

Nepal Industrial and Business Sector **Occupational Standard (OS)** Of Agriculture Farm Technician Level-2



In jointly implemented by

Occupation Classification Linkage with NSCO

Occupational Title: Agriculture Farm Technician

Level: 2

Sector: Agriculture

Sub – Sector: Crops production and management.

OSS ID No.: AG-08-078

Major Group: 3

Sub-major Group: 31

Minor Group: 314

Unit Group: 3142

Occupation Specific Employers Panel:

S.N.	Name	Designation	Organization
1.	Tika Ram Giri	Proprietor	Giri Krishi Tatha Pashu Farm
2.	Ganesh K. Kafle	Proprietor	Shiva Krishi Tatha Gaipalan Farm
3.	Dipendra Dhakal	Proprietor	Sanjeevani Krishi Firm
4.	Devraj Poudel	Proprietor	Simrak Krishi Biu Shakari Sanstha
5.	Bhim Prasad Sharma	Owner	Aaayush Krishi Tatha Pashu Panchi Farm
6.	Rambrikshya Mehta	Owner	Anand Seeds and Organic Pashupanchi Farm
7.	Bhim B. Adhikari	Owner	Bhim Krishi Farm
8.	Shyam Yekten Limbu	Owner	Rupantaran Krishi Farm
9.	Nisha Rai	Owner	Anugraha M. Udhyog
10.	Iswor Rana	Owner	Krishi Tatha Pashupanchi Kendra
11.	Sushil Subedi	Owner	Best Grow Agro
12.	Chiranjeevi Jiu	Owner	Aadesh Vhayu Udhyog

Occupation Specific Expert Workers Panel:

S.N.	Name	Designation	Organization
1.	Sujata Khadka	Agriculture Farm Technician	Shiva Krishi Farm
2.	Manoj Bahadur Shahi	Agriculture Farm Technician	Ayush Krishi Tatha Pashupanchi Farm
3.	Pushpa K. Timalina	Agriculture Farm Technician	Ayush Krishi Tatha Pashupanchi Farm
4.	Shankar Dhakal	Agriculture Farm Technician	Lumbini Nursery Garden
5.	Chandrakala Rai	Agriculture Farm Technician	Anugraha Udhyog
6.	Gyanu Shahi	Agriculture Farm Technician	Aadarsha Syau Udhyog
7.	Sagar P. Bhattarai	Agriculture Farm Technician	Basudev Maiyadvei Krishi Farm
8.	Govinda B. Gurung	Agriculture Farm Technician	Hariyali Bahuuddeshiya Organic Krishi Farm
9.	Raman Giri	Agriculture Farm Technician	Giri Krishi Tatha Pashu Panchi Farm
10.	Jit Magar	Agriculture Farm Technician	Rautamai Namanta Krishi Tatha Pashupanchi P.L.
11.	Chhatra B. Poudel	Agriculture Farm Technician	Namuna Krishi Farm
12.	Durga S.K.	Agriculture Farm Technician	Triyuga Krishi Farm

OS Development Workshop Facilitated by:

S.N.	Name	Designation	Organization
1.	Harischandra Sapkota	Facilitator	Freelancer
2.	SrijanaKatuwal	Co-facilitator / Recorder	Freelancer

OS Reviewed by ELMS Agriculture Sector Working Group:

S.N.	Name	Designation	Organization
1.	Mr. Govinda Ghemire	Advisor, Export Promotion Committee	FNCCI
2.	Mr. Krishna Prasad Adhikari	Vice President	CNI
3.	Ms. Shanta Basnskota Koirala	Secretary General, Woman Entrepreneur Committee	FNCSI
4.	Mr. Khem Raj Kafle	Agriculture Sector Expert	ELMS

OS Verified by ELMS Technical Advisory Committee:

S.N.	Name	Designation	Organization
1.	Dr. Mahesh Nath Parajuli	Professor	KU
2.	Mr. Kul Bahadur Phadera	Under secretary	MoEST
3.	Mr. Pravat Uprety	Associate Prof.	TU
4.	Mr. Kishor KC	Statistics Officer	CBS
5.	Ms. Sarada Ghimire	Dy. Director	CTEVT, Curriculum Div.
6.	Mr. Keshab Ghimire	Dy. Director	CTEVT, NSTB

OS Recommended by ELMS Coordination Committee:

S.N.	Name	Designation	Organization
1.	Mr. Rabin Kumar Shrestha	Focal Person/Ex EC member	FNCCI
2.	Mr. Sumit Kumar Kedia	Executive committee member	FNCCI
3.	Mr. Birendra Raj Pandey	Vice –president	CNI
4.	Mr. Megh Nath Neupane	Senior Consultant	CNI
5.	Ms. Shobha Gurung	Vice president	FNCSI
6.	Mr. Mohan Katuwal	Vice president	FNCSI
7.	Mr. Binayak Shah	Senior-vice president	HAN
8.	Mr. Sajan Shakya	Secretary General	HAN
9.	Mr. Nicholas Pandey	Senior Vice President	FCAN
10.	Mr. Roshan Dahal	General Secretary	FCAN

OS Approved by ELMS Board:

S.N.	Name	Designation	Organization
1.	Mr. Shekhar Golchha	Head of the organization	FNCCI
2.	Mr. Vishnu Kumar Agarwal	Head of the organization	CNI
3.	Mr. Shyam Prasad Giri	Head of the organization	FNCSI
4.	Ms. Srijana Rana	Head of the organization	HAN
5.	Mr. Rabi Singh	Head of the organization	FCAN
6.	Mr. Chandra Kanta Adhikari	Member Secretary	ELMS

Occupational Description:

An Agriculture Farm Technician assists in agriculture to ensure food quality and agricultural products. A wide range of duties are performed by the technician depending on the field they choose to make their specialization. Some of the major duties of agri-farm technician are; to plan agriculture farm, prepare land and manage fertility, propagate plant/crop, manage nursery, sow seeds or transplant seedlings, perform interculture operation and protect crops. Basically, Agri Farm Technician recommend or transfer skills and knowledge to the farmers/farm owner by demonstrating new and appropriate technology, providing guidance and coaching.

Further, this technician helps farmers and other farm workers to pick the right crop based on season and climatic condition and soil conditions. Now a days substance agriculture practices is changing to commercialization of agriculture farming and this trend is increasing. The Agriculture Farm Technician has greater role to make success of the farm. Significant number of agriculture graduates are produced annually in Nepal from different governmental and private training institute. Approximately 50% of the graduates are found to be going abroad for higher studies whereas the rest stay to contribute their motherland.

The occupation Agriculture Farm Technician Level-2 (Foreman Level) describes the individual with required knowledge for applying basic method of performance, knowledge to select tools, equipment and materials appropriate for the given task. He/she possess the ability to apply basic theory and principle of the common duties and tasks to solve the given assignment. Further, the performer has ability to act independently in simple core skills and can work under the supervision of supervisor for some higher level of tasks to ensure the technicality as a co-worker. This individual has to operate machines and supervises assistant worker and labour in the team. Nepal's industrial & business sector expects individual reserving the mentioned set level of skills, knowledge and attitudes which reflect for the improvement of production/services and workers' productivity.

Occupational and environmental safety:

The problems associated with the occupation of agriculture farm are air, water, food, sound and soil pollution. Application of chemical fertilizer and pesticides increase the soil, water and air pollution and using heavy machinery and equipment and create sound and air pollution. Application of organic/bio-fertilizers/pesticides can help in minimizing the air, food and land/soil pollution. Similarly, prioritizing the use of organic manure can reduce soil and water pollution. Treatment of the waste water can also help in minimizing water pollution. Similarly, use of silencer and sound free equipment as well as zero tillage/minimum tillage practices can reduce sound and soil pollution / erosion. Likewise, safe disposal of non-degradable waste can minimize land pollution. Above all, living with a zero waste concept from the inception can aid in reducing all sorts of pollution induced by the occupation of agri-farm technician activities.

Minimum Job Entry Requirement:

As per the labor law, the Nepalese citizen aged 18 years and above and competent as per this occupation standards are eligible to enter in this occupation. To cope the required knowledge and tasks performance standard of this occupation 10th grade graduates or equivalent qualification are recommended to enter in the skills and knowledge impartation courses

Worker's traits:

The desired workers traits for the *Agriculture Farm Technician* are individuals who are self confident, honest, hardworking, disciplined, co-operative with friendly behavior, responsible and accountable. Likewise, individuals having a sense of ownership of the farm, loyalty towards occupation and someone who enjoys working in agricultural field (soil, water, tools , equipments, manure and fertilizers, etc) are desired in this occupation. Likewise, someone having professional ethics, learning attitude, leadership skills along with good communication and time management skills are highly desired in this occupation. Furthermore, individuals who are self motivated and technically sound are preferred in this occupation.

Occupational career path:

- **Above the Position-** : Agriculture Farm Technician: Level-3 (Supervisor level)
- **Current Position-** : Agriculture Farm Technician: Level-2 (Foreman level)
- **Below the Position-** : Assistant Agriculture Farm Technician: Level-1 (Field assistant level)

Abbreviation used:

Task Level	Rating number and their meaning
Significance	: 1- Important; 2- Moderately important; 3-Highly important.
Ease	: 1- Easy; 2-Moderately easy; 3-Very easy.
Occurrence	: 1-Rarely occurred; 2-Moderately occurred; 3-Frequently occurred.

N/A	: Not Applicable
OS	: Occupation Standard
FNCCI	: Federation of Nepalese Chamber of Commerce & Industries
CNI	: Confederation of Nepalese Industries
FNCSI	: Federation of Nepalese Cottage & Small Industries
FCAN	: Federation of Construction Association Nepal
HAN	: Hotel Association Nepal
ELMS	: Employers Led Market Secretariat
SWG	: Sector Working Group
TAC	: Technical Advisory Committee
SOP	: Standard Operating Procedure
KU	: Kathmandu University
MoEST	: Ministry of Education, Science & Technology
TU	: Tribhuvan University
CBS	: Central Bureau of Statistics
CTEVT	: Council of Technical Education and Vocational Training
NSTB	: National Skill Testing Board
Div.	: Division
PPE	: Personal Protective Equipment
PPM	: Part Per Million
Agri/Ag	: Agriculture
NPK	: Nitrogen Phosphorus and Potash
FYM	: Farm Yard Manure
M ²	: Square meter
Kg.	: Kilogram
CM	: Centimeter
C	: Centigrade

List of Duties and Tasksof the Agriculture Farm Technician : Level- 2

Soft Skills Area			
SN	Duty statements	SN	Task statements
1.	Demonstrate positive attitude	1.	Manage time for occupational assignment
		2.	Exhibit empathy with customer and team members
		3.	Keep work ethics of Agriculture Farm Technician
		4.	Respond assignment received
		5.	Receive / give feedback and feed forward
2.	Exhibit interpersonal skills	6.	Listen customers' demands, complaints and other information
		7.	Communicate with others about products and services
		8.	Coordinate with customers and team members
		9.	Perform networking with customers, team and stakeholders
3.	Demonstrate occupational leadership	10.	Exhibit behavior of team player among the members
		11.	Make decision at different situation of the occupation
		12.	Solve problems encountered in the occupation
		13.	Take responsibility and accountability of assignment
		14.	Develop work plan of Agriculture Farm Technician
Core Skills Area			
4.	Perform agriculture farm planning	15.	Lay out land for agri.farm
		16.	Prepare seasonal calendar
		17.	Perform estimation and costing of agriculture farm
		18.	Perform cost - benefit analysis
5.	Perform land preparation and fertility management	19.	Take soil sample
		20.	Perform pH test in field conditions
		21.	Perform NPK Test in field conditions
		22.	Perform tillage
		23.	Treat soil by agri-lime or zypsum or other chemicals
		24.	Treat soil by solarization method
		25.	Estimate manure and fertilizer dose
		26.	Prepare compost
		27.	Prepare liquid manure
		28.	Cultivate green manure
		29.	Prepare vermi compost
		30.	Apply manure
		31.	Apply basal dose of chemical fertilizers
6.	Perform propagation and nursery management	32.	Prepare tunnel (Gumbas)
		33.	Prepare raised bed
		34.	Prepare sunken bed
		35.	Prepare flat bed
		36.	Prepare hot bed
		37.	Prepare growing media
		38.	Fill poly bag / flower vase
		39.	Perform propagation by leaf cutting
		40.	Propagte plant by stem cutting
		41.	Propagate plant by suckers, rhizome, crown and tuber
		42.	Propagate plant by air layering
		43.	Propagate plant by mount layering
		44.	Propagate plant by ground layering
		45.	Propagate plant by Inarching
		46.	Propagate plant by T- budding
		47.	Propagate plant by \perp - budding
		48.	Propagate plant by patch budding
		49.	Propagate plant by grafting

7.	Perform sowing and planting	50.	Perform seed scarification
		51.	Perform seed stratification
		52.	Layout an orchard
		53.	Prepare planting pit
		54.	Uplift seedlings/saplings
		55.	Perform poly mulching
		56.	Perform hardening of seedlings
		57.	Transplant saplings
		58.	Sow seeds in line
		59.	Sow seeds by broadcasting
8.	Perform Intercultural operation	60.	Irrigate plants
		61.	Perform weeding
		62.	Perform earthing-up
		63.	Perform staking
		64.	Perform top-dressing
		65.	Train plants
		66.	Prune plants
9.	Perform crop protection	67.	Prepare protection tunnel
		68.	Prepare pesticides' solution
		69.	Spray pesticides
		70.	Apply traps
		71.	Prepare organic pesticides
		72.	Apply biological control measure
		73.	Prepare bordeaux mixture and paste
10.	Perform Harvesting/ post – harvesting	74.	Perform harvesting by cutting/plucking
		75.	Perform sorting and grading
		76.	Perform forced ripening
		77.	Perform packaging
		78.	Perform labeling
		79.	Perform storage
		80.	Keep records
11.	Perform Marketing	81.	Collect demands
		82.	Manage delivery
		83.	Record debit/credit

Task Competency Standard

Soft Skills Area:			
Task number	1.		
Task statement:	Manage time for occupational assignment		
Level of task:	Significance	Ease	Occurrence
	3	2	3
Terminal performance standard	Given Condition <ul style="list-style-type: none"> Regular duty hours and work plan. Task: Manage time for occupational assignment Time: N/A Standard/Criteria: <ul style="list-style-type: none"> Punctuality in the assignment is exhibited; Task completed within the given time frame; Task performed as per the given work plan. 		
Related technical knowledge	<ul style="list-style-type: none"> Importance of time management; Work priority and rescheduling as per the urgency; Points to be considered while managing time during duty hours. 		

Task number	2.		
Task statement:	Exhibit empathy with customers and team members		
Level of task:	Significance	Ease	Occurrence
	3	2	3
Terminal performance standard	Given Condition <ul style="list-style-type: none"> Any incident (Problems, awkward situation or unusual situation) of customer or team members Task: Exhibit empathy with customers and team members Time: N/A Standard/Criteria: <ul style="list-style-type: none"> Feelings are expressed visually (body language, gesture, posture, facial expression) as per the given incident during the performance. According to the feeling is acted. 		
Related technical knowledge	<ul style="list-style-type: none"> Meaning and importance of empathy; Different situation of empathy; Points to be considered while exhibiting empathy. 		

Task number	3.		
Task statement:	Exhibit work ethics of the Agriculture Farm Technician		
Level of task:	Significance	Ease	Occurrence
	3	2	3
Terminal performance standard	Given ConditionM <ul style="list-style-type: none"> Occupational ethics and Code of conduct of organization or Standard operating procedure (SOP); Task: Keep work ethics. Time: N/A Standard/Criteria: <ul style="list-style-type: none"> Given occupational ethics and organizational code of conducts are followed; SOP is followed; Performer is satisfied and motivated in the occupation. 		
Related technical knowledge	<ul style="list-style-type: none"> Meaning and importance of work ethics; Occupational work ethics. Code of conducts of organization or SOP ; 		

Task number	4.		
Task statement:	Respond assignment received		
Level of task:	Significance	Ease	Occurrence
	3	2	3
Terminal performance standard	Given Condition: <ul style="list-style-type: none"> Any assignment or task order. Task: Respond assignment. Time: N/A Standard/Criteria: <ul style="list-style-type: none"> Assignment is responded promptly; Assignment is noted; Assignment completed within the agreed time. 		
Related technical knowledge	<ul style="list-style-type: none"> Importance of timely response; Time requirement of assignment. Manner of interaction with others; Types of work and urgency. 		

Task number	5.		
Task statement:	Receive / give feedback and feed forward		
Level of task:	Significance	Ease	Occurrence
	3	1	3
Terminal performance standard	Given Condition <ul style="list-style-type: none"> Any assignment or task order Task: Receive / give feedback and feed forward Time: N/A Standard/Criteria: <ul style="list-style-type: none"> Performer is listened actively; Feed forward and feedback are noted; Firstly given positive feedback objectively; Secondly given developmental feedback objectively; Digestible amount of feedback is considered. 		
Related technical knowledge	<ul style="list-style-type: none"> Meaning and importance of feed forward and feedback; Types of feedback; Techniques of receiving and giving feed forward and feedback. 		

Task number	6.		
Task statement:	Listen customers demand, complaints or others information		
Level of task:	Significance	Ease	Occurrence
	3	2	3
Terminal performance standard	Given Condition <ul style="list-style-type: none"> Customer or team member is complaining / reporting. Task: Listen customers demand, complaints or others information. Time: N/A Standard/Criteria: <ul style="list-style-type: none"> Performer is listened actively; Nodded the head during listening; Asked for clarification; Noted the complaint or reporting; Reporter or complainer is satisfied with his/her listening attitude. 		
Related technical knowledge	<ul style="list-style-type: none"> Importance of active listening; Differences between active listening and hearing; Techniques of active listening. 		

Task No:	7.		
Task statement:	Communicate with others about products and services		
Level of task:	Significance	Ease	Occurrence
	3	2	3
Terminal performance standard	Given Condition <ul style="list-style-type: none"> Information to be communicated and Relevant audience Task: Communicate with others about products and services Time: N/A Standard/Criteria: <ul style="list-style-type: none"> Voice is heard clear and audible; Vocal is heard pleasant; Visual expressions are seen natural; Information shared is found concise and complete. 		
Related technical knowledge	<ul style="list-style-type: none"> Meaning and importance of effective communication; Effective communication model; Types of communication; Means of communication; Techniques of effective communication. 		

Task number	8.		
Task statement:	Coordinate with customers, team members and stakeholders		
Level of task:	Significance	Ease	Occurrence
	3	1	3
Terminal performance standard	Given Condition <ul style="list-style-type: none"> Agenda or issue or information to be coordinated, Team members or relevant stakeholders and Means of coordination. Task: Coordinate with customers, team members and stakeholders. Time: N/A Standard/Criteria: <ul style="list-style-type: none"> Coordination is done as given agenda, issues or information to be shared; Coordination is done as per the target receivers; Coordination is done as per the given means of coordination. 		
Related technical knowledge	<ul style="list-style-type: none"> Meaning and importance of coordination; Means of coordination; Techniques of effective coordination. 		

Task number	9.		
Task statement:	Perform networking with customers, team and stakeholders		
Level of task:	Significance	Ease	Occurrence
	3	1	3
Terminal performance standard	Given Condition: <ul style="list-style-type: none"> Assignment and Job description. Task: Perform net-working with customers, team and stakeholders. Time: N/A Standard/Criteria: <ul style="list-style-type: none"> Service delivery is met the standard of the organization; Additional service procurement is easily found. 		
Related technical knowledge	<ul style="list-style-type: none"> Meaning and importance of networking; Means of networking; Techniques of effective networking. 		

Task number	10.		
Task statement:	Exhibit behavior of team player among the members		
Level of task:	Significance	Ease	Occurrence
	3	1	3
Terminal performance standard	Given Condition: <ul style="list-style-type: none"> • Assignment and • Working team. Task: Exhibit behavior of team player among the members. Time: N/A Standard/Criteria: <ul style="list-style-type: none"> • Performer is encouraged team members; • Performer is taken collective ownership; • He/she is possessed cooperative and assertiveness; • Performer is taken responsibility and accountability. 		
Related technical knowledge	<ul style="list-style-type: none"> • Meaning and importance of team work; • Characteristics of good team player; • Phases of team formation; • Tips of effective team work. 		

Task number	11.		
Task statement:	Make decision at different situation of the occupation		
Level of task:	Significance	Ease	Occurrence
	3	1	3
Terminal performance standard	Given Condition: <ul style="list-style-type: none"> • Any assignment with possible unusual situation during the process and • Problem or case and time frame Task: Make decision at different situation of the occupation Time: N/A Standard/Criteria: <ul style="list-style-type: none"> • Decision is taken within the given time frame; • Desired results are achieved; • Decision is considered efficient use of time, money and resources. 		
Related technical knowledge	<ul style="list-style-type: none"> • Meaning and importance of decision making; • Simple decision making process. 		

Task number	12.		
Task statement:	Solve problem encountered in the occupation		
Level of task:	Significance	Ease	Occurrence
	3	1	3
Terminal performance standard	Given Condition: <ul style="list-style-type: none"> • Any problem or case and time frame Task: Solve problem encountered in the occupation Time: N/A Standard/Criteria: <ul style="list-style-type: none"> • Problems are solved in given time frame; • Desired results are achieved; • Performer is considered efficient use of time, money and resources. 		
Related technical knowledge	<ul style="list-style-type: none"> • Meaning and importance of problem solving; • List of potential problems in the occupation; • General problem solving techniques. 		

Task number	13.		
Task statement:	Take responsibility and accountability of the assignment		
Level of task:	Significance	Ease	Occurrence
	3	2	3
Terminal performance standard	Given Condition: <ul style="list-style-type: none"> • Assignment; • Job description. Task: Take responsibility and accountability of the assignment. Time: N/A Standard/Criteria: <ul style="list-style-type: none"> • Dedication to the assignment is exhibited; • To complete the assignment as per the set standard are attempted; • Ownership of results are taken. 		
Related technical knowledge	<ul style="list-style-type: none"> • Meaning of responsibility and accountability; • Importance of responsibility and accountability for Agriculture Farm Technician; • Key roles and responsibilities of Agriculture Farm Technician. 		

Task No:	14.		
Task statement:	Develop work plan of Agriculture Farm Technician		
Level of task:	Significance	Ease	Occurrence
	3	1	3
Terminal performance standard	Given Condition: <ul style="list-style-type: none"> • List of tasks and their priority order; • Planning forms and format; • Job description. Task: Develop work plan of Agriculture Farm Technician. Time: N/A Standard/Criteria: <ul style="list-style-type: none"> • Plan is developed as per the given tasks; • Planning is done in given forms and format; • Tasks are planned based on priority order or sequence; • Performer is considered efficient use of resources (time, money, and people). 		
Related technical knowledge	<ul style="list-style-type: none"> • Meaning of planning; • Importance of planning; • Different planning tools; • Points to be considered while planning; 		

Core Skills Area			
Task number	15.		
Task statement	Lay out land for agriculture farm		
Level of task:	Significance	Ease	Occurrence
	3	2	3
Terminal performance standard	Given Condition: <ul style="list-style-type: none"> • Location; • Types of crop and reference materials; • Desire of owner/customer. Task: Lay out land for agri-farm. Time: 8 hours /small farm. Standard/Criteria: <ul style="list-style-type: none"> • Recommended distance is maintained; • Site is allocated as per the nature of crops; • The desire of the owner is considered; • Farm components are considered. 		
Related technical knowledge	<ul style="list-style-type: none"> • Meaning and importance of site selection and lay out; • Points to be considered while selecting site and lay out; • Land measurement; • Nature of crops ; • Path requirement and bed size; • Water requirement of different crops. 		
Safety/precaution	<ul style="list-style-type: none"> • Required farm components 		
Tools, equipment and materials	<ul style="list-style-type: none"> • Measuring tape, rope, peg; • Lime, hammer, gloves, PPE and spade. 		

Task number 16	16.		
Task statement:	Prepare seasonal calendar		
Level of task:	Significance	Ease	Occurrence
	3	1	2
Terminal performance standard.	Given Condition: <ul style="list-style-type: none"> • Seasonal demand of production; • Selected crops/ plants; • Lay out of field; • Varieties of crops. Task: Prepare seasonal calendar. Time: 8 hours Standard/Criteria: <ul style="list-style-type: none"> • The calendar is matched with the given conditions. 		
Related technical knowledge	<ul style="list-style-type: none"> • Meaning and importance of seasonal calendar; • Points to be considered while preparing seasonal calendar; • Growing seasons of crops; • Seasonal market demand; • Crop duration; • Nursery duration. 		
Safety/precaution	<ul style="list-style-type: none"> • Growing season/crop duration should be kept in mind. 		
Tools, equipment and materials	<ul style="list-style-type: none"> • Pen, scale, pencil, eraser; • Lay out and list of crops. 		

Task number	17.		
Task statement:	Perform estimation and costing of agriculture farm		
Level of task:	Significance	Ease	Occurrence
	3	1	3
Terminal performance standard	Given Condition: <ul style="list-style-type: none"> Seasonal Calendar; Market price of tools/equipment, materials; Area to be cultivated. Task: Perform estimation and costing of agriculture farm. Time : 8 hours /small and medium sized farm. Standard/Criteria: <ul style="list-style-type: none"> The estimated productions are matched with the per unit production rate; Costing are matched with the given market price. 		
Related technical knowledge	<ul style="list-style-type: none"> Meaning and importance of estimation and costing of agri-farm; Points to be considered while estimating and costing of agri- farm; Per unit area production rate of different crops; Process of estimation and costing of agri-farm; Importance of current market price. 		
Safety/precaution	<ul style="list-style-type: none"> Analyse critically the production cost. 		
Tools, equipment and materials	<ul style="list-style-type: none"> List of tools; Materials, equipment; Paper, pen; Current price list of all tools / equipment / materials. 		

Task number	18.		
Task statement:	Perform cost - benefit analysis		
Level of task:	Significance	Ease	Occurrence
	3	1	2
Terminal performance standard	Given Condition: <ul style="list-style-type: none"> Land area and type of crop; Investment calculation; Income calculation. Task: Perform cost- benefit analysis. Time: 1 hour /production items. Standard/Criteria: <ul style="list-style-type: none"> The cost benefit analysis results are matched with the cost benefit analysis done by supervisor. 		
Related technical knowledge	<ul style="list-style-type: none"> Meaning and importance of cost- benefit analysis; Points to be considered while performing cost- benefit analysis; Process of cost benefit analysis. 		
Safety/precaution	<ul style="list-style-type: none"> Current market price is important. 		
Tools, equipment and materials	<ul style="list-style-type: none"> Calculator; Paper; Pencil and computer/laptop. 		

Task number	19.		
Task statement:	Take soil sample		
Level of task:	Significance	Ease	Occurence
	3	2	3
Terminal performance standard	Given Condition: <ul style="list-style-type: none"> Types of crops to be planted and crop history; Location of land and name of land; Area to be cultivated and standard procedure of sampling or references. Task: Take soil sample. Time: 2 hours /kattha. Standard/Criteria: <ul style="list-style-type: none"> The sample is taken as per the standard procedure; Sampled soil is packed in a plastic bag and bag is labelled. 		
Related technical knowledge	<ul style="list-style-type: none"> Meaning and importance of soil sample; Types of soil and information needed in labeling; Points to be considered while sampling soil sample; Standard procedure of sampling. 		
Safety/precaution	<ul style="list-style-type: none"> Apply safety wares; Ensure representation of the given land area. 		
Tools, equipment and materials	<ul style="list-style-type: none"> Paper, soil auger/khurpi; Plastic bag, plastic sheet; Paper/pen; Weighing balance and PPE. 		

Task number	20.		
Task statement:	Perform pH test in field conditions		
Level of task:	Significance	Ease	Occurence
	3	1	3
Terminal performance standard	Given Condition: <ul style="list-style-type: none"> Soil sample; Methods (Litmus paper or digital pH meter or kit box). Task: Perform pH test in field conditions. Time: 1 hour /test. Standard/Criteria: <ul style="list-style-type: none"> The results of the test are matched with the test result of the supervisor; The results of the test are as per the given standard procedure. 		
Related technical knowledge	<ul style="list-style-type: none"> Meaning and importance of pH Test in field conditions; Points to be considered while performing pH Test in field conditions; Procedure of performing pH test; pH requirement of different crops; pH correction methods; Range of acidity and alkalinity. 		
Safety/precaution	<ul style="list-style-type: none"> Apply safety protocols. 		
Tools, equipment and materials	<ul style="list-style-type: none"> pH meter or litmus paper or soil testing kit. 		

Task number	21.		
Task statement:	Perform NPK test in field conditions		
Level of task:	Significance	Ease	Occurrence
	3	2	3
Terminal performance standard	Given Condition: <ul style="list-style-type: none"> • Soil sample; • Standard procedure. Task: Perform NPK Test in field conditions. Time: 3 hours /testing. Standard/Criteria: <ul style="list-style-type: none"> • The results of the test are matched with the test result of the supervisor; • The results of the test are as per the given standard procedure. 		
Related technical knowledge	<ul style="list-style-type: none"> • Meaning and importance of NPK test; • Points to be considered while performing NPK test; • Standard Procedure of NPK test by using soil testing kit box. 		
Safety/precaution	<ul style="list-style-type: none"> • Apply safety protocols while using testing chemicals. 		
Tools, equipment and materials	<ul style="list-style-type: none"> • Soil sample, soil testing kit box; • Paper, pen, stationery; • Reporting format. 		

Task number	22.		
Task statement:	Perform tillage		
Level of task:	Significance	Ease	Occurrence
	3	2	3
Terminal performance standard	Given Condition: <ul style="list-style-type: none"> • Location or site of land and area to be cultivate; • Crops to be cultivated. Task: Perform tillage. Time: N/A (Depends on area to be prepared and types of crop to be planted). Standard/Criteria: <ul style="list-style-type: none"> • Soil is seen pulverized; • Soil is seen free from stones/weeds or any undesired matters. • Land is found levelled and consistent. 		
Related technical knowledge	<ul style="list-style-type: none"> • Meaning and importance of tillage; • Points to be considered while performing tillage; • Requirement of soil depth for crops; • Different methods of tillage; • Merits and demerits of tillage. 		
Safety/precaution	<ul style="list-style-type: none"> • Use safety wares; • Handle tools safely and prepare land as per the crop type. 		
Tools, equipment and materials	<ul style="list-style-type: none"> • Spade, plough, tractor; • Sickle, rake; • Oxen and hand power tiller. 		

Task number	23.		
Task statement:	Treat soil by agri-lime, zypsum or other chemicals		
Level of task:	Significance	Ease	Occurrence
	3	2	2
Terminal performance standard	Given Condition: <ul style="list-style-type: none"> Result of soil test; Land area to be treated; Types of crops to be planted. Task: Treat soil by agri lime, zypsum or other chemicals. Time: 1hour /kattha. Standard/Criteria: <ul style="list-style-type: none"> Calculation is matched with the calculation result of the supervisor; Lime and zypsum or other chemicals are mixed in the soil. 		
Related technical knowledge	<ul style="list-style-type: none"> Meaning and importance of soil treatment; Points to be considered while treating soil; Methods of soil treatment; Recommended dose of lime, zypsum and other chemicals; Hazards of the chemicals/lime. 		
Safety/precaution	<ul style="list-style-type: none"> Use safety wares; Handle chemicals safely. 		
Tools, equipment and materials	<ul style="list-style-type: none"> Lime, zypsum / chemicals; Measuring balance; Bucket; Safety wares and spade/tiller. 		

Task number:	24.		
Task statement:	Treat soil by solarization method		
Level of task:	Significance	Ease	Occurrence
	3	2	3
Terminal performance standard	Given Condition: <ul style="list-style-type: none"> Location or site of land to be treat; Quantity or area of land or plots or beds to be treated. Task: Treat soil by solarization method. Time: 20 minutes /bed. Standard/Criteria: <ul style="list-style-type: none"> Transparent plastic are applied; Complete plot is covered air tightly; Given area is treated; Plastic sheet is fixed or pressed at the edge of the bed; Activities are recorded. 		
Related technical knowledge	<ul style="list-style-type: none"> Meaning and importance of solarization; When to apply solarazation; Duration of solarazation; Procedure of solarization. 		
Safety/precaution	<ul style="list-style-type: none"> Use PPE set, handle tools safely. 		
Tools, equipment and materials	<ul style="list-style-type: none"> PPE set, transparent plastic sheet; Spade; Shovel and stones or bricks. 		

Task number:	25.		
Task statement:	Estimate manure and fertilizer dose		
Level of task:	Significance	Ease	Occurrence
	3	2	3
Terminal performance standard	Given Condition: <ul style="list-style-type: none"> Fertility status of soil; Land area that needs to be manured and fertilized; Recommended dose of manure and fertilizers; Types of manure and fertilizers needs to be added. Task: Estimate manure and fertilizer dose. Time: 10' for /item (Can be varied depending on the types and volume). Standard/Criteria: <ul style="list-style-type: none"> The identified dose of manure and fertilizer is matched with the manure and fertilizer dose identified by the supervisor. 		
Related technical knowledge	<ul style="list-style-type: none"> Fertilizers and manure dose recommended by research; Nutrient content (%) in the common manure and fertilizers; Common methods of manure and fertilizer dose calculation. 		
Safety/precaution	<ul style="list-style-type: none"> Soil condition and references is essential. 		
Tools, equipment and materials	<ul style="list-style-type: none"> Pen; Pappers and calculator. 		

Task number	26.		
Task statement:	Prepare compost		
Level of task:	Significance	Ease	Occurrence
	3	2	2
Terminal performance standard	Given Condition: <ul style="list-style-type: none"> Heap or pit method; Required amount or area to be used; Types of plants to be planted. Task: Prepare compost. Time: N/A Standard/Criteria: <ul style="list-style-type: none"> Prepared compost is free from odour; Prepared compost is pulverized; Used materials for the compost are decomposed or are not distinguishable. 		
Related technical knowledge	<ul style="list-style-type: none"> Meaning and importance of preparation of compost; Points to be considered while preparing compost; Methods of making compost; Calculation of manure; Fertilizer requirement. 		
Safety/precaution	<ul style="list-style-type: none"> Use safety wares; Apply culture to speedup the process. 		
Tools, equipment and materials	<ul style="list-style-type: none"> Sickle,composting materials, Safety wares; Plastic sheet; Bamboo, stick, bucket; Compost (culture) and water. 		

Task number	27.		
Task statement:	Prepare liquid manure		
Level of task:	Significance	Ease	Occurrence
	3	2	2
Terminal performance standard	Given Condition: <ul style="list-style-type: none"> Quantity required; Type of liquid manure. Task: Prepare liquid manure. Time: 1 hour /drum liquid manure. Standard/Criteria: <ul style="list-style-type: none"> Used green leaves and other materials are crushed or chopped; Used materials are recorded; Cork of liquid manure preparing drum is tightened. 		
Related technical knowledge	<ul style="list-style-type: none"> Meaning and importance of preparing liquid manure; Points to be considered while preparing liquid manure; Procedure of preparing liquid manure. Ingredients/materials can be used to prepare liquid manure; Time duration of preparing liquid manure; Methods of using liquid manure. 		
Safety/precaution	<ul style="list-style-type: none"> Use safety wares; Avoid exposure of direct sun light. 		
Tools, equipment and materials	<ul style="list-style-type: none"> Safety ware, decomposing materials; Water, bucket, plastic drum; Chopping tool; Measuring balance, culture or old liquid manure. 		

Task number	28.		
Task statement:	Cultivate green manure		
Level of task:	Significance	Ease	Occurrence
	3	2	2
Terminal performance standard	Given Condition: <ul style="list-style-type: none"> Land area to be cultivated. Task: Cultivate green manure(Dhaincha) Time: N/A Standard/Criteria: <ul style="list-style-type: none"> Land is prepared; Sowing density of seed is maintained 250gm/kattha; Green /sodulnet, healthy plant are grown; Green plants are prepared before main crop planting season; Harvesting or decomposing season is selected hot/rainy; Manure plants are decomposed before crop planting/seed sowing of main crop. 		
Related technical knowledge	<ul style="list-style-type: none"> Meaning and importance of cultivating green manure; Points to be considered while cultivating green manure; Procedure of cultivating green manure; Types and species of green manure; Growing and decomposing season of green manure; Seed rate /application; Nutrient contents in green manure. 		
Safety/precaution	<ul style="list-style-type: none"> Use safety wares; handle chemicals safely. 		
Tools, equipment and materials	<ul style="list-style-type: none"> Seeds, tiller, rotavator; Cultivator; Bucket, safety wares and measuring balance. 		

Task number	29.		
Task statement:	Prepare vermi compost		
Level of task:	Significance	Ease	Occurrence
	3	1	3
Terminal performance standard	Given Condition: <ul style="list-style-type: none"> Quantity to be prepared; Season of vermi-compost making; Task:. Prepare vermi compost. Time: N/A Standard/Criteria: <ul style="list-style-type: none"> Prepared vermicompost is pulverized; Prepared vermicompost is free from odour/smell. Conducive environment for earthworm is created (ample feeding materials, temperature between 26-32°C, moisture is preserved, loose feeding materials, composting area is covered or protected by direct sunlight and rain). 		
Related technical knowledge	<ul style="list-style-type: none"> Meaning and importance of preparing vermi compost; Points to be considered while preparing vermi compost; Procedure of preparing vermi compost; Materials and environment required to prepare vermin compost; Nutrient content in vermicompost. 		
Safety/precaution	<ul style="list-style-type: none"> Conducive environment for the growth of earthworm is critical. 		
Tools, equipment and materials	<ul style="list-style-type: none"> Earthworm(mother culture),fresh dung, succulent, plant grasses; Banana (stem, leaves, etc.), bamboo, sand, gravel and plastic sheet. 		

Task number	30.		
Task statement:	Apply manure		
Level of task:	Significance	Ease	Occurrence
	3	3	3
Terminal performance standard	Given Condition: <ul style="list-style-type: none"> Area to be applied manure; Location and types of crops to be grown; Types of manure (compost/FYM) to be applied. Task: Apply manure. Time: N/A Standard/Criteria: <ul style="list-style-type: none"> Manures are mixed in soil; Calculated amount is as per the recommendation or references; Application of manure is made uniform. 		
Related technical knowledge	<ul style="list-style-type: none"> Meaning and importance of FYM; Points to be considered while applying manure; Procedure of application; Recommendation/Calculation of requirement of manure; Nutrient content in FYM. 		
Safety/precaution	<ul style="list-style-type: none"> Use safety wares; Handle chemicals safely. 		
Tools, equipment and materials	<ul style="list-style-type: none"> Compost manure,doko,wheel barrow; Dhunse, psade, tiler and safety wares . 		

Task number	31.		
Task statement:	Apply basal dose of chemical fertilizers		
Level of task:	Significance	Ease	Occurrence
	3	3	3
Terminal performance standard	Given Condition: <ul style="list-style-type: none"> Area to be applied chemical fertilizers; Location and types of crops grown; Types of chemical fertilizers applied. Task: Apply basal dose of chemical fertilizers. Time: N/A (Depends on types of chemical fertilizer, crops and application methods) Standard/Criteria: <ul style="list-style-type: none"> Fertilizer is applied uniformly; Fertilizers are mixed in soil; The calculated amount is as per the recommendation. 		
Related technical knowledge	<ul style="list-style-type: none"> Points to be considered while applying chemical fertilizers; Procedure of application applying basal dose of fertilizer; Recommended dose as per type of crop and soil conditions; Fertilizer dose calculation methods; Nutrient content in different fertilizer. 		
Safety/precaution	<ul style="list-style-type: none"> Use safety wares; Handle chemicals safely. 		
Tools, equipment and materials	<ul style="list-style-type: none"> Bata/bucket, fertilizer pan and PPE/safety wares . 		

Task number	32.		
Task statement:	Prepare tunnel (gumbas)		
Level of task:	Significance	Ease	Occurrence
	3	2	3
Terminal performance standard	Given Condition: <ul style="list-style-type: none"> Required area or size of tunnel; Required number of seedlings or quantity of plants; Types of crop to be grown in the tunnel. Task: Prepare tunnel. Time: 3 hours for (3*1 m.) sized tunnel. Standard/Criteria: <ul style="list-style-type: none"> Tunnel is crescent moon shaped; Tunnel is strongly fixed; Height of the gumbas is given 2 ft; Applied plastic is white and 300 gauge; Applied plastic eadge is fixed around the gumbas. 		
Related technical knowledge	<ul style="list-style-type: none"> Meaning and importance of preparing tunnel; Points to be considered while preparing tunnel; Types of appropriate plastic; Size of gumbas as per types of crops; Merits and demerits of gumbas. 		
Safety/precaution	<ul style="list-style-type: none"> Use safety wares; Handle tools safely and fix bamboo and plastic strongly. 		
Tools, equipment and materials	<ul style="list-style-type: none"> Bamboo, rope, peg, white plastic sheet, spade, hammer, sickle and hand saw. 		

Task number:	33.		
Task statement:	Prepare raised bed		
Level of task:	Significance	Ease	Occurrence
	3	2	3
Terminal performance standard	Given Condition: <ul style="list-style-type: none"> • Site or location, or nursery layout; • Size of the beds required. Task: Prepare raised nursery bed. Time: 30 minutes (for 1m.×3m. sized and can be varied depending on the bed size). Standard/Criteria: <ul style="list-style-type: none"> • Bed is raised up to 10-15 cm above the ground level; • Length is given as per the requirement; • Width is given 1 meter; • Soil is pulverized and surface is levelled; • Bed is found free from unwanted materials. 		
Related technical knowledge	<ul style="list-style-type: none"> • Meaning and importance raised nursery bed; • Appropriate time and season for raised nursery bed; • Standard procedure of preparing raised nursery bed. 		
Safety/precaution	<ul style="list-style-type: none"> • Handle the tool safely, wear PPE. 		
Tools, equipment and materials	<ul style="list-style-type: none"> • PPE, Spade; • Trowel, compost; • Lime and gypsum as per the soil type; • Measuring tape, rope and pegs. 		

Task number:	34.		
Task statement:	Prepare sunken bed		
Level of task:	Significance	Ease	Occurrence
	3	2	2
Terminal performance standard	Given Condition: <ul style="list-style-type: none"> • Site or location, or nursery layout; • Size of the beds required. Task: Prepare raised nursery bed. Time: 30 minutes (for 1m.×3m. sized and can be varied depending on the bed size). Standard/Criteria: <ul style="list-style-type: none"> • Bed is sunken up to 10-15 cm depth from the ground level; • Length is given as per the requirement; • Width is given 1 meter; • Soil is pulverized and surface is levelled; • Bed is found free from unwanted materials. 		
Related technical knowledge	<ul style="list-style-type: none"> • Meaning and importance sunken nursery bed; • Appropriate seasons and time to prepare sunken nursery bed; • Standard procedure of preparing sunken nursery bed. 		
Safety/precaution	<ul style="list-style-type: none"> • Handle the tool safely, wear PPE and consistency is important. 		
Tools, equipment and materials	<ul style="list-style-type: none"> • PPE, Spade, shovel; • Trowel and compost; • Lime and gypsum as per the soil type; • Measuring tape, rope and pegs. 		

Task number:	35.		
Task statement:	Prepare flat bed		
Level of task:	Significance	Ease	Occurence
	3	3	3
Terminal performance standard	Given Condition: <ul style="list-style-type: none"> • Site or location, or nursery layout; • Size of the beds required. Task: Prepare flat nursery bed. Time: 30 minutes (for 1m.×3m. sized bed). Standard/Criteria: <ul style="list-style-type: none"> • Bed is made flat; • Length is given as per the requirement; • Width is given 1 meter; • Soil is made pulverized; • Bed is made free from unwanted materials. 		
Related technical knowledge	<ul style="list-style-type: none"> • Meaning of flat nursery bed; • Merits and demerits of flat nursery bed; • Appropriate seasons for preparing flat bed; • Standard procedure of preparing flat nursery bed. 		
Safety/precaution	<ul style="list-style-type: none"> • Handle the tool safely, wear PPE. 		
Tools, equipment and materials	<ul style="list-style-type: none"> • PPE, Spade, trovel, compost; • Lime and zypsum as per the soil type; • Measuring tape, rope and pegs. 		

Task number	36.		
Task statement:	Prepare hot bed		
Level of task:	Significance	Ease	Occurence
	3	2	2
Terminal performance standard	Given Condition: <ul style="list-style-type: none"> • Type of crop and season; • Quantity to grown and size of bed. Task: Prepare hot bed. Time: 5 hours /bed. Standard/Criteria: <ul style="list-style-type: none"> • The depth of the hot bed is given 35cm; • The length is given as per the requirement; • The width of the bed is given 1m; • Temperature increasing materials are layid under the bed in different layers (Fresh dung(15cm), hay- (10cm), soil (5cm) and remaining (5 cm). 		
Related technical knowledge	<ul style="list-style-type: none"> • Meaning and importance of hot bed; • Points to be considered while preparing hot bed; • Procedure of preparing hot bed; • Materials used to increase temperature of making the bade hot. 		
Safety/precaution	<ul style="list-style-type: none"> • Use safety wares and fallow standard procedure or steps. 		
Tools, equipment and materials	<ul style="list-style-type: none"> • Spade, shovel, fresh cow dung; • Tender green leaves and PPE. 		

Task number	37.		
Task statement:	Prepare growing media		
Level of task:	Significance	Ease	Occurrence
	3	2	3
Terminal performance standard	Given Condition: <ul style="list-style-type: none"> Required amount; Ratio of sand :soil :compost (1:2: 2) Task: Prepare growing media Time: 1 hour /quintal media. Standard/Criteria: <ul style="list-style-type: none"> Growing media is pulverized and free from stone and weeds. Sand, soil and compost is well mixed; Growing media is prepared as per the given ratio; 		
Related technical knowledge	<ul style="list-style-type: none"> Meaning and importance of growing media; Points to be considered while growing media; Procedure of growing media; Ratio of sand: soil : compost. 		
Safety/precaution	<ul style="list-style-type: none"> Handle tools safely and proportion of materials is critical. 		
Tools, equipment and materials	<ul style="list-style-type: none"> Soil, compost, sand, garden hoe; Sieve, container; Shovel and wheel barrow. 		

Task number	38.		
Task statement:	Fill poly pot / bag or vase		
Level of task:	Significance	Ease	Occurrence
	3	2	3
Terminal performance standard	Given Condition: <ul style="list-style-type: none"> Required quantity/number; Prepared growing media. Task: Fill poly bag/pot or vase. Time: 2 minutes /vase. Standard/Criteria: <ul style="list-style-type: none"> Poly pot/bag is filled upto 1 inch below the edge of the poly bag; Media is made free from compactness. 		
Related technical knowledge	<ul style="list-style-type: none"> Meaning and importance of filling poly pot/bag; Points to be considered while filling poly pot/bag; Procedure of filling poly pot/bag; Hole for drainage of excess on the base of the pot/vase. 		
Safety/precaution	<ul style="list-style-type: none"> Use safety wares and fill consistently. 		
Tools, equipment and materials	<ul style="list-style-type: none"> Growing media; Poly bags; Funnel, shovel; Safety wares and shed. 		

Task number	39.		
Task statement:	Perform propagation by leaf cutting		
Level of task:	Significance	Ease	Occurrence
	3	2	1
Terminal performance standard	Given Condition: <ul style="list-style-type: none"> Required amount of plants; Types of plants. Task: Perform propagation by leaf cutting. Time: 1 minute /cutting. Standard/Criteria: <ul style="list-style-type: none"> Cut in the leaf cutting is made smooth and regular; Leaf cutting is made uniform; Planting of leaf cuts are made uniform; Cuttings are irrigated immediately after plantation. 		
Related technical knowledge	<ul style="list-style-type: none"> Meaning and importance of leaf cutting; Points to be considered while cutting leaf; Procedure of cutting leaf; Types of plants that can be propagated by leaf cutting; Potential seasons of leaf cutting. 		
Safety/precaution	<ul style="list-style-type: none"> Use safety wares; and handle tools safely. 		
Tools, equipment and materials	<ul style="list-style-type: none"> Mother plant, secateurs, planting media, nursery. PPE. 		

Task number	40.		
Task statement:	Propagate plant by stem cutting		
Level of task:	Significance	Ease	Occurrence
	3	3	2
Terminal performance standard	Given Condition: <ul style="list-style-type: none"> Required amount of plants; Types of plants. Task: Propagate plant by stem cutting. Time: 5 minutes /cutting. Standard/Criteria: <ul style="list-style-type: none"> The cutting stem is selected one year old and pencil size; Cuts are made smooth, regular, cuts and uniform; Cuts are planted and irrigated immediately after cutting; Cutting of under the ground side slanting and upper side is horizontal; Rooting hormone is used in the rooting tips; The angle of planting is 45 degrees slanting; The inclination is towards north. 		
Related technical knowledge	<ul style="list-style-type: none"> Meaning and importance of stem cutting; Points to be considered while cutting stem; Procedure of cutting stem; Types of plants that can be propagated by stem cutting; Potential seasons of stem cutting. 		
Safety/precaution	<ul style="list-style-type: none"> Use safety wares; Handle tools safely and smoothness of cuts are prime. 		
Tools, equipment and materials	<ul style="list-style-type: none"> Mother plant, secateurs, planting media, nursery; Rooting hormone, irrigation can, water and PPE. 		

Task number:	41.		
Task statement:	Propagate by sucker, rhizome, crown and tuber		
Level of task:	Significance	Ease	Occurrence
	3	2	3
Terminal performance standard	<p>Given Condition:</p> <ul style="list-style-type: none"> • Site or location; • Mother plant and plant species; • Prepared land or prepared nursery bed or poly bags or pits; • Demand or requirement of saplings. <p>Task: Propagate by sucker, rhizome, crown, tuber Time: 5 minutes /bulb and 15 minutes /sucker. Standard/Criteria:</p> <ul style="list-style-type: none"> • Sucker/bulb/rhizome/crown/tuber is made free from injury; • Single Sucker/bulb/rhizome/crown/tuber is planted; • Sucker's/crown/rhizome tip is made open in the air; • Root part of sucker/crown/rhizome is covered; • Bulb/tuber is kept completely under the soil surface; • Planting distance is maintained as per the species; • Soil is compacted and irrigated after planting. 		
Related technical knowledge	<ul style="list-style-type: none"> • Meaning and importance of sucker/crow/rhizome/tube or bulb; • Merits and demerits of propagating by sucker/crow/rhizome/tube or bulb; • Species applicable to propagate by sucker/crow/rhizome/tube or bulb; • Planting distance of different species propagated by sucker/crow/rhizome/tube; • Right seasons of propagation by sucker/crow/rhizome/tube or bulb; • Standard procedure of propagating by sucker/crow/rhizome/tube or bulb. 		
Safety/precaution	<ul style="list-style-type: none"> • Apply safety wear, handle the tool safely 		
Tools, equipment and materials	<ul style="list-style-type: none"> • PPE, mother plant or bulb or sucker, cutting tool set, spade; • Media mixture or prepared land, watering cane and water. 		

Task number:	42.		
Task statement:	Propagate by air layering		
Level of task:	Significance	Ease	Occurrence
	3	2	3
Terminal performance standard	<p>Given Condition:</p> <ul style="list-style-type: none"> • Site or location; • Mother plant / plant species; • Demand or requirement of saplings. <p>Task: Propagate by air layering. Time: 20 minutes /layering. Standard/Criteria:</p> <ul style="list-style-type: none"> • Layered branch is one year old; • Layered branch is pencil sized for commercial purpose; • Bark and cambium layer is removed 3-4 inch; • Moss is moistened and covered the bark removed parts; • Distribution of moss is made uniform; • Wrapping by plastic sheeth is made air tight. 		
Related technical knowledge	<ul style="list-style-type: none"> • Meaning; merits and demerits of air layering; • Species applicable to propagate by air layering; • Right seasons of air layering; • Standard procedure of air layering. 		
Safety/precaution	<ul style="list-style-type: none"> • Apply safety wear, handle the tool and mother plant safely 		
Tools, equipment and materials	<ul style="list-style-type: none"> • PPE, mother plant, grafting knife, secature, layering tape or plastic sheeth; • Rooting hormone, moss or media mixture, jute rope and water. 		

Task number:	43.		
Task statement:	Propagate by mount layering		
Level of task:	Significance	Ease	Occurence
	3	3	2
Terminal performance standard	Given Condition: <ul style="list-style-type: none"> • Site or location; • Mother plant / plant species that can be propagated by mount layering; • Demand or requirement of saplings. Task: Propagate by mount layering. Time: 15 minutes /mount. Standard/Criteria: <ul style="list-style-type: none"> • Mother plant removed 6 inches from ground level; • Soil is mounted over the stump and pressed. 		
Related technical knowledge	<ul style="list-style-type: none"> • Meaning of mount layering; • Merits and demerits of mount layering; • Species applicable to propagate by mount layering; • Seasons of mount layering; • Standard procedure of mount layering. 		
Safety/precaution	<ul style="list-style-type: none"> • Apply safety wear, handle the tool safely, handle stump safely. 		
Tools, equipment and materials	<ul style="list-style-type: none"> • PPE, mother plant, prunning saw, secature; • Spade, shovel and media mixture. 		

Task number:	44.		
Task statement:	Propagate by ground layering		
Level of task:	Significance	Ease	Occurence
	3	2	3
Terminal performance standard	Given Condition: <ul style="list-style-type: none"> • Site or location; • Mother plant / plant species; • Demand or requirement of saplings. Task: Propagate plant by ground layering. Time: 15 minutes /layer. Standard/Criteria: <ul style="list-style-type: none"> • Layered branch is one year old; • Layered branch is pencil sized; • Bark and cambium layer is removed 3-4 inches; • Branch is pulled in the ground and fixed; • Bark removed part of the branch is under the ground or soil. 		
Related technical knowledge	<ul style="list-style-type: none"> • Meaning of ground layering; • Merits and demerits of ground layering; • Species applicable to propagate by ground layering; • Seasons of ground layering; • Standard procedure of ground layering. 		
Safety/precaution	<ul style="list-style-type: none"> • Apply safety wear, handle the tool safely; • Handle mother plant and branche safely. 		
Tools, equipment and materials	<ul style="list-style-type: none"> • PPE, mother plant, grafting knife, secature, rooting hormone; • Land space, jute rope and water. 		

Task number:	45.		
Task statement:	Propagate plant by inarching		
Level of task:	Significance	Ease	Occurrence
	3	1	3
Terminal performance standard	<p>Given Condition:</p> <ul style="list-style-type: none"> • Site or location; • Mother plant / plant species that can be propagated inarching; • Demand or requirement of saplings. <p>Task: Propagate by inarching. Time: 15 minutes /inarch. Standard/Criteria:</p> <ul style="list-style-type: none"> • Thickness of rootstock and scion is marker pen / pencils sized; • Length of the rootstock and scion are given 1-1.5' from the union; • Graft union is wrapped down to up by grafting tape; • Wrapping is made waterproof and fixed; • Wrapping is given 1" from the up and down from the union; • Root upper part of rootstock is twisted; • The lower part of scion is twisted. 		
Related technical knowledge	<ul style="list-style-type: none"> • Meaning of inarching; • Merits and demerits of inarching; • Species applicable to propagate by inarching; • Seasons of inarching; • Standard procedure of inarching. 		
Safety/precaution	<ul style="list-style-type: none"> • Apply safety wear, handle the tool safely; • Handle scion and rootstock safely. 		
Tools, equipment and materials	<ul style="list-style-type: none"> • PPE, mother plant, rootstock; • Grafting kit, grafting tape and secature. 		

Task number:	46.		
Task statement:	Propagate plant by T budding		
Level of task:	Significance	Ease	Occurrence
	3	1	3
Terminal performance standard	<p>Given Condition:</p> <ul style="list-style-type: none"> • Site or location; • Mother plant / plant species that can be propagated by T-budding; • Demand or requirement of saplings. <p>Task: Propagate plant by T- budding. Time: 15 minutes /budding. Standard/Criteria:</p> <ul style="list-style-type: none"> • Budding is made in T-shape cut; • Bud eye is seen open in the air; • Bud patch is tightened by budding tape from down to up; • Wrapping is made waterproof and fixed; • Wrapping is given 1" from the up and down of the union; • Root stock is kept free from injuries. 		
Related technical knowledge	<ul style="list-style-type: none"> • Meaning of T-budding; • Merits and demerits of T-budding; • Species applicable to propagate by T-budding; • Seasons of T-budding; • Standard procedure of T-budding. 		
Safety/precaution	<ul style="list-style-type: none"> • Apply safety wear, handle the tool safely; • Handle bud and rootstock safely. 		
Tools, equipment and materials	<ul style="list-style-type: none"> • PPE, Mother plant, rootstock; • Budding knife or budding kit set and secature. 		

Task number:	47.		
Task statement:	Propagate plant by \perp budding		
Level of task:	Significance	Ease	Occurrence
	3	1	3
Terminal performance standard	Given Condition: <ul style="list-style-type: none"> • Site or location; • Mother plant / plant species that can be propagated by \perp-budding; • Demand or requirement of saplings. Task: Propagate plant by \perp - budding. Time: 15 minutes /budding. Standard/Criteria: <ul style="list-style-type: none"> • Budding is made in \perp-shape cut; • Bud eye is seen open in the air; • Bud patch is tightened by budding tape from down to up; • Wrapping is made waterproof and fixed; • Wrapping is given 1 inch from the up and down of the union; • Root stock is made free from injuries. 		
Related technical knowledge	<ul style="list-style-type: none"> • Meaning of \perp-budding; • Merits and demerits of \perp- budding; • Species applicable to propagate by T-budding; • Seasons of \perp-budding; • Standard procedure of \perp- budding. 		
Safety/precaution	<ul style="list-style-type: none"> • Apply safety wear, handle the tool safely, handle bud and rootstock safely. 		
Tools, equipment and materials	<ul style="list-style-type: none"> • PPE, Mother plant, rootstock, budding knife or budding kit set and secature. 		

Task number:	48.		
Task statement:	Propagate plant by patch budding		
Level of task:	Significance	Ease	Occurrence
	3	1	3
Terminal performance standard	Given Condition: <ul style="list-style-type: none"> • Site or location; • Mother plant / plant species that can be propagated by patch budding; • Demand or requirement of saplings. Task: Propagate plant by patch budding. Time: 15 minutes /budding. Standard/Criteria: <ul style="list-style-type: none"> • Budding is made in patch shape cut; • Bud eye is seen open in the air; • Bud patch is tightened by budding tape from down to up; • Wrapping is made waterproof and fixed; • Wrapping is given 1 inch from the up and down of the union; • Root stock is kept free from injuries. 		
Related technical knowledge	<ul style="list-style-type: none"> • Meaning of patch budding; • Merits and demerits of patch budding; • Species applicable to propagate by patch budding; • Seasons of patch budding; • Standard procedure of patch budding. 		
Safety/precaution	<ul style="list-style-type: none"> • Apply safety wear, handle the tool safely, handle bud and rootstock safely. 		
Tools, equipment and materials	<ul style="list-style-type: none"> • PPE, Mother plant, rootstock, budding knife or budding kit set and secature. 		

Task number:	49.		
Task statement:	Propagate plant by grafting		
Level of task:	Significance	Ease	Occurrence
	3	1	3
Terminal performance standard	Given Condition: <ul style="list-style-type: none"> • Site or location; • Mother plant / plant species that can be propagated grafting; • Demand or requirement of saplings. Task: Propagate by grafting. Time: 10 minutes /graftage. Standard/Criteria: <ul style="list-style-type: none"> • Rootstock and scion are selected as pencil sized; • Length of the scion is given 5 -10"; • Wrapping is made waterproof and fixed; • Wrapping is given 1" from the up and down of the union; • Root stock is made free from branches and leaves. 		
Related technical knowledge	<ul style="list-style-type: none"> • Meaning and importance of grafting; • Types of grafting (tongue grafting, V- grafting, sidegrafting, stone grafting); • Merits and demerits of grafting; • Species applicable to propagate by different grafting; • Right seasons of grafting; • Standard procedure of (tongue, V, side, stone grafting); 		
Safety/precaution	<ul style="list-style-type: none"> • Apply safety wear, handle the tool safely; • Handle scion and rootstock safely 		
Tools, equipment and materials	<ul style="list-style-type: none"> • PPE. Mother plant, rootstock; • Grafting kit, grafting tape and secature. 		

Task number	50.		
Task statement:	Perform scarification		
Level of task:	Significance	Ease	Occurrence
	3	2	1
Terminal performance standard	Given Condition: <ul style="list-style-type: none"> • Types of crop/seed; • Season and quantity of seeds needed to be scarified. Task: Perform scarification. Time: 1 hour /kg seeds. Standard/Criteria: <ul style="list-style-type: none"> • Hard caot of seeds are broken, scarched and rubbed; • Internal parts of seeds are kept safe; • Scaredfied seeds are made free from waste. 		
Related technical knowledge	<ul style="list-style-type: none"> • Meaning and importance of scarification; • Points to be considered while performing scarification; • Scarification methods of different species; • Seeds of different species that needs scafification. 		
Safety/precaution	<ul style="list-style-type: none"> • Use safety wares; • Apply safety of seeds. 		
Tools, equipment and materials	<ul style="list-style-type: none"> • Seeds, water, stone, send, scarification machine, container and PPE. 		

Task number	51.		
Task statement:	Perform stratification		
Level of task:	Significance	Ease	Occurrence
	3	1	1
Terminal performance standard	Given Condition: <ul style="list-style-type: none"> Types of crop/seed Season and quantity of seeds to be scarified. Task:. Perform stratification. Time: 1 hour /kg seeds. Standard/Criteria: <ul style="list-style-type: none"> Dormency break temperature and moisture is maintained as per the species; Startification time is recorded. 		
Related technical knowledge	<ul style="list-style-type: none"> Meaning and importance of performing stratification; Points to be considered while performing stratification; Procedure of stratification of different species seeds; Types of crops theat needs stratification for fast germination. 		
Safety/precaution	<ul style="list-style-type: none"> Apply always viable seeds. 		
Tools, equipment and materials	<ul style="list-style-type: none"> Seed bean, thermometer; Rack, sacks, tarpollin. 		

Task number	52.		
Task statement:	Lay-out orchard		
Level of task:	Significance	Ease	Occurrence
	3	1	1
Terminal performance standard	Given Condition: <ul style="list-style-type: none"> Location/site /land area; Types of crops/plants. Task: Lay-out orchard. Time: 6 hours /Bigha layout. Standard/Criteria: <ul style="list-style-type: none"> Lay out is done as per the given design; Lines of layout are made straight; Lay out is considered as per the planting distance; Orchard components are allocated. 		
Related technical knowledge	<ul style="list-style-type: none"> Meaning and importance of orchard lay-out; Points to be considered while performing orchard lay-out; Procedure of lay-out; Planting distance of different crops; Types of lay-out. 		
Safety/precaution	<ul style="list-style-type: none"> Consistency of layout is essential. 		
Tools, equipment and materials	<ul style="list-style-type: none"> Measuring tape, rope; Peg,hammer and lime. 		

Task number	53.		
Task statement:	Prepare planting pit		
Level of task:	Significance	Ease	Occurrence
	3	2	3
Terminal performance standard	Given Condition: <ul style="list-style-type: none"> Location /site/land/area; Lay out; Number of pits required; Types of plants to be planted; Task: Prepare planting pit. Time: 2 hour /pit. Standard/Criteria: <ul style="list-style-type: none"> The size of pit is made as per the recommendation of the given plant; The pit is filled up to 1 ft. above the ground level with the mixture of top soil FYM; Planting point is allocated by a peg at the middle of the filled pit. 		
Related technical knowledge	<ul style="list-style-type: none"> Meaning and importance of planting pit; Points to be considered while preparing planting pit; Manure/ nutrients required for plants; Season/time of pit preparation; Requirement of pit's size. 		
Safety/precaution	<ul style="list-style-type: none"> Use safety wares; Separation of top soil and sub soil is essential. 		
Tools, equipment and materials	<ul style="list-style-type: none"> Compost, manure, shovel; Pik, peg and planting board. 		

Task number	54.		
Task statement:	Uplift seedlings/saplings		
Level of task:	Significance	Ease	Occurrence
	3	2	3
Terminal performance standard	Given Condition: <ul style="list-style-type: none"> Required plant number; Types of seedling, variety and size of plants. Task: Uplift seedlings/saplings. Time: 10 minutes /100 plants. Standard/Criteria: <ul style="list-style-type: none"> Roots of the uplifted plants are made safe; Uplifted plants are kept safe and healthy; Soil ball and roots are kept safe (soil ball); Soil ball is moisten and covