Syllabus for BVoc in Small Tea Garden Management (STGM)

Programme Template: B Voc Course (CBCS) in STGM Gauhati University

Semester	CORE COURSE (12 papers, 72 credits)	Ability Enhancement Compulsory Course (AECC) (2 papers , 8 credits)	Skill Enhancement Course (SEC) (4 papers, 16 credits)	Discipline Specific Elective (DSE) (6 papers, 36 credits)
I	STG-VC-1016 STG-VC-1026 STG-VC-1036	ENG-AE-1014		
II	STG-VC-2016 STG-VC-2026 STG-VC-2036	ENV-AE-2014		
Ш	STG-VC-3016 STG-VC-3026 STG-VC-3036		XXX-SE-3XX4	
IV	STG-VC-4016 STG-VC-4026 STG-VC-4036		XXX-SE-4XX4	
V			XXX-SE-5XX4	STG-VE-5016 STG-VE-5026 STG-VE-5036
VI			XXX-SE-6XX4	STG-VE-6016 STG-VE-6026 STG-VE-6036

Paper: STG-VC-1016: Introduction to Tea with reference to STG (6 Credits)

Overview & key learning as per NOS:

This paper unit component of first semester will help the student to know in details about the introduction of Tea in India and also worldwide emergence of tea, especially invention history of tea in Assam, other North East & Eastern States & also the emergence of the Small Tea Grower (STG) in Assam & other parts of India. It will also help the student's to know the "Role of tea in Indian Economy".

Total Marks: 100

UNIT- I

History of Tea Cultivation

1 Credit (15 marks)

Origin of Tea, History of Tea cultivation in India & Assam, History & introduction of STG in Assam, Total area of STG posses as on date in respect to total area of Assam in terms of land, production quantity from beginning to present.

UNIT-II

Importance & Science in Tea

1 Credit (15 marks)

Tea as a beverage of all people, Tea & employment generation, Tea in Indian Economy, Taxonomy of Tea, Tea in human health, Chemical constituent of Tea plant.

UNIT- III

Government policies on Tea Plantation

1 Credit (15 marks)

Different Government policies and support on Tea estate and also for Small Tea Grower (STG).

UNIT-IV

Formalities for opening a Tea plantation for new comer

1 Credit (15 marks)

Practical 20 marks (1 credit)

Field Works to understand about different practices follows in the College Demo plot itself

Internal Assessment 20 marks (1credit)

Submission of assignment on given subjects

Paper: STG-VC-1026: Agro practices of Tea plantation (6 Credits)

Overview & key learning as per NOS:

After going through the units of this skill paper, the students will be able to learn different types of planting materials like different clones & biclonal seed varieties, able to choose the planting materials by narrating criteria, establishment of clonal nucleus plot, procedure of seed collection & packaging. Further, these unit helps in establishment of tea plant nursery, young tea management practices & also get the information on different developmental schemes under TBI (Five Year Plan) for STG's & commercial garden.

Total Marks: 100

UNIT-I

Planting Materials of Tea

1 Credit (15 marks)

Planting Materials approved by Tea Board of India under Five year plan

UNIT-II

Propagation of Tea & Nursery Technique

1 Credit (15 marks)

 $\label{propagation} \textit{Propagation, Grafting, Mother bush management.}$

UNIT-III

Establishment of Tea Plantation

1 Credit (15 marks)

Selection of Planting Site, Land Preparation, Nursery Management (Package & practices followed in nursery), Plant Spacing and Staking, Planting operation both pre & post-planting operation.

UNIT-IV

Young Tea Management in a commercial garden & Small Tea Garden

1 Credit (15 marks)

Methods of young tea plant management practices followed in the field of tea plantation in details from planting, manuring, plant protection to harvesting.

Practical 20 marks(1 credit)

Field Visit to nearby Tea estate to know the various operations followed in Tea Plantation.

Internal Assessment 20 marks(1 credit)

Assignment on the selected subject

Paper: STG-VC-1036: Soil Nutrient Management (6 Credits)

Overview & key learning as per NOS:

After studying this paper unit of 1st semester the student will be able to perform different range of soil quality & adoptability in regards to plantation of tea, nutrients contains in wide range of soils like sandy, sandy loam, silt & clay soil. Soil and climate requirement for growing tea in different parts of India & other countries, how application of nutrients in soil absorb by tea plant, etc...

