

Assistant Coffee Technician

Short term Curriculum

(Competency Based)



Council for technical education and vocational training

Curriculum Development Division

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Table of contents

Introduction	2
Aim.....	2
Objectives.....	2
Course description.....	2
Course structure.....	3
Duration.....	4
Target group	4
Group size.....	4
Pattern of attendance	4
Focus of curriculum.....	4
Entry criteria.....	4
Follow up suggestions	4
Certificate.....	4
Students evaluation.....	4
Trainers qualification.....	5
Trainer-trainees ratio	5
Other suggestions	6
List of modules and sub modules	7
Details of modules and sub modules	8
Module:1: Growing coffee	8
Sub module:1: Coffee plant & plantation site selection	8
Sub module:2: Nursery practices.....	12
Sub module:3: Crop cycle and field management calendar.....	17
Sub module:4: Field management and planting shade trees.....	18
Sub module:5: Nutrition and fertilizer management	22
Sub module:6: Pruning and tree management.....	24
Module:2: Coffee plant protection	25
Sub module:1: Pests and diseases.....	25
Sub module:2: Natural enemies and IPM.....	33
Module: 3. Harvesting and processing	34
Module: 4. Coffee quality.....	37
Sub module:1: Quality assessment	37
Sub module:2: Quality and export standards.....	38
Module:5: Coffee marketing	39
Sub module:1: Nepal's coffee market survey	40
Sub module:2: Storage of coffee	41
Sub module: 3. Packing coffee	44
Sub module:4: Marketing Coffee	45
Sub module: 5. Coffee economics	48
Module :6 : Common module.....	50
Sub module: 1 : Communication.....	50
Sub module: 2 : Cooperative Education	54
Sub module: 3 : Organic Practices	56
Module: 7: Entrepreneurship Development.....	58
List of tools, materials and equipment.....	60
Reading materials	60
Facilities	60

Introduction

This curriculum for coffee technician is designed to produce lower level technical workforce equipped with knowledge and skills related to coffee production technology. It makes the trainees able to get opportunities for wage and self-employment in the related occupational field.

Aim

To produce lower level agriculture workforce able to provide coffee technicians services in the community.

Objectives

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

- To be familiar with coffee plant & plantation site selection
- To carry out nursery practices
- To prepare crop cycle and field management calendar
- To manage coffee field and plant trees
- To manage fertilizer
- To perform pruning and tree management
- To protect coffee plant
- To harvest/process coffee
- To maintain quality of coffee
- To market coffee

Course description

This curriculum provides skills & knowledge necessary for the level of coffee 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 growing coffee; establishing & maintaining coffee plant protection; harvesting and processing of coffee; coffee quality; and coffee marketing.

Course structure
Assistant Coffee Technician

Module/ sub modules	Nature	Time		
		Th	Pr.	Tot.
1. Growing coffee	T + P	54	110	164
1. Coffee plant & plantation site selection	T + P	13	13	26
2. Nursery practices	T + P	13	26	39
3. Crop cycle and field management calendar	T + P	2	8	10
4. Field mgmt& planting shade trees	T + P	15	30	45
5. Nutrition & fertilizer management	T + P	6	18	24
6. Pruning and tree management	T + P	5	15	20
2. Coffee plant protection	T + P	24	70	94
1. Pests and diseases	T + P	18	52	70
2. Natural enemies and IPM	T + P	6	18	24
3. Harvesting and processing	T + P	8	24	32
4. Coffee quality	T + P	4	10	14
1. Quality assessment	T + P	2	6	8
2. Quality and export standards	T + P	2	4	6
5. Coffee marketing:	T + P	28	58	86
1. Nepal's coffee market survey	T + P	7	7	14
2. Storage of coffee	T + P	5	10	15
3. Packing coffee	T + P	5	15	20
4. Marketing Coffee	T + P	9	18	27
5. Coffee economics	T + P	2	8	10
Sub Total:		118	272	390
6. Common module	T + P	6	24	30
1. Communication	T + P	2	8	10
2. Cooperative Education	T + P	2	8	10
3. Organic Practices	T + P	2	8	10
7. Entrepreneurship Development	T + P	18	22	40
Grand Total:		142	318	460

Duration

The total duration of the course will be of **460 hours**.

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

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 Coffee Technician".

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.

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.

List of modules and sub modules

Module: 1: Growing coffee

Sub module: 1: Coffee plant & plantation site selection

Sub module: 2. Nursery practices

Sub module: 3. Crop cycle and field management calendar

Sub module: 4. Field management & planting shade trees

Sub module: 5. Nutrition & fertilizer management

Sub module: 6. Pruning and tree management

Module: 2. Coffee plant protection

Sub module: 1. Pests and diseases

Sub module: 2. Natural enemies and IPM

Module: 3. Harvesting and processing

Module: 4. Coffee quality

Sub module: 1. Quality assessment

Sub module: 2. Quality and export standards

Module: 5. Coffee marketing:

Sub module: 1. Nepal's coffee market survey

Sub module: 2. Storage of coffee

Sub module: 3. packing coffee

Sub module: 4. Marketing Coffee

Sub module: 5. Coffee economics

Module: 6. Common module

Sub module: 1: Communication

Sub module: 2: Cooperative Education

Sub module: 3: Organic Practices

Module: 7. Entrepreneurship Development

Details of modules and sub modules

Module:1: Growing coffee					
	Description: It deals with the knowledge and skills related to growing coffee.				
	Objectives: After its completion the trainees will be able: <ul style="list-style-type: none"> • To be familiar with coffee plant growth & plantation site selection • To carry out nursery practices • To prepare crop cycle and field management calendar • To perform field management & planting shade trees • To perform nutrition & fertilizer management • To perform pruning and tree management 				
	Sub modules: 1. Coffee plant & plantation site selection 2. Nursery practices 3. Crop cycle and field management calendar 4. Field management & planting shade trees 5. Nutrition & fertilizer management 6. Pruning and tree management				
	Sub module:1: Coffee plant & plantation site selection				
	Description: It deals with the knowledge and skills related to coffee pant and selection of site for its plantation..				
	Objectives: After its completion the trainees will be able: To be Familiar with coffee growing. <ul style="list-style-type: none"> • Be familiar with the history of coffee in Nepal • Be familiar with the factors affecting yield and quality • Be familiar with the varieties to plant • Be familiar with the environment (site selection) • Be familiar with the temperature • Be familiar with the rainfall and water supply • Be familiar with the soil type • Be familiar with the slope and aspect (slope % and direction) • Be familiar with the moisture management • Be familiar with the coffee plant and its management • Be familiar with the root system • Be familiar with the phenology (crop cycle) • Select site for coffee plantation 				
	Tasks: To fulfill the objective the trainees are expected to get proficiency on the following tasks/skills/steps together with their related technical knowledge:				
	Th.(13 hrs) + Pr.(13 hrs) = Tot.(26 hrs)			Time(hrs)	
SN	Tasks or skills/ steps	Related technical knowledge	Th.	Pr.	Tot.
1.	<u>State history of coffee in Nepal</u> <ul style="list-style-type: none"> • Receive instruction • Collect related reading materials 	<u>History of coffee in Nepal:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Relate dreading materials 	1	1	2

	<ul style="list-style-type: none"> • Study the related reading materials • Analyze related reading materials • Prepare an outline of the history of coffee in Nepal • Take precautions • Keep records 	<ul style="list-style-type: none"> ❖ Studying the related reading materials ❖ Analyzing related reading materials ❖ Preparing an outline of the history of coffee in Nepal ❖ Precautions to be taken 			
2.	<u>In list factors affecting yield and quality of coffee</u> <ul style="list-style-type: none"> • Receive instruction • Collect related reading materials • Study the related reading materials • Analyze related reading materials • Enlist factors affecting yield and quality of coffee • Take precautions • Keep records 	<u>Factors affecting yield and quality of coffee:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Related reading materials ❖ Studying the related reading materials ❖ Analyzing related reading materials ❖ Enlisting factors affecting yield and quality of coffee ❖ Precautions to be taken ❖ Records keeping 	1	1	2
3.	<u>List/Identify varieties of coffee plant</u> <ul style="list-style-type: none"> • Receive instruction • Collect related reading materials • Study the related reading materials • Analyze related reading materials • Make list the varieties • Identify the coffee varieties • Take precautions • Keep records 	<u>Varieties of coffee plant:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Related reading materials ❖ Studying the related reading materials ❖ Analyzing related reading materials ❖ Making list the varieties ❖ Identifying the coffee varieties ❖ Precautions to be taken ❖ Records keeping 	1	1	2
4.	<u>State temperature nearly for growing coffee</u> <ul style="list-style-type: none"> • Receive instruction • Collect related reading materials • Study the related reading materials • Analyze related reading materials • state temperature necessary for 	<u>Temperature for growing coffee</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Related reading materials ❖ Studying the related reading materials ❖ Analyzing related reading materials ❖ temperature for growing coffee ❖ Precautions to be taken ❖ Records keeping 	1	1	2

	<p>growing coffee</p> <ul style="list-style-type: none"> • Take precautions • Keep records 				
5.	<p><u>In list rainfall and water supply needs for coffee growing</u></p> <ul style="list-style-type: none"> • Receive instruction • Collect related reading materials • Study the related reading materials • Analyze the related reading materials • In list rainfall and water supply needs for growing coffee • Take precautions • Keep records 	<p><u>Rainfall and water supply:</u></p> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Collecting related reading materials ❖ Studying the related reading materials ❖ Analyzing the related reading materials ❖ listing rainfall and water supply needs for growing coffee ❖ Precautions to be taken ❖ Records keeping 	1	1	2
6.	<p><u>Specify soil type, necessary for growing coffee</u></p> <ul style="list-style-type: none"> • Receive instruction • Collect related reading materials • Study the related reading materials • Analyze the related reading materials • Be familiar with the soil type for growing coffee • Take precautions • Keep records 	<p><u>Soil type:</u></p> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Collecting related reading materials ❖ Studying the related reading materials ❖ Analyzing the related reading materials ❖ Specifying necessary the soil type for growing coffee ❖ Precautions to be taken ❖ Records keeping 	1	1	2
7.	<p><u>Identify slope and aspect (slope % and direction) necessary for growing coffee</u></p> <ul style="list-style-type: none"> • Receive instruction • Collect related reading materials • Study the related reading materials • Analyze the related reading materials • Identify/list slope and aspect (slope % and direction) necessary for growing coffee • Take precautions • Keep records 	<p><u>Slope and aspect (slope % and direction):</u></p> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Collecting related reading materials ❖ Studying the related reading materials ❖ Analyzing the related reading materials ❖ listing slope and aspect (slope % and direction) necessary for growing coffee ❖ Precautions to be taken ❖ Records keeping 	1	1	2

8.	<u>Write concept of moisture management</u> <ul style="list-style-type: none"> • Receive instruction • Collect related reading materials • Study the related reading materials • Analyze the related reading materials • write concept of moisture management needs for growing coffee • Take precautions • Keep records 	<u>Concept of moisture management:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Collecting related reading materials ❖ Studying the related reading materials ❖ Analyzing the related reading materials ❖ moisture management needs for growing coffee ❖ Precautions to be taken ❖ Records keeping 	1	1	2
9.	<u>Identify coffee plant and state its management</u> <ul style="list-style-type: none"> • Receive instruction • Collect related reading materials • Study the related reading materials • Analyze the related reading materials • Observe the coffee plant • Identify coffee plant and state its management • Take precautions • Keep records 	<u>Coffee plant and its management:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Related reading materials ❖ Studying the related reading materials ❖ Analyzing the related reading materials ❖ Observing the coffee plant ❖ coffee plant and its management ❖ Precautions to be taken ❖ Records keeping 	2	2	4
10.	<u>Identify root system of coffee plant</u> <ul style="list-style-type: none"> • Receive instruction • Collect related reading materials • Study the related reading materials • Analyze the related reading materials • Observe the root system of coffee plant • Identify the root system of coffee plant • Take precautions • Keep records 	<u>Root system:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Related reading materials ❖ Studying the related reading materials ❖ Analyzing the related reading materials ❖ Observing the root system of coffee plant ❖ the root system of coffee plant ❖ Precautions to be taken ❖ Records keeping 	1	1	2
11.	<u>Draw/state phenology (crop cycle) of coffee</u>	<u>Phenology (crop cycle) of coffee:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and 	0.5	0.5	1

	<ul style="list-style-type: none"> • Receive instruction • Collect related reading materials • Study the related reading materials • Analyze the related reading materials • draw/ state phenology (crop cycle) of coffee • Take precautions • Keep records 	<ul style="list-style-type: none"> ❖ application ❖ Related reading materials ❖ Studying the related reading materials ❖ Analyzing the related reading materials ❖ phenology (crop cycle) of coffee ❖ Precautions to be taken ❖ Records keeping 			
12.	<u>Select site for coffee plantation</u> <ul style="list-style-type: none"> • Receive instruction • Enlist site selection criteria for coffee plantation • Visit site • Evaluate the site in the light of the site selection criteria listed • Select site for coffee plantation • Take precautions • Keep records 	<u>Selecting site for coffee plantation</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Site selection criteria for coffee plantation ❖ Visiting the site ❖ Evaluating the site in the light of the site selection criteria listed ❖ Selecting site for coffee plantation ❖ Precautions to be taken ❖ Records keeping 	1.5	1.5	3
		Total:	13	13	26
Sub module: 2 : Nursery practices					
Description: It deals with the knowledge and skills related to nursery practices for growing coffee.					
Objectives: After its completion the trainees will be able: <ul style="list-style-type: none"> • To list/explain coffee nursery practices • To starting the nursery • To select the seed • To keep records • To maintain nursery record book • To prepare nursery management calendar • To specify/determine when to start the nursery • To calculate the amount of seed and the area required • To build the nursery shelter and beds • To plant the seed • To transplant into bags • To prepare potting mixture • To manage nursery diseases and pests 					
Tasks: To fulfill the objective the trainees are expected to get proficiency on the following tasks/skills/steps together with their related technical knowledge:					
			Th.(13 hrs) + Pr.(26hrs) = Tot.(39 hrs)		Time(hrs)

SN	Tasks or skills/ steps	Related technical knowledge	Th.	Pr.	Tot.
1.	<u>List/Explain nursery practices</u> <ul style="list-style-type: none"> • Receive instruction • Collect related reading materials • Study the related reading materials • Analyze the related reading materials • Enlist coffee nursery practices • Explain coffee nursery practices • Take precautions • Keep records 	<u>Coffee nursery practices:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Related reading materials ❖ Studying the related reading materials ❖ Analyzing the related reading materials ❖ Enlisting coffee nursery practices ❖ explanation of coffee nursery practices ❖ Precautions to be taken ❖ Records keeping 	1	2	3
2.	<u>Planfor Nursery Establishment</u> <ul style="list-style-type: none"> • Receive instruction • Plan nursery • Layout nursery • Take precautions • Keep records 	<u>Planning/Nursery Establishment:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Planning nursery ❖ Laying out nursery ❖ Starting nursery ❖ Precautions to be taken ❖ Records keeping 	1	2	3
3.	<u>Select the seed</u> <ul style="list-style-type: none"> • Receive instruction • Identify seeds • Enlist seed selection criteria • Evaluate the seeds against the selection criteria • Select the seeds • Take precautions • Keep records 	<u>Selecting the seed:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Identifying seeds ❖ Enlisting seed selection criteria ❖ Evaluating the seeds against the selection criteria ❖ Selecting the seeds ❖ Precautions to be taken ❖ Records keeping 	1	2	3
4.	<u>Keep records</u> <ul style="list-style-type: none"> • Receive instruction • Obtain samples of records to be kept • Study the samples • Identify components of records • Collect related information related to each component of the formats • Feed the information on the formats • Edit the records • Finalize the records 	<u>Keeping records:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Samples of records to be kept ❖ Studying the samples ❖ Components of records ❖ Collecting related information related to each component of the formats ❖ Feeding the information on the formats ❖ Editing the records ❖ Finalizing the records ❖ Precautions to be taken 	1	2	3

	<ul style="list-style-type: none"> • Take precautions • Keep records 	<ul style="list-style-type: none"> ❖ Records keeping 			
5.	<u>Maintain nursery record book</u> Receive instruction <ul style="list-style-type: none"> • Obtain sample of nursery record book • Study the sample nursery record book • Identify components of nursery record book • Collect information related for each component of the nursery record book • Feed the information on the nursery record book • Edit the nursery record book • Finalize the nursery record book • Maintain the nursery record book • Take precautions • Keep records 	<u>Maintaining nursery record book:</u> Concept, need, importance and application <ul style="list-style-type: none"> ❖ Sample of nursery record book ❖ Studying the sample nursery record book ❖ Identifying components of nursery record book ❖ Collecting information related for each component of the nursery record book ❖ Feeding the information on the nursery record book ❖ Editing the <u>nursery record book</u> ❖ Finalizing the nursery record book ❖ Maintaining the nursery record book ❖ Precautions to be taken ❖ Records keeping 	1	2	3
6.	<u>Prepare nursery management calendar</u> <ul style="list-style-type: none"> • Receive instruction • Obtain sample of nursery management calendar • Study the sample nursery management calendar • Identify components of nursery management calendar • Collect information related for each component of the nursery management calendar • Feed the information on the nursery management calendar • Prepare a nursery management calendar • Edit the nursery management calendar • Finalize the nursery management calendar • Maintain the nursery management calendar 	<u>Preparing nursery management calendar:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Sample of nursery management calendar ❖ Studying the sample nursery management calendar ❖ Identifying components of nursery management calendar ❖ Collecting information related for each component of the nursery management calendar ❖ Feeding the information on the nursery management calendar ❖ Preparing a nursery management calendar including Weeding, shade, moisture, nutrient management, etc ❖ Editing the nursery management calendar ❖ Finalizing the nursery management calendar 	1	2	3

	<ul style="list-style-type: none"> • Take precautions • Keep records 	<ul style="list-style-type: none"> ❖ Maintaining the nursery management calendar ❖ Precautions to be taken ❖ Records keeping 			
7.	<u>Specify/determine when to start the nursery</u> <ul style="list-style-type: none"> • Receive instruction • Identify location to start the nursery • Identify season to start the nursery • Identify month to start the nursery • Identify day to start the nursery • Identify time to start the nursery • Specify/determine when to start the nursery • Calendar the plan to start the nursery • Take precautions • Keep records 	<u>Specifying/determining when to start the nursery:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Identifying location to start the nursery ❖ Identify season to start the nursery ❖ Identifying month to start the nursery ❖ Identifying day to start the nursery ❖ Identifying time to start the nursery ❖ Specifying/determining when to start the nursery ❖ Calendaring the plan to start the nursery ❖ Precautions to be taken ❖ Records keeping 	1	2	3
8.	<u>Calculate the amount of seed and the area required</u> <ul style="list-style-type: none"> • Receive instruction • List formula for calculating the amount of seed and the area required • Calculate the amount of seed and the area required • Take precautions • Keep records 	<u>Calculating the amount of seed and the area required:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Formula for calculating the amount of seed and the area required ❖ Calculating the amount of seed and the area required ❖ Precautions to be taken ❖ Records keeping 	1	2	3
9.	<u>Build the nursery shelter and beds</u> <ul style="list-style-type: none"> • Receive instruction • Collect necessary tools, materials, and equipment necessary to build nursery shelter and beds • Prepare for building nursery shelter and beds • Build the nursery beds • Build the nursery shelter • Take precautions • Keep records 	<u>Building the nursery shelter and beds:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Collecting necessary tools, materials, and equipment necessary to build nursery shelter and beds ❖ Preparing for building nursery shelter and beds ❖ Building the nursery beds ❖ Building the nursery shelter ❖ Precautions to be taken ❖ Records keeping 	1	2	3

10.	<u>Plant the seed</u> <ul style="list-style-type: none"> • Receive instruction • Obtain seeds • Prepare seeds • Prepare place to plant/show the seeds • Plant the seed • Take precautions • Keep records 	<u>Planting the seed:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Obtaining seeds ❖ Preparing seeds ❖ Preparing place to plant/show the seeds ❖ Planting the seed ❖ Take precautions ❖ Keep records ❖ Precautions to be taken ❖ Records keeping 	1	2	3
11.	<u>Transplant "Tope" into poly bags</u> <ul style="list-style-type: none"> • Receive instruction • Take bags • Prepare bags • Take seedlings • Prepare the seedlings • Transplant the seedlings into the bags • Take precautions • Keep records 	<u>Transplanting "Tope" into poly bags:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Bags ❖ Preparing bags ❖ Seedlings ❖ Preparing the seedlings ❖ Transplanting the seedlings into the bags ❖ Precautions to be taken ❖ Records keeping 	1	2	3
12.	<u>Prepare potting mixture</u> <ul style="list-style-type: none"> • Receive instruction • Identify components of plotting mixture • Obtain components of plotting mixture • Prepare components of plotting mixture • Specify mix ratio • Mix the component parts of plotting mixture as per the ratio • Take precautions • Keep records 	<u>Preparing potting mixture:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Components of plotting mixture ❖ Preparing components of plotting mixture ❖ Mix ratio ❖ Mixing the component parts of plotting mixture as per the ratio ❖ Precautions to be taken ❖ Records keeping 	1	2	3
13.	<u>Manage nursery diseases and pests</u> <ul style="list-style-type: none"> • Receive instruction • Identify nursery diseases and pests • Enlist nursery diseases and pests • List the damage caused by them 	<u>Managing nursery diseases and pests:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Identifying nursery diseases and pests ❖ Enlisting nursery diseases and pests ❖ Listing the damage caused by them 	1	2	3

	<ul style="list-style-type: none"> • Manage/prevent/control/treat nursery diseases and pests • Take precautions • Keep records 	<ul style="list-style-type: none"> ❖ Managing /preventing /controlling/treating nursery diseases and pests ❖ Take precautions ❖ Precautions to be taken ❖ Records keeping 				
			Total:	13	26	39
Sub module:3: Crop cycle and field management calendar						
Description: It deals with the knowledge and skills related to crop cycle and field management calendar necessary for growing coffee.						
Objectives: After its completion the trainees will be able: <ul style="list-style-type: none"> • To explain crop / phenological cycle of coffee • To prepare crop / phenological cycle of coffee • To reprepare field management calendar for coffee • To follow field management calendar for coffee 						
Tasks: To fulfill the objective the trainees are expected to get proficiency on the following tasks/skills/steps together with their related technical knowledge:						
			Th.(2hrs) + Pr.(8 hrs) = Tot.(10 hrs)		Time(hrs)	
SN	Tasks or skills/ steps	Related technical knowledge	Th.	Pr.	Tot.	
1.	<u>Be familiar with crop / phenological cycle of coffee</u> <ul style="list-style-type: none"> • Receive instruction • Obtain related reading materials • Study the related reading materials • Analyze the related reading materials • Be familiar with crop / phenological cycle of coffee • Take precautions • Keep records 	<u>Being familiar with crop / phenological cycle of coffee:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Related reading materials ❖ Studying the related reading materials ❖ Analyzing the related reading materials ❖ Being familiar with crop / phenological cycle of coffee ❖ Precautions to be taken ❖ Records keeping 	0.5	2	2.5	
2.	<u>Prepare crop / phenological cycle of coffee</u> Receive instruction <ul style="list-style-type: none"> • Identify crop / phenological cycle of coffee • Draw crop / phenological cycle of coffee • Prepare crop / phenological cycle of coffee • Take precautions • Keep records 	<u>Preparing crop / phenological cycle of coffee:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Identifying crop / phenological cycle of coffee ❖ Drawing crop / phenological cycle of coffee ❖ Preparing crop / phenological cycle of coffee ❖ Precautions to be taken ❖ Records keeping 	0.5	2	2.5	
3.	<u>Prepare field management calendar</u>	<u>Preparing field management calendar</u>	0.5	2	2.5	

	<u>for coffee</u> <ul style="list-style-type: none"> • Receive instruction • Obtain sample of field management calendar for coffee • Study the field management calendar for coffee • Identify parts of field management calendar for coffee • Collect necessary information • Prepare field management calendar for coffee • Take precautions • Keep records 	<u>for coffee:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Sample of field management calendar for coffee ❖ Studying the field management calendar for coffee ❖ Identifying parts of field management calendar for coffee ❖ Collecting necessary information ❖ Preparing field management calendar for coffee ❖ Precautions to be taken ❖ Records keeping 			
4.	<u>Follow field management calendar for coffee</u> <ul style="list-style-type: none"> • Receive instruction • Obtain field management calendar for coffee • Follow field management calendar for coffee • Check field management calendar for its execution • Collect feedbacks • Incorporate feedbacks for further use • Take precautions • Keep records 	<u>Following field management calendar for coffee:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Field management calendar for coffee including Weeding, shade, moisture, nutrient management, etc ❖ Following field management calendar for coffee ❖ Checking field management calendar for its execution ❖ Collecting feedbacks ❖ Incorporating feedbacks for further use ❖ Precautions to be taken ❖ Records keeping 	0.5	2	2.5
		Total:	2	8	10
Sub module:4: Field management and planting shade trees					
Description: It deals with the knowledge and skills related to field management and planting trees necessary for growing coffee.					
Objectives: After its completion the trainees will be able: <ul style="list-style-type: none"> • To prepare the field • To plant windbreaks • To establish shade trees • To perform moisture management • To perform planting the coffee seedlings • To specify / determine when to plant • To prepare the planting pits • To select the plant 					

