

Assistant Tea Technician

Short term Curriculum

(Competency Based)



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Introduction

This curriculum for Assistant Tea Technician is designed to produce lower level technical workforce equipped with knowledge and skills related to tea cultivation/plantation. It makes the trainees able to get opportunities for wage and self-employment in the related occupational field.

Aim

To produce lower level tea technicians able to provide tea cultivation/plantation services in the community being an entrepreneur/employee/self employed.

Objectives

After the completion of this training program, the trainees will be able:

- To be familiar with the botany of tea
- To identify soil fertility status
- To manage soil for tea plantation
- To conserve water
- To take climatic data
- To identify planting materials
- To select planting materials
- To use planting materials
- To establish tea nursery
- To manage tea nursery
- To maintain tea nursery
- To list tea plantation activities
- To carry out tea plantation activities
- To list land extension activities
- To carryout land extension activities
- To identify young tea
- To list bring up activities
- To bring up young tea
- To identify mature tea
- To list field operations for mature tea
- To carry out field operations for mature tea
- To list needs for shading
- To provide shade for tea
- To identify fertiliser for tea
- To manage fertiliser for tea
- To apply fertiliser for tea
- To identify weeds of tea
- To control weeds of mature tea area
- To identify pests of tea
- To enlist needs for drains
- To design drains
- To construct drains
- To list disease management practices control pests of tea
- To carry out disease management practices in tea

- To identify spraying equipment
- To handle spraying equipment
- To maintain spraying equipment
- To be familiar with tea processing
- To be familiar with tea marketing
- To be familiar with organic practices
- To be started their own business

Course description

This curriculum provides skills & knowledge necessary for tea technicians. There will be both demonstration by instructors/trainers and opportunity by trainees to perform skills/tasks specified in this curriculum. Trainees will practice & learn skills using typical tools, materials, equipment & machines necessary for the program.

After successful completion of this program the trainees will be equipped with the knowledge and skills related to botany of tea; soil, water and climate; tea nursery; growing, processing and marketing of tea; and organic practices.

Duration

The total duration of the course will be of **430 hours** (three months) **starting from Bhadra only**.

Target group

All interested individuals in the field of agriculture with educational prerequisite of class eight pass.

Group size

Maximum of thirty

Medium of instruction

Nepali or English or both

Pattern of attendance

- 80% attendance in theory
- 90% in practical/ performance

Focus of curriculum

This curriculum emphasizes on competency /performance. 80% time is allocated for performance and only 20% for related technical knowledge. So the focus will be on performance of the specified competencies in the curriculum

Entry criteria

- Minimum of eight class pass or equivalent
- Minimum of 14 years of age
- Should pass entrance examination

Follow up suggestions

In order to assess the success of this program and collect feedbacks/ inputs for the revision of the curriculum a schedule of follow up is suggested as follows:

- First follow up: - Six months after the completion of the program
- Second follow up: - Six months after the completion of the first follow up
- Follow up cycle: - In a cycle of one year after the completion of the second follow up for five years

Certificate

The related training institute will provide the certificate of "Assistant Tea Technician". Again, individuals who complete module (s) of the curriculum will receive a certificate of completion of the particular module(s).

Grading

- Distinction: passed with 80% or above
- First division: passed with 75% or above
- Second division: passed with 65% or above
- Third division: passed with 60% or above

Students evaluation

- Continuous evaluation of the trainees' performance is to be done by the related instructor/ trainer to ensure the proficiency over each competency under each of the sub-module.
- Related technical knowledge learnt by trainees will be evaluated through written or oral tests.
- Trainees must secure minimum marks of 60% in an average of both theory and practical evaluations.
- There will be three internal evaluations and one final evaluation in each module.
- The entrance test will be conducted by the concerned training institute

Trainers qualification

- I. Sc. Ag or equivalent in related field
- Good communicative and instructional skills
- Experience in related field

Trainer-trainees ratio

- 1:10 for practical classes
- For theory, as per the class room situation

Suggestions for instruction

1. Select objectives

- Write objectives of cognitive domain
- Write objectives of psychomotor domain
- Write objectives of affective domain

2. **Select subject matter**
 - Study subject matter in detail
 - Select content related to cognitive domain
 - Select content related to psychomotor domain
 - Select content related to affective domain
3. **Select instructional methods**
 - Teacher centered methods: like lecture, demonstration, questions answer inquiry, induction and deduction methods.
 - Student initiated methods like experimental, field trip/excursion, discovery, exploration, problem solving, and survey methods.
 - Interaction methods like discussion, group/team teaching, microteaching and exhibition.
 - Dramatic methods like role play and dramatization
4. Select Instructional method (s) on the basis of objectives of lesson plans and KAS domains
5. Select appropriate educational materials and apply at right Time and place.
6. Evaluate the trainees applying various tools to correspond the KAS domains
7. Make plans for classroom / field work / workshop organization and management.
8. Coordinate among objectives, subject matter and instructional methods.
9. Prepare lesson plan for Theory and Practical classes.
10. Deliver /conduct instruction / program
11. Evaluate instruction/ program

Suggestion for the performance evaluation of the trainees

1. Perform task analysis
2. Develop a detail task performance checklist
3. Perform continuous evaluation of the trainees by applying the performance checklist.

Suggestion for skill training

Demonstrate performance

1. Demonstrate task performance in normal speed
2. Demonstrate slowly with verbal description of each and every step in the sequence of activity of the task performance using question and answer techniques.
3. Repeat 2 for the clarification on trainees demand if necessary
4. Perform fast demonstration of the task.

Provide trainees the opportunities to practice the task performance demonstration

1. Provide trainees to have guided practice
2. Create environment for practicing the demonstrated task performance
3. Guide the trainees in each and every step of task performance
4. Provide trainees to repeat and repeat as per the need to be proficient on the given task performance
5. Switch to another task demonstration if and only trainees developed proficiency in the task performance.

Other suggestions

1. Apply principles of skill training
2. Allocate 20% Time for Theory classes and 80% Time for task performance while delivering instructions
3. Apply principles of adult learning
4. Apply principles of intrinsic motivation
5. Facilitate maximum trainees involvement in learning and task performance activities
6. Instruct the trainees on the basis of their existing level of knowledge, skills and attitude.

Course structure

Tea plantation worker								
	Modules/Sub modules	Nature	Total hours					
			Th	Pr	Tot			
1. Introduction		T/P	11	4	15			
	1. Origin and history		1	0.5	1.5			
	2. Classification and morphology		5	2	7			
	3. Physiology of tea bush		5	1.5	6.5			
2. Soil, water and climate		T/P	7	13	20			
	1. Soil		4	10	14			
	2. Water and climate		3	3	6			
3. Tea nursery		T/P	25	50	75			
	1. Planting materials		10	20	30			
	2. Tea nursery		15	30	45			
4. Growing, processing and marketing tea		T/P	51	199	250	38	152	190
	1. Planting out		4	16	20			
	2. Management of young tea		5	20	25			
	3. Pruning and plucking of mature tea		10	65	75			
	4. Management of shade trees		2	8	10			
	5. Nutrient management		5	15	20			
	6. Weed control		1	4	5			
	7. Irrigation and Drainage		3	10	13			
	8. Pests		8	22	30			
	9. Disease		8	22	30			
	10. Spraying equipment		2	8	10			
	11. Tea processing		2	8	10			
	12. Tea marketing		1	1	2			
5. Organic practices		T/P	9	21	30			
	1. Introduction to organic practices		2	1	3			
	2. Organic manure		2	7	9			
	3. Organic methods of pest control		2	6	8			
	4. Organic methods of disease control		2	6	8			
	5. Organic certification		1	1	2			
6. Entrepreneurship Development		T/P	18	22	40	2	8	10
	Total:		121	309	430			

Modules and sub modules

Module:1: Introduction													
<p>Description: It deals with the knowledge and skills related to origin, classification, morphology and physiology of tea.</p> <p>Objectives: After its completion the trainees will be able:</p> <ul style="list-style-type: none"> To identify the origin and history of tea To classify tea To identify morphological parts of tea To understand the periodicity of root growth and dormancy in tea To understand about the physiology of tea bush <p>Sub-modules:</p> <ol style="list-style-type: none"> Origin and history Classification and Morphology Physiology of tea bush 			<table border="1" style="margin: auto; border-collapse: collapse;"> <thead> <tr> <th colspan="2" style="padding: 2px;">Time(hrs)</th> </tr> </thead> <tbody> <tr> <td style="padding: 2px;">Th</td> <td style="padding: 2px;">11</td> </tr> <tr> <td style="padding: 2px;">Pr</td> <td style="padding: 2px;">4</td> </tr> <tr> <td style="padding: 2px;">Tot</td> <td style="padding: 2px;">15</td> </tr> </tbody> </table>			Time(hrs)		Th	11	Pr	4	Tot	15
Time(hrs)													
Th	11												
Pr	4												
Tot	15												
Sub-module:1: Origin and history													
<p>Description: It deals with the knowledge related to Origin and history. Each task consists of minimum related technical knowledge necessary to carry out that very task in a competent/ professional manner, and time allocation for the task and its related knowledge.</p> <p>Objective: After its completion the trainees will be able:</p> <ul style="list-style-type: none"> To identify the origin of tea To identify the history of tea in the world To identify the history of tea in the Nepal <p>Tasks: To fulfill the objective the trainees are expected to get proficiency on the following tasks together with their related technical knowledge:</p>													
		Th.(1 hrs) + Pr.(0.5 hrs) = Tot.(1.5 hrs)	Time(hrs)										
SN	Tasks or skills/ steps	Related technical knowledge	Th.	Pr.	Tot.								
1.	<p><u>Identify the origin of tea</u></p> <ul style="list-style-type: none"> Receive instruction Obtain reading materials related to origin of tea Study the reading materials related to origin of tea Analyze the reading materials related to origin of tea Write the concept of origin of tea Follow precautions Keep records 	<p><u>Concept of origin of tea:</u></p> <ul style="list-style-type: none"> ❖ Reading materials related to origin of tea ❖ Studying the reading materials related to origin of tea ❖ Analyzing the reading materials related to origin of tea ❖ Writing the concept of origin of tea ❖ Following precautions ❖ Keeping records 	0.5	0.5	1								

2.	<u>Identify history of tea in the world</u> <ul style="list-style-type: none"> • Receive instruction • Obtain reading materials related to history of tea in the world • Study the reading materials related history of tea in the world • Analyze the reading materials related to history of tea in the world • Write the concept of history of tea in the world • Follow precautions • Keep records 	<u>Concept of history of tea in the World:</u> <ul style="list-style-type: none"> ❖ Reading materials related to history of tea in the world ❖ Studying the reading materials related to history of tea in the world ❖ Analyzing the reading materials related to history of tea in the world ❖ Writing the concept of history of tea in the world ❖ Following precautions ❖ Keeping records 	0.25	-	0.25
3.	<u>Identify history of tea in Nepal</u> <ul style="list-style-type: none"> • Receive instruction • Obtain reading materials related to history of tea in Nepal • Study the reading materials related history of tea in Nepal • Analyze the reading materials related to history of tea in Nepal • Write the concept of history of tea in Nepal • Follow precautions • Keep records 	<u>Concept of history of tea in Nepal:</u> <ul style="list-style-type: none"> ❖ Reading materials related to history of tea in Nepal ❖ Studying the reading materials related to history of tea in Nepal ❖ Analyzing the reading materials related to history of tea in Nepal ❖ Writing the concept of history of tea in Nepal ❖ Tea Policy - 2057 ❖ Following precautions ❖ Keeping records 	0.25	-	0.25
Total:			1	0.5	1.5
Sub-module:2: Classification and Morphology					
<p>Description: It deals with the knowledge and skills/tasks related to classification and morphology of tea. Each task consists of minimum related technical knowledge necessary to carry out that very task in a competent/ professional manner, and time allocation for the task and its related knowledge.</p> <p>Objective: After its completion the trainees will be able:</p> <ul style="list-style-type: none"> • To classify tea • To identify the morphological parts of tea bush <p>Tasks: To fulfill the objective the trainees are expected to get proficiency on the following tasks together with their related technical knowledge:</p>					

		Th.(5 hrs) + Pr.(2 hrs) = Tot.(7 hrs)	Time(hrs)		
SN	Tasks or skills/steps	Related technical knowledge	Th.	Pr.	Tot.
1.	<u>Classify tea bushes based on origin:</u> <ul style="list-style-type: none"> • Receive instruction • Obtain related reading materials • List different types of tea plant • Study each types of tea • Analyze the importance of each type • Follow precautions • Keep record 	<u>Classification of tea:</u> <ul style="list-style-type: none"> ❖ Listing different types of tea ❖ Studying each types ❖ Analysing the importance of each type ❖ Precautions to be followed ❖ Keeping record 	2	1	3
2.	<u>Study the morphology of tea.</u> <ul style="list-style-type: none"> • Receive instruction • Obtain related reading materials • Study the reading materials • Enlist the morphological parts of tea bush. • Analyze the significance of each parts: Vegetative bud, shoot, leaf, flowers, fruit and roots • Take precautions • Keep records 	<u>Morphology of tea:</u> <ul style="list-style-type: none"> ❖ Related reading materials ❖ Studying the reading materials ❖ Enlisting the morphological parts of tea bush. ❖ Analyzing significance of Vegetative Bud ❖ Analyzing significance of shoots and leaf ❖ Analyzing significance of flower and fruits ❖ Analyzing significance of roots ❖ Precautions ❖ Keeping records 	3	1	4
Total:			5	2	7
Sub-module:3: Physiology of tea bush					
<p>Description: It deals with the knowledge and skills/tasks related to physiology of tea bush. Each task consists of minimum related technical knowledge necessary to carry out that very task in a competent/ professional manner, and time allocation for the task and its related knowledge.</p> <p>Objective: After its completion the trainees will be able:</p> <ul style="list-style-type: none"> • To be familiar with different physiological process of tea • To relate the physiology with cultivation practises • To reduce the effects of environmental factors on tea <p>Tasks: To fulfill the objective the trainees are expected to get proficiency on the following tasks together with their related technical knowledge:</p>					
		Th.(5 hrs) + Pr.(1.5 hrs) = Tot.(6.5 hrs)	Time(hrs)		
SN	Tasks or skills/steps	Related technical knowledge	Th.	Pr.	Tot.
1.	<u>Define physiology.</u>	<u>Physiology of tea:</u>	2	0.5	2.5

	<ul style="list-style-type: none"> • Receive instruction • Obtain reading materials related to the physiology of tea • Study reading materials related to the physiology of tea • Define physiology with respect to tea bush • Enlist different types of physiology relevant to tea plant • Analyze the significance of physiology in cultivation practices • Follow precautions • Keep records 	<ul style="list-style-type: none"> ❖ Obtaining reading materials related to the physiology of tea ❖ Studying reading materials related to the physiology of tea ❖ Defining physiology with respect to tea bush ❖ Enlisting different types of physiology relevant to tea plant ❖ Analyzing the significance of physiology in cultivation practices ❖ Following precautions ❖ Keeping records 			
2.	<u>Study periodicity of root growth and dormancy in tea</u> <ul style="list-style-type: none"> • Define periodicity • Define dormancy • Define periodicity of root growth • Study physiology of periodicity of root growth • Study the dormancy physiology of tea • Analyze the significance of periodicity of root growth and dormancy in tea • Take precautions • Keep records 	<u>Periodicity of root and dormancy in tea:</u> <ul style="list-style-type: none"> ❖ Defining periodicity and dormancy ❖ Studying physiology of periodicity of root growth ❖ Analyzing the significance of periodicity of root growth and dormancy in tea ❖ Precautions ❖ Keeping records 	2	0.5	3
3.	<u>Study photosynthesis process of tea and environmental factors affecting it.</u> <ul style="list-style-type: none"> • Receive instruction • Be familiar with photosynthesis • Study the physiology of photosynthesis in tea • State concept of environmental factors 	<u>Photosynthesis and environmental factors affecting it:</u> <ul style="list-style-type: none"> ❖ Defining photosynthesis ❖ Studying the photosynthetic process in tea ❖ Listing environmental factors ❖ Studying the effects of each factors on photosynthesis ❖ Identifying methods to reduce the effects ❖ Following precautions 	1	0.5	1.5

	<ul style="list-style-type: none"> • List the environmental factors • Study the effects of each factors on photosynthesis • Identify methods to reduce the effects • Follow precautions • Keep records 	❖ Keeping records			
Total:			5	1.5	6.5

Module:2: Soil, water and climate													
Description: It deals with the knowledge and skills related to soil, water and climate.													
Objectives: After its completion the trainees will be able:													
<ul style="list-style-type: none"> To manage soil for tea plantation To take climatic data To conserve water 		<table border="1"> <thead> <tr> <th colspan="2">Time(hrs)</th> </tr> </thead> <tbody> <tr> <td>Th</td> <td>7</td> </tr> <tr> <td>Pr</td> <td>13</td> </tr> <tr> <td>Tot</td> <td>20</td> </tr> </tbody> </table>				Time(hrs)		Th	7	Pr	13	Tot	20
Time(hrs)													
Th	7												
Pr	13												
Tot	20												
Sub-modules:													
1. Soil													
2. Water and climate													
Sub-module:1: Soil													
Description: It deals with the knowledge and skills/tasks related to soil management. Each task consists of minimum related technical knowledge necessary to carry out that very task in a competent/ professional manner, and time allocation for the task and its related knowledge.													
Objective: After its completion the trainees will be able:													
<ul style="list-style-type: none"> To identify fertility status of soil To manage soil for tea plantation 													
Tasks: To fulfill the objective the trainees are expected to get proficiency on the following tasks together with their related technical knowledge:													
		Th.(4 hrs) + Pr.(10 hrs) = Tot.(14 hrs)		Time(hrs)									
SN	Tasks/skills	Related technical knowledge	Th.	Pr.	Tot.								
1.	<u>Introduce concepts of Soil with reference of tea</u> <ul style="list-style-type: none"> Receive instruction State the concept of soil Identify specific soil needs for tea plantation Measure soil moisture Take precautions Keep records 	<u>Concepts of Soil</u> <ul style="list-style-type: none"> ❖ Concept ❖ Specific soil needs for tea plantation ❖ How to meet the specific soil needs for tea plantation ❖ Carrying out soil moisture measurement ❖ Taking precautions ❖ Keeping records 	0.5	1	1.5								
2.	<u>Take soil sample.</u> <ul style="list-style-type: none"> Receive instruction Go to the field of which soil to be sampled select spots Prepare for take soil sample Take soil auger Take soil sample with the help of the soil auger Prepare soil sample Pack the soil sample 	<u>Taking soil sample:</u> <ul style="list-style-type: none"> ❖ Concept, importance, and objectives of soil sampling ❖ Principles, procedures, and applications of soil sampling ❖ Soil sampling techniques for tea plantation ❖ Packing and labeling the soil sample ❖ Send the soil to soil lab ❖ Testing soil for fertilizer application 	1	3	4								

	<ul style="list-style-type: none"> • Label the soil sample • Send the sample to soil lab • Test soil for fertilizer application • Take precautions • Keep records 	<ul style="list-style-type: none"> ❖ Precautions to be taken ❖ Keeping activity records 			
3.	<u>Carry out pH test</u> <ul style="list-style-type: none"> • Receive instruction • Obtain soil to be tested for pH • Obtain soil testing kit box • Handle the soil testing kit box • Prepare for pH testing • Test pH of the soil • Write/note pH test result • Interpret pH test result • Follow precautions • Keep records 	<u>Carrying out pH test:</u> <ul style="list-style-type: none"> ❖ Concept, importance, and objectives ❖ Principles, procedures, and applications of pH test of soil ❖ Obtaining soil to be tested for pH ❖ soil testing kit box and its handling ❖ Preparing for pH testing ❖ Testing pH of the soil ❖ Writing/noting pH test result ❖ Interpretation of the pH test result ❖ Precautions to be taken ❖ Keeping activity records 	1	3	4
4.	<u>Amend soil</u> <ul style="list-style-type: none"> • Receive instruction • Obtain soil test report • Interpret soil test report • Enlist methods for soil amendment • Recommend method(s) for soil amendment based on the soil test report • Apply the soil amendment procedures to modify tea soil parameters • Follow precautions • Keep records 	<u>Amending soil:</u> <ul style="list-style-type: none"> ❖ Concept, need, and importance ❖ Soil test report ❖ Principles, procedures/ methods, and application of soil amendment ❖ Precautions to be taken ❖ Keeping activity records 	1	2	3
5.	<u>Carry out basic soil conservation practices</u> <ul style="list-style-type: none"> • Receive instruction • Identify basic soil conservation practices • Enlist basic soil 	<u>Carry out basic soil conservation practices:</u> <ul style="list-style-type: none"> ❖ Concept, need and importance ❖ Basis of soil conservation ❖ Principles, procedures, and 	0.5	1	1.5

	<ul style="list-style-type: none"> conservation practices Recommend soil conservation practices Make plan to carry out soil conservation practices Apply soil conservation practices Follow precautions Keep records 	<ul style="list-style-type: none"> application ❖ Soil conservation practices ❖ Planning to carry out soil conservation practices ❖ Precautions to be taken ❖ Keeping activity records 			
Total:			4	10	14
Sub-module:2: Water and climate					
<p>Description: It deals with the knowledge and skills/tasks related to water and climate. Each task consists of minimum related technical knowledge necessary to carry out that very task in a competent/ professional manner, and time allocation for the task and its related knowledge.</p> <p>Objective: After its completion the trainees will be able:</p> <ul style="list-style-type: none"> To conserve water To take climatic data <p>Tasks: To fulfill the objective the trainees are expected to get proficiency on the following tasks together with their related technical knowledge:</p>					
		Th.(3 hrs) + Pr.(3 hrs) = Tot.(6hrs)		Time(hrs)	
SN	Tasks/skills	Related technical knowledge	Th.	Pr.	Tot.
1.	<u>Introduce concepts of climatic factors</u> <ul style="list-style-type: none"> Receive instruction Make list of climatic factors that influence tea production Analyse the role of rainfall Analyse the role of temperature Analyse the role of wind Analyse the role of day length Analyse the effect of climate on soil properties Follow precautions Keep records 	<u>Concepts of climatic factors</u> <ul style="list-style-type: none"> ❖ Rainfall ❖ Temperature ❖ Wind ❖ Day length ❖ Effect of these factors in tea production ❖ Effect of climate on soil properties 	0.5	0.25	0.75
2.	<u>Identify instrument to set up a simple observatory</u> <ul style="list-style-type: none"> Receive instruction 	<u>Instrument to set up a simple observatory:</u> <ul style="list-style-type: none"> ❖ Instrument for setting up a 	0.5	1	1.5

	<ul style="list-style-type: none"> • Make list of instrument to set up a simple observatory • Identify the instrument to set up a simple observatory • Handle the instrument to set up a simple observatory • Care/maintain the instrument to set up a simple observatory • Follow precautions • Keep records 	<p>simple observatory</p> <ul style="list-style-type: none"> ❖ Handling the instrument of the observatory ❖ Caring and maintaining the instrument of the observatory ❖ Precautions to be taken ❖ Keeping activity records 			
3.	<p><u>Collect / keep climatic data.</u></p> <ul style="list-style-type: none"> • Receive instruction • Be familiar with climate / weather • List climatic data to be collected • Identify climatic data to be collected • Collect climatic data • Note climatic data • Follow precautions • Keep records 	<p><u>Climatic data:</u></p> <ul style="list-style-type: none"> ❖ Climate and weather- concept, need, importance and application ❖ Climatic data to be collected ❖ Collection of climatic data ❖ Presenting the collected climatic data ❖ Precautions to be taken ❖ Keeping activity records 	0.5	1	1.5
4.	<p><u>Identify climatic parameters for growing tea.</u></p> <ul style="list-style-type: none"> • Receive instruction • List climatic parameters for growing tea • Identify climatic parameters for growing tea • Follow precautions • Keep records 	<p><u>Climatic parameters for growing tea:</u></p> <ul style="list-style-type: none"> ❖ Concept, need/importance and application ❖ Identification of climatic parameters for growing tea. ❖ Precautions to be taken ❖ Keeping activity records 	0.5	0.25	0.75
5.	<p><u>Identify effect of rain / drought / frost on tea.</u></p> <ul style="list-style-type: none"> • Receive instruction • List effect of rain / drought / frost on tea • Identify effect of rain / drought / frost on tea • Follow precautions • Keep records 	<p><u>Effect of rain / drought / frost on tea:</u></p> <ul style="list-style-type: none"> ❖ Concept, need/importance and application ❖ effects of rain / drought / frost on tea ❖ Identification of the effects of rain / drought / frost on tea ❖ Precautions to be taken 	0.5	0.25	0.75

		❖ Keeping activity records			
6.	<u>Apply various water conservation techniques</u> <ul style="list-style-type: none"> • Receive instruction • List various water conservation techniques • Identify various water conservation techniques • Apply various water conservation techniques • Recommend various water conservation techniques • Follow precautions • Keep records 	<u>Water conservation technique:</u> <ul style="list-style-type: none"> ❖ Concept, need/importance and application ❖ Various water conservation techniques ❖ Applying various water conservation techniques ❖ Recommending various water conservation techniques ❖ Precautions to be taken ❖ Keeping activity records 	0.5	0.25	0.75
Total:			3	3	6

