU3. Check quality of Pine nuts with shell after roasting26LU4. Check quality of Pine nuts Kernel during Peeling.26LU5. Check quality of Pine nuts Kernel during Peeling.26LU5. Check quality of Pine nuts Kernel during Peeling.26LU5. Check quality of Packaging of Pine nuts and pine nuts Kernels.26LU5. Check quality of Packaging of Pine nuts and pine nuts Kernels.26	LU2. Adopt Health and safety measures for roasting LU3. Roast Pine nuts as per requirements LU4. Remove infected Pine nuts LU5. Pack Roasted Pine nuts as per requirements LU6. Transport/Store roasted Pine nuts LU1. Roast Pine nuts for Kernels LU2. Perform peeling of Pine nuts for Kernels extraction LU3. Dry Kernels for removing membrane LU4. Sort Kernels as per requirements LU5. Perform Packaging of Kernels LU1. Sort Pine nuts according to grading LU2. Pack Pine nuts as per requirements. LU3. Develop a record of quantity of Pine nuts LU4. Transport Pine nuts to the desired destination LU5. Ensure safe storage0842LU1.Check the quality of Pine nuts with shell after roasting LU2.Check quality of Pine nuts Kernel during Peeling. LU3.Check quality of Pine nuts Kernel during Peeling. LU3.Check quality of Pine nuts Kernel during Peeling. LU4.Check quality of Pine nuts Kernel during Peeling. LU5.Check quality of Pine Nut Check quality of Pine nuts and pine nuts Kernels. LU6.Maintain laboratory standards1218

	LU3. Work in team			
	LU4. Work Independently			
	LU5. Interpret Documentation			
	LU6. Interpret rules and regulations of regulatory			
	authority.			
	LU1. Conduct Market Survey			
	LU2. Establish Business Opportunities			
	LU3. Seek for required funds to establish the business			
Module 14: Develop	LU4. Prepare Business Plan	20		
Entrepreneurial skills	LU5. Implement Marketing activities		80	100
	LU6. Evaluate marketing performance			
	LU7. Develop Business promotion technique			
	LU8. Develop Business competition skills			

	FORMAT FOR LESSON PLAN		
Module:			
Learning	Unit>		
Learning) Outcomes>		
Methods	Key Notes	Media	Time
	Introduction		
	State the Learning Objectives of the lesson. This allows the learners to organize their thoughts on what they will learn and to perform. Also state some questions to recall prior knowledge of learners to arouse their interest and motivation		
	Main Body		
	Present the new information or material that is to be learned. Demonstration of a skill relevant with the Learning Unit is also stated here. Also mention the teaching and learning methods for each leaning element from <i>Trainer Guidelines</i> , the relevant media including handouts, power-point slides, videos, white board and time duration for each activity in the relevant columns		
	Conclusion		
	List the strategies used for summarizing and reviewing the lesson delivered. Also mention the strategies for formative assessment to ensure that the transfer of knowledge and skill has been achieved		
	Assessment		
	How this lesson will be assessed?		
	Tot	al time:	

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Module-12

5. Trainer's guidelines

Module 12: Assu	e quality of Pine Nuts		
Learning Unit	Suggested Teaching / Learning Activities	Delivery Context	Media
LU-1: Check the quality of Pine Nut Cones before roasting	 Deliver an illustrated presentation on how to Check the quality of Pine Nut Cones before roasting with special attention to the following points. Prompt learners to consider learn and apply the following: Arrange partition for Sample of pine nut cones. Collect Sample of pine nut cones randomly. Prepare representative and working sample from composite Sample Label the sample to include the information like date of sampling, sampler name and lot of Pine nut cone Seal the sample to intact the condition of sample Perform critical laboratory tests for quality of pine nut cones such as Moisture content Color Proportion of damages Shrinkage Grade & Size Prepare report of the results of analytical tests. Display a slide or flip chart with a key question relating to Check the quality of Pine Nut Cones before roasting. 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 Check the quality of Pine Nut Cones before roasting. Learners must be able to practice and develop their knowledge and skills relating to Check the quality of Pine Nut Cones before roasting. 	Class room with multimedia aid, audio- visual facilities and flip charts Workshop or Workplace	 Multimedia PPT Presentation Stationery Whiteboard Sampler Sample divide Moisture mete Digital balance Consumables Tags Bags Gloves Masks