	<ul style="list-style-type: none"> • Carry out planting procedure • Carry out field management of young bush • Protect from frost • Control weeds and mulch plants • Water plants 				
	Tasks: To fulfill the objective the trainees are expected to get proficiency on the following tasks/skills/steps together with their related technical knowledge:				
	Th.(15 hrs) + Pr.(30hrs) = Tot.(45 hrs)				
	Time(hrs)				
SN	Tasks or skills/ steps	Related technical knowledge	Th.	Pr.	Tot.
1.	<u>Prepare the field</u> <ul style="list-style-type: none"> • Receive instruction • Identify the field to be prepared • Collect necessary tools, materials and equipment • Prepare the field • Take precautions • Keep records 	<u>Preparing the field:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Identifying the field to be prepared ❖ Collecting necessary tools, materials and equipment ❖ Preparing the field ❖ Precautions to be taken ❖ Records keeping 	2	4	6
2.	<u>Plant windbreaks</u> <ul style="list-style-type: none"> • Receive instruction • Identify plants for windbreaks • Collect necessary tools, materials and equipment to plant • Prepare for panting windbreaks • Plant windbreaks • Take precautions • Keep records 	<u>Plant windbreaks</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Identifying plants for windbreaks ❖ Collecting necessary tools, materials and equipment to plant ❖ Preparing for panting windbreaks ❖ Planting windbreaks ❖ Precautions to be taken ❖ Records keeping 	1	2	3
3.	<u>Establish shade trees</u> <ul style="list-style-type: none"> • Receive instruction • Identify shade trees • Collect necessary tools, materials and equipment to establish • Prepare for establishment of shade trees • Establish shade trees • Take precautions • Keep records 	<u>Establishing shade trees:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Identifying shade trees ❖ Collecting necessary tools, materials and equipment to establish ❖ Preparing for the establishment of shade trees ❖ Establishing shade trees ❖ Precautions to be taken ❖ Records keeping 	1	2	3
4.	<u>Perform moisture management</u> <ul style="list-style-type: none"> • Receive instruction • Identify need of irrigation • Prepare for Irrigation • Carry out Irrigation 	<u>Performing moisture management:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Identifying need of irrigation ❖ Preparing for Irrigation 	1	2	3

	<ul style="list-style-type: none"> • Take precautions • Keep records 	<ul style="list-style-type: none"> ❖ Carrying out Irrigation ❖ Precautions to be taken ❖ Records keeping 			
5.	<u>Perform planting of the coffee seedling</u> <ul style="list-style-type: none"> • Receive instruction • Identify plantation site/field • Prepare the plantation site/ field • Obtain plantation materials • Prepare plantation materials • Carry out plantation of the coffee trees • Take precautions • Keep records 	<u>Performing planting of the coffee seedling:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Identifying plantation site/field ❖ Preparing the plantation site/ field ❖ Obtaining plantation materials ❖ Preparing plantation materials ❖ Carrying out plantation of the coffee trees ❖ Precautions to be taken ❖ Records keeping 	1	2	3
6.	<u>Specify / determine when to plant</u> <ul style="list-style-type: none"> • Receive instruction • Identify when to plant • Specify / determine when to plant • Take precautions • Keep records 	<u>Specifying / determining when to plant:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Identifying when to plant ❖ Specifying / determining when to plant ❖ Precautions to be taken ❖ Records keeping 	1	2	3
7.	<u>Prepare the planting pits</u> <ul style="list-style-type: none"> • Receive instruction • Identify site for making holes • Collect necessary tools, materials and equipment for making holes • Prepare for making holes • Make holes • Take precautions • Keep records 	<u>Preparing the planting pits:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Identifying site for making holes ❖ Collecting necessary tools, materials and equipment for making holes ❖ Preparing for making holes ❖ Making holes ❖ Precautions to be taken ❖ Records keeping 	1	2	3
8.	<u>Select the plant</u> <ul style="list-style-type: none"> • Receive instruction • Identify plants to be selected • Enlist plant selection criteria • Select plant based on the selection criteria • Take precautions • Keep records 	<u>Select in the plant:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Identifying plants to be selected ❖ Enlisting plant selection criteria ❖ Selecting plant based on the selection criteria ❖ Precautions to be taken ❖ Records keeping 	1	2	3
9.	<u>Carry out planting procedure</u>	<u>Carrying out planting procedure:</u>	1	2	3

	<ul style="list-style-type: none"> • Receive instruction • List planting procedure • Carry out planting procedure • Take precautions • Keep records 	<ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Planting procedure ❖ Carrying out planting procedure ❖ Precautions to be taken ❖ Records keeping 			
10.	<u>Carry out field management of young bush</u> <ul style="list-style-type: none"> • Receive instruction • List field management activities to be carried out for young trees • Prepare a field management calendar for young trees • Carry out field management of young trees • Follow the calendar while carrying out field management of young trees • Take precautions • Keep records 	<u>Carrying out field management of young bush:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Listing field management activities to be carried out for young trees ❖ Preparing a field management calendar for young trees ❖ Carrying out field management of young trees ❖ Precautions to be taken ❖ Records keeping 	1	2	3
11.	<u>Protect from frost</u> <ul style="list-style-type: none"> • Receive instruction • Identify season of frosting • Identify techniques/methods to protect from frost • Apply techniques/methods to protect from frost • Protect from frost • Take precautions • Keep records 	<u>Protecting from frost:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Identifying season of frosting ❖ Identifying techniques/methods to protect from frost ❖ Applying techniques/methods to protecting from frost ❖ Protect from frost ❖ Precautions to be taken ❖ Records keeping 	1	2	3
12.	<u>Control weeds</u> <ul style="list-style-type: none"> • Receive instruction • List weeds • Identify weeds • List nature of damage caused by weeds • List methods/ techniques for controlling weeds • Control weeds • Take precautions • Keep records 	<u>Controlling weeds:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Listing weeds ❖ Identifying weeds ❖ Listing nature of damage caused by weeds ❖ Listing methods/ techniques for controlling weeds ❖ Controlling weeds ❖ Precautions to be taken ❖ Records keeping 	1	2	3
13.	<u>Mulch plants</u>	<u>Mulching plants:</u>	1	2	3

	<ul style="list-style-type: none"> • Receive instruction • State concept of mulch • Identify mulching materials • Collect mulching materials • Prepare for mulching • Mulch plants • Take precautions • Keep records 	<ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Stating concept of mulch ❖ Identifying mulching materials ❖ Collecting mulching materials ❖ Preparing for mulching ❖ Mulching plants ❖ Precautions to be taken ❖ Records keeping 			
14.	<u>Water plants</u> <ul style="list-style-type: none"> • Receive instruction • Identify need to water the plants • Identify sources of • Arrange for watering the plants • Water plants • Take precautions • Keep records 	<u>Watering plants:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Identifying need to water the plants ❖ Identifying sources of ❖ Arranging for watering the plants ❖ Watering the plants ❖ Precautions to be taken ❖ Records keeping 	1	2	3
		Total:	15	30	45
Sub module:5: Nutrition and fertilizer management					
Description: It deals with the knowledge and skills related to nutrition and fertilizer management necessary for growing coffee.					
Objectives: After its completion the trainees will be able: <ul style="list-style-type: none"> • To be familiar with nutrition of coffee plant • To be familiar with providing nutrition to coffee plant • Enlist nutrients necessary for coffee plant • Enlist fertilizers containing the nutrients necessary for coffee plant • Calculate fertilizers/nutrient requirement for coffee plant • Manage / apply fertilizers/nutrient requirement for coffee plant 					
Tasks: To fulfill the objective the trainees are expected to get proficiency on the following tasks/skills/steps together with their related technical knowledge:					
Th.(6 hrs) + Pr.(18 hrs) = Tot.(24 hrs)			Time(hrs)		
SN	Tasks or skills/ steps	Related technical knowledge	Th.	Pr.	Tot.
1.	<u>Enlist nutrition of coffee plant</u> <ul style="list-style-type: none"> • Receive instruction • State the concept of nutrition of coffee plant • List nutrients necessary for the growth and development of coffee plant • Enlist functions of nutrients • Enlist sources of nutrients • Enlist nutrition of coffee plant • Take precautions 	<u>Enlisting nutrition of coffee plant:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Stating the concept of nutrition of coffee plant ❖ Listing nutrients necessary for the growth and development of coffee plant ❖ Enlisting functions of nutrients ❖ Enlisting sources of nutrients ❖ Enlisting nutrition of coffee plant ❖ Precautions to be taken 	1	3	4

	<ul style="list-style-type: none"> • Keep records 	<ul style="list-style-type: none"> ❖ Records keeping 			
2.	<u>To explain providing nutrition to coffee plant</u> <ul style="list-style-type: none"> • Receive instruction • State concept of providing nutrition to coffee plant • Be familiar with providing nutrition to coffee plant • Take precautions • Keep records 	<u>To explain providing nutrition to coffee plant:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Stating concept of providing nutrition to coffee plant ❖ Precautions to be taken ❖ Records keeping 	1	3	4
3.	<u>Enlist nutrients necessary for coffee plant</u> <ul style="list-style-type: none"> • Receive instruction • Enlist nutrients necessary for coffee plant • Take precautions • Keep records 	<u>Enlisting nutrients necessary for coffee plant:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Nutrients necessary for coffee plant ❖ Precautions to be taken ❖ Records keeping 	1	3	4
4.	<u>Enlist fertilizers containing the nutrients necessary for coffee plant</u> <ul style="list-style-type: none"> • Receive instruction • Identify fertilizers containing the nutrients necessary for coffee plant • Enlist fertilizers containing the nutrients necessary for coffee plant • Take precautions • Keep records 	<u>Enlisting fertilizers containing the nutrients necessary for coffee plant:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Identifying fertilizers containing the nutrients necessary for coffee plant ❖ Enlisting fertilizers containing the nutrients necessary for coffee plant ❖ Precautions to be taken ❖ Records keeping 	1	3	4
5.	<u>Calculate fertilizers/nutrient requirement for coffee plant</u> <ul style="list-style-type: none"> • Receive instruction • List the related formulas • Use the formulas • Calculate fertilizers/nutrient requirement for coffee plant • Take precautions • Keep records 	<u>Calculating fertilizers/nutrient requirement for coffee plant:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Related formulas ❖ Using the formulas ❖ Calculating fertilizers/nutrient requirement for coffee plant ❖ Precautions to be taken ❖ Records keeping 	1	3	4
6.	<u>Manage / apply fertilizers/nutrient requirement for coffee plant</u> <ul style="list-style-type: none"> • Receive instruction • Identify fertilizers/nutrient requirement for coffee plant 	<u>Managing / applying fertilizers/nutrient requirement for coffee plant:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Identifying fertilizers/nutrient 	1	3	4

	<ul style="list-style-type: none"> • Manage fertilizers/nutrient requirement for coffee plant • Apply fertilizers/nutrient requirement for coffee plant • Take precautions • Keep records 	<ul style="list-style-type: none"> ❖ requirement for coffee plant ❖ Managing fertilizers/nutrient requirement for coffee plant ❖ Applying fertilizers/nutrient requirement for coffee plant ❖ Precautions to be taken ❖ Records keeping 				
			Total:	6	18	24
Sub module:6: Pruning and tree management						
Description: It deals with the knowledge and skills related to pruning and tree management..						
Objectives: After its completion the trainees will be able: <ul style="list-style-type: none"> • To perform pruning • To perform desuckering • To perform rejuvenation (change of cropping cycle) • To perform gap filling • To perform intercropping in young coffee 						
Tasks: To fulfill the objective the trainees are expected to get proficiency on the following tasks/skills/steps together with their related technical knowledge:						
			Th.(5 hrs) + Pr.(15 hrs) = Tot.(20 hrs)		Time(hrs)	
SN	Tasks or skills/ steps	Related technical knowledge	Th.	Pr.	Tot.	
1.	<u>Perform pruning</u> <ul style="list-style-type: none"> • Receive instruction • Identify need for pruning • Prepare for pruning • Carry out pruning • Take precautions • Keep records 	<u>Performing pruning:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Identifying need for pruning ❖ Preparing for pruning ❖ Carry out pruning ❖ Precautions to be taken ❖ Records keeping 	1	3	4	
2.	<u>Perform desuckering</u> <ul style="list-style-type: none"> • Receive instruction • Identify need for desuckering • Prepare for desuckering • Carry out desuckering • Take precautions • Keep records 	<u>Performing desuckering:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Identifying need for desuckering ❖ Preparing for desuckering ❖ Carrying out desuckering ❖ Precautions to be taken ❖ Records keeping 	1	3	4	
3.	<u>Perform rejuvenation (change of cropping cycle)</u> <ul style="list-style-type: none"> • Receive instruction • State concept of rejuvenation (change of cropping cycle) • State technique of rejuvenation (change of cropping cycle) • Apply techniques of rejuvenation (change of 	<u>Performing rejuvenation (change of cropping cycle):</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Stating concept of rejuvenation (change of cropping cycle) ❖ Stating technique of rejuvenation (change of cropping cycle) ❖ Applying techniques of rejuvenation (change of cropping 	1	3	4	