Module:3: Tea nursery													
<p>Description: It deals with the knowledge and skills related to planting materials and tea nursery.</p> <p>Objectives: After its completion the trainees will be able:</p> <ul style="list-style-type: none"> To select planting materials To establish tea nursery To manage tea nursery <p>Sub-modules:</p> <ol style="list-style-type: none"> Planting materials Tea nursery 			<table border="1"> <thead> <tr> <th colspan="2">Time(hrs)</th> </tr> </thead> <tbody> <tr> <td>Th</td> <td>25</td> </tr> <tr> <td>Pr</td> <td>50</td> </tr> <tr> <td>Tot</td> <td>75</td> </tr> </tbody> </table>			Time(hrs)		Th	25	Pr	50	Tot	75
Time(hrs)													
Th	25												
Pr	50												
Tot	75												
Sub-module:1: Planting materials													
<p>Description: It deals with the knowledge and skills/tasks related to planting materials. Each task consists of minimum related technical knowledge necessary to carry out that very task in a competent/ professional manner, and time allocation for the task and its related knowledge.</p> <p>Objective: After its completion the trainees will be able:</p> <ul style="list-style-type: none"> To Identify planting materials To select planting materials To use planting materials <p>Tasks: To fulfill the objective the trainees are expected to get proficiency on the following tasks together with their related technical knowledge:</p>													
		Th.(10 hrs) + Pr.(20 hrs) = Tot.(30 hrs)		Time(hrs)									
SN	Tasks/skills	Related technical knowledge	Th.	Pr.	Tot.								
1.	<p><u>Identify the concept of planting materials.</u></p> <ul style="list-style-type: none"> Receive instruction Be familiar with the concept of planting materials List importance of planting materials List types of planting materials Identify each type of planting materials Take precautions Keep records 	<p><u>Concept of planting materials:</u></p> <ul style="list-style-type: none"> ❖ Concept, need, and importance ❖ Types ❖ Identification ❖ Precautions to be taken ❖ Records keeping 	2	3	5								
2.	<p><u>Identify the criteria for selecting / choosing planting materials.</u></p> <ul style="list-style-type: none"> Receive instruction List the criteria for selecting / choosing planting materials. 	<p><u>Criteria for selecting / choosing planting materials:</u></p> <ul style="list-style-type: none"> ❖ Criteria for choosing planting materials. ❖ Checklist of choosing planting materials. ❖ Selection of planting materials 	2	3	5								

	<ul style="list-style-type: none"> Identify the criteria for selecting / choosing planting materials. Prepare checklist for selecting /choosing planting materials. Take precautions Keep records 	<ul style="list-style-type: none"> ❖ Precautions to be taken ❖ Records keeping 			
3.	<u>Choose planting materials</u> <ul style="list-style-type: none"> Receive instruction Take planting material selection criteria Evaluate planting materials against the criteria Select planting materials Take precautions Keep records 	<u>Choosing planting materials:</u> <ul style="list-style-type: none"> ❖ Concept, need, and importance ❖ Evaluating planting materials against the criteria ❖ Selecting planting materials. ❖ Precautions to be taken ❖ Records keeping 	2	3	5
4.	<u>Maintain seed bari / clonal mother bushes</u> <ul style="list-style-type: none"> Receive instruction List need for seed bari / clonal mother bushes Identify bari / clonal mother bushes Maintain seed baris Apply cultural techniques for maintaining seed baris & clonal mother bushes Take precautions Keep records 	<u>Seed bari / clonal mother bushes:</u> <ul style="list-style-type: none"> ❖ Concept, need, and importance ❖ Need for seed bari. ❖ General concept of maintaining seed baris. ❖ Cultural techniques for maintaining seed baris & clonal mother bushes. ❖ Precautions to be taken ❖ Records keeping 	2	3	5
5.	<u>Propagate clonal cuttings/seeds</u> <ul style="list-style-type: none"> Receive instruction Identify clonal cuttings/seeds Enlist need and application of clonal cuttings/seeds Obtain clonal cuttings for propagation Propagate clonal cuttings Obtain seeds for 	<u>Propagation of clonal cuttings/seeds:</u> <ul style="list-style-type: none"> ❖ Concept, need, and importance ❖ Propagation of clonal cuttings and seed. ❖ Precautions to be taken ❖ Records keeping 	2	8	10

	ppropagation <ul style="list-style-type: none"> • Propagate seeds • Take precautions • Keep records 				
Total:			10	20	30
Sub-module:2: Tea nursery					
<p>Description: It deals with the knowledge and skills/tasks related to tea nursery. Each task consists of minimum related technical knowledge necessary to carry out that very task in a competent/ professional manner, and time allocation for the task and its related knowledge.</p> <p>Objective: After its completion the trainees will be able:</p> <ul style="list-style-type: none"> • To establish tea nursery • To manage tea nursery • To maintain tea nursery <p>Tasks: To fulfill the objective the trainees are expected to get proficiency on the following tasks together with their related technical knowledge:</p>					
		Th.(15 hrs) + Pr.(30 hrs) = Tot.(45 hrs)	Time (hrs)		
SN	Tasks/skills	Related technical knowledge	Th.	Pr.	Tot.
1.	<u>Identity a seed nursery</u> <ul style="list-style-type: none"> • Receive instruction • Be familiar with seed nursery • Be familiar with the basics of seed nursery • Identify seed nursery • Take precautions • Keep records 	<u>Seed nursery:</u> <ul style="list-style-type: none"> ❖ Concept, need, and importance ❖ Basis of seed nursery and its management ❖ Precautions to be taken ❖ Records keeping 	2	5	7
2.	<u>Make a new tea nursery</u> <ul style="list-style-type: none"> • Receive instruction • List/identify tools, materials, equipment / input for establishing and managing tea nursery • List /identify materials / inputs for a new tea nursery. • Identify a new tea nursery site • Plan for making a new tea nursery • Make a new tea nursery • Take precautions • Keep records 	<u>Making a new tea nursery:</u> <ul style="list-style-type: none"> ❖ Tools, materials, equipment / input for establishing and managing tea nursery ❖ How to make a new tea nursery ❖ Materials / inputs for a new tea nursery. ❖ Precautions to be taken ❖ Records keeping 	3	5	8

3.	<u>Bring up a tea nursery</u> <ul style="list-style-type: none"> • Receive instruction • List stepwise procedure to bring up a tea nursery • Bring up a tea nursery • Take precautions • Keep records 	<u>Bringing up a tea nursery:</u> <ul style="list-style-type: none"> ❖ Step wise procedure to bring up tea nursery. ❖ Precautions to be taken ❖ Records keeping 	5	10	15
4.	<u>Manage tea nursery</u> <ul style="list-style-type: none"> • Receive instruction • Be familiar with the basis of tea nursery management • Manage tea nursery • Take precautions • Keep records 	<u>Tea nursery management:</u> <ul style="list-style-type: none"> ❖ Basis of tea nursery management ❖ Precautions to be taken ❖ Records keeping 	5	10	15
Total:			15	30	45

Module:4: Growing tea

Description: It deals with the knowledge and skills related to tea growing activities.

Objectives: After its completion the trainees will be able:

- To carryout tea plantation
- To bring up young tea
- To carry out field operations for old tea
- To provide shade in tea
- To manage fertiliser for tea
- To perform weed control in old tea area
- To control pests of tea
- To carry out disease management practices in tea
- To handle / Maintain spraying equipment

Time(hrs)	
Th	51
Pr	199
Tot	250

Sub-modules:

1. Planting out
2. Management of young tea
3. Pruning and plucking of mature tea
4. Management of shade trees
5. Nutrient management
6. Weed control
7. Irrigation and drainage
8. Pests
9. Disease
10. Spraying equipment
11. Tea Processing
12. Tea Marketing

Sub-module:1: Planting out

Description: It deals with the knowledge and skills/tasks related to tea plantation. Each task consists of minimum related technical knowledge necessary to carry out that very task in a competent/ professional manner, and time allocation for the task and its related knowledge.

Objective: After its completion the trainees will be able:

- To list tea plantation activities
- To carryout tea plantation

Tasks: To fulfill the objective the trainees are expected to get proficiency on the following tasks together with their related technical knowledge:

		Th.(4 hrs) + Pr.(16 hrs) = Tot.(20 hrs)	Time(hrs)		
SN	Tasks/skills	Related technical knowledge	Th.	Pr.	Tot.
1.	<u>State Methods of planting</u> <ul style="list-style-type: none"> • Receive instruction • Enlist the methods of planting • Be familiar with all the methods of planting. 	<u>Concepts of planting methods</u> <ul style="list-style-type: none"> ❖ Square planting ❖ Rectangular planting ❖ Triangular planting ❖ Contour planting 	1	3	4

	<ul style="list-style-type: none"> • Be familiar with layout and spacing 	<ul style="list-style-type: none"> ❖ Concepts of double and single hedge ❖ Concepts of spacing 			
2.	<u>Prepare land.</u> <ul style="list-style-type: none"> • Receive instruction • Be familiar with the techniques of land preparation for tea plantation • Prepare land for tea plantation • Take precautions • Keep records 	<u>Preparing land:</u> <ul style="list-style-type: none"> ❖ Concept, need, and importance ❖ Principles and procedures for preparing land for tea plantation ❖ Precautions to be taken ❖ Records keeping 	1	3	4
3.	<u>Carry out plantation of tea maintaining standard spacing.</u> <ul style="list-style-type: none"> • Receive instruction • Identify preconditions for carrying out plantation of tea • Carry out layout for tea plantation • Carry out layout for plucking path and road • Be familiar with planting time • Prepare operational sequence • Calculate plant population • Plant tea maintaining standard spacing • Stake the plant • Take precautions • Keep records 	<u>Carrying out plantation of tea maintaining standard spacing:</u> <ul style="list-style-type: none"> ❖ Concept, need, and importance ❖ Precondition. ❖ Layout ❖ Planting time. ❖ Operational sequence. ❖ Formula to calculate plant population ❖ Spacing technique and standard spacing ❖ Plantation of tea. ❖ Staking ❖ Precautions to be taken ❖ Records keeping 	1	4	5
4.	<u>Carry out post planting routine techniques.</u> <ul style="list-style-type: none"> • Receive instruction • Enlist post planting routine techniques • Identify post planting routine techniques • Make schedules for post planting routine 	<u>Carrying out post planting routine techniques:</u> <ul style="list-style-type: none"> ❖ Concept, need, and importance ❖ Enlisting post planting routine techniques ❖ Identifying post planting routine techniques ❖ Making schedules for post planting routine activities/ 	0.5	3	3.5

	activities/ techniques <ul style="list-style-type: none"> • Carry out the post planting routine techniques • Take precautions • Keep records 	techniques <ul style="list-style-type: none"> ❖ Carrying out the post planting routine techniques ❖ Precautions to be taken ❖ Records keeping 			
5.	<u>Perform replacing techniques in old tea area and facilitate rejuvenation.</u> <ul style="list-style-type: none"> • Receive instruction • Identify old tea area. • Identify need for replacement in old tea area • Be familiar with replacing techniques in old tea area. • Apply replacing techniques in old tea area. • Be familiar with the concept of rejuvenation of tea • Facilitate rejuvenation of tea • Follow precautions • Keep records 	<u>Replacing techniques in old tea area:</u> <ul style="list-style-type: none"> ❖ Old tea area. ❖ Need for replacement in old tea area ❖ Replacing techniques in old tea area ❖ Application replacing techniques in old tea area ❖ Concept of rejuvenation of tea ❖ How to rejuvenate tea ❖ How to facilitate rejuvenation of tea ❖ Following precautions ❖ Keeping records 	0.5	3	3.5
Total:			4	16	20
Sub-module:2: Management of young tea					
<p>Description: It deals with the knowledge and skills/tasks related to bringing up young tea. Each task consists of minimum related technical knowledge necessary to carry out that very task in a competent/ professional manner, and time allocation for the task and its related knowledge.</p> <p>Objective: After its completion the trainees will be able:</p> <ul style="list-style-type: none"> • To identify young tea • To list bring up activities • To bring up young tea <p>Tasks: To fulfill the objective the trainees are expected to get proficiency on the following tasks together with their related technical knowledge:</p>					
Th.(5 hrs) + Pr.(20 hrs) = Tot.(25 hrs)			Time(hrs)		
SN	Tasks/skills	Related technical knowledge	Th.	Pr.	Tot.
1.	<u>Identify / control weeds of young tea.</u> <ul style="list-style-type: none"> • Receive instruction 	<u>Identifying / controlling weeds of young tea:</u> <ul style="list-style-type: none"> ❖ Concept, need, and importance 	1	4	5