LU-2: Assure the quality of Pine nuts after the extraction from cones.	Discuss and demonstrate the importance of Assuring the quality of Pine nuts after the extraction from cones. Prompt learners to consider learn and apply the following points: Collect random samples of Pine nuts. Prepare the composite sample from primary samples Make representative and working sample from composite sample Label the samples properly Check the quality of Pine nuts by analyzing the parameters such as Moisture content Color Grade /Size Weight Proportion of damages Foreign matters Prepare either A flip chart / A PowerPoint slide / A handoutshowing the key topics about Assure the quality of Pine nuts after the extraction from cones. 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, 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 Assure the quality of Pine nuts after the extraction apoints their group. Each group should use a sheet of flip chart paper to record three main points from 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 Assure the quality of Pine nuts after the extraction from cones. Discuss these main points they have recorded for their key topic dadditional points their 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	Class room with multimedia aid, audio- visual facilities and flip charts Workshop or Workplace	 Multimedia PPT Presentation Stationery Whiteboard Sampler Sample divider Humidity meter Trays Consumables: Record books Bags Tags
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LU-3: Check quality of Pine nuts with shell after roasting	 Discuss and demonstrate the importance of Checking the quality of Pine nuts with shell after roasting. Prompt learners to consider learn and apply the following: Wear personal protective equipment. Collect the samples of pine nuts with shell after roasting. Ensure cleanness during sampling. Check safety measures during Sampling Inspect the presence of any un desirable material like Hairs / Metals / Straws / Thread / Rubber band. Check and maintain the hygienic conditions of workers in processing area Inspect the whole roasting activity at regular intervals Check the quality of pine nuts with shell after roasting by analyzing the parameters such as Moisture content / Weight / Grade/size / Color Removal of Foreign matters or infected pine nuts 	Class room with multimedia aid, audio- visual facilities and flip charts Workshop or Workplace	 Multi media White Board Stationary Whiteboard Samplers Moisture meter Digital balance Consumables: Notebook
	Learners need to devise 10 quiz questions with answers based on how to Check quality of Pine nuts with shell after roasting. They must make sure their questions cover key topics for Develop Verbal Communication.		
	Issue each learner with 10 blank cards. Each learner should number the cards and write their name on one side with a question about Check quality of Pine nuts with shell after roasting. 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. 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 one. Learners must be able to practice and develop their knowledge and skills relating to Check quality of Pine nuts with shell after roasting in an appropriate practical setting. Ensure that learners have the opportunity to ask questions to support their understanding.		

LU-4: Check quality of Pine nuts Kernel during Peeling.	 Deliver an illustrated presentation on how to Check quality of Pine nuts Kernel during Peeling. Prompt learners to consider learn and apply the following: Examine the personnel hygiene of workers in peeling area. Check temperature of warm water for soaking of pine nuts with shell. Check temperature of arm water for soaking of pine nuts. Collect samples of Pine nuts Kernel randomly. Prepare representative and working sample Label the sample to include the information like date of sampling, sampler name. Perform the analytical tests on the samples of finished product such as Removal of kernels membrane / Moisture content / Grade/size / Weight / Softness / Color Display a flip chart showing the following key question related to Check quality of Pine nuts Kernel during Peeling: '(How to Check quality of Pine nuts Kernel during Peeling)'? 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 we 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 request to reduce on the flip chart. When this activity is concluded, collect the papers and make copies for each learner. 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 of Pine nuts Kernel during Peeling in an appropri	Class room with multimedia aid, audio- visual facilities and flip charts Workshop or Workplace	 Multi media White Board Stationary Whiteboard Sampler Sample divider Moisture meter Digital balance Consumables: Record books Bags Tags
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LU-5:	Discuss and demonstrate the importance of Checking quality of Packaging of Pine nuts and	Class room	Multi media
Check quality of Packaging of Pine	pine nuts Kernels Prompt learners to consider learn and apply the following:	with multimedia aid, audio-	White BoardStationaryWhiteboard
	 Examine the personnel hygiene of workers in packaging area Segregate and label different kernel lots carefully Check the labelling details such as Retail price / Net weight / Company monogram / Damaged boxes / Improper sealing / Absence or misprinting / substandard packaging Check hygienic conditions of stores Display a slide or flip chart with a key question relating to Check quality of Packaging of Pine nuts and pine nuts Kernels 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 Check quality of Packaging of Pine nuts Kernels. Learners must be able to practice and develop their knowledge and skills relating to Check quality of Packaging of Pine nuts and pine nuts Kernels. in an appropriate practical setting. 		5
	Ensure that learners have the opportunity to ask questions to support their understanding.		

LU-6:	Demonstrate an illustrative representation on how to Maintain laboratory standards.	Class room	Multi media
Maintain laboratory	Prompt learners to consider learn and apply the following:	with	White Board
standards	Avoid Smoking, Eating and Drinking	multimedia aid, audio-	StationaryWhiteboard
	Avoid gathering of unauthorized persons in laboratory	visual	 Standard
	Prepare and maintain the record of followings	facilities and	weight
	Chemicals / Equipment / Accessories / Calibration / Test reports	flip charts	Hand Sanitizer
	• Meet the requirements during specific tests. For example, wear lab coat, gloves and mask during aflatoxin analysis		Hand dryerConsumables:Record books
	Assist the main analyst		 Record books Dusters
	Keep the glassware including beaker, flask, pipette, cylinder carefully	Workshop or	 Soaps
	Use glassware where needed	Workplace	dispenser
	Follow the precautionary measures for instrument handling		Tissue papers
	 Keep the operational and maintenance manuals of equipment in a proper place. 		
	Maintain the conditions of laboratory (like temperature, dust free etc.) required for equipment		
	Learners need to devise 10 quiz questions with answers based on Maintain laboratory standards. They must make sure their questions cover key topics for Maintain laboratory standards.		
	Issue each learner with 10 blank cards. Each learner should number the cards and write their name on one side with a question about Maintain laboratory standards. 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.		
	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 Maintain laboratory standards in an appropriate practical setting. Ensure that learners have the opportunity to ask questions to support their understanding.		

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Module-13

Module 13: Develop Professionalism					
Learning Unit	Suggested Teaching / Learning Activities	Delivery Context	Media		
LU-1: Demonstrate work ethics	 Deliver an illustrated presentation on how to Demonstrate Work ethics. Ensure you address the importance of the following points: Follow principles of work ethics in all situations. Adopt professional behavior Display a slide or flip chart with a key question relating to Demonstrate Work ethics. 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 Demonstrate Work ethics Learners must be able to practice and develop their knowledge and skills relating to Demonstrate Work ethics 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	 PPT Presentations. Videos Whiteboard Learning guide 		

Learning Unit	Suggested Teaching / Learning Activities	Delivery Context	Media
LU-2: Resolve disagreements with others	 Deliver an illustrated presentation on how to Resolve disagreements with others. Ensure you address the following points: Communicate effectively Adopt peaceful approach Determine cause of problem or disagreement. Discuss and resolve issues Prepare either: A flip chart / A PowerPoint slide / A handout showing the key topics about Resolve disagreements with others. 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 Resolve disagreements with others. 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 Resolve disagreements with others 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	 PPT Presentations. Videos Whiteboard Learning guide

Learning Unit	Suggested Teaching / Learning Activities	Delivery Context	Media
LU3: Work in team	 Lead a brainstorm on how to Work in team. Use ideas from the brainstorm to explain the following key points: Work as a team member to achieve common goals Keep open mind Participate in work place meetings Communicate accurately and clearly Co-ordinate job related activities Cooperate with others Learners need to devise 10 quiz questions with answers based on how to work in team. They must make sure their questions cover key topics for Work in team. 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 Work in team. 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, and so on. 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. Neum any incorrect answers to learners and ask them to change their answer to the correct one. To prepare for practical sessions, divide the trainees in small groups. Provide each group with different tasks related to Work in team. Check that each trainee understands their task. Trainees need to practice their skills to Work in team in a real or realistic environment. Learners must be able to practice and develop their knowledge and skills relating to Work in team in an appropriate practical setting.	Class room with multimedia aid, audio-visual facilities and flip charts	 PPT Presentations. Videos Whiteboard Stationery Learning guide