	<p>cropping cycle</p> <ul style="list-style-type: none"> • Carry out rejuvenation (change of cropping cycle) • Take precautions • Keep records 	<p>cycle</p> <ul style="list-style-type: none"> ❖ Carrying out rejuvenation (change of cropping cycle) ❖ Precautions to be taken ❖ Records keeping 			
4.	<p><u>Perform gap filling</u></p> <ul style="list-style-type: none"> • Receive instruction • Identify need for gap filling • Arrange for gap filling • Carry out gap filling • Take precautions • Keep records 	<p><u>Performing gap filling:</u></p> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Identifying need for gap filling ❖ Arranging for gap filling ❖ Carrying out gap filling ❖ Precautions to be taken ❖ Records keeping 	1	3	4
5.	<p><u>Perform intercropping in young coffee</u></p> <ul style="list-style-type: none"> • Receive instruction • State the concept of intercropping in young coffee • Enlist techniques of intercropping in young coffee • Apply the techniques of intercropping in young coffee • Carry out intercropping in young coffee • Take precautions • Keep records 	<p><u>Performing intercropping in young coffee:</u></p> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Stating the concept of intercropping in young coffee ❖ Enlisting techniques of intercropping in young coffee ❖ Applying the techniques of intercropping in young coffee ❖ Carrying out intercropping in young coffee ❖ Precautions to be taken ❖ Records keeping 	1	3	4
		Total:	5	15	20
Module:2: Coffee plant protection					
Description: It deals with the knowledge and skills related to coffee plant protection.					
Objectives: After its completion the trainees will be able: <ul style="list-style-type: none"> • To protect coffee plant from pests and diseases • To protect coffee plant from natural enemies • To apply techniques of IPM 					
Sub modules: <ol style="list-style-type: none"> 1. Pests and diseases 2. Natural enemies and IPM 					
Sub module:1: Pests and diseases					
Description: It deals with the knowledge and skills related to protecting coffee plant from pests and diseases.					
Objectives: After its completion the trainees will be able: <ul style="list-style-type: none"> • To manage insect pests • To manage green coffee scale • To manage aphids 					

	<ul style="list-style-type: none"> To manage stemborers (White Stem Borers & Red Stem Borers) To manage coffee berry borer To manage mealybug To manage leaf miner To manage termites To manage diseases To manage nursery diseases To manage damping-off To manage cercospora leaf spot (brown eye spot) To manage field diseases and disorders by Nutrient deficiency To manage cercospora (berry blotch & brown eye spot) To manage coffee leaf rust To manage sooty mould To manage anthracnose To manage overbearing or dieback To manage Wilt 				
	Tasks: To fulfill the objective the trainees are expected to get proficiency on the following tasks/skills/steps together with their related technical knowledge:				
	Th.(18 hrs) + Pr.(52 hrs) = Tot.(70 hrs)	Time(hrs)			
SN	Tasks or skills/ steps	Related technical knowledge	Th.	Pr.	Tot.
1.	<u>Manage insect pests</u> <ul style="list-style-type: none"> Receive instruction Identify insect pests Enlist insect pests Enlist damages caused by insect pests Enlist methods of managing insect pests Manage/prevent/control insect pests Take precautions Keep records 	<u>Managing insect pests:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Identifying insect pests ❖ Enlisting insect pests ❖ Enlisting damages caused by insect pests ❖ Enlisting methods of managing insect pests ❖ Managing/preventing/controlling insect pests ❖ Precautions to be taken ❖ Records keeping 	1	2	3
2.	<u>Manage green coffee scale</u> <ul style="list-style-type: none"> Receive instruction Identify green coffee scale Describe green coffee scale Enlist signs/symptoms of green coffee scale Enlist damages caused by green coffee scale Enlist methods of managing green coffee scale Manage/prevent/control green coffee scale 	<u>Managing green coffee scale:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Identifying green coffee scale ❖ Describing green coffee scale ❖ Enlisting signs/symptoms of green coffee scale ❖ Enlisting damages caused by green coffee scale ❖ Enlisting methods of managing green coffee scale ❖ Managing /preventing/controlling 	1	2	3

	<ul style="list-style-type: none"> • Take precautions • Keep records 	<p>green coffee scale</p> <ul style="list-style-type: none"> ❖ Precautions to be taken ❖ Records keeping 			
3.	<p><u>Manage aphids</u></p> <ul style="list-style-type: none"> • Receive instruction • Identify aphids • Describe aphids • Enlist signs/symptoms of aphids • Enlist damages caused by aphids • Enlist methods of managing aphids • Manage/prevent/control aphids • Take precautions • Keep records 	<p><u>Managing aphids:</u></p> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Identifying aphids ❖ Describing aphids ❖ Enlisting signs/symptoms of aphids ❖ Enlisting damages caused by aphids ❖ Enlisting methods of managing aphids ❖ Managing /preventing/controlling aphids ❖ Precautions to be taken ❖ Records keeping 	1	3	4
4.	<p><u>Manage stem borers (White Stem Borers and Red Stem Borers)</u></p> <ul style="list-style-type: none"> • Receive instruction • Identify stem borers • Describe stem borers • Enlist signs/symptoms of stem borers • Enlist damages caused by stem borers • Enlist methods of managing stem borers • Manage/prevent/control stem borers • Take precautions • Keep records 	<p><u>Managing stem borers (White Stem Borers and Red Stem Borers):</u></p> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Identifying stem borers ❖ Describing stem borers ❖ Enlisting signs/symptoms of stem borers ❖ Enlisting damages caused by stem borers ❖ Enlisting methods of managing stem borers ❖ Managing /preventing/controlling stem borers ❖ Precautions to be taken ❖ Records keeping 	1	3	4
5.	<p><u>Manage coffee berry borer</u></p> <ul style="list-style-type: none"> • Receive instruction • Identify coffee berry borer • Describe coffee berry borer • Enlist signs/symptoms of coffee berry borer • Enlist damages caused by coffee berry borer • Enlist methods of managing coffee berry borer • Manage/prevent/control coffee berry borer 	<p><u>Managing coffee berry borer:</u></p> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Identifying coffee berry borer ❖ Describing coffee berry borer ❖ Enlisting signs/symptoms of coffee berry borer ❖ Enlisting damages caused by coffee berry borer ❖ Enlisting methods of managing coffee berry borer ❖ Managing /preventing/controlling 	1	3	4

	<ul style="list-style-type: none"> • Take precautions • Keep records 	<p>coffee berry borer</p> <ul style="list-style-type: none"> ❖ Precautions to be taken ❖ Records keeping 			
6.	<p><u>Manage mealy bug</u></p> <ul style="list-style-type: none"> • Receive instruction • Identify mealy bug • Describe mealy bug • Enlist signs/symptoms of mealy bug • Enlist damages caused by mealy bug • Enlist methods of managing mealy bug • Manage/prevent/control mealy bug • Take precautions • Keep records 	<p><u>Managing mealy bug:</u></p> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Identifying mealy bug ❖ Describing mealy bug ❖ Enlisting signs/symptoms of mealy bug ❖ Enlisting damages caused by mealy bug ❖ Enlisting methods of managing mealy bug ❖ Managing /preventing/controlling mealy bug ❖ Precautions to be taken ❖ Records keeping 	1	3	4
7.	<p><u>Manage leaf miner</u></p> <ul style="list-style-type: none"> • Receive instruction • Identify leaf miner • Describe leaf miner • Enlist signs/symptoms of leaf miner • Enlist damages caused by leaf miner • Enlist methods of managing leaf miner • Manage/prevent/control leaf miner • Take precautions • Keep records 	<p><u>Managing leaf miner:</u></p> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Identifying leaf miner ❖ Describing leaf miner ❖ Enlisting signs/symptoms of leaf miner ❖ Enlisting damages caused by leaf miner ❖ Enlisting methods of managing leaf miner ❖ Managing /preventing/controlling leaf miner ❖ Precautions to be taken ❖ Records keeping 	1	3	4
8.	<p><u>Manage termites</u></p> <ul style="list-style-type: none"> • Receive instruction • Identify termites • Describe termites • Enlist signs/symptoms of termites • Enlist damages caused by termites • Enlist methods of managing termites • Manage/prevent/control termites 	<p><u>Managing termites:</u></p> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Identifying termites ❖ Describing termites ❖ Enlisting signs/symptoms of termites ❖ Enlisting damages caused by termites ❖ Enlisting methods of managing termites ❖ Managing /preventing/controlling termites 	1	3	4

	<ul style="list-style-type: none"> • Take precautions • Keep records 	<ul style="list-style-type: none"> ❖ Precautions to be taken ❖ Records keeping 			
9.	<u>Manage diseases</u> <ul style="list-style-type: none"> • Receive instruction • Identify diseases • Describe diseases • Enlist signs/symptoms of diseases • Enlist damages caused by diseases • Enlist methods of managing diseases • Manage/prevent/control diseases • Take precautions • Keep records 	<u>Managing diseases:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Identifying diseases ❖ Describing diseases ❖ Enlisting signs/symptoms of diseases ❖ Enlisting damages caused by diseases ❖ Enlisting methods of managing diseases ❖ Managing /preventing/controlling diseases ❖ Precautions to be taken ❖ Records keeping 	1	3	4
10.	<u>Manage nursery diseases</u> <ul style="list-style-type: none"> • Receive instruction • Identify nursery diseases • Describe nursery diseases • Enlist signs/symptoms of nursery diseases • Enlist damages caused by nursery diseases • Enlist methods of managing nursery diseases • Manage/prevent/control nursery diseases • Take precautions • Keep records 	<u>Managing nursery diseases:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Identifying nursery diseases ❖ Describing nursery diseases ❖ Enlisting signs/symptoms of nursery diseases ❖ Enlisting damages caused by nursery diseases ❖ Enlisting methods of managing nursery diseases ❖ Managing /preventing/controlling nursery diseases ❖ Precautions to be taken ❖ Records keeping 	1	3	4
11.	<u>Manage damping-off</u> <ul style="list-style-type: none"> • Receive instruction • Identify damping-off • Describe damping-off • Enlist signs/symptoms of damping-off • Enlist damages caused by damping-off • Enlist methods of managing damping-off • Manage/prevent/control damping-off • Take precautions 	<u>Managing damping-off:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Identifying damping-off ❖ Describing damping-off ❖ Enlisting signs/symptoms of damping-off ❖ Enlisting damages caused by damping-off ❖ Enlisting methods of managing damping-off ❖ Managing /preventing/controlling damping-off ❖ Precautions to be taken 	1	3	4

	<ul style="list-style-type: none"> • Keep records 	<ul style="list-style-type: none"> ❖ Records keeping 			
12.	<u>Manage cercospora leaf spot (brown eye spot)</u> <ul style="list-style-type: none"> • Receive instruction • Identify cercospora leaf spot (brown eye spot) • Describe cercospora leaf spot (brown eye spot) • Enlist signs/symptoms of cercospora leaf spot (brown eye spot) • Enlist damages caused by cercospora leaf spot (brown eye spot) • Enlist methods of managing cercospora leaf spot (brown eye spot) • Manage/prevent/control cercospora leaf spot (brown eye spot) • Take precautions • Keep records 	<u>Managing cercospora leaf spot (brown eye spot):</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Identifying cercospora leaf spot (brown eye spot) ❖ Describing cercospora leaf spot (brown eye spot) ❖ Enlisting signs/symptoms of cercospora leaf spot (brown eye spot) ❖ Enlisting damages caused by cercospora leaf spot (brown eye spot) ❖ Enlisting methods of managing cercospora leaf spot (brown eye spot) ❖ Managing /preventing/controlling cercospora leaf spot (brown eye spot) ❖ Precautions to be taken ❖ Records keeping 	1	3	4
13.	<u>Manage field diseases and disorders of Nutrient deficiency</u> <ul style="list-style-type: none"> • Receive instruction • Identify field diseases and disorders • Describe field diseases and disorders • Enlist signs/symptoms of field diseases and disorders • Enlist damages caused by field diseases and disorders • Enlist methods of managing field diseases and disorders • Manage/prevent/control field diseases and disorders • Take precautions • Keep records 	<u>Managing field diseases and disorders of Nutrient deficiency:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Identifying field diseases and disorders ❖ Describing field diseases and disorders ❖ Enlisting signs/symptoms of field diseases and disorders ❖ Enlisting damages caused by field diseases and disorders ❖ Enlisting methods of managing field diseases and disorders ❖ Managing /preventing/controlling field diseases and disorders ❖ Precautions to be taken ❖ Records keeping 	1	3	4
14.	<u>Manage cercospora (berry blotch & brown eye spot)</u>	<u>Managing cercospora (berry blotch & brown eye spot):</u>	1	3	4

	<ul style="list-style-type: none"> • Receive instruction • Identify cercospora (berry blotch & brown eye spot) • Describe cercospora (berry blotch & brown eye spot) • Enlist signs/symptoms of cercospora (berry blotch & brown eye spot) • Enlist damages caused by cercospora (berry blotch & brown eye spot) • Enlist methods of managing cercospora (berry blotch & brown eye spot) • Manage/prevent/control cercospora (berry blotch & brown eye spot) • Take precautions • Keep records 	<ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Identifying cercospora (berry blotch & brown eye spot) ❖ Describe cercospora (berry blotch & brown eye spot) ❖ Enlisting signs/symptoms of cercospora (berry blotch & brown eye spot) ❖ Enlisting damages caused by cercospora (berry blotch & brown eye spot) ❖ Enlisting methods of managing cercospora (berry blotch & brown eye spot) ❖ Managing /preventing/controlling cercospora (berry blotch & brown eye spot) ❖ Precautions to be taken ❖ Records keeping 			
15.	<u>Manage coffee leaf rust</u> <ul style="list-style-type: none"> • Receive instruction • Identify coffee leaf rust • Describe coffee leaf rust • Enlist signs/symptoms of coffee leaf rust • Enlist damages caused by coffee leaf rust • Enlist methods of managing coffee leaf rust • Manage/prevent/control coffee leaf rust • Take precautions • Keep records 	<u>Managing coffee leaf rust:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Identifying coffee leaf rust ❖ Describing coffee leaf rust ❖ Enlisting signs/symptoms of coffee leaf rust ❖ Enlisting damages caused by coffee leaf rust ❖ Enlisting methods of managing coffee leaf rust ❖ Managing /preventing/controlling coffee leaf rust ❖ Precautions to be taken ❖ Records keeping 	1	3	4
16.	<u>Manage sooty mould</u> <ul style="list-style-type: none"> • Receive instruction • Identify sooty mould • Describe sooty mould • Enlist signs/symptoms of sooty mould • Enlist damages caused by sooty mould 	<u>Managing sooty mould:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Identifying sooty mould ❖ Describing sooty mould ❖ Enlist signs/symptoms of sooty mould ❖ Enlisting damages caused by sooty 	1	3	4

	<ul style="list-style-type: none"> • Enlist methods of managing sooty mould • Manage/prevent/control sooty mould • Take precautions • Keep records 	<p>mould</p> <ul style="list-style-type: none"> ❖ Enlisting methods of managing sooty mould ❖ Managing /preventing/controlling sooty mould ❖ Precautions to be taken ❖ Records keeping 			
17.	<p><u>Manage anthracnose</u></p> <ul style="list-style-type: none"> • Receive instruction • Identify anthracnose • Describe anthracnose • Enlist signs/symptoms of anthracnose • Enlist damages caused by anthracnose • Enlist methods of managing anthracnose • Manage/prevent/control anthracnose • Take precautions • Keep records 	<p><u>Managing anthracnose:</u></p> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Identifying anthracnose ❖ Describing anthracnose ❖ Enlisting signs/symptoms of anthracnose ❖ Enlisting damages caused by anthracnose ❖ Enlisting methods of managing anthracnose ❖ Managing /preventing/controlling anthracnose ❖ Precautions to be taken ❖ Records keeping 	1	3	4
18.	<p><u>Manage overbearing or dieback</u></p> <ul style="list-style-type: none"> • Receive instruction • Identify overbearing or dieback • Describe overbearing or dieback • Enlist signs/symptoms of overbearing or dieback • Enlist damages caused by overbearing or dieback • Enlist methods of managing overbearing or dieback • Manage/prevent/control overbearing or dieback • Take precautions • Keep records 	<p><u>Managing overbearing or dieback:</u></p> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Identifying overbearing or dieback ❖ Describing overbearing or dieback ❖ Enlisting signs/symptoms of overbearing or dieback ❖ Enlisting damages caused by overbearing or dieback ❖ Enlisting methods of managing overbearing or dieback ❖ Managing /preventing/controlling overbearing or dieback ❖ Precautions to be taken ❖ Records keeping 	0.5	1.5	2
19.	<p><u>Manage Wilting</u></p> <ul style="list-style-type: none"> • Receive instruction • Identify wilting • Describe wilting 	<p><u>Managing wilting:</u></p> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Identifying wilting 	0.5	1.5	2

	<ul style="list-style-type: none"> • Enlist signs/symptoms of wilting • Enlist damages caused by wilting • Enlist methods of managing wilting • Manage/prevent/control wilting • Take precautions • Keep records 	<ul style="list-style-type: none"> ❖ Describing wilting ❖ Enlisting signs/symptoms of wilting ❖ Enlisting damages caused by wilting ❖ Enlisting methods of managing wilting ❖ Managing /preventing/controlling wilting ❖ Precautions to be taken ❖ Records keeping 				
			Total:	18	52	70
Sub module:2: Natural enemies and IPM						
Description: It deals with the knowledge and skills related to protecting coffee plant from natural enemies and IPM.						
Objectives: After its completion the trainees will be able: <ul style="list-style-type: none"> • To be familiar with natural enemies and IPM • To Identify main predators • To manage main predators • To Identify other predators • To manage other predators • To apply techniques of IPM 						
Tasks: To fulfill the objective the trainees are expected to get proficiency on the following tasks/skills/steps together with their related technical knowledge:						
			Th.(6hrs) + Pr.(18 hrs) = Tot.(24 hrs)		Time(hrs)	
SN	Tasks or skills/ steps	Related technical knowledge	Th.	Pr.	Tot.	
1.	<u>Be familiar with natural enemies and IPM</u> <ul style="list-style-type: none"> • Receive instruction • Obtain related reading materials • Study the related reading materials • Analyze the related reading materials • Be familiar with natural enemies and IPM • Take precautions • Keep records 	<u>Being familiar with natural enemies and IPM:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Related reading materials ❖ Studying the related reading materials ❖ Analyzing the related reading materials ❖ Being familiar with natural enemies and IPM ❖ Precautions to be taken ❖ Records keeping 	1	3	4	
2.	<u>Identify main predators</u> <ul style="list-style-type: none"> • Receive instruction • Enlist main predators • Identify main predators • Describe main predators • Take precautions 	<u>Identifying main predators:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Enlisting main predators ❖ Identifying main predators ❖ Describing main predators 	1	3	4	

	<ul style="list-style-type: none"> • Keep records 	<ul style="list-style-type: none"> ❖ Precautions to be taken ❖ Records keeping 			
3.	<u>Manage main predators</u> <ul style="list-style-type: none"> • Receive instruction • Enlist methods for managing main predators • Apply methods for managing main predators • Manage main predators • Take precautions • Keep records 	<u>Managing main predators:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Enlisting methods for managing main predators ❖ Applying methods for managing main predators ❖ Managing main predators ❖ Take precautions ❖ Precautions to be taken ❖ Records keeping 	1	3	4
4.	<u>Identify other predators</u> <ul style="list-style-type: none"> • Receive instruction • Identify other predators • Enlist other predators • Take precautions • Keep records 	<u>Identifying other predators:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Identifying other predators ❖ Enlisting other predators ❖ Precautions to be taken ❖ Records keeping 	1	3	4
5.	<u>Manage other predators</u> <ul style="list-style-type: none"> • Receive instruction • Identify other predators • Enlist methods for managing other predators • Apply methods for managing other predators • Take precautions • Keep records 	<u>Managing other predators:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Identifying other predators ❖ Enlisting methods for managing other predators ❖ Applying methods for managing other predators ❖ Precautions to be taken ❖ Records keeping 	1	3	4
6.	<u>Apply techniques of IPM</u> <ul style="list-style-type: none"> • Receive instruction • Identify techniques of IPM • Enlist techniques of IPM • Apply techniques of IPM • Take precautions • Keep records 	<u>Applying techniques of IPM:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Identifying techniques of IPM ❖ Enlisting techniques of IPM ❖ Applying techniques of IPM ❖ Precautions to be taken ❖ Records keeping 	1	3	4
		Total:	6	18	24
Module: 3. Harvesting and processing					
	Description: It deals with the knowledge and skills related to harvesting and processing of coffee.				
	Objectives: After its completion the trainees will be able: <ul style="list-style-type: none"> • To perform harvesting • To be familiar with types of processing methods 				

	<ul style="list-style-type: none"> To enlist coffee processing equipment To perform pulping of coffee To perform coffee fermentation To perform coffee drying: To carry out processing fresh cherry To carry out coffee processing methods To carry out washing process for coffee 				
	Tasks: To fulfill the objective the trainees are expected to get proficiency on the following tasks/skills/steps together with their related technical knowledge:				
	Th.(8hrs) + Pr.(24 hrs) = Tot.(32 hrs)	Time(hrs)			
SN	Tasks or skills/ steps	Related technical knowledge	Th.	Pr.	Tot.
1.	<u>Perform harvesting</u> <ul style="list-style-type: none"> Receive instruction Identify time for harvesting Identify the stage of harvesting Identify method of harvesting Carry out harvesting Take precautions Keep records 	<u>Performing harvesting:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Identifying time for harvesting ❖ Identifying the stage of harvesting ❖ Identifying method of harvesting ❖ Carrying out harvesting ❖ Precautions to be taken ❖ Records keeping 	1	3	4
2.	<u>Be familiar with coffee processing methods</u> <ul style="list-style-type: none"> Receive instruction Identify time for processing Be familiar with Dry method of processing Be familiar with Wet method of processing Carry out Dry method of processing Take precautions Keep records 	<u>Being familiar with coffee processing methods:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Identify time for processing ❖ Being familiar with Dry method of processing ❖ Being familiar with Wet method of processing ❖ Carrying out Dry method of processing ❖ Precautions to be taken ❖ Records keeping 	2	6	8
3.	<u>Enlist coffee processing equipment</u> <ul style="list-style-type: none"> Receive instruction Enlist coffee processing equipment Identify coffee processing equipment Handle coffee processing equipment Take precautions Keep records 	<u>Enlisting coffee processing equipment:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Enlisting coffee processing equipment ❖ Identifying coffee processing equipment ❖ Handling coffee processing equipment ❖ Precautions to be taken ❖ Records keeping 	1	3	4
4.	<u>Perform pulping of coffee</u> <ul style="list-style-type: none"> Receive instruction 	<u>Performing pulping of coffee:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and 	1	3	4

	<ul style="list-style-type: none"> • Obtain coffee to be pulped • Arrange for pulping • Carry out pulping of coffee • Take precautions • Keep records 	<ul style="list-style-type: none"> ❖ application ❖ Obtaining coffee to be pulped ❖ Arranging for pulping ❖ Carrying out pulping of coffee ❖ Precautions to be taken ❖ Records keeping 			
5.	<u>Perform parchmentfermentation</u> <ul style="list-style-type: none"> • Receive instruction • Obtain coffee to be fermented • Arrange for coffee fermentation • Carry out coffee fermentation • Take precautions • Keep records 	<u>Performing coffee fermentation:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Obtaining coffee to be fermented ❖ Arranging for coffee fermentation ❖ Carrying out coffee fermentation ❖ Precautions to be taken ❖ Records keeping 	1	3	4
6.	<u>Carry out washing process for coffee</u> <ul style="list-style-type: none"> • Receive instruction • Identify washing process for coffee • Arrange for the washing process for coffee • carry out washing process for coffee • Take precautions • Keep records 	<u>carrying out washing process for coffee:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Identifying washing process for coffee ❖ Arranging for the washing process for coffee ❖ carrying out washing process for coffee ❖ Precautions to be taken ❖ Records keeping 	1	3	4
7.	<u>Perform parchmentdrying</u> <ul style="list-style-type: none"> • Receive instruction • Identify coffee drying stages • Identify /handle coffee drying equipment • Identify /handle machinery for coffee drying • Carry out skin drying • Carry out White Stage drying • Carry out Soft Black stage • Carry out Medium Black Stage • Carry out Hard Black Stage • Prepare fully dry coffee • Carry out conditioning. • Take precautions • Keep records 	<u>Coffee drying:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Coffee drying stages ❖ Coffee drying equipment ❖ Machinery for coffee drying ❖ Skin drying ❖ White Stage drying ❖ Soft Black stage ❖ Medium Black Stage ❖ Hard Black Stage ❖ Fully dry coffee and conditioning. ❖ Precautions to be taken ❖ Records keeping 	1	3	4

			Total:	8	24	32
Module: 4. Coffee quality						
Description: It deals with the knowledge and skills related to quality of coffee.						
Objectives: After its completion the trainees will be able: <ul style="list-style-type: none"> • To assess quality of coffee • To maintain coffee quality standards 						
Sub modules: <ol style="list-style-type: none"> 1. Quality assessment 2. Quality and export standards 						
Sub module:1: Quality assessment						
Description: It deals with the knowledge and skills related to quality assessment of coffee.						
Objectives: After its completion the trainees will be able: <ul style="list-style-type: none"> • To state the concept of coffee cupping • To state the concept of assessment processes • Perform quality improvement methods • Perform quality evaluation process 						
Tasks: To fulfill the objective the trainees are expected to get proficiency on the following tasks/skills/steps together with their related technical knowledge:						
			Th.(2 hrs) + Pr.(6 hrs) = Tot.(8 hrs)		Time(hrs)	
SN	Tasks or skills/ steps	Related technical knowledge	Th.	Pr.	Tot.	
1.	<u>To state the concept of coffee cupping</u> <ul style="list-style-type: none"> • Receive instruction • Obtain related reading materials • Study the related reading materials • Analyze the related reading materials • State concept of coffee cupping • Perform coffee cupping • Take precautions • Keep records 	<u>Concept coffee cupping</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Stating concept of coffee cupping ❖ Perform coffee cupping ❖ Precautions to be taken ❖ Records keeping 	0.5	1.5	2	
2.	<u>Be familiar with quality assessment processes</u> <ul style="list-style-type: none"> • Receive instruction • Obtain related reading materials • Study the related reading materials • Analyze the related reading materials • State concept of quality assessment methods/processes 	<u>Being familiar with quality assessment processes:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Related reading materials ❖ Studying the related reading materials ❖ Analyzing the related reading materials ❖ Stating concept of quality assessment methods/processes ❖ Being familiar with quality 	0.5	1.5	2	