	<ul style="list-style-type: none"> • Enlist need/importance of controlling weeds of young tea. • Enlist weeds of young tea • Identify common weeds of young tea • Prevent/control/manage weeds of young tea • Take precautions • Keep records 	<ul style="list-style-type: none"> ❖ Weeds of young tea ❖ Identifying common weeds of young tea ❖ Methods of weed control ❖ Prevent/control/manage weeds of young tea ❖ Precautions to be taken ❖ Records keeping 			
2.	<u>Identify / control insect / pest / disease of young tea.</u> <ul style="list-style-type: none"> • Receive instruction • Enlist need/importance of controlling weeds of insect / pest / diseases of young tea. • Enlist insect / pests of young tea • Identify common insect / pests of young tea • Prevent/control/manage common insect / pests of young tea • Enlist diseases of young tea • Identify common diseases of young tea • Prevent/control/manage common diseases of young tea • Take precautions • Keep records 	<u>Identifying / controlling insect / pest / disease of young tea:</u> <ul style="list-style-type: none"> ❖ Concept, need, and importance ❖ Enlisting insect / pests of young tea ❖ Identifying common insect / pests of young tea ❖ Preventing/controlling/managing common insect / pests of young tea ❖ Enlisting diseases of young tea ❖ Identifying common diseases of young tea ❖ Preventing/controlling/managing common diseases of young tea ❖ Precautions to be taken ❖ Records keeping 	1	4	5
3.	<u>Carryout manuring</u> <ul style="list-style-type: none"> • Receive instruction • Enlist need for manuring • Enlist types of manure • Calculate manure for application • Weigh manure • Apply manures • Take precautions • Keep records 	<u>Carrying out manuring:</u> <ul style="list-style-type: none"> ❖ Concept, need, and importance ❖ Types of manure ❖ Sources of manure ❖ Calculating manure for application ❖ Weighing manure ❖ Methods/techniques for manure application ❖ Precautions to be taken ❖ Records keeping 	1	4	5

4.	<u>Carryout shading</u> <ul style="list-style-type: none"> • Receive instruction • Enlist need/importance of shading • Prepare for providing shading • Carry out shading • Take precautions • Keep records 	<u>Carrying out shading:</u> <ul style="list-style-type: none"> ❖ Concept, need, and importance ❖ Preparing for providing shading ❖ Carrying out shading ❖ Precautions to be taken ❖ Records keeping 	0.5	2	2.5
5.	<u>Irrigate young tea as per the need.</u> <ul style="list-style-type: none"> • Receive instruction • Enlist water needs for tea plant • Enlist methods of irrigation • Select method(s) of irrigation • Apply method(s) of irrigation • Take precautions • Keep records 	<u>Irrigating young tea as per the need:</u> <ul style="list-style-type: none"> ❖ Concept, need, and importance ❖ methods of irrigation ❖ Selecting method(s) of irrigation ❖ Applying method(s) of irrigation ❖ Precautions to be taken ❖ Records keeping 	0.5	2	2.5
6.	<u>Bring up young tea</u> <ul style="list-style-type: none"> • Receive instruction • Prepare care / management schedule to bring up young tea plant • Bring up young tea as per the schedule • Apply cultural practices to bring up young tea • Carry out frame formation • Carry out infilling • Take precautions • Keep records 	<u>Bringing up young tea:</u> <ul style="list-style-type: none"> ❖ Concept, need, and importance ❖ Care and schedule management to bring up young tea plant ❖ Bring up young tea as per the schedule ❖ Cultural practices to bring up young tea. ❖ Decentering, lung pruning/thumb pruning ❖ Need of Infilling operation ❖ Precautions to be taken ❖ Records keeping 	1	4	5
Total:			5	20	25

Sub-module:3: Pruning and Plucking of mature tea

Description: It deals with the knowledge and skills/tasks related to field operations for old tea. Each task consists of minimum related technical knowledge necessary to carry out that very task in a competent/ professional manner, and time allocation for the task and its related knowledge.

Objective: After its completion the trainees will be able:

- To identify old tea
- To list field operations for old tea

<ul style="list-style-type: none"> To carry out field operations for old tea Tasks: To fulfill the objective the trainees are expected to get proficiency on the following tasks together with their related technical knowledge:					
Th.(10 hrs) + Pr.(65 hrs) = Tot.(75 hrs)			Time(hrs)		
SN	Tasks/skills	Related technical knowledge	Th.	Pr.	Tot.
1.	<u>Enlist field operations for old tea.</u> <ul style="list-style-type: none"> Receive instruction Make list of field operations to be carried out for old tea Make schedule of operations for carrying out for old tea Make list of necessary tools, materials and equipment for field operations Identify tools, materials and equipment necessary for field operations Handle tools, materials and equipment necessary for field operations Take precautions Keep records 	<u>Field operations for old tea:</u> <ul style="list-style-type: none"> ❖ Concept, need, and importance ❖ Making list of field operations to be carried out for old tea ❖ Making schedule of operations for carrying out for old tea ❖ Tools, materials and equipment necessary for field operations ❖ Handling tools, materials and equipment necessary for field operations ❖ Precautions to be taken ❖ Records keeping 	1	5	6
2.	<u>Enlist the types of Skiffing and Pruning</u> <ul style="list-style-type: none"> Receive instruction Make list of types of Skiffing and Pruning. Understand the level, height, need and time for each types Take precautions Keep records 	<u>Concepts of different skiffing</u> <ul style="list-style-type: none"> ❖ Deep skiff ❖ Medium skiff ❖ Light skiff ❖ Level off skiff <u>Concepts of different pruning</u> <ul style="list-style-type: none"> ❖ Light prune ❖ Medium prune ❖ Heavy prune ❖ Rejuvenation prune 	1	10	11
3.	<u>Carryout pruning methods</u> <ul style="list-style-type: none"> Receive instruction List need/ importance of pruning List pruning methods Carryout pruning 	<u>Pruning methods:</u> <ul style="list-style-type: none"> ❖ Concept, need, and importance ❖ Pruning methods ❖ Pruning tools and their handling ❖ Time & conditions prior to pruning operations 	2	10	12

	<ul style="list-style-type: none"> • Take precautions • Keep records 	<ul style="list-style-type: none"> ❖ Pruning administration & procedures ❖ Precautions to be taken ❖ Records keeping 			
4.	<u>Identify pruning cycle</u> <ul style="list-style-type: none"> • Receive instruction • Be familiar with pruning cycle • Identify pruning cycle • Enlist importance of pruning cycle • Illustrate pruning cycle • Take precautions • Keep records 	<u>Pruning cycle:</u> <ul style="list-style-type: none"> ❖ Concept and importance ❖ Identifying pruning cycle ❖ Illustration of pruning cycle ❖ Precautions to be taken ❖ Records keeping 	1	10	11
5.	<u>Carryout tipping / plucking</u> <ul style="list-style-type: none"> • Receive instruction • Be familiar with the concept of tipping / plucking • List need/importance of tipping / plucking • Carryout tipping / plucking • Take precautions • Keep records 	<u>Tipping / plucking:</u> <ul style="list-style-type: none"> ❖ Concept, need, and importance ❖ Principles, procedures and application of tipping / plucking ❖ Carrying out tipping / plucking ❖ Precautions to be taken ❖ Records keeping 	1	10	11
6.	<u>Identify plucking /leaf standards.</u> <ul style="list-style-type: none"> • Receive instruction • Be familiar with plucking /leaf standards. • Identify plucking /leaf standards • Take precautions • Keep records 	<u>Identifying plucking / leaf standards:</u> <ul style="list-style-type: none"> ❖ Concept, need, and importance ❖ Plucking /leaf standards ❖ Precautions to be taken ❖ Records keeping 	1	5	6
7.	<u>Identify Plucking methods and Plucking Rounds</u> <ul style="list-style-type: none"> • Receive instruction • Be familiar with plucking system and methods • Enlist the methods of plucking. • Be familiar with plucking Rounds • Take precautions 	<u>Carrying out plucking by</u> <ul style="list-style-type: none"> ❖ Hand plucking ❖ Shear plucking ❖ Machine plucking ❖ Precautions to be taken ❖ Records keeping 	1	5	6

	<ul style="list-style-type: none"> • Keep records 				
8.	<u>Carryout Breaking-back and Plucking</u> <ul style="list-style-type: none"> • Receive instruction • Be familiar with Breaking-back • Be familiar with Principles of plucking • Take precautions • Keep records 	<u>Concepts of</u> <ul style="list-style-type: none"> ❖ Breaking-back ❖ Principles of Plucking ❖ Precautions to be taken ❖ Records keeping 	1	5	6
9.	<u>Handle leaf</u> <ul style="list-style-type: none"> • Receive instruction • Identify leaf • Handle leaf safely • Take precautions • Keep records 	<u>Handling leaf safely:</u> <ul style="list-style-type: none"> ❖ Concept, need, and importance ❖ Principles and procedures of handling tea leaf safely ❖ Precautions to be taken ❖ Records keeping 	1	5	6
Total:			10	65	75
Sub-module:4: Management of shade trees					
<p>Description: It deals with the knowledge and skills/tasks related to providing shading for tea. Each task consists of minimum related technical knowledge necessary to carry out that very task in a competent/ professional manner, and time allocation for the task and its related knowledge.</p> <p>Objective: After its completion the trainees will be able:</p> <ul style="list-style-type: none"> • To list needs for shading • To provide shade for tea <p>Tasks: To fulfill the objective the trainees are expected to get proficiency on the following tasks together with their related technical knowledge:</p>					
			Th.(2 hrs) + Pr.(8 hrs) = Tot.(10 hrs)		
			Time(hrs)		
SN	Tasks/skills	Related technical knowledge	Th.	Pr.	Tot.
1.	<u>Study mechanism of shade action on tea</u> <ul style="list-style-type: none"> • Receive instruction • Understand mechanism of shade action on tea • Study effect of shade and shade trees on micro-climate and growth of tea bush. • Understand the interaction of shade with soil fertility and fertilizers • Take precautions • Keep records 	<u>Concept of shade</u> <ul style="list-style-type: none"> ❖ Mechanism of shade action on tea ❖ Effect of shade and shade trees on micro-climate and growth of tea bush ❖ Interaction of shade with soil fertility and fertilizers ❖ Precautions to be taken ❖ Records keeping 	0.5	1	1.5

2.	<u>Identify types of shade trees for tea plantation.</u> <ul style="list-style-type: none"> • Receive instruction • Enlist types of shade trees for tea plantation • Identify common types of shade trees for tea plantation • Enlist shade trees for tea plantation. • Identify common shade trees for tea plantation. • Take precautions • Keep records 	<u>Identifying types of shade trees for tea plantation:</u> <ul style="list-style-type: none"> ❖ Concept, need, and importance ❖ Types of shade trees for tea plantation ❖ Shade trees for tea plantation. ❖ Precautions to be taken ❖ Records keeping 	0.25	1	1.25
3.	<u>Make tea shade nursery.</u> <ul style="list-style-type: none"> • Receive instruction • Enlist need/importance for making tea shade nursery • Plan to make tea shade nursery • Make tea shade nursery • Take precautions • Keep records 	<u>Making tea shade nursery:</u> <ul style="list-style-type: none"> ❖ Concept, need, and importance ❖ Planning to make tea shade nursery ❖ Making tea shade nursery ❖ Precautions to be taken ❖ Records keeping 	0.5	2	2.5
4.	<u>Carry out cultural practices to raise tea shade nursery.</u> <ul style="list-style-type: none"> • Receive instruction • Enlist need for carrying out cultural practices to raise tea shade nursery • Enlist cultural practices to raise tea shade nursery • Identify cultural practices to raise tea shade nursery • Apply cultural practices to raise tea shade nursery • Take precautions • Keep records 	<u>Carrying out cultural practices to raise tea shade nursery:</u> <ul style="list-style-type: none"> ❖ Concept, need, and importance ❖ Carrying out cultural practices to raise tea shade nursery ❖ Precautions to be taken ❖ Records keeping 	0.25	2	2.25
5.	<u>Establish young shade plants in the main field.</u> <ul style="list-style-type: none"> • Receive instruction • Enlist need for 	<u>Establishing young shade plants in the main field:</u> <ul style="list-style-type: none"> ❖ Concept, need, and importance ❖ Preparing to establishing 	0.5	2	2.5

	establishing young shade plants in the main field <ul style="list-style-type: none"> • Prepare to establishing young shade plants in the main field • Establish young shade plants in the main field. • Take precautions • Keep records 	young shade plants in the main field <ul style="list-style-type: none"> ❖ Establishing young shade plants in the main field ❖ Precautions to be taken ❖ Records keeping 			
Total:			2	8	10
Sub-module:5: Nutrient management					
<p>Description: It deals with the knowledge and skills/tasks related to managing and applying fertilizers to tea. Each task consists of minimum related technical knowledge necessary to carry out that very task in a competent/ professional manner, and time allocation for the task and its related knowledge.</p> <p>Objective: After its completion the trainees will be able:</p> <ul style="list-style-type: none"> • To identify fertiliser for tea • To manage fertiliser for tea • To apply fertiliser for tea <p>Tasks: To fulfill the objective the trainees are expected to get proficiency on the following tasks together with their related technical knowledge:</p>					
	Th.(5 hrs) + Pr.(15 hrs) = Tot.(20 hrs)		Time(hrs)		
SN	Tasks/skills	Related technical knowledge	Th.	Pr.	Tot.
1.	<u>Identify types of fertiliser need for tea plantation.</u> <ul style="list-style-type: none"> • Receive instruction • Enlist types of fertiliser need for tea plantation • Identify types of fertiliser need for tea plantation • Enlist type and amount of nutrient content in each fertilizer • Take precautions • Keep records 	<u>Identifying types of fertiliser need for tea plantation:</u> <ul style="list-style-type: none"> ❖ Concept, need, and importance ❖ Types of fertiliser need for tea plantation ❖ Type and amount of nutrient content in each fertilizer ❖ Identification of types of fertiliser need for tea plantation ❖ Fertilizer management in tea ❖ Precautions to be taken ❖ Records keeping 	0.5	1	1.5
2.	<u>Carryout simple calculation for YTD / FTD mixtures</u> <ul style="list-style-type: none"> • Receive instruction • Be familiar with the mixtures • Carryout simple calculation for YTD / 	<u>Carrying out simple calculation for YTD / FTD mixtures:</u> <ul style="list-style-type: none"> ❖ Concept, need, and importance ❖ Related simple calculations ❖ Formulae ❖ Precautions to be taken ❖ Records keeping 	1	3	4