Total Marks: 100

UNIT- I

Soil & Importance of soil nutrients for Tea Plantation

1 Credit (15 marks)

Soil structure, texture & soil health for tea plantation, Soil P^H for tea plantation, Soil rehabilitation, Soil topography, etc...

UNIT-II

Climate requirement for Tea Plantation

1 Credit (15 marks)

Climatic condition includes temperature, rainfall, relative humidity required for suitable tea plantation.

UNIT-III

Soil Nutrients Management in Tea Plantation

1 Credit (15marks)

Soil Conservation, Role of soil nutrient in the growth & development of tea, study on nutrients deficiency symptoms & its improvement practices for growth & development for tea plantation in terms of maximum production.

UNIT- IV

Water Management in Tea Plantation

1 Credit (15 marks)

Importance of water in growth & development of Tea Plant, Importance & Management of Irrigation & Drainage systems practices in Tea.

Practical 20 marks(1 credit)

Field Visit as well as Laboratory works

- 1. How Soil PH, Soil conductivity on the basis of soil texture, Available NPK & other micro nutrient are measured.
- 1 Preparation of different types of Drainage system, how the irrigation practices followed in a tea estate, what is catchment area, different source of water management made in a tea estate etc?

Internal Assessment

20 marks (1 credit)

Preparation of report on the basis of field visit on a given topic

Paper: STG-VC-2016: Plantation Management (6 Credits)

Overview & key learning as per NOS:

The component units under this paper help the students to know how to pluck leaves from young tea as well as matured tea bushes, able to learn how plucking to be done under various situation, able to determine the plucking standard, caring in green leaves handling, help in understanding the tipping as well as determine the height of tipping for different types of prune & skiff tea bushes, further, the students develop the skill of supervising plucking. Again in regards to pruning & skiffing this paper help in skill up the students how pruning operation is carry out, before pruning what are the criteria to be follow, what are the safety measures one should take before pruning /skiffing of a tea bushes, also it helps in identify recommended height of different types of prune/skiff.

Total Marks: 100

UNIT- I

Plucking & Tipping 1 Credit (15 marks)

Methods of Plucking & Tipping in Young Tea Plants & Matured tea, Methods of plucking for maintenance of plant canopy, maintenance of Plucking Table of the Tea plants for getting maximum yield as well as Quality, Plucking round management.

UNIT-II

Pruning & Training 1 Credit (15 marks)

What is pruning? Why pruning is necessary & when the operations followed. Training on different types of Pruning to develop pruning skills, What is the Pruning cycle follows in Garden & what height consider in different types of pruning what is the percentage maintain for pruning & un-pruning & Why?

UNIT-III

Drought Management in Tea 1 Credit (15 marks)

How the drought management over come, Rain Water Harvest methods & procedure, Climate change & Climate Resilient in Tea, Use of Mulching with a proper thickness, proper use of Growth regulator, use of lime/ Pyrite if the soil is too acidic or alkaline.

UNIT-IV

Shade Tree & Maintenance of Shade tree 1 Credit (15 marks)

Advantage of Shade tree, what are the plants used as Shade tree, Spacing of shade tree, treatment of shade tree to become a free from disease & Pest.

Practical 20 marks (1 credit)

- 1. Pruning & Plucking operation carried out in the field?
- 2. Shade tree management practices in the garden & Types of Shade trees used in a garden?

Internal Assessment

Assignment on the basis of theory.

20 marks(1 credit)

Paper: STG-VC-2026: Integrated Disease, Pest & Weed Management (6 Credits)

Overview & key learning as per NOS:

After going through this paper component the students will acquire the meaning of IPM (minimum ETL), which ultimately reduced the affect in the ecology, it also help in develop the skill in identification of major pests, diseases and different species of weeds attack on tea bushes along with their control measures by means of using inorganic chemical, organic and biological methods of controls, the students will also able to know about PPA; as well as the TBI recommended chemicals, which have a very low residual effect on made tea & ultimately does not affect in the health of tea consumed peoples of the world.