	<ul style="list-style-type: none"> • Be familiar with quality assessment processes • Receive instruction 	assessment processes ❖ Precautions to be taken ❖ Records keeping			
3.	<u>Perform quality improvement methods</u> <ul style="list-style-type: none"> • Receive instruction • Arrange for carrying out quality improvement • Carryout quality improvement • Take precautions • Keep records 	<u>Performing quality improvement methods:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Arranging for carrying out quality improvement ❖ Carrying out quality improvement ❖ Precautions to be taken ❖ Records keeping 	0.5	1.5	2
4.	<u>Perform quality evaluation process</u> <ul style="list-style-type: none"> • Receive instruction • State concept of quality evaluation process • State quality evaluation process • Arrange for quality evaluation process • Carry out quality evaluation process • Take precautions • Keep records 	<u>Performing quality evaluation process:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Stating concept of quality evaluation process ❖ Stating quality evaluation process ❖ Arranging for quality evaluation process ❖ Carrying out quality evaluation process ❖ Precautions to be taken ❖ Records keeping 	0.5	1.5	2
		Total:	2	6	8
Sub module: 2: Quality and export standards					
Description: It deals with the knowledge and skills related to quality and export standards of coffee.					
Objectives: After its completion the trainees will be able: <ul style="list-style-type: none"> • To state coffee quality standards • To be familiar with coffee quality standards/ guidelines • To follow quality guidelines • To maintain coffee quality standards 					
Tasks: To fulfill the objective the trainees are expected to get proficiency on the following tasks/skills/steps together with their related technical knowledge:					
	Th.(2 hrs) + Pr.(4 hrs) = Tot.(6 hrs)		Time(hrs)		
SN	Tasks or skills/ steps	Related technical knowledge	Th.	Pr.	Tot.
1.	<u>State coffee quality standards</u> <ul style="list-style-type: none"> • Receive instruction • Obtain related reading materials • Study the related reading materials • Analyze the related reading materials 	<u>Stating coffee quality standards:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Related reading materials ❖ Studying the related reading materials ❖ Analyzing the related reading materials 	0.5	1.0	1.5

	<ul style="list-style-type: none"> • State concept of coffee quality standards • Take precautions • Keep records 	<ul style="list-style-type: none"> ❖ Stating concept of coffee quality standards ❖ Precautions to be taken ❖ Records keeping 			
2.	<u>Be familiar with coffee quality standards/ guidelines</u> <ul style="list-style-type: none"> • Receive instruction • Obtain related reading materials • Study the related reading materials • Analyze the related reading materials • State concept of coffee quality standards/ guidelines • Take precautions • Keep records 	<u>Being familiar with coffee quality standards/ guidelines:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Related reading materials ❖ Studying the related reading materials ❖ Analyzing the related reading materials ❖ Stating concept of coffee quality standards/ guidelines ❖ Precautions to be taken ❖ Records keeping 	0.5	1.0	1.5
3.	<u>Follow quality guidelines</u> <ul style="list-style-type: none"> • Receive instruction • Identify quality guidelines • Obtain quality guidelines • Study quality guidelines • Analyze quality guidelines • Follow quality guidelines • Take precautions • Keep records 	<u>Following quality guidelines:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Identifying quality guidelines ❖ Obtaining quality guidelines ❖ Studying quality guidelines ❖ Analyzing quality guidelines ❖ Following quality guidelines ❖ Precautions to be taken ❖ Records keeping 	0.5	1.0	1.5
4.	<u>Maintain coffee quality standards</u> <ul style="list-style-type: none"> • Receive instruction • State concept of maintaining coffee quality standards • State methods for maintaining coffee quality standards • Apply coffee quality standards • Maintain coffee quality standards • Take precautions • Keep records 	<u>Maintaining coffee quality standards:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Stating concept of maintaining coffee quality standards ❖ Stating methods for maintaining coffee quality standards ❖ Applying coffee quality standards ❖ Maintaining coffee quality standards ❖ Precautions to be taken ❖ Records keeping 	0.5	1.0	1.5
		Total:	2	4	6
Module: 5: Coffee marketing					
Description: It deals with the knowledge and skills related to of coffee marketing.					
Objectives: After its completion the trainees will be able: <ul style="list-style-type: none"> • To be familiar with coffee market survey • To perform storage of coffee 					

	<ul style="list-style-type: none"> To perform packing coffee To perform marketing Coffee To be familiar with coffee economics 				
	Sub modules: <ol style="list-style-type: none"> Nepal's coffee market survey Storage of coffee packing coffee Marketing Coffee Coffee economics 				
	Sub module:1: Nepal's coffee market survey				
	Description: It deals with the knowledge and skills related to quality and export standards of coffee.				
	Objectives: After its completion the trainees will be able: <ul style="list-style-type: none"> To be familiar with market strategy – recommendations To state concept of marketing To be familiar with international exports To be familiar with border trade To describe coffee quality potential To state government strategic coffee development plan 				
	Tasks: To fulfill the objective the trainees are expected to get proficiency on the following tasks/skills/steps together with their related technical knowledge:				
	Th.(7hrs) + Pr.(7hrs) = Tot.(14 hrs)	Time(hrs)			
SN	Tasks or skills/ steps	Related technical knowledge	Th.	Pr.	Tot.
1.	<u>State the concept of market strategy – recommendations</u> <ul style="list-style-type: none"> Receive instruction Obtain related reading materials Study the related reading materials Analyze the related reading materials State concept of market strategy – recommendations State market strategy – recommendations Take precautions Keep records 	<u>Stating market strategy – recommendations:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Related reading materials ❖ Studying the related reading materials ❖ Analyzing the related reading materials ❖ Stating concept of market strategy – recommendations ❖ Stating market strategy – recommendations ❖ Precautions to be taken ❖ Records keeping 	2	2	4
2.	<u>To state the concept of marketing</u> <ul style="list-style-type: none"> Receive instruction Obtain related reading materials Study the related reading 	<u>Being familiar with marketing:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Related reading materials ❖ Studying the related reading 	2	2	4

	<ul style="list-style-type: none"> materials • Analyze the related reading materials • state concept of marketing • Take precautions • Keep records 	<ul style="list-style-type: none"> materials ❖ Analyzing the related reading materials ❖ marketing ❖ Precautions to be taken ❖ Records keeping 			
3.	<u>State international exports</u> <ul style="list-style-type: none"> • Receive instruction • Obtain related reading materials • Study the related reading materials • Analyze the related reading materials • state international exports • Take precautions • Keep records 	<u>Being familiar with international exports:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Related reading materials ❖ Studying the related reading materials ❖ Analyzing the related reading materials ❖ International exports ❖ Precautions to be taken ❖ Records keeping 	1	1	2
4.	<u>Be familiar with border trade</u> <ul style="list-style-type: none"> • Receive instruction • Obtain related reading materials • Study the related reading materials • Analyze the related reading materials • Be familiar with border trade • Take precautions • Keep records 	<u>Being familiar with border trade:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Related reading materials ❖ Studying the related reading materials ❖ Analyzing the related reading materials ❖ Being familiar with border trade ❖ Precautions to be taken ❖ Records keeping 	1	1	2
5.	<u>State government strategic coffee development plan</u> <ul style="list-style-type: none"> • Receive instruction • Obtain related reading materials • Study the related reading materials • Analyze the related reading materials • State government strategic coffee development plan • Take precautions • Keep records 	<u>Stating government strategic coffee development plan:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Related reading materials ❖ Studying the related reading materials ❖ Analyzing the related reading materials ❖ government strategic coffee development plan ❖ Precautions to be taken ❖ Records keeping 	1	1	2
		Total:	7	7	14
Sub module:2: Storage of coffee					

	Description: It deals with the knowledge and skills related to storage of coffee.				
	Objectives: After its completion the trainees will be able: <ul style="list-style-type: none"> • To enlist objectives of storing of coffee • To enlist storage requirement of coffee as per the objectives • To manage the store • To prepare store • To store the coffee • To maintain the store • To maintain store environment • To perform density storing of coffee • To perform color sorting coffee beans • To utilize color sorter 				
	Tasks: To fulfill the objective the trainees are expected to get proficiency on the following tasks/skills/steps together with their related technical knowledge:				
	Th.(5 hrs) + Pr.(10hrs) = Tot.(15 hrs)			Time(hrs)	
SN	Tasks or skills/ steps	Related technical knowledge	Th.	Pr.	Tot.
1.	<u>List objectives of storing of coffee</u> <ul style="list-style-type: none"> • Receive instruction • State concept of storing of coffee • Identify objectives of storing of coffee • Enlist objectives of storing of coffee • Take precautions • Keep records 	<u>Listing objectives of storing of coffee:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Stating concept of storing of coffee ❖ Identifying objectives of storing of coffee ❖ Enlisting objectives of storing of coffee ❖ Precautions to be taken ❖ Records keeping 	0.5	1	1.5
2.	<u>List storage requirement of coffee as per the objectives</u> <ul style="list-style-type: none"> • Receive instruction • Identify storage requirement of coffee as per the objectives • Enlist storage requirement of coffee as per the objectives • Take precautions • Keep records 	<u>Listing storage requirement of coffee as per the objectives:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Identifying storage requirement of coffee as per the objectives ❖ Enlisting storage requirement of coffee as per the objectives ❖ Precautions to be taken ❖ Records keeping 	0.5	1	1.5
3.	<u>Manage the store</u> <ul style="list-style-type: none"> • Receive instruction • State concept of store management • Arrange for store management • Manage the store • Take precautions 	<u>Managing the store:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Stating concept of store management ❖ Arranging for store management ❖ Managing the store 	0.5	1	1.5

	<ul style="list-style-type: none"> • Keep records 	<ul style="list-style-type: none"> ❖ Precautions to be taken ❖ Records keeping 			
4.	<u>Prepare store</u> <ul style="list-style-type: none"> • Receive instruction • Identify the store to be prepared • Arrange for preparing the store • Prepare store to store coffee • Take precautions • Keep records 	<u>Preparing store :</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Identifying the store to be prepared ❖ Arranging for preparing the store ❖ Preparing store to store coffee ❖ Precautions to be taken ❖ Records keeping 	0.5	1	1.5
5.	<u>Store the coffee</u> <ul style="list-style-type: none"> • Receive instruction • Identify the coffee to be stored • Obtain the coffee to be stored • Arrange to store the coffee • Store the coffee • Take precautions • Keep records 	<u>Storing the coffee:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Identifying the coffee to be stored ❖ Obtaining the coffee to be stored ❖ Arranging to store the coffee ❖ Storing the coffee ❖ Precautions to be taken ❖ Records keeping 	0.5	1	1.5
6.	<u>Maintain the store</u> <ul style="list-style-type: none"> • Receive instruction • Identify the store to be maintained • Prepare store maintenance schedule • Follow the store maintenance schedule • Maintain the store • Take precautions • Keep records 	<u>Maintaining the store:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Store maintenance schedule ❖ Following the store maintenance schedule ❖ Maintaining the store ❖ Precautions to be taken ❖ Records keeping 	0.5	1	1.5
7.	<u>Maintain store environment</u> <ul style="list-style-type: none"> • Receive instruction • State concept of store environment • State ideal store environment • Enlist techniques to maintain ideal store environment • Maintain store environment • Take precautions • Keep records 	<u>Maintaining store environment:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Store environment ❖ Ideal store environment ❖ techniques to maintain ideal store environment ❖ Maintaining store environment ❖ Precautions to be taken ❖ Records keeping 	0.5	1	1.5
8.	<u>Perform density sorting of fresh cherry</u> <ul style="list-style-type: none"> • Receive instruction 	<u>Performing density sorting of fresh cherry:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and 	0.5	1	1.5

	<ul style="list-style-type: none"> • State concept of density storing of coffee • Enlist techniques for density sorting of fresh cherry • Carry out density sorting of fresh cherry • Take precautions • Keep records 	<ul style="list-style-type: none"> ❖ application ❖ Stating concept of density sorting of fresh cherry ❖ Enlisting techniques for density sorting of fresh cherry ❖ Carrying out density sorting of fresh cherry ❖ Precautions to be taken ❖ Records keeping 			
9.	<u>Perform color sorting of coffee beans</u> <ul style="list-style-type: none"> • Receive instruction • State concept of color sorting of coffee beans • Enlist techniques for color sorting of coffee beans • Carry out color sorting of coffee beans • Take precautions • Keep records 	<u>Performing color sorting of coffee beans:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Stating concept of color sorting of coffee beans ❖ Enlisting techniques for color sorting of coffee beans ❖ Carrying out color sorting of coffee beans ❖ Precautions to be taken ❖ Records keeping 	0.5	1	1.5
10.	<u>Utilize color sorter</u> <ul style="list-style-type: none"> • Receive instruction • State concept of color sorter • identify color sorter • State techniques for utilizing color sorter • Utilize color sorter • Take precautions • Keep records 	<u>Utilizing color sorter:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Stating concept of color sorter ❖ identifying color sorter ❖ Stating techniques for utilizing color sorter ❖ Utilizing color sorter ❖ Precautions to be taken ❖ Records keeping 	0.5	1	1.5
		Total:	5	10	15
Sub module: 3. Packing coffee					
Description: It deals with the knowledge and skills related to packing of coffee					
Objectives: After its completion the trainees will be able: <ul style="list-style-type: none"> • To make packaging convenient • To make packaging attractive • To make package clearly labeled • To perform packaging of coffee 					
Tasks: To fulfill the objective the trainees are expected to get proficiency on the following tasks/skills/steps together with their related technical knowledge:					
			Th.(5 hrs) + Pr.(15 hrs) = Tot.(20 hrs)		Time(hrs)
SN	Tasks or skills/ steps	Related technical knowledge	Th.	Pr.	Tot.
1.	<u>Make packaging convenient</u>	<u>Making packaging convenient:</u>	1	3	4

	<ul style="list-style-type: none"> • Receive instruction • State concept of packaging • Enlist technique for making packaging convenient • Make packaging convenient • Take precautions • Keep records 	<ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Stating concept of packaging ❖ Enlisting technique for making packaging convenient ❖ Making packaging convenient ❖ Precautions to be taken ❖ Records keeping 			
2.	<u>Make packaging attractive</u> <ul style="list-style-type: none"> • Receive instruction • State concept of making packaging attractive • Enlist technique for making packaging attractive • Make packaging attractive • Take precautions • Keep records 	<u>Making packaging attractive:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Stating concept of making packaging attractive ❖ Enlisting technique for making packaging attractive ❖ Making packaging attractive ❖ Precautions to be taken ❖ Records keeping 	1	3	4
3.	<u>Make package clearly labeled</u> <ul style="list-style-type: none"> • Receive instruction • State concept of labeling • State technique of labeling clearly • Label package • Make package clearly labeled • Take precautions • Keep records 	<u>Making package clearly labeled:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Stating concept of labeling ❖ Stating technique of labeling clearly ❖ Labeling package ❖ Making package clearly labeled ❖ Precautions to be taken ❖ Records keeping 	1	3	4
4.	<u>Perform packaging of coffee</u> <ul style="list-style-type: none"> • Receive instruction • Identify the coffee to be packaged • Prepare for packaging of coffee • Carry out packaging of coffee • Take precautions • Keep records 	<u>Performing packaging of coffee:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Identifying the coffee to be packaged ❖ Preparing for packaging of coffee ❖ Carrying out packaging of coffee ❖ Precautions to be taken ❖ Records keeping 	2	6	8
		Total:	5	15	20
Sub module:4: Marketing Coffee					
Description: It deals with the knowledge and skills related to marketing of coffee.					
Objectives: After its completion the trainees will be able: <ul style="list-style-type: none"> • To identify possible customers • To find out customer's interest • To sort product to match the customers • To improve quality to match customer's want 					

	<ul style="list-style-type: none"> To price the coffee To place coffee To promote coffee To sell coffee To calculate profit / loss 				
	Tasks: To fulfill the objective the trainees are expected to get proficiency on the following tasks/skills/steps together with their related technical knowledge:				
	Th.(9 hrs) + Pr.(18hrs) = Tot.(27 hrs)				
	Time(hrs)				
SN	Tasks or skills/ steps	Related technical knowledge	Th.	Pr.	Tot.
1.	<u>Identify possible customers</u> <ul style="list-style-type: none"> Receive instruction Survey market Identify possible customers Enlist possible customers Take precautions Keep records 	<u>Identifying possible customers:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Market survey ❖ Identifying possible customers ❖ Enlisting possible customers ❖ Precautions to be taken ❖ Records keeping 	1	2	3
2.	<u>Find out customer's interest</u> <ul style="list-style-type: none"> Receive instruction State the concept Carryout customer's interestsurvey Find out customer's interest Take precautions Keep records 	<u>Finding out customer's interest:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Stating the concept ❖ Carrying out customer's interestsurvey ❖ Finding out customer's interest ❖ Precautions to be taken ❖ Records keeping 	1	2	3
3.	<u>Sort product to match the customers</u> <ul style="list-style-type: none"> Receive instruction List customer's want Identify products that match the customers wants Select /sort the product to match the customers Take precautions Keep records 	<u>Sorting product to match the customers:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and Listing customer's want ❖ Identifying products that match the customers wants ❖ Selecting/sorting the product to match the customers application ❖ Precautions to be taken ❖ Records keeping 	1	2	3
4.	<u>Improve quality to match customer's interest</u> <ul style="list-style-type: none"> Receive instruction Identify customer's want Enlist customer's want Design product to match customer's want Improve quality to match 	<u>Improving quality to match customer's interest:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Identifying customer's want ❖ Enlisting customer's want ❖ Designing product to match customer's want 	1	2	3

	<p>customer's want</p> <ul style="list-style-type: none"> • Take precautions • Keep records 	<ul style="list-style-type: none"> ❖ Improving quality to match customer's want ❖ Precautions to be taken ❖ Records keeping 			
5.	<p><u>Price the coffee</u></p> <ul style="list-style-type: none"> • Receive instruction • Calculate per unit cost • Fix per unit profit margin • Determine price • Price the coffee • Take precautions • Keep records 	<p><u>Pricing the coffee:</u></p> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Calculating per unit cost ❖ Fixing per unit profit margin ❖ Determining price ❖ Pricing the coffee ❖ Precautions to be taken ❖ Records keeping 	1	2	3
6.	<p><u>Place coffee</u></p> <ul style="list-style-type: none"> • Receive instruction • Take placing decisions • Place coffee • Take precautions • Keep records 	<p><u>Placing coffee:</u></p> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Placing decisions ❖ Place coffee ❖ Precautions to be taken ❖ Records keeping 	1	2	3
7.	<p><u>Promote coffee</u></p> <ul style="list-style-type: none"> • Receive instruction • Promote coffee through publicity • Promote coffee through advertisement • Promote coffee through personal selling • Promote coffee through sales promotion • Take precautions • Keep records 	<p><u>Promoting coffee:</u></p> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Promoting coffee through publicity ❖ Promoting coffee through advertisement ❖ Promoting coffee through personal selling ❖ Promoting coffee through sales promotion ❖ Precautions to be taken ❖ Records keeping 	1	2	3
8.	<p><u>Sell coffee</u></p> <ul style="list-style-type: none"> • Receive instruction • Greet buyers • Receive buyers • Show the coffee • Provide Information about the coffee • Specify the price • Make agreement on payment • Prepare Bills • Sell coffee 	<p><u>Selling coffee:</u></p> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Greeting buyers ❖ Receiving buyers ❖ Showing the coffee ❖ Providing Information about the coffee ❖ Specifying the price ❖ Making agreement on payment ❖ Preparing Bills ❖ Selling coffee 	1	2	3

	<ul style="list-style-type: none"> • Take precautions • Keep records 	<ul style="list-style-type: none"> ❖ Precautions to be taken ❖ Records keeping 			
9.	<u>Calculate profit / loss</u> <ul style="list-style-type: none"> • Receive instruction • Calculate cost • Calculate revenue • calculate profit / loss • Prepare profit / loss statement • Take precautions • Keep records 	<u>Calculating profit / loss:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Calculating cost ❖ Calculating revenue ❖ calculating profit / loss ❖ Preparing profit / loss statement ❖ Precautions to be taken ❖ Records keeping 	1	2	3
		Total:	9	18	27
Sub module: 5. Coffee economics					
Description: It deals with the knowledge and skills related to coffee economics					
Objectives: After its completion the trainees will be able: <ul style="list-style-type: none"> • To be familiar with coffee economics • To prepare investment plan • To manage associated investment risks • To calculate production costs • To prepare profit / loss statement 					
Tasks: To fulfill the objective the trainees are expected to get proficiency on the following tasks/skills/steps together with their related technical knowledge:					
	Th.(2 hrs) + Pr.(8 hrs) = Tot.(10 hrs)			Time(hrs)	
SN	Tasks or skills/ steps	Related technical knowledge	Th.	Pr.	Tot.
1.	<u>Be familiar with coffee economics</u> <ul style="list-style-type: none"> • Receive instruction • Obtain related reading materials • Study the related reading materials • Analyze the related reading materials • State concept of coffee economics • Take precautions • Keep records 	<u>Being familiar with coffee economics:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Related reading materials ❖ Studying the related reading materials ❖ Analyzing the related reading materials ❖ Stating concept of coffee economics ❖ Precautions to be taken ❖ Records keeping 	0.4	1.6	2
2.	<u>Prepare investment plan</u> <ul style="list-style-type: none"> • Receive instruction • Obtain a sample of investment plan • Study the sample of investment plan • Analyze the sample of 	<u>Preparing investment plan:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Sample of investment plan ❖ Studying the sample of investment plan ❖ Analyzing the sample of investment plan 	0.4	1.6	2

	<p>investment plan</p> <ul style="list-style-type: none"> Identify component parts of sample of investment plan Enlist the sample of investment plan Collect necessary information for preparing an investment plan Prepare investment plan Take precautions Keep records 	<ul style="list-style-type: none"> Identifying component parts of sample of investment plan Enlisting the sample of investment plan Collecting necessary information for preparing an investment plan Preparing investment plan Precautions to be taken Records keeping 			
3.	<p><u>Manage associated investment risks</u></p> <ul style="list-style-type: none"> Receive instruction State concept of associated investment risks Enlist techniques to manage associated investment risks Apply the techniques to manage associated investment risks Manage associated investment risks Take precautions Keep records 	<p><u>Managing associated investment risks:</u></p> <ul style="list-style-type: none"> Concept, need, importance and application Stating concept of associated investment risks Enlisting techniques to manage associated investment risks Applying the techniques to manage associated investment risks Managing associated investment risks Precautions to be taken Records keeping 	0.4	1.6	2
4.	<p><u>Calculate production costs</u></p> <ul style="list-style-type: none"> Receive instruction State concept of production costs List formula to calculate production costs Calculate production costs Take precautions Keep records 	<p><u>Calculating production costs</u></p> <ul style="list-style-type: none"> Concept, need, importance and application Stating concept of production costs Listing formula to calculate production costs Calculating production costs Precautions to be taken Records keeping 	0.4	1.6	2
5.	<p><u>Prepare profit / loss statement</u></p> <ul style="list-style-type: none"> Receive instruction Calculate cost Calculate revenue calculate profit / loss Prepare profit / loss statement Take precautions Keep records 	<p><u>Preparing profit / loss statement:</u></p> <ul style="list-style-type: none"> Concept, need, importance and application Cost Revenue Profit / loss Profit / loss statement Precautions to be taken Records keeping 	0.4	1.6	2
		Total:	2	8	10
		Specialized modules total:	118	272	390

Module :6 : Common module					
Description: This module consists of skills and knowledge related to communication, entrepreneurship development, cooperative education and organic practice applicable in the related job performances.					
Objectives: After its completion the trainees will be able: <ul style="list-style-type: none"> • To communicate with others • To state the concept of co-operatives • To be familiar with organic practice. 					
Sub modules: <ol style="list-style-type: none"> 1. Communication 2. Co-operative education 3. Organic practice 					
Total:			1	4	5
Sub module: 1 : Communication					
Description: It consists of the skills and knowledge related to communication in the related occupation. Each task consists of its steps, related technical knowledge and hour distribution.					
Objectives: After its completion the trainees will be able to communicate with others.					
Tasks: To fulfill the objective the trainees are expected to get proficiency on the following tasks/skills/steps together with their related technical knowledge:					
			Th.(2 hrs) + Pr.(8hrs) = Tot.(10 hrs)		
			Time(hrs)		
SN	Tasks or skills/ steps	Related technical knowledge	Th.	Pr.	Tot.
1.	Handle telephone calls	<u>Handling telephone calls:</u> <ul style="list-style-type: none"> ❖ Concept, need, and importance ❖ Operating principles and procedures ❖ Care and maintenance ❖ Safety precautions to be taken ❖ Keeping activity records 	0.1	0.4	0.5
2.	Handle fax	<u>Handling fax:</u> <ul style="list-style-type: none"> ❖ Concept, need, and importance ❖ Operating principles and procedures ❖ Care and maintenance ❖ Safety precautions to be taken ❖ Keeping activity records 	0.1	0.4	0.5
3.	Handle mail	<u>Handling mail:</u> <ul style="list-style-type: none"> ❖ Concept, need, and importance 	0.1	0.4	0.5