	<p>FTD mixtures</p> <ul style="list-style-type: none"> • Take precautions • Keep records 				
3.	<p><u>Compute manurial requirement for a tea estate based on NPK recommendation.</u></p> <ul style="list-style-type: none"> • Receive instruction • Enlist NPK recommendation for tea • Calculate manurial requirement for a tea estate based on NPK recommendation • Enlist manurial requirement for a tea based on NPK recommendation • Take precautions • Keep records 	<p><u>Computing manurial requirement for a tea estate based on NPK recommendation:</u></p> <ul style="list-style-type: none"> ❖ Concept, need, and importance ❖ NPK recommendation for tea ❖ Computing manurial requirement for a tea estate based on NPK recommendation ❖ Formula for the calculation of manurial requirement for a tea estate based on NPK ❖ Precautions to be taken ❖ Records keeping 	2	3	5
4.	<p><u>Carry out manurial practices for tea plantations.</u></p> <ul style="list-style-type: none"> • Receive instruction • Enlist need/importance of manurial practices for tea plantations • Enlist manurial practices for tea plantations • Identify manurial practices for tea plantations • Apply manurial practices for tea plantations • Take precautions • Keep records 	<p>Carrying out manurial practices for tea plantation:</p> <ul style="list-style-type: none"> ❖ Concept, need, and importance ❖ Manurial practices for tea plantations ❖ Applying manurial practices for tea plantations ❖ Precautions to be taken ❖ Records keeping 	0.5	3	3.5
5.	<p><u>Practise foliar application techniques.</u></p> <ul style="list-style-type: none"> • Receive instruction • Be familiar with foliar application techniques • Prepare for foliar application techniques • Practice foliar application techniques 	<p><u>Practise foliar application technique:</u></p> <ul style="list-style-type: none"> ❖ Concept, need, and importance ❖ Preparing for foliar application techniques ❖ Procedural steps ❖ Practicing foliar application techniques 	0.5	3	3.5

	<ul style="list-style-type: none"> • Take precautions • Keep records 	<ul style="list-style-type: none"> ❖ Precautions to be taken ❖ Records keeping 			
6.	<u>Apply micronutrient / growth promoters in tea.</u> <ul style="list-style-type: none"> • Receive instruction • Enlist needs of micronutrient / growth promoters for tea • Enlist micronutrient / growth promoters in tea • Identify micronutrient / growth promoters for tea • Prepare for micronutrient / growth promoters for tea • Apply micronutrient / growth promoters in tea • Take precautions • Keep records 	<u>Applying micronutrient / growth promoters in tea:</u> <ul style="list-style-type: none"> ❖ Concept, need, and importance ❖ Micronutrient / growth promoters for tea ❖ Identifying micronutrient / growth promoters for tea ❖ Preparing for micronutrient / growth promoters for tea ❖ Use of micronutrient / growth promoters in tea ❖ Precautions to be taken ❖ Records keeping 	0.5	2	2.5
Total:			5	15	20
Sub-module:6: Weed control					
<p>Description: It deals with the knowledge and skills/tasks related to weeds control. Each task consists of minimum related technical knowledge necessary to carry out that very task in a competent/ professional manner, and time allocation for the task and its related knowledge.</p> <p>Objective: After its completion the trainees will be able:</p> <ul style="list-style-type: none"> • To identify weeds of tea • To control weeds of old tea area <p>Tasks: To fulfill the objective the trainees are expected to get proficiency on the following tasks together with their related technical knowledge:</p>					
	Th.(1 hrs) + Pr.(4 hrs) = Tot.(5 hrs)		Time(hrs)		
SN	Tasks/skills	Related technical knowledge	Th.	Pr.	Tot.
1.	<u>State concept of weed</u> <ul style="list-style-type: none"> • Receive instruction • Define of weed. • Study biology of weed • Analyse effect of weed on tea • Take precautions • Keep records 	<u>Concepts of weed</u> <ul style="list-style-type: none"> ❖ Definition of weed ❖ Biology of weed ❖ Effect of weed on tea ❖ Precautions to be taken ❖ Keeping records 	0.25	0.50	0.75
2.	<u>Carry out various weed control methods.</u> <ul style="list-style-type: none"> • Receive instruction • Be familiar with various 	<u>Carrying out various weed control methods:</u> <ul style="list-style-type: none"> ❖ Concept 	0.25	0.5	0.75

	weed control methods <ul style="list-style-type: none"> • Enlist various weed control methods • Enlist advantages / disadvantages of each method of weed control • Apply various weed control methods • Take precautions • Keep records 	<ul style="list-style-type: none"> ❖ Various weed control methods ❖ Advantages / disadvantages of each method of weed control ❖ Applying various weed control methods ❖ Precautions to be taken ❖ Keeping records 			
3.	<u>Perform chemical and physical weed control in tea.</u> <ul style="list-style-type: none"> • Receive instruction • Identify chemicals to be used for chemical weed control in tea. • Calculate chemicals to be used for chemical weed control in tea • Prepare chemicals to be used for chemical weed control in tea • Apply chemicals to be used for chemical weed control in tea • Take precautions • Keep records 	<u>Chemical weed control in tea:</u> <ul style="list-style-type: none"> ❖ Concept ❖ Principle ❖ Process ❖ Chemicals to be used ❖ Chemicals calculation ❖ Preparation of chemical for application ❖ Safe application of the prepared chemicals ❖ Precautions/safety ❖ Keeping records 	0.25	1.5	1.75
4.	<u>Apply herbicides in tea.</u> <ul style="list-style-type: none"> • Receive instruction • Identify herbicides to be used for weed control in tea Calculate herbicides to be used for weed control in tea • Prepare herbicides to be used for weed control in tea • Apply herbicides to be used for weed control in tea • Take precautions • Keep records 	<u>Herbicides application in tea:</u> <ul style="list-style-type: none"> ❖ Concept ❖ Principle ❖ Process ❖ Herbicides to be used ❖ Herbicides calculation ❖ Preparation of herbicides for application ❖ Safe application of the prepared herbicides ❖ Precautions/safety ❖ Keeping records 	0.25	1.5	1.75
Total:			1	4	5

Sub-module:7: Irrigation and drainage

Description: It deals with the knowledge and skills/tasks related to Irrigation and drainage. Each task consists of minimum related technical knowledge necessary to carry out that very task in a competent/ professional manner, and time allocation for the task and its related knowledge.

Objective: After its completion the trainees will be able:

- To enlist needs for irrigation and drainage
- To calculate requirement of irrigation
- To understand effect of drought in tea production
- To use different methods of irrigation
- To design a drain
- To construct and maintain drains

Tasks: To fulfill the objective the trainees are expected to get proficiency on the following tasks together with their related technical knowledge:

		Th.(3 hrs) + Pr.(10 hrs) = Tot.(13 hrs)	Time(hrs)		
SN	Tasks/skills	Related technical knowledge	Th.	Pr.	Tot.
1.	<u>State concept of irrigation</u> <ul style="list-style-type: none"> • Receive instruction • Obtain related reading materials. • Identify the need of irrigation • Analyse the effect of drought in tea production • Study soil, water and plant relationship • Take precautions • Keep records 	<u>Concepts of irrigation</u> <ul style="list-style-type: none"> ❖ Need of irrigation ❖ Analysing the effect of drought in tea production ❖ Studying soil, water and plant relationship ❖ Precautions to be taken ❖ Records keeping 	0.25	1	1.25
2.	<u>Compute requirement of irrigation</u> <ul style="list-style-type: none"> • Receive instruction • Obtain related reading materials • Use of soil moisture tensiometer for determining available soil moisture • Compute requirement of irrigation based on area to be irrigated. • Take precautions • Keep records 	<u>Computing requirement of irrigation</u> <ul style="list-style-type: none"> ❖ Using soil moisture tensiometer to determine available soil moisture ❖ Computing quantity of water required for irrigation based on area to be irrigated ❖ Precautions to be taken ❖ Records keeping 	0.5	1	1.5

3.	<u>Identify methods of irrigation</u> <ul style="list-style-type: none"> • Receive instruction • Obtain related reading materials • Enlist the methods of irrigation • Analyse the significance of each methods • Carry out each irrigation methods • Take precautions • Keep records 	<u>Identifying methods of irrigation</u> <ul style="list-style-type: none"> ❖ Enlisting methods of irrigation ❖ Analysing significance of each methods ❖ Carrying of each irrigation methods ❖ Precautions to be taken ❖ Records keeping 	0.5	1	1.5
4.	<u>Identify concept of drainage:</u> <ul style="list-style-type: none"> • Receive instruction • Obtain related reading materials • Collect definitions of drainage • Study each definition • Analyze each definition • Prepare a comprehensive definition • Write the comprehensive definition • Follow precautions • Keep record 	<u>Concept of drainage:</u> <ul style="list-style-type: none"> ❖ Definition of drainage ❖ Collecting definitions of drainage ❖ Studying each definition ❖ Analyzing each definition ❖ Preparing a comprehensive definition ❖ Writing the comprehensive definition ❖ Precautions to be followed ❖ Keeping record 	0.5	1	1.5
5.	<u>Enlist need of drainage in tea plantations.</u> <ul style="list-style-type: none"> • Receive instruction • Obtain related reading materials • Study the reading materials • Enlist need of drainage in tea plantations • Analyse the effect of high water table and water logging on health and productivity of tea bush 	<u>Need of drainage in tea plantations:</u> <ul style="list-style-type: none"> ❖ Related reading materials ❖ Studying the reading materials ❖ Need of drainage in tea plantations ❖ Enlisting need of drainage in tea plantations ❖ Analysing the effect of high water table and water logging on health and productivity of tea bush ❖ Precautions ❖ Keeping records 	0.5	1	1.5

	<ul style="list-style-type: none"> • Take precautions • Keep records 				
6.	<u>Design drains / contour drains</u> <ul style="list-style-type: none"> • Receive instruction • Design drains • Design contour drains in terai • Design contour drains in hills • Take precautions • Keep records 	<u>Designing drains / contour drain:</u> <ul style="list-style-type: none"> ❖ Concept ❖ Need and importance ❖ Principle, procedures, and application of designing drains / contour drains ❖ Precautions to be taken while performing this task ❖ Keeping related activity records 	0.5	2	2.5
7.	<u>Construct drains / contour drains.</u> <ul style="list-style-type: none"> • Receive instruction • Obtain design of drains • Interpret the design of drains • Interpret optimum drainage depth in tea • Construct drains as per its design • Obtain design of contour drains • Interpret the design of contour drains • Construct contour drains as per its design • Take precautions • Keep records 	<u>Constructing drains / contour drain:</u> <ul style="list-style-type: none"> ❖ Obtaining design of drains ❖ Interpreting the design of drains ❖ Interpreting optimum drainage depth in tea ❖ Constructing drains as per its design ❖ Obtaining design of contour drains ❖ Interpreting the design of contour Constructing contour drains as per its design ❖ Taking precautions ❖ Keeping records 	0.25	3	3.25
Total			3	10	13
Sub-module:8: Pests					
<p>Description: It deals with the knowledge and skills/tasks related to pest control. Each task consists of minimum related technical knowledge necessary to carry out that very task in a competent/ professional manner, and time allocation for the task and its related knowledge.</p> <p>Objective: After its completion the trainees will be able:</p> <ul style="list-style-type: none"> • To identify pests of tea • To manage pests of tea <p>Tasks: To fulfill the objective the trainees are expected to get proficiency on the following tasks together with their related technical knowledge:</p>					
Th.(8 hrs) + Pr.(22 hrs) = Tot.(30 hrs)			Time(hrs)		
SN	Tasks/skills	Related technical knowledge	Th.	Pr.	Tot.