Total Marks: 100

UNIT-I

Pest Management in Tea

1 Credit (15 marks)

Identification, symptoms and control measures by various synthetic chemical, organic chemicals, biological trap, Integrated Pest control measures

UNIT-II

Disease Management

1 Credit (15 marks)

Identification, symptoms and control measures by various synthetic chemical, organic chemicals, Integrated disease control measures.

UNIT- III

Weed management

1 Credit (15 marks)

Identification, symptoms and control measures by various synthetic chemical, organic chemicals. Methods of collar weeding.

UNIT-IV

Mineral Nutrition of Tea

1 Credit (15 marks)

Function of Major & & Micro nutrient in Tea, Soil Fertility & crop productivity, Used of Lime and Iron Pyrite why & when needed, Fertilizer & their nutrient contain, like in urea % of N, in SSP % of P& in Potassium % of K, like in others also.

Practical 20 marks (1 credit)

- 1. Identification of different pest & diseases & their symptoms.
- 2. Pest, disease & weed management control in tea plantation.

Internal Assessment

Assignment on the basis of theory.

20 marks(1 credit)

Paper: STG-VC-2036: Application Technique used for IPM (6 Credits)

Overview & key learning as per NOS:

Basically this paper emphasize on various spraying tools along with different size of the nozzles used for pests, diseases and weed controls in tea plants as well as in shade trees, the student will develop the skill how to operate various types of spraying machines and which nozzle use for pests/diseases/weeds control practices. Above this it will also helps in develop the skills of different characteristics of better performance factors of the nozzle like temperature, rate of discharge, surface tension and also the effective time of spraying for better result of IPM practices.

Total Marks: 100

UNIT- I

Sprayer & it's Application Technique

1 Credit (15 marks)

What is Sprayer, various types of sprayer used for various purposes, like control of

Pest, Diseases & Weed in tea plantation.

UNIT-II

Calibration & operation, Spraying Technique

1 Credit (15 marks)

How the calibration & operation practices followed in tea plantation, different

 $\label{thm:control} \mbox{Techniques of application of spraying machine for effective control of Pest, Diseases \ \& \\$

Weed in tea plantation.

UNIT-III

Nozzle & Types of Nozzle

1 Credit (15 marks)

What is nozzle, its importance in spraying different pesticides, weedicides application?

Types of nozzle used in different types of spraying foe effective results.

UNIT- IV

Nozzle performance Factors

1 Credit (15 marks)

Factors to be considered for nozzle performances, like temperature, viscosity, surface tension, nozzle wear, etc.

Practical: 20 marks(1 credit)

UNIT- I: Identification of Major Pest & Diseases in tea by field visit

Unit- II: Identification of different kind of weeds & their control measures

Unit-III: Identification of different nutrients deficiency symptoms in the tea plant & how it is Corrected.

Internal Assessment: 20marks(1 credit)

Assignment on making an album on different pest, diseases & Weed of tea with their symptoms & Control measures.

Paper: STG-VC-3016: Organic Tea Plantation Management (6 Credits)

Overview & key learning as per NOS:

In this paper the importance is given on tea plantation & processing practices using the organic methods, as the revolution of organic cultivation able to bring high demand in the market. Only natural inputs were apply in organic cultivation instead of inorganic or synthetic chemical. In organic cultivation vermi-compost plays a significant role, hence in this paper the student will learn about vermi-compost as well as acquire the skill how the vermi-compost units are made by seeing the unit set up in the college land itself. Again this paper help the students to know the HRM practices followed in a tea estate, role of different employees top to bottom involved in the tea plantation, able to develop organizational chart of a tea estate, also acquire skill of health & safety measures involve in tea plantation.

Total Marks: 100

UNIT- I

Organic Tea Plantation

1 Credit (15 marks)

Package & practices of organic tea plantation from cultivation to processing. UNIT-II

Vemicompost & its importance

1 Credit (15marks)

What is Vermicompost, preparation methods of vermicompost unit, Cost of vermicompost unit preparation of different size, Importance of vermicompost from own use to commercial use, Effect of vermicompost use in the tea estate, Advantage of vermicompost practice in the field.

UNIT- III

Human Resource Management in Tea

1Credit (15marks)

Organizational behaviours, Organizational Chart, Role of Estate Manager, Role of Grade / Factory Assistant Manager, Role of Different Clerk (activity) wise.