Learning Unit	Suggested Teaching / Learning Activities	Delivery Context	Media
LU4: Work independently	Lead a brainstorm discussion and demonstrate how to Work independently. Use ideas from the brainstorm to explain the following key points: • Confirm and clarify assignment • Take initiative, anticipate and prepare for next steps in job • Identify and resolve potential and actual problems • Communicate with other site personnel • Complete assignment Prepare either: Display a flip chart showing the following key question: 'What are the important steps to Work independently?' 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 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 Work independently in an appropriate p	Class room with multimedia aid, audio-visual facilities and flip charts	 PPT Presentations. Videos Whiteboard Stationery Learning guide

Learning Unit	Suggested Teaching / Learning Activities	Delivery Context	Media
LU5: Interpret documentation	 Deliver an illustrated presentation on how to Interpret documentation. Use ideas from the brainstorm to explain the following key points: Access and maintain documents Provide complete, legible and accurate information in documents. Interpret equipment inspection documentation from previous shifts before conducting pre-operational inspection Display a slide or flip chart with a key question relating to Interpret documentation 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 documentation. Learners must be able to practice and develop their knowledge and skills relating to Interpret documentation. 	Class room with multimedia aid, audio-visual facilities and flip charts	 Multi media PPT Presentation White Board Stationary Whiteboard

PINE NUTS PROCESSOR

Trainer Guide

National Vocational Certificate Level 4 Version 1 - February 2020

Module-14

Learning Unit	Suggested Teaching / Learning Activities	Delivery Context	Media
LU-1: Conduct Market Survey	 Deliver an illustrated presentation on how to Conduct Market Survey. Ensure you address the importance of the following points: Identify market demands for Pine nuts Study Pine nuts supply side of the market. Make a contacts list of Traders / Agents / Brokers of the Pine nuts market Prepare either: 	Class room with multimedia aid, audio- visual facilities and flip charts	 Multi media PPT Presentatior White Board Stationary
	 A flip chart A PowerPoint slide A handout 		
	showing key topic how to Conduct Market Survey. 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 to conduct the Market Survey. 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 Conduct Market Survey in an appropriate practical setting. Ensure that learners have the opportunity to ask questions to support their understanding.		
LU-2: Establish Business	Deliver an illustrated presentation on how to Establish Business opportunities. Ensure you address the importance of the following points:	Class room with multimedia aid,	 Multi media PPT Presentation White Board

opportunities	 Evaluate impacts of emerging or changing technology, including e-commerce, on the business Determine viability of business opportunity in line with perceived risks, resources available, financial returns and other outcomes sought Assess and match personal skills/attributes against those perceived as necessary for a particular business opportunity. Identify and assess business risks according to resources available and personal preferences. Display a slide or flip chart with a key question relating to Establish Business opportunities. 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 Establish Business opportunities. Observe the students and give feedback to Improve the Knowledge and skills relating to Establish Business opportunities in an appropriate practical setting. Ensure that learners have the opportunity to ask questions to support their understanding. 	audio-visual facilities and flip charts	 Stationary Learning guide
LU-3: Seek for the required funds to establish	 Lead a discussion about importance of how to Seek for the required funds to establish the Business opportunities. Use real examples to support the discussion and ensure the discussion considers: Estimate required funding to establish and run the business based on expected sales and activity levels, available finances and commitments 	Class room with multimedia aid, audio- visual facilities	 PPT Presentations. Videos Stationery Whiteboard