1.	<u>Identify types of pests in tea.</u> <ul style="list-style-type: none"> • Receive instruction • Enlist types of pests in tea. • Enlist common pests in tea. • Identify common pests of tea. • Take precautions • Keep records 	<u>Types of pests in tea:</u> <ul style="list-style-type: none"> ❖ Concept ❖ Basics of pest management techniques ❖ Types of pests in tea. ❖ Common pests in tea. ❖ Identification of common pests of tea. ❖ Precautions/safety ❖ Keeping records 	2	5	7
2.	<u>Identify damage symptoms of common pests in tea.</u> <ul style="list-style-type: none"> • Receive instruction • Enlist damage symptoms of common pests in tea • Identify damage symptoms of common pests in tea • Take precautions • Keep records 	<u>Damage symptoms of common pests in tea:</u> <ul style="list-style-type: none"> ❖ Concept ❖ Damage symptoms of common pests in tea & their control. ❖ Precautions/safety ❖ Keeping records 	2	5	7
3.	<u>Identify common pest management techniques/ common pesticides with their doses used in tea.</u> <ul style="list-style-type: none"> • Receive instruction • Enlist common pest management techniques • Enlist common pesticides with their doses used in tea • Identify common pesticides with their doses used in tea • Take precautions • Keep records 	<u>Common pest management techniques in tea:</u> <ul style="list-style-type: none"> ❖ Concept ❖ Common pest management techniques ❖ Common pesticides used in tea. ❖ Doses ❖ Precautions/safety ❖ Keeping records 	1	5	6
4.	<u>Prepare pest management schedule in tea.</u> <ul style="list-style-type: none"> • Receive instruction • Obtain a sample of pest management schedule in tea. • Study the sample of pest management schedule 	<u>Pest management schedule in tea:</u> <ul style="list-style-type: none"> ❖ Concept ❖ Doses and pest management schedule in tea and its components ❖ Interpretation of the pest management schedule ❖ Preparing a schedule of pest 	1	5	6

	<ul style="list-style-type: none"> • Interpret the sample of pest management schedule • Prepare a schedule of pest management in tea • Take precautions • Keep records 	<p>management in tea</p> <ul style="list-style-type: none"> ❖ Precautions/safety ❖ Keeping records 			
5.	<u>Apply pest management techniques in tea.</u> <ul style="list-style-type: none"> • Receive instruction • Enlist pest management techniques in tea • Identify pest management techniques • Apply pest management techniques in tea • Take precautions • Keep records 	<u>Applying pest management techniques in tea:</u> <ul style="list-style-type: none"> ❖ Concept ❖ Pest management techniques in tea ❖ Precautions/safety ❖ Keeping records 	1	3	4
6.	<u>Prepare calendar of pest reoccurrence.</u> <ul style="list-style-type: none"> • Receive instruction • Obtain a sample calendar of pest reoccurrence • Study the sample • Interpret the sample • Prepare a calendar of pest reoccurrence • Take precautions • Keep records 	<u>Calendar of pest reoccurrence:</u> <ul style="list-style-type: none"> ❖ Concept and importance ❖ Calendar of pest reoccurrence and its components ❖ Interpretation of the calendar of pest reoccurrence ❖ Preparing a calendar of pest reoccurrence ❖ Precautions/safety ❖ Keeping records 	1	2	3
Total:			8	22	30

Sub-module:9: Disease

Description: It deals with the knowledge and skills/tasks related to disease management practices on tea development. Each task consists of minimum related technical knowledge necessary to carry out that very task in a competent/ professional manner, and time allocation for the task and its related knowledge.

Objective: After its completion the trainees will be able:

- To list disease management practices
- To carry out disease management practices in tea

Tasks: To fulfill the objective the trainees are expected to get proficiency on the following tasks together with their related technical knowledge:

		Th.(8 hrs) + Pr.(22 hrs) = Tot.(30 hrs)	Time(hrs)		
SN	Tasks/skills	Related technical knowledge	Th.	Pr.	Tot.
1.	<u>Identify common tea</u>	<u>Common tea diseases with their</u>	2	4	6

	<u>diseases with their symptoms.</u> <ul style="list-style-type: none"> • Receive instruction • Enlist tea diseases • Enlist common tea diseases • Enlist symptoms of common tea diseases • Identify common tea diseases • Identify symptoms of common tea diseases • Take precautions • Keep records 	<u>symptoms:</u> <ul style="list-style-type: none"> ❖ Concept, needs and importance of disease management in tea ❖ concept of disease, signs, and symptoms ❖ Common tea diseases ❖ Symptoms of each if the common tea disease ❖ Identification of each diseases with their symptoms ❖ Precautions/safety ❖ Keeping records 			
2.	<u>Identify common disease management techniques/ common fungicides used in tea with their doses.</u> <ul style="list-style-type: none"> • Receive instruction • Enlist common fungicides used in tea • Identify common fungicides used in tea • Enlist doses of each of the fungicides • Take precautions • Keep records 	<u>Common fungicides used in tea with their doses:</u> <ul style="list-style-type: none"> ❖ Concept, needs and importance ❖ Common fungicides used in tea ❖ Identification of common fungicides used in tea with their doses ❖ Storage / disposal of fungicides ❖ Handling fungicides. ❖ Safe application of fungicides. ❖ Precautions/safety ❖ Keeping records 	2	4	6
3.	<u>Develop calendar of disease occurrence.</u> <ul style="list-style-type: none"> • Receive instruction • Obtain a sample calendar of disease occurrence. • Study • Interpret • Prepare • Take precautions • Keep records 	<u>Calendar of disease occurrence:</u> <ul style="list-style-type: none"> ❖ Concept, needs and importance ❖ Calendar of disease occurrence and its components ❖ Interpretation of the ❖ Procedure of its development ❖ Precautions/safety ❖ Keeping records 	1	4	5
4.	<u>Carry out disease control techniques in tea.</u> <ul style="list-style-type: none"> • Receive instruction • Be familiar with basics of disease control techniques in tea • Enlist disease control 	<u>Disease control techniques in tea:</u> <ul style="list-style-type: none"> ❖ Concept, needs and importance ❖ Basis of disease control techniques in tea ❖ Identifying disease control techniques in tea ❖ Applying disease control 	1	4	5

	<p>techniques</p> <ul style="list-style-type: none"> • Identify disease control techniques in tea • Apply disease control techniques in tea • Take precautions • Keep records 	<p>techniques in tea</p> <ul style="list-style-type: none"> ❖ Precautions/safety ❖ Keeping records 			
5.	<p><u>Prevent disease recurrence in tea.</u></p> <ul style="list-style-type: none"> • Receive instruction • Be familiar with basics of preventing disease recurrence in tea. • Enlist prevention measures for disease recurrence in tea. • Identify prevention measures for disease recurrence in tea • Apply prevention measures for disease recurrence in tea • Take precautions • Keep records 	<p><u>Disease recurrence prevention in tea:</u></p> <ul style="list-style-type: none"> ❖ Concept, needs and importance ❖ Basis of disease control techniques in tea ❖ Identifying disease control techniques in tea ❖ Applying disease control techniques in tea ❖ Precautions/safety ❖ Keeping records 	1	3	4
6.	<p><u>Identify / manage common physiological disorders in tea</u></p> <ul style="list-style-type: none"> • Receive instruction • Enlist common physiological disorders in tea • Identify common physiological disorders in tea • Manage common physiological disorders in tea • Take precautions • Keep records 	<p><u>Common physiological disorders in tea:</u></p> <ul style="list-style-type: none"> ❖ Concept, needs and importance ❖ common physiological disorders in tea ❖ Identification of common physiological disorders in tea ❖ Principles and procedures for managing common physiological disorders in tea ❖ Precautions/safety ❖ Keeping records 	1	4	5
Total:			8	22	30
Sub-module:10: Spraying equipment					
<p>Description: It deals with the knowledge and skills/tasks related to handling and maintaining spraying equipment. Each task consists of minimum related technical knowledge necessary to carry out that very task in a competent/ professional manner, and time allocation for the task and its related knowledge.</p>					

<p>Objective: After its completion the trainees will be able:</p> <ul style="list-style-type: none"> • To identify spraying equipment • To Handle spraying equipment • To maintain spraying equipment <p>Tasks: To fulfill the objective the trainees are expected to get proficiency on the following tasks together with their related technical knowledge:</p>					
Th.(2 hrs) + Pr.(8 hrs) = Tot.(10 hrs)			Time(hrs)		
SN	Tasks/skills	Related technical knowledge	Th.	Pr.	Tot.
1.	<u>Identify spraying equipment.</u> <ul style="list-style-type: none"> • Receive instruction • Enlist spraying equipment. • Identify each spraying equipment • Identify parts of each spraying equipment • Enlist functions of each part of spraying equipment • Take precautions • Keep records 	<u>Identifying spraying equipment:</u> <ul style="list-style-type: none"> ❖ Concept, functions, and objectives ❖ Spraying equipment used in tea ❖ Basic knowledge of spraying equipment ❖ Spraying NOZZLES & their importance in efficient & economic output. ❖ Precautions/safety ❖ Keeping records 	0.5	2	2.5
2.	<u>Handle the spraying equipment safely.</u> <ul style="list-style-type: none"> • Receive instruction • Take spraying equipment • Inspect spraying equipment • Prepare for operation • Operate spraying equipment • Handle the spraying equipment • Take precautions in handling spraying • Keep records 	<u>Handling the spraying equipment safely:</u> <ul style="list-style-type: none"> ❖ Concept ❖ Principles and procedures for handling spraying equipment ❖ Operating spraying equipment ❖ Precautions/safety in handling spraying ❖ Keeping records 	0.5	2	2.5
3.	<u>Collect tools / materials for maintenance of spraying equipment.</u> <ul style="list-style-type: none"> • Receive instruction • Make list of tools / materials for maintenance of spraying 	<u>Collecting tools / materials for maintenance of spraying equipment:</u> <ul style="list-style-type: none"> ❖ Concept, need, and importance ❖ Identification of the tools / materials for maintenance of 	0.5	2	2.5

	<p>equipment.</p> <ul style="list-style-type: none"> Identify tools / materials for maintenance of spraying equipment. List functions of tools / materials for maintenance of spraying equipment Select tools / materials for maintenance of spraying equipment Collect tools / materials for maintenance of spraying equipment Take precautions Keep records 	<p>spraying equipment.</p> <ul style="list-style-type: none"> ❖ Functions of the tools / materials for maintenance of spraying equipment ❖ Selection of the tools / materials for maintenance of spraying equipment ❖ Collection of the tools / materials for maintenance of spraying equipment ❖ Precautions/safety ❖ Keeping records 			
4.	<p><u>Carry out simple maintenance techniques of spraying equipment</u></p> <ul style="list-style-type: none"> Receive instruction Take spraying equipment Inspect spraying equipment Trouble shoot spraying equipment Carry out simple care/maintenance activities for spraying equipment Operate spraying equipment Take precautions Keep records 	<p><u>Carrying out simple maintenance techniques of spraying equipment:</u></p> <ul style="list-style-type: none"> ❖ Concept, need, and importance of care and maintenance of spraying equipment ❖ Trouble shooting ❖ Simple maintenance techniques of spraying equipment ❖ Procedural steps for maintenance of spraying equipment ❖ Precautions/safety to be taken while caring /maintaining spraying equipment ❖ Keeping records 	0.5	2	2.5
		Total:	2	8	10
Sub-module:11: Tea processing					
<p>Description: It deals with the knowledge and skills/tasks related to processing of tea. Each task consists of minimum related technical knowledge necessary to carry out that very task in a competent/ professional manner, and time allocation for the task and its related knowledge.</p> <p>Objective: After its completion the trainees will be able:</p> <ul style="list-style-type: none"> To be familiar with the types of made tea To be familiar with the processing of green tea To be familiar with the processing of black tea To be familiar with the processing of half fermented tea To be familiar with the storing of tea 					

- To be familiar with tea quality judgement

Tasks: To fulfill the objective the trainees are expected to get proficiency on the following tasks together with their related technical knowledge:

Th.(2hrs) + Pr.(8 hrs) = Tot.(10 hrs)					
Time(hrs)					
SN	Tasks/skills	Related technical knowledge	Th.	Pr.	Tot.
1.	<u>Identify types of made tea</u> <ul style="list-style-type: none"> • Receive instruction • Enlist the type of made tea • Differentiate between CTC and Orthodox • Differentiate among Green, Black, Oolong and White tea • Take precautions • Keep record 	<u>Identifying types of made tea</u> <ul style="list-style-type: none"> • Green tea • Black tea (CTC vs Orthodox) • Oolong tea • White tea 	0.4	1.6	2
2.	<u>Process green tea</u> <ul style="list-style-type: none"> • Pluck fresh leaves • Store till processing • Perform fermentation stopping • Perform rolling • Perform high temperature drying • Perform low temperature drying • Perform classification • Perform final roasting • Perform packaging • Perform labeling 	<u>Processing green tea:</u> <ul style="list-style-type: none"> ❖ Plucking fresh leaves ❖ Storing till processing ❖ Fermentation stopping ❖ Rolling ❖ High temperature drying ❖ Low temperature drying ❖ Classification ❖ Final roasting ❖ Packaging ❖ Labeling 	0.4	1.6	2
3.	<u>Process black tea</u> <ul style="list-style-type: none"> • Pluck fresh leaves • Store till processing • Perform withering • Perform crushing / rolling • Perform fermentation • Perform heating / drying • Perform classification • Perform packaging 	<u>Processing black tea:</u> <ul style="list-style-type: none"> ❖ Plucking fresh leaves ❖ Storing till processing ❖ Withering ❖ Crushing / rolling ❖ Fermentation ❖ Heating / drying ❖ Classification ❖ Packaging 	0.4	1.6	2
4.	<u>Store processed tea</u> <ul style="list-style-type: none"> • Enlist objectives of storing of tea • Enlist storage 	<u>Storing processed tea:</u> <ul style="list-style-type: none"> ❖ Objectives of storing of tea ❖ Storage requirement of tea as per the objectives 	0.4	1.6	2

	requirement of tea as per the objectives <ul style="list-style-type: none"> • Manage the store • Prepare store • Store the tea • Maintain the store • Maintain store environment 	<ul style="list-style-type: none"> ❖ Managing the store ❖ Preparing store ❖ Storing the tea ❖ Maintaining the store ❖ Maintaining store environment 			
5.	<u>Judge tea quality by tea tasting</u> <ul style="list-style-type: none"> • List judgment criteria • Prepare tea judgment checklist • Judge nature of processed tea • Judge the fresh ness of the tea • Perform tea tasting • Judge the way the tea is packed 	<u>Judging tea quality:</u> <ul style="list-style-type: none"> ❖ Tea tasting ❖ Judgment criteria ❖ Tea judgment checklist ❖ Judging nature of processed tea ❖ Judging the fresh ness of the tea ❖ Judging the way the tea is packed 	0.4	1.6	2
Total:			2	8	10

Sub-module:12: Tea marketing

Description: It deals with the knowledge and skills/tasks related to packaging and marketing of tea. Each task consists of minimum related technical knowledge necessary to carry out that very task in a competent/ professional manner, and time allocation for the task and its related knowledge.

Objective: After its completion the trainees will be able:

- To be familiar with packing the tea
- To be familiar with tea marketing

Tasks: To fulfill the objective the trainees are expected to get proficiency on the following tasks together with their related technical knowledge:

SN	Tasks/skills	Th.(1hrs) + Pr.(1hrs) = Tot.(2 hrs)	Time(hrs)		
		Related technical knowledge	Th.	Pr.	Tot.
1.	<u>Pack tea</u> <ul style="list-style-type: none"> • Make packaging convenient • Make packaging attractive • Make package clearly labeled 	<u>Packing tea:</u> <ul style="list-style-type: none"> ❖ Making packaging convenient ❖ Making packaging attractive ❖ Making package clearly labeled 	0.5	0.5	1
2.	<u>Market tea</u> <ul style="list-style-type: none"> • Identify possible customers • Find out customer's 	<u>Marketing tea:</u> <ul style="list-style-type: none"> ❖ Possible customers ❖ Customer's want ❖ Auction system 	0.5	0.5	1

	want <ul style="list-style-type: none"> • Auction systems • Sort product to match the customers • Improve quality to match customer's want • Price the tea • Place tea • Promote tea • Sell tea • Calculate profit / loss 	<ul style="list-style-type: none"> ❖ Sorting product to match the customers ❖ Improving quality to match customer's want ❖ Pricing the tea ❖ Placing tea ❖ Promoting tea ❖ Selling tea ❖ Calculating profit / loss 			
Total:			1	1	2

Module:5:Organic Practices													
<p>Description: It deals with the knowledge and skills related to organic practices in tea.</p> <p>Objectives: After its completion the trainees will be able:</p> <ul style="list-style-type: none"> • To know need of organic practices in tea • To prepare organic manure • To control pests and disease in organic way • To convert conventional plantation into organic <p>Sub-modules:</p> <ol style="list-style-type: none"> 1. Introduction to organic practices 2. Organic manure 3. Organic methods of pest control 4. Organic methods of disease control 5. Organic certification 													
				<table border="1"> <tr> <th colspan="2">Time(hrs)</th> </tr> <tr> <td>Th</td> <td>9</td> </tr> <tr> <td>Pr</td> <td>21</td> </tr> <tr> <td>Tot</td> <td>30</td> </tr> </table>		Time(hrs)		Th	9	Pr	21	Tot	30
Time(hrs)													
Th	9												
Pr	21												
Tot	30												
Sub-module:1:Introduction to organic practices													
<p>Description: It deals with the knowledge and skills/tasks related to organic practices of tea. Each task consists of minimum related technical knowledge necessary to carry out that very task in a competent/ professional manner, and time allocation for the task and its related knowledge.</p> <p>Objective: After its completion the trainees will be able:</p> <ul style="list-style-type: none"> • To be familiar with organic practices • To be familiar with conversion of conventional plantation into organic <p>Tasks: To fulfill the objective the trainees are expected to get proficiency on the following tasks together with their related technical knowledge:</p>													
			Th.(2hrs) + Pr.(1 hrs) = Tot.(3 hrs)										
			Time(hrs)										
SN	Tasks/skills	Related technical knowledge	Th.	Pr.	Tot.								
1.	<u>State the idea of organic cultivation</u> <ul style="list-style-type: none"> • Receive instruction • Identify the need of 	<u>Concept of organic cultivation</u> <ul style="list-style-type: none"> ❖ Introduction ❖ Need of going organic ❖ Characteristics of typical 	0.5	0.25	0.75								

	<p>going organic</p> <ul style="list-style-type: none"> • Study the examples of organic practices in other crops and relate it with tea • Study the characteristics of typical organic farm • Discuss advantage and disadvantages of cultivating tea organically • Take precaution • Keep record 	<p>organic farm</p> <ul style="list-style-type: none"> ❖ Advantages and disadvantages of organic cultivation ❖ Taking precaution ❖ Keeping records 			
2.	<p><u>Establish/ maintain new organic tea plantation</u></p> <ul style="list-style-type: none"> • Receive instruction • Select site and buffer zone • Choose varieties/cultivars • Bring up young plantations • Maintain new organic plantation • Take precaution • Keep record 	<p><u>Establishing and maintaining new organic tea plantation</u></p> <ul style="list-style-type: none"> ❖ Site selection and buffer zone ❖ Choice of varieties/cultivars ❖ Water ❖ Livestock ❖ Soil conservation ❖ Bringing up of young plantation ❖ Taking precaution ❖ Keeping records 	0.5	0.25	0.75
3.	<p><u>Convert conventional plantation into organic</u></p> <ul style="list-style-type: none"> • Receive instruction • Take note on Conversion period • Maintain established plantation to convert into organic • Take precaution • Keep record 	<p><u>Converting conventional plantation into organic</u></p> <ul style="list-style-type: none"> ❖ Conversion period ❖ Maintenance of established plantation ❖ Taking precaution ❖ Keeping records 	0.5	0.25	0.75
4.	<p><u>Identify cultural practices in organic cultivation</u></p> <ul style="list-style-type: none"> • Receive instruction • Obtain reading materials related to cultural practices in organic cultivation • Identify cultural practices in organic 	<p><u>Identifying cultural practices</u></p> <ul style="list-style-type: none"> ❖ Cultural practices ❖ Modification of such cultural practices while doing organic ❖ Taking precaution ❖ Keeping records 	0.5	0.25	0.75

	cultivation				
Total			2	1	3
Sub-module:2:Organic manure					
<p>Description: It deals with the knowledge and skills/tasks related to manures used in organic practices. Each task consists of minimum related technical knowledge necessary to carry out that very task in a competent/ professional manner, and time allocation for the task and its related knowledge.</p> <p>Objective: After its completion the trainees will be able:</p> <ul style="list-style-type: none"> • To be familiar with organic manures • To be prepare organic manures <p>Tasks: To fulfill the objective the trainees are expected to get proficiency on the following tasks together with their related technical knowledge:</p>					
			Th.(2hrs) + Pr.(7 hrs) = Tot.(9 hrs)		
			Time(hrs)		
SN	Tasks/skills	Related technical knowledge	Th.	Pr.	Tot.
1.	<u>Identify common organic manures</u> <ul style="list-style-type: none"> • Receive instruction • Enlist common organic manures and nutrient content in each manures • Identify common organic manures • Take precautions • Keep record 	<u>Common organic manures</u> <ul style="list-style-type: none"> ❖ Compost ❖ FYM ❖ Vermi-compost ❖ Rock phosphate ❖ Bone meal ❖ Neem cake ❖ Biodynamic 	0.25	1	1.25
2.	<u>Identify standards of organic manures</u> <ul style="list-style-type: none"> • Receive instruction • Lists the standards of organic manures • Identify the standard percentages of NPK in organic fertilisers • Take precautions • Keep record 	<u>Standards of organic manures</u> <ul style="list-style-type: none"> ❖ Standards of organic manures ❖ NPK percentage standards 	0.25	1	2.25
3.	<u>Preparing compost manure/Bokashi</u> <ul style="list-style-type: none"> • Receive instruction • Enlist the methods of preparing compost manure based on type of pit • Prepare compost manure by each methods • Carry out manurial 	<u>Preparing compost manure</u> <ul style="list-style-type: none"> ❖ Materials that can be used in compost preparation ❖ Pit method ❖ Heap method ❖ Semi-heap method ❖ Carrying out manuring ❖ Taking precaution ❖ Keeping records 	0.5	2	2.5

	practices for tea plantation <ul style="list-style-type: none"> • Take precaution • Keep record 				
4.	<u>Prepare Vermi-compost</u> <ul style="list-style-type: none"> • Receive instruction • Enlist the methods of preparing vermi-compost • Enlist the species of earthworm used in preparing vermi-compost • Prepare vermi-compost by each methods • Carry out manurial practices for tea plantation • Take precaution • Keep record 	<u>Preparing Vermi-compost</u> <ul style="list-style-type: none"> ❖ Materials that can be used in Vermi-compost preparation ❖ Species of earthworm ❖ Carrying out manuring ❖ Taking precaution ❖ Keeping records 	0.5	2	2.5
5.	<u>Identify Bio-fertilizers</u> <ul style="list-style-type: none"> • Receive instruction • Enlist common Bio-fertilisers • Prepare a dose of some Bio-fertilisers • Carry out manurial practices of some Bio-fertilizer in tea • Take precaution • Keep record 	<u>Concept of Bio-fertilizers</u> <ul style="list-style-type: none"> ❖ Mycorriza ❖ Phosphorus solubilising bacteria ❖ Effective microorganism (EM) ❖ Rhizobium ❖ Azotobacter ❖ Green manures 	0.5	1	1.5
Total			2	7	9
Sub-module:3: Organic method of pest control					
<p>Description: It deals with the knowledge and skills/tasks related to pest control in organic practices. Each task consists of minimum related technical knowledge necessary to carry out that very task in a competent/ professional manner, and time allocation for the task and its related knowledge.</p> <p>Objective: After its completion the trainees will be able:</p> <ul style="list-style-type: none"> • To be familiar with pest management under organic cultivation • To be prepare some plant and animal based pest control preparations <p>Tasks: To fulfill the objective the trainees are expected to get proficiency on the following tasks together with their related technical knowledge:</p>					
			Th.(2hrs) + Pr.(6 hrs) = Tot.(8 hrs)		
			Time(hrs)		
SN	Tasks/skills	Related technical knowledge	Th.	Pr.	Tot.