UNIT-IV

Health & Safety measure's followed in a Tea Gardens

1 Credit (15 marks)

Various steps of health & safety measure are followed in a tea estate. Study on the health & safety related issues in details in order to maintain peaceful work environment in the tea estate..

Practical 20 marks(1 credit)

1. Demonstration of vermin-compost unit preparation in the field

Internal Assessment 20 marks(1 credit)

Paper: STG-VC-3026: Small Tea Garden Management (6 Credits)

Overview & key learning as per NOS:

The objective of this paper is to give more focus on STGs, prospect & problems of STG's use to face. Here the student's able to develop the skill on how SHG/cooperative/company/ federation can be form among the STG's group in an organized and systematic way, which will help in minimizing input cost of STG's and maximize the earnings through common marketing, minimize the leaf wastage, etc.. In this chapter the student's develop skill on how an individual can be a entrepreneur or self employment through STG, also focus will be remain on the policies for STG's develop by TBI as well as State Governments.

Total Marks: 100

UNIT- I

IMPACT ON SOCIAL DEVELOPMENT

1 Credit (15 marks)

Motivation of the unemployed youth towards the adoption of STG, How a successful STG recognized in the society & how his influential helps in development in the society & also the Existing lethargic STG become proactive in the development of STG by generating employment to uneducated/ primary school dropout youths in development of livelihood.

UNIT-II

Management of Bought leaves

1 Credit (15 marks)

Techniques of purchased or selling tea leaves management, how the plucked leaves are stores up to the transportation period without damages in leaves or maintain the quality of the leaves to get the best market value, what practices followed in transportation during monsoon & dry weather condition, How the cost control can be done to maximize profit.

UNIT- III

Role of SHG's or Cooperation in development of STG in Assam

1 Credit (15 marks)

Operation practices SHG. SWOT Analysis, Institutional Framework of SHG or Cooperative society for development of STG, Price sharing formula, quality up gradation programme, setting up of SHG or FPC.

UNIT-IV

Details study on the Tea Board Development & Plantation Scheme under the Five year 1 Credit (15 marks) plan for Small Tea Grower's of Assam & non conventional area of N.E. India

Practical 20 marks(1 credit)

Field visit to Small Tea Grower's federation or SHG's & study details about their experiences in the tea industry

Internal Assessment

20 marks(1 credit)

Paper: STG-VC-3036: Major thrust area of STG (6 Credits)

Overview & key learning as per NOS:

This units study will help the students in unfolding the major constrain & issues of the STG's were facing or experiencing, so it will be useful for the students to develop the skill of planning & execution the same for the smooth running of the gardens, irrespective of doing job in commercial garden or become self employment as an entrepreneur, the students also able to identify the soil condition, whether it's suitable for tea plantation or need to rejuvenate the soil condition by planting Guatemala grass for 24 to 36 months.

Total Marks: 100

UNIT- I

Problems of STG grower of Assam & non conventional area of North east India

1 Credit (15 marks)

Identification of problems faced by STG & how the non conventional area can be transformed to large STG grower's by common plan of action.

UNIT-II

Role of Tea Board of India & other governmental institution in developing STG of 1 Credit (15 marks) Assam & other parts of N.E India

What are the role played by TBI & other Governmental institution in promotion & development of STG of Assam & other parts of N.E India? What is the role of respective state's Governments also in development of STG.

UNIT-III

Inter- Cropping practices in STG

1 Credit (15 marks)

What is inter-cropping & its importance, what are the crops can be inter-cropped along with young tea, why selected crops are considered for inter-cropping, Advantage of inter- cropping system for STG grower's.

UNIT-IV

Marketing & Management of leaves of STG grower's of Assam & other parts of N.E. 1 Credit (15 marks)

Marketing of tea leaves & it's importance in terms of economic condition of STG grower's, how the leaves are managed & handle by the STG grower's to minimize the damages and maximize the earning, importance of leaves management.

Practical 20 marks(1 credit)

UNIT- I: Identification the role of Governing body in developing Small tea grower's. Unit- II: Identification of how entrepreneurship as a profession developed by STG

Unit-III: Documents & formalities required to form an SHG or Cooperative society of STG grower's

Internal Assessment: 20marks(1 credit)

Assignment on what are the role & responsibility of Governing body as well as members of the SHG or society of STG.