		<ul style="list-style-type: none"> ❖ Operating principles and procedures ❖ Care and maintenance ❖ Safety precautions to be taken ❖ Keeping activity records 			
4.	Write letters	<u>Writing letters:</u> <ul style="list-style-type: none"> ❖ Concept, need, and importance ❖ Types of letter ❖ Component parts of each type of letter ❖ Format of each type of letter ❖ Writing letters ❖ Precautions to be taken ❖ Keeping activity records 	0.1	0.4	0.5
5.	Write memos / tips / notes / notice	<u>Writing memos / tips / notes / notice :</u> <ul style="list-style-type: none"> ❖ Concept, need, and importance ❖ Component parts of memos / tips / notes / notice ❖ Format of memos / tips / notes / notice ❖ Writing memos / tips / notes / notice ❖ Precautions to be taken ❖ Keeping activity records 	0.1	0.4	0.5
6.	Prepare simple report	<u>Preparing simple report:</u> <ul style="list-style-type: none"> ❖ Concept, need, and importance ❖ Component parts of a report ❖ Format of a report ❖ Writing a report ❖ Precautions to be taken ❖ Keeping activity records 	0.1	0.4	0.5
7.	Prepare simple proposal	<u>Preparing simple proposal:</u> <ul style="list-style-type: none"> ❖ Concept, need, and importance ❖ Component parts of a proposal ❖ Format of a proposal ❖ Writing a proposal ❖ Precautions to be taken ❖ Keeping activity records 	0.1	0.4	0.5
8.	Perform internal/ external	<u>Performing internal/ external</u>	0.1	0.4	0.5

	communication	<u>communication:</u> <ul style="list-style-type: none"> ❖ Concept, need, and importance ❖ Principles, procedures, and application ❖ Performing internal/ external communication ❖ Precautions to be taken ❖ Keeping activity records 			
9.	Perform horizontal/vertical communication	<u>Performing horizontal/vertical communication:</u> <ul style="list-style-type: none"> ❖ Concept, need, and importance ❖ Principles, procedures, and application ❖ Performing horizontal/vertical communication ❖ Precautions to be taken ❖ Keeping activity records 	0.1	0.4	0.5
10.	Perform oral/ written communication	<u>Performing oral/ written communication:</u> <ul style="list-style-type: none"> ❖ Concept, need, and importance ❖ Principles, procedures, and application ❖ Performing oral/ written communication ❖ Precautions to be taken ❖ Keeping activity records 	0.1	0.4	0.5
11.	Communicate with financial institutes	<u>Communicating with financial institutes:</u> <ul style="list-style-type: none"> ❖ Concept, need, and importance ❖ Principles, procedures, and application ❖ Communicating with financial institutes ❖ Precautions to be taken ❖ Keeping activity records 	0.1	0.4	0.5
12.	Link with media	<u>Linking with media:</u> <ul style="list-style-type: none"> ❖ Concept, need, and importance ❖ Principles, procedures, and application ❖ Linking with media 	0.1	0.4	0.5

		<ul style="list-style-type: none"> ❖ Precautions to be taken ❖ Keeping activity records 			
13.	Disseminate information	<u>Disseminating information:</u> <ul style="list-style-type: none"> ❖ Concept, need, and importance ❖ Principles, procedures, and application ❖ Disseminating information ❖ Precautions to be taken ❖ Keeping activity records 	0.1	0.4	0.5
14.	Write job application	<u>Writing job application:</u> <ul style="list-style-type: none"> ❖ Concept, need, and importance ❖ Component parts of job application ❖ Format of job application ❖ Writing job applications ❖ Precautions to be taken ❖ Keeping activity records 	0.1	0.4	0.5
15.	Prepare resume	<u>Preparing resume:</u> <ul style="list-style-type: none"> ❖ Concept, need, and importance ❖ Component parts of a resume ❖ Format of a resume ❖ Writing resume ❖ Precautions to be taken ❖ Keeping activity records 	0.1	0.4	0.5
16.	Communicate with senior.	<u>Communicating with senior:</u> <ul style="list-style-type: none"> ❖ Concept, need, and importance ❖ Principles, procedures, and application ❖ Communicating with senior ❖ Precautions to be taken ❖ Keeping activity records 	0.1	0.4	0.5
17.	Communicate with juniors.	<u>Communicating with juniors:</u> <ul style="list-style-type: none"> ❖ Concept, need, and importance ❖ Principles, procedures, and application ❖ Precautions to be taken ❖ Keeping activity records 	0.1	0.4	0.5
18.	Deal with customers/stake holders	<u>Dealing with customers/stake holders:</u> <ul style="list-style-type: none"> ❖ Concept, need, and importance 	0.1	0.4	0.5

		<ul style="list-style-type: none"> ❖ Principles, procedures, and application ❖ Communicating with juniors ❖ Precautions to be taken ❖ Keeping activity records 			
19.	Request / purchase tool, supplies, materials and equipment.	<u>Requesting / purchasing tool, supplies, materials and equipment:</u> <ul style="list-style-type: none"> ❖ Concept, need, and importance ❖ Principles, procedures, and application ❖ Requesting / purchasing tool, supplies, materials and equipment ❖ Precautions to be taken ❖ Keeping activity records 	0.1	0.4	0.5
20.	Fill up leave requisition form	<u>Filling up leave requisition form:</u> <ul style="list-style-type: none"> ❖ Concept, need, and importance ❖ Principles, procedures, and application ❖ Filling up leave requisition form ❖ Precautions to be taken ❖ Keeping activity records 	0.1	0.4	0.5
		Total:	2	8	10
Sub module: 2 : Cooperative Education					
Description: It consists of the skills and knowledge related to cooperative education in the related occupation. Each task consists of its steps, related technical knowledge and hour distribution.					
Objectives: After its completion the trainees will be able:					
<ul style="list-style-type: none"> • To cooperatives • To enlist characteristics, function and importance of cooperatives • To state the 8 fundamental principle of cooperatives • To explain the process of formation and registration of cooperatives in Nepal • To explain renewal and termination procedures of cooperatives in Nepal 					
Tasks: To fulfill the objective the trainees are expected to get proficiency on the following tasks/skills/steps together with their related technical knowledge:					
			Th.(2 hrs) + Pr.(8hrs) = Tot.(10 hrs)		Time(hrs)
SN	Tasks or skills/ steps	Related technical knowledge	Th.	Pr.	Tot.
1.	<u>State the concept of cooperatives</u> <ul style="list-style-type: none"> • Receive instruction • Obtain related reading materials 	<u>Concept of cooperative:</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Related reading materials ❖ Studying the related reading 	0.4	1.6	2

	<ul style="list-style-type: none"> • Study the related reading materials • Analyze the related reading materials • State concept of cooperatives • Define cooperatives • Take precautions • Keep records 	<ul style="list-style-type: none"> ❖ Analyzing the related reading materials ❖ Stating the concept of cooperatives ❖ Defining cooperatives ❖ Precautions to be taken ❖ Records keeping 			
2.	<u>Enlist characteristics, function and importance of cooperatives</u> <ul style="list-style-type: none"> • Receive instruction • Obtain related reading materials • Study the related reading materials • Analyze the related reading materials • List characteristics of cooperatives • List functions of cooperatives • Explain importance of cooperatives • Differentiate between cooperatives with other business organizations • Take precautions • Keep records 	<u>Characteristics, function and importance of cooperatives</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Related reading materials ❖ Studying the related reading materials ❖ Analyzing the related reading materials ❖ Characteristics of cooperatives ❖ Functions of cooperatives ❖ Importance of cooperatives ❖ Differentiating cooperatives and other business organizations ❖ Precautions to be taken ❖ Records keeping 	0.4	1.6	2
3.	<u>State Eight fundamental principles of cooperatives</u> <ul style="list-style-type: none"> • Receive instruction • Obtain related reading materials • Study the related reading materials • Analyze the related reading materials • State eight fundamental principles of cooperatives • Take precautions • Keep records 	<u>eight fundamental principles of cooperatives</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Related reading materials ❖ Studying the related reading materials ❖ Analyzing the related reading materials ❖ Eight fundamental principles of cooperatives ❖ Precautions to be taken ❖ Records keeping 	0.4	1.6	2
4.	<u>Explain process of formation and registration of cooperatives in Nepal</u> <ul style="list-style-type: none"> • Receive instruction 	<u>Process of formation and registration of cooperatives in Nepal</u> <ul style="list-style-type: none"> ❖ Concept, need, importance 	0.4	1.6	2

	<ul style="list-style-type: none"> • Obtain related reading materials • Study the related reading materials • Analyze the related reading materials • Explain formation of cooperatives • Explain registration of cooperatives • Take precautions • Keep records 	<ul style="list-style-type: none"> ❖ and application ❖ Related reading materials ❖ Studying the related reading materials ❖ Analyzing the related reading materials ❖ Process of formation of cooperatives ❖ Registration of cooperatives ❖ Precautions to be taken ❖ Records keeping 				
5.	<u>Explain the renewal/termination process of cooperatives in Nepal</u> <ul style="list-style-type: none"> • Receive instruction • Obtain related reading materials • Study the related reading materials • Analyze the related reading materials • Explain the renewal process of cooperatives • Explain the process of cooperatives • Take precautions • Keep records 	<u>Renewal and termination of cooperatives in Nepal</u> <ul style="list-style-type: none"> ❖ Concept, need, importance and application ❖ Related reading materials ❖ Studying the related reading materials ❖ Analyzing the related reading materials ❖ Renewal Process of cooperatives ❖ Termination process of cooperatives ❖ Precautions to be taken ❖ Records keeping 	0.4	1.6	2	
			Total:	2	8	10
Sub module: 3 : Organic Practices						
	Description: It consists of the skills and knowledge related to organic practices in the related occupation. Each task consists of its steps, related technical knowledge and hour distribution.					
	Objectives: After its completion the trainees will be able:					
	<ul style="list-style-type: none"> • To state organic practices • To be familiar with various organic certifications • To explain the process of organic certifications 					
	Tasks: To fulfill the objective the trainees are expected to get proficiency on the following tasks/skills/steps together with their related technical knowledge:					
	Th.(2 hrs) + Pr.(8hrs) = Tot.(10 hrs)			Time(hrs)		
SN	Tasks or skills/ steps		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 going organic • 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 	<u>Concept of organic cultivation</u> <ul style="list-style-type: none"> ❖ Introduction ❖ Need of going organic ❖ Characteristics of typical organic farm ❖ Advantages and disadvantages of organic cultivation ❖ Taking precaution ❖ Keeping records 	0.4	1.6	2
2.	<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 	0.4	1.6	2
3.	<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 	0.4	1.6	2
4.	<u>State the concept of 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 	<u>Concept of certification process</u> <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 	0.4	1.6	2
5.	<u>State the concept of FairTrade</u>	<u>Concept of FairTrade</u>	0.4	1.6	2

	<u>Certifications</u> <ul style="list-style-type: none"> • Receive instruction • Define FairTrade • Be familiar with FairTrade certification • Understand the need and benefit of FairTrade certification • Be familiar with the requirement of FairTrade • Be familiar with the procedure of FairTrade • Take precautions • Keep records 	<u>Certifications</u> <ul style="list-style-type: none"> • Defining FairTrade • Being familiar with FairTrade certification • Understanding the need and benefit of FairTrade certification • Being familiar with the requirement of FairTrade • Being familiar with the procedure of FairTrade • Take precautions • Keep records 				
			Total	2	8	10
			Common module total:	6	24	30
			All total:	124	296	420
Module: 7: Entrepreneurship Development						
Course description						
<p>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 formulate the business plan.</p>						
Course objectives						
<p>After completion of this course, students will be able to:</p> <ol style="list-style-type: none"> 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 						
Total: 40 hrs, Theory: 18 hrs, Practical: 22 hr						
Task statements						
<ol style="list-style-type: none"> 1. State the concept of business/enterprises 2. Grow entrepreneurial attitudes 3. Generate viable business ideas 4. Prepare business plan 5. Prepare basic business records 						
S. No.	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 	4		4	

		business/enterprises <ul style="list-style-type: none"> • Overview of MSMEs(Micro, Small and Medium Enterprises) in Nepal • Cost & Benefits of self-employment/salaried job 			
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
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
	Prepare basic business records	<ul style="list-style-type: none"> • Day book • Payable & receivable account 	1	2	3
Total:			18	22	40
Grand Total			142	318	460
Textbook:					
क) प्रशिक्षकहरूका लागि निर्मित निर्देशिका तथा प्रशिक्षण सामग्री, प्राविधिक शिक्षा तथा व्यावसायिक तालीम परिषद्, २०६९					
ख) प्रशिक्षार्थीहरूका लागि निर्मित पाठ्यसामग्री तथा कार्यपुस्तिका, प्राविधिक शिक्षा तथा व्यावसायिक तालीम परिषद् (अप्रकाशित), २०६९					

Reference book: <i>Entrepreneur's Handbook, Technonet Asia, 1981</i>		
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 • Leveller • Insecticides • Fungicides • Basket • Manure/ compost • Basila • Sacks/ Dokos • Bullock cart/ porter • Other means of transport • Local plough set/ oxen • Measuring cylinder 	<ul style="list-style-type: none"> • Balance set • Seeds • 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 	
Reading materials		
<ul style="list-style-type: none"> • Coffee processing-from Wikipedia, the free encyclopedia • Handbook of agriculture- ICAR, New Delhi • Kafi Kheti – Salagram Adhikari • प्राङ्गारिक कफी खेती सहयोगी पुस्तिका - राष्ट्रिय चिया तथा कफी विकास बोर्ड • कफीमा लाग्ने प्रमुख रोग र कीरा तथा तिनको व्यवस्थापन- Copp/Helvetas 	<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 • Coffee Quality Standard- Copp/Helvetas • Basic Requirement for Organic Certification - Copp/Helvetas • Basic Information on Organic Production - Copp/Helvetas 	
Facilities		

	<ul style="list-style-type: none"> • Well equipped enough class/ office rooms • A / V room • Demonstration coffee farm • Land for coffee plantation • Well equipped coffee processing workshop/lab. 	<ul style="list-style-type: none"> • Transportation facilities/ Vehicle /Library • OHP/computers with CD ROM attachment / pictures • Multimedia presentation set /slide presenter • Hostel/canteen /drinking water/ electricity 	
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