1.	<u>Identify cultural practices which minimizes the incidence of pest</u> <ul style="list-style-type: none"> • Receive instruction • Enlist cultural practices which can minimise the incidence of pest • Carryout few cultural practices in infested field • Take precaution • Keeping record 	<u>Concept of cultural practices in reducing incidence of pest</u> <ul style="list-style-type: none"> ❖ Enlisting cultural practices ❖ Modification of cultural practices ❖ Carrying out few cultural practices in infested field ❖ Taking precaution ❖ Keeping record 	0.25	1	1.25
2.	<u>Identify physical methods of insects and pests management</u> <ul style="list-style-type: none"> • Receive instruction • Make list of instruments used in controlling insects and pests • Identify the instruments • Handle the instruments • Care/maintain the instruments • Following precautions • Keeping records 	<u>Instrument used in managing insects and pests</u> <ul style="list-style-type: none"> ❖ Light trap ❖ Sticky trap ❖ Pheromone trap ❖ Yellow pan trap ❖ Taking precautions ❖ Keeping record 	0.25	1	1.25
3.	<u>Identify organic pesticides and natural enemies</u> <ul style="list-style-type: none"> • Receive instruction • Make list of plant based pest control preparation • Make list of animal based pest control preparation • Make list of natural enemies and identify • Identify the plant and animal based pest control preparations • Prepare few plant and animal based preparations • Following precautions • Keeping records 	<u>Plant based organic pesticides</u> <ul style="list-style-type: none"> ❖ Neem products (Oil, cake, decoction) ❖ Neem seed kernel ❖ Acorus calamus ❖ Nicotine ❖ Rotenone ❖ Lantana camara ❖ Ocimum basilicum ❖ Pyrethrum from Crysanthemum ❖ Garlic and Onion extract ❖ Garlic-chilly extract ❖ Red chilli powder <u>Animal based organic pesticides</u> <ul style="list-style-type: none"> ❖ Cow urine ❖ Mixture of cow urine with plant extracts <u>Natural enemies</u> <ul style="list-style-type: none"> ❖ Lady bird beetle ❖ Preying mantids, etc 	0.5	1	1.5

4.	<u>Prepare / apply plant and animal based organic pesticides</u> <ul style="list-style-type: none"> • Receive instruction • Be familiar with does and application • Be familiar with application method • Carryout application • Follow precautions • Keeping records 	<u>Preparing and Applying plant and animal based organic pesticides</u> <ul style="list-style-type: none"> ❖ Does of organic pesticides ❖ Application method of organic pesticides ❖ Time of application ❖ Following precaution ❖ Keeping records 	0.5	2	2.5
5.	<u>State concept of Integrated Pest Management(IPM)</u> <ul style="list-style-type: none"> • Receive instruction • Obtain related reading materials • Analyse the related reading materials • Be familiar with Farmer's school • Follow precautions • Keeping records 	<u>Concept of IPM</u> <ul style="list-style-type: none"> ❖ Related reading materials ❖ Studying the related reading materials ❖ Analysing the related reading materials ❖ Being familiar with Farmer's school and general practices of IPM ❖ Following precaution ❖ Keeping records 	0.5	1	1.5
Total			2	6	8
Sub-module:4: Organic method of disease control					
<p>Description: It deals with the knowledge and skills/tasks related to disease control in organic practices. Each task consists of minimum related technical knowledge necessary to carry out that very task in a competent/ professional manner, and time allocation for the task and its related knowledge.</p> <p>Objective: After its completion the trainees will be able:</p> <ul style="list-style-type: none"> • To be familiar with disease management under organic cultivation • To be familiar with preparations acceptable under organic cultivation <p>Tasks: To fulfill the objective the trainees are expected to get proficiency on the following tasks together with their related technical knowledge:</p>					
			Th.(2hrs) + Pr.(6 hrs) = Tot.(8 hrs)		
			Time(hrs)		
SN	Tasks/skills	Related technical knowledge	Th.	Pr.	Tot.
1.	<u>Identify cultural practices which minimizes the incidence of diseases</u> <ul style="list-style-type: none"> • Receive instruction • Enlist cultural practices which can minimise the incidence of disease • Carryout few cultural practices 	<u>Concept of cultural practices which minimizes the incidence of diseases</u> <ul style="list-style-type: none"> ❖ Enlisting cultural practices ❖ Modification of cultural practices ❖ Carrying out few cultural practices in infested field ❖ Taking precaution ❖ Keeping record 	0.25	1	1.25

	<ul style="list-style-type: none"> • Take precaution • Keeping record 				
2.	<u>Identify crop protectants and preparations acceptable under organic cultivations</u> <ul style="list-style-type: none"> • Receive instruction • Make list of crop protectants and preparations acceptable under organic cultivation • Identify crop protectants and preparations acceptable under organic cultivation • Applying crop protectants and preparations acceptable under organic cultivation • Follow precautions • Keep records 	<u>Crop protectants acceptable under organic cultivation</u> <ul style="list-style-type: none"> ❖ Algal preparation ❖ Animal preparations and oils ❖ Bacterial preparation ❖ Fungal preparation ❖ Lime sulphur ❖ Copper salts ❖ Bordeaux mixture 	0.25	1	1.25
3.	<u>Carry out management of root diseases</u> <ul style="list-style-type: none"> • Receive instruction • Identify root disease • Enlist the probable control measures • Carry out the control measures • Follow precautions • Keep records 	<u>Carrying out management of root diseases</u> <ul style="list-style-type: none"> ❖ Techniques of preparation of Trichoderma viridae ❖ Isolating of infected area ❖ Using the preparation ❖ Uprooting technique and burning infected bushes ❖ Rehabilitating soil with Guatemala grass 	0.5	1	1.5
4.	<u>Carry out management of stem diseases</u> <ul style="list-style-type: none"> • Receive instruction • Identify stem disease • Enlist the probable control measures • Carry out the control measures • Follow precautions • Keep records 	<u>Carrying out management of stem diseases</u> <ul style="list-style-type: none"> ❖ Identifying stem disease ❖ Enlisting the probable control measures ❖ Carrying out the control measures ❖ Following precautions ❖ Keeping records 	0.5	1	1.5
5.	<u>Carry out management of</u>	<u>Carrying out management of leaf</u>	0.5	2	2.5

	<u>leaf diseases</u> <ul style="list-style-type: none"> • Receive instruction • Identify leaf disease • Enlist the probable control measures • Carry out the control measures • Follow precautions • Keep records 	<u>diseases</u> <ul style="list-style-type: none"> ❖ Identifying leaf disease ❖ Enlisting the probable control measures ❖ Carrying out the control measures ❖ Following precautions ❖ Keeping records 			
Total			2	6	8
Sub-module:5: Organic Certification					
<p>Description: It deals with the knowledge and skills/tasks related to Organic Certification. Each task consists of minimum related technical knowledge necessary to carry out that very task in a competent/ professional manner, and time allocation for the task and its related knowledge.</p> <p>Objective: After its completion the trainees will be able:</p> <ul style="list-style-type: none"> • To be familiar with various organic certifications • To be familiar with the process of some organic certifications <p>Tasks: To fulfill the objective the trainees are expected to get proficiency on the following tasks together with their related technical knowledge:</p>					
			Th.(1hrs) + Pr.(1 hrs) = Tot.(2 hrs)		
			Time(hrs)		
SN	Tasks/skills	Related technical knowledge	Th.	Pr.	Tot.
1.	<u>State concept and need of Organic Certification</u> <ul style="list-style-type: none"> • Receive instruction • Introduction to organic certification • Understand the need of certification • Take precautions • Keep records 	<u>Concept of Organic Certification</u> <ul style="list-style-type: none"> ❖ Introduction ❖ Need of certification ❖ Taking precautions ❖ Keeping record 	0.25	0.25	0.5
2.	<u>Identify popular organic certifying agencies</u> <ul style="list-style-type: none"> • Receive instruction • Enlist popular organic certifications and the certifying agency • Take precautions • Keep records 	<u>Identifying popular organic certifications</u> <ul style="list-style-type: none"> ❖ Enlisting popular organic certifications and the certifying agency ❖ Being familiar with the logo of each organic certificates ❖ Taking precautions ❖ Keep records 	0.25	0.25	0.5
3.	<u>State the concept of</u>	<u>Concept of certification process</u>	0.5	0.5	1

	<u>certification process</u> <ul style="list-style-type: none"> • Receive instruction • Be familiar with the certification process • Be familiar with the types of records to be maintained before and during certification • Take precautions • Keep records 	<ul style="list-style-type: none"> ❖ Being familiar with the certification process ❖ Being familiar with the types of records to be maintained before and during certification ❖ Taking precautions ❖ Keeping records 			
Total			1	1	2

List of tools, materials and equipment	
<ul style="list-style-type: none"> • Kuto • Kodalo/ Spade • Chucho/pate kuto • Clod breaker • Rake • Khurpi • Sickle • Watering can • Pipes, hand pump/ motor • Shovel • Insect catching net • Insect collecting box • Light trap • Sticky trap • Pheromone trap • Leveller • Insecticides • Fungicides • Basket • Manure/ compost • Basila • Sacks/ Dokos • Bullock cart/ porter • Other means of transport 	<ul style="list-style-type: none"> • Balance set • Seeds and cuttings • Pegs • Power tiller/ tractor • Ropes • Thatching materials • Bamboo • Motor blow spraying equipment • Back pack sprayer with all nozzles types used in tea • Duster • First aid kit • Pruning knives 6,8,10,12 inches blade size • Cheel hoe • Planting Hoe • Planting chain • Bamboo sticks 1.5 feet size • Polythene sleeves • Sand, silt, clay types of soil • Shaving blades for cuttings • Protective clothing for spraying person • Masks goggles, gloves • Auger for soil sample drawing • Local plough set/ oxen • Measuring cylinder

Reading materials	
<ul style="list-style-type: none"> • Handbook of agriculture By: Indian Council of Agricultural Research(ICAR) • Modern techniques of raising field crops By: Dr. Chnida Singh 	<ul style="list-style-type: none"> • Instructor selected textbooks/ reference books / manuals/ journals and articles available in the marker • Instructor prepared books, handouts, notes and manuals • Tea Policy – 2057 • www.teacoffee.gov.np
Facilities	
<ul style="list-style-type: none"> • Well equipped enough class/ office rooms • A / V room • Demonstration farms for various crop species • Transportation facilities/ Vehicle 	<ul style="list-style-type: none"> • Laboratory / library • OHP/computers with CD ROM attachment / pictures/ • Multimedia presentation set /Slide presenter • Hostel/canteen /drinking water • Electricity • Field/ Land for cultivation practices[2 hectares (min.)]

मोड्युल ६: उद्यमशीलता विकास (Entrepreneurship Development)

Total: 40 hrs
Theory: 18 hrs
Practical: 22 hrs

Course description

This course is designed to impart the knowledge and skills necessary for micro enterprise or a business unit of self-employment startup. The entire course intends to introduce enterprise, finding suitable business ideas and developing business idea to formulation of business plan.

Course objectives

After completion of this course, students will be able to:

1. Understand concept of enterprise and self-employment
2. Explore suitable business idea matching to self
3. Learn to prepare business plan
4. Learn to keep preliminary business record

S.N.	Task statements	Related technical knowledge	Time (hrs)		
			T	P	Tot.
1.	State the concept of business/enterprises	<ul style="list-style-type: none">• Introduction to business/enterprise• Classification of business/enterprises• Overview of MSMEs(Micro, Small and Medium Enterprises) in Nepal• Cost & Benefits of self-employment/salaried job	4		4
2.	Grow entrepreneurial attitudes	<ul style="list-style-type: none">• Wheel of success• Risk taking attitude	3		3
3.	Generate viable business ideas	<ul style="list-style-type: none">• Business idea generation• Evaluation of business ideas	1	2	3

S.N.	Task statements	Related technical knowledge	Time (hrs)		
			T	P	Tot.
4.	Prepare business plan	<ul style="list-style-type: none"> • Concept of market and marketing • Description of product or service • Selection of business location • Estimation of market share • Promotional measures • Required fixed assets and cost • Required raw materials and costs • Operation process flow • Required human resource and cost • Office overhead and utilities • Working capital estimation and calculation of total finance required • Product costing and pricing • Cost benefit analysis (BEP, ROI) • Information collection method and guidelines • Individual business plan preparation and presentation 	9	18	27
5.	Prepare basic business records	<ul style="list-style-type: none"> • Day book • Payable & receivable account 	1	2	3
Total:			18	22	40

Textbook:

क) प्रशिक्षकहरुका लागि निर्मित निर्देशिका तथा प्रशिक्षण सामग्री, प्राविधिक शिक्षा तथा व्यावसायिक तालीम परिषद्, २०६९

Reference book:

Entrepreneur's Handbook, Technonet Asia, 1981