the business	 Investigate methods of accessing alternative sources of finance Identify strategies for meeting financial obligations. Implement plans to access available funds as required Learners need to devise 10 quiz questions with answers based on Seek for the required funds to establish the Business opportunities. They must make sure their questions cover key topics for how to seek for the required funds to establish the Business opportunities. 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 Seek for the required funds to establish the Business opportunities. 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 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. 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 Seek for the required funds to establish the Business opportunities in an appropriate practical setting. Ensure that learners have the opportunity to ask questions to support their understanding. 	and flip charts	Learning guide
LU-4: Prepare Business plan	 Deliver an illustrated presentation on how to Prepare Business plan. Use real examples to support the discussion and ensure the discussion considers: Develop operational goals and targets to meet the enterprise strategic plan. Identify and incorporate supply chains into the business plan. Identify risk management needs are within the business plan. Set clear and measureable indicators of operational performance to allow for 	Class room with multimedia aid, audio- visual facilities and flip charts	 PPT Presentations. Videos Stationery Whiteboard Learning guide

	realistic analysis of performance.		
	Divide the Trainees into Group and perform the following about how to Prepare Business plan		
	 Role play 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 Prepare Business plan in an appropriate practical setting. Ensure that learners have the opportunity to ask questions to support their understanding.		
LU-5: Implement marketing	Deliver an illustrated presentation on how to Implement marketing activities. Ensure you address the importance of the following points:	Class room with multimedia	 PPT Presentations. Videos
activities	 Develop measurable performance targets that meet business plan objectives. 	aid, audio- visual facilities	WhiteboardStationery
	 Organize distribution channels and ensure product and service information is accurate and readily available. 	and flip charts	Learning guide
	Prepare either:		
	A flip chart / A PowerPoint slides / A handout		
	showing the key topics about Implement marketing activities. Go through all the key topics briefly and then allocate one key topic to each group.		

	 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 Implement marketing activities. 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 Implement marketing activities in an appropriate practical setting. Ensure that learners have the opportunity to ask questions to support their understanding. 		
LU-6: Evaluate marketing performance	 Deliver an illustrated presentation on how to Evaluate marketing performance. Ensure you address the importance of the following points: Assess product, pricing and distribution policies in relation to market changes, marketing objectives and enterprise requirements. Identify areas of positive marketing performance and take corrective action to remedy poor marketing performance areas. Prepare either: A flip chart A PowerPoint slide A handout showing key topic how to Evaluate marketing performance. Learners need to work in small groups 	Class room with multimedia aid, audio- visual facilities and flip charts	 PPT Presentations. Videos Whiteboard Stationery Multi media

	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 to evaluate marketing performance. 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 Evaluate marketing performance in an appropriate practical setting. Ensure that learners have the opportunity to ask questions to support their understanding. 		
LU-7: Develop Business promotion technique	 Deliver an illustrated presentation on how to Develop Business promotion technique. Ensure you address the importance of the following points: Establish marketing objectives based on current and potential product specifications. Select appropriate distribution channel options to ensure access to target markets is achieved efficiently and appropriately. Establish time-frames for distribution and selling activities Display a slide or flip chart with a key question relating to Develop Business promotion technique. 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. 	Class room with multimedia aid, audio-visual facilities and flip charts	 PPT Presentations. Videos Whiteboard Stationery Multi media

	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 Develop Business promotion technique 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 Develop Business promotion technique in an appropriate practical setting. Ensure that learners have the opportunity to ask questions to support their understanding.		
LU-8: Develop Business Competition skills	 Lead a discussion about importance of how to Develop Business Competition skills. Use real examples to support the discussion and ensure the discussion considers: Prepare and record detailed plans for promotional activities Ensure strategies take account of time management and scheduling issues, and resource constraints. Create promotional materials that enhance the product and commercial presentation Learners need to devise 10 quiz questions with answers based on Develop Business Competition skills. They must make sure their questions cover key topics for how to Develop Business Competition skills. 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 Develop Business Competition. 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.) 	Class room with multimedia aid, audio-visual facilities and flip charts	 PPT Presentations. Videos Whiteboard Stationery Multi media

 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. 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 Develop Business Competition skills in an appropriate practical setting. Ensure that learners have the opportunity to ask questions to support their understanding.	

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 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 08:00 am to 01:30 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 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 sufficien experience, knowledge and skills during the job. Attaining additional relevan 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 PKF 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 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	The leaching language of this course is Urdu and English.

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.
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.
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)

National Vocational and Technical Training Commission (NAVTTC)

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