Paper: STG-VC-4016: Tea processing in details (6 Credits)

Overview & key learning as per NOS:

This paper is one of the most important for the students to develop skill in manufacturing process of three different types of made tea- Black Tea (CTC & Orthodox); Green Tea & Olong Tea, this chapter will help in determining the students which types of leaves used for best quality tea making of above mentioned made tea, the students also able to know in details the processes involved in making a made tea from the harvested green leaves, role of each & every machineries used in processing like, withering trough, rolling table, CTC machine with the shape of roller, fermenting, dryer, shivers of different size used for different grade, sorting, packaging and how the tea is tested to know the quality of made tea.

Total Marks: 100

UNIT- I

Manufacturing of Tea

1 Credit (15 marks)

Details technique of processing made tea from the harvest of tea leaves. Role of withering trough, rolling machines, fermenting, CTC & orthodox machineries, different Dryer, Roaster etc..

UNIT-II

Drying, Sorting, Grading, Packaging & Weighing

1 Credit (15 marks)

What is Dryer, Types of Dryer, how different grade of CTC & orthodox tea are made under recommended temperature, what is Sorting, what are the percentage of sieve used in the sorting Machine to get different size of CTC & Orthodox tea, How the Grading is done, what are the names of different grade of CTC & Orthodox Tea, like BP, BOP etc. UNIT- III

GREEN TEA MANUFACTURING

1 Credit (15 marks)

How green tea is made? what types of tea leaves are suitable for making green tea, how the boiling temperature maintain in Roaster for making Green Tea, steps followed in making green tea till packaging, Why green tea are preferred in terms of beverage for drinking & and as a medicinal value.

UNIT-IV

Tea Quality & Tea Testing

1 Credit (15 marks)

Why Tea Testing is important? How the different types of tea testing done in a factory? What are the criteria of a good Tea Tester?

Practical 20marks (1 credit)

Visit to a Tea factory where all kinds of made tea are manufactured.

Internal Assessment 20 marks(1 credit)

Paper: STG-VC-4026: Management of Made Tea (6 Credits)

Overview & key learning as per NOS:

In this paper component emphasis given on how the quality made tea is made up & from which type of leaves, what plucking cycles need to follow to attain different quality of made tea, handling of made tea in order to retain quality, what are the risk involved & how to mitigate the risk in made up of green tea, also how the STG's played an important role in generating income to the educated /uneducated unemployed and unemployable person by deploying in this profession.

Total Marks: 100

UNIT- I

Management of different quality of made tea

1 Credit (15 marks)

Importance of making quality made tea, what are the factors plays an important role in making different quality made tea like leaves, withering, fermenting, drying, grading, sorting, packaging etc...

UNIT-II

Comparative study of Green tea with other made tea

1 Credit (15 marks)

What are the differences of green tea with other's made tea, study of value, demand, production, export comparison between green tea & other's made tea.

UNIT-III

Risk involved in making a green tea in Assam condition

1 Credit (15 marks)

What are the risks involved in making green tea from production to processing in Assam Condition, how these problems can be solved in an effective manner.

UNIT-IV

Role of STG in bringing the unemployable youth to main stream

1 Credit (15 marks)

Planning & execution in bringing the youth into commercial business like STG growers, effects of law & insurgency problems of the State after taking this plan of action.

Practical/Field visit

20 marks(1 credit)

UNIT- I: Steps followed in making a made tea of CTC & Orthodox Tea with details of machinery used and criteria maintain.

Unit- II: Steps followed in making a Green tea with details of machinery used and criteria maintain.

Unit-III: Different Grade of Made Tea (CTC, Orthodox, Green Tea), sorting, blending & Packaging etc...

Internal Assessment:

20 marks(1 credit)

Assignment on made up a Poster with a proper diagram of different machinery used for making a CTC, orthodox & Green Tea.

Paper: STG-VC-4036 Statutory Compliance in Tea Management (6 Credits)

Overview & key learning as per NOS:

This paper unit's component basically helps in understanding as well as skill up the students in development of plantation acts & the rules applicable in plantation industry. In commercial garden all the statutory compliance under plantation act have to adhere as per the the norms TBI, otherwise TBI may cancel the registration.

Total Marks: 100

UNIT- I

The Plantation Labour Act, 1951

1 Credit (15 marks)

Definition & Objective, Scope & provisions in regards working hours, Leave with wages, Procedure for Penalties, employer obligation.

UNIT-II

The Factory Act, 1948

1Credit (15 marks)

Definition & Objective, Registration Procedure & criteria for obtaining Factory License, Renewal of License, and Safety measure to be taken for Factory workers.

UNIT- III

The Payment of wages Act, 1936

1 Credit (15 marks)

Definition & Objective, Fixation of wages

The Payment of Bonus Act, 1936

Definition & Objective, who are eligible for bonus payment, on what basis bonus is paid, whom & why the bonus is given as a minimum bonus & deduction of bonus payment. How the bonus paid either one phase or two phase

UNIT-IV

The Employee PF Act, 1952

1 Credit (15 marks)

Definition & Objective, who are eligible for PF payment

The Industrial Employment Act, 1946

Definition, Objective & Major component of the act.

The Minimum wages Act, 1948

Definition & Objective, Wages of Permanent & Temporary workers, Wages for Skilled, Semi skilled & Unskilled workers as per Governments norms.

The workmen Compensation Act, 1923

Definition & Objective, who & why eligible for compensation

Practical 20 marks(1credit)

Field Visit to a Tea estate where all the statutory maintain & how?

Internal Assessment:

20 marks(1 credit)

Reports to be made on the activities carried out in the practical.

Paper: STG-VE-5016: Estate Management (6 credits)

Overview & key learning as per NOS:

After going through this paper unit's the students will be able to develop the knowledge & skill on Garden management, which includes how /when extension planting, replanting planting, similarly factory management works & any others administrative functions of the estate is to be done/maintain to run the estate smoothly and organize manner.

Total Marks:100

UNIT- I

Garden Management 1 Credit (15 marks)

Study on Extension, Replanting, Rejuvenation planting & new planting followed in a garden.

UNIT-II

Factory Management 1 Credit (15 marks)

Repairing & maintenance of the factory equipments, extension of factory buildings & exchanged of old parts with new parts & up gradation of machineries

UNIT-III

Store Management 1 Credit (15 marks)

What are the function of store in tea plantation & its management for the smooth running of tea estate?

UNIT-IV

Tea work force management 1 Credit (15 marks)

Facilities provided to the tea workers, benefits availed by the permanent worker of the estate, what are the other welfare related establishments seen in a garden.

Practical: 20 marks(1 credit)

Cultivation practices of Tea to be done on the campus plantation area by formation of group among the students & result on performance basis.

Internal Assessment: 20 marks(1credit)

Reports to be made on the activities carried out in the practical.

Paper: STG-VE-5026: Tea Board Development & Plantation Scheme on Tea (6 Credits) (Five year plan)

Overview & key learning as per NOS:

In this units all the development & plantation schemes (under five year plan) will be elaborately discuss, so that the students after passing out with a various skill's & join in a job or become an entrepreneur, they will be able to materialized the schemes and able to make the required information to get qualify & avail the benefits from the schemes. The same condition is though applicable for STGs but there are various grants in aid schemes for the STG's, which are also discuss in details in this paper, so that the STG's also able to get the grant from TBI.

Total Marks: 100

UNIT- I

Details on Plantation Development Scheme

1 Credit (15 marks)

Study on the sub component of plantation development scheme in details, what are the eligibility criteria & what is rate of subsidy on different component & how the disbursement is done?

UNIT-II

Details on Quality Up gradation & Product diversification including orthodox 1Credit (15 marks) production

Study on the sub component on the above scheme in details, what are the eligibility criteria & what is rate of subsidy on different component & how the disbursement is done?

UNIT- III

Details on Human Resource Management Scheme

1 Credit (15 marks)

Details Study on the sub component on the HRM schemes, what are the eligibility criteria & what is rate of subsidy on different component & how the disbursement is done? UNIT-IV

Details study on Market Promotion & Research and Development Schemes

1 Credit (15 marks)

Details Study on the sub component on the above schemes, what are the eligibility criteria & what is rate of subsidy on different component & how the disbursement is done?

Practical: 20 marks(1 credit)

Exercise on the fill up of application for different developmental scheme to Fulfill the eligibility for getting subsidy/incentives/grant in aid

Internal Assessment:

20 marks(1 credit)

5TH SEMESTER Paper STG-VE-5036 (Practical)

Overview & key learning as per NOS:

In this paper, students will get different sections to maintain the garden from planting to harvesting. Each student will know practically overall package and practices followed in the tea garden.

Total marks: 100

Practical Work

- 1. Field work in the college demo plot
- a. Nursery Management.
- b. Garden Management.
- c. Pest disease and weed management.
- d. Soil fertility Management.
- d. Processing of tea.
- e. Marketing of tea .

Paper- STG-VE-6016: Exercise on operations followed in Tea Estate (6 Credits)

Overview & key learning as per NOS:

The main objective of this paper is that after going through the unit's exercise, the students will skill up with the nursery estimation of a given area, cost incurred in setting up of vermi-compost unit, cost of irrigation of a given land and also able to well acquaint with different field management implements.

Total Marks: 100

UNIT- I

The cost calculation for Nursery Preparation

1 Credit (15 marks)

What is the Component of Nursery Preparation, How many man days required for a Nursery of Seed/ Clone. The Size of the Nursery will consider approx 3 Bigha of land

UNIT-II

Exercise in cost evaluation for a 1 Ha land Irrigation

1 Credit (15 marks)

What is the machinery required, what is the size of the nozzle for disbursement of water up to 4-5 meter, by using Sprinkler irrigation.

UNIT- III

Various Implements use in Tea Management

1 Credit (15marks)

Name of the implements and their function use in Garden, Factory & packaging activity

UNIT-IV

Exercise on Vermi-compost unit cost of different size

1 Credit (15 marks)

What are the components required for Vermi-compost unit Preparation, How many man days required & how many days required for starting commercial operation by selling the Vermi-compost.

Practical: 20 marks(1 credit)

Field Visit to Auction Centre, Tea Broker House & Ware House for Market Study

How the auction of tea done, what is broker house use role, How the tea is store in the Ware House?

Internal Assessment:

20 marks(1 credit)

Submission of report on the basis of theory & practical field visit.

Paper: STG-VE-6026: Skill up with cultivation practices (6 credits)

Overview & key learning as per NOS:

This units is made up to learn the various practices followed in a tea estate fields through internship itself by staying in a commercial garden, where they can explore their expertise knowledge & skill developed from the subjects they studied in the earlier course component of tea garden field management operation, from the land preparation to pruning including, nursery practices, vegetative propagation, different types of planting materials as per TBI recommended, planting, INM, IPM practices, irrigation & drainage, plucking & tipping, the students will do the practices in the college own land, after that move for internship, here also students able to know the report writing & also the contents need in a report writing or practical note submitting.

Total Marks: 100

UNIT- I

Management of Nursery 1 Credit (15 marks)

Details package & practices of nursery to be study theoretically & practically

UNIT-II

Management of Young tea 1 Credit (15 marks)

Details package & practices of nursery to be study theoretically & practically along with all practices.

UNIT- III

Management of Matured tea 1 Credit (15 marks)

Details package & practices of nursery to be study theoretically & practically along with all practices.

UNIT-IV

Management of Drainage & Irrigation operation 1 Credit (15 marks)

How drainage & Irrigation management practices followed in a tea estate & its importance.

Practical: 20 marks (1 credit)

Field work of the entire cultivation methods will be done in the college own land.

How the nursery practices followed also the young tea & matured tea maintenance Practices, how drainage is made & where catchment areas need to put for proper irrigation on the land.

Internal Assessment: 20 marks(1 credit)

Submission of report on the basis of the practical & theory.

Paper: STG-VE-6036: Internship

Overview & key learning as per NOS:

This paper is design to learn the various practices followed in a tea estate factory through internship itself by staying in a commercial garden, where they can explore their expertise knowledge & skill developed from the subjects they studied in the earlier course component of tea manufacturing process, from the tea leaves to made tea, sorting, grading and packaging & marketing operation. Here the students able to understand about a good report writing & also the contents need in a report writing or practical note submitting.

Total marks: 100

- (a) 4 months internship programme will be carry out by the student staying in different garden.
- (b) Presentation of internship programme.
- (c) Final Submission of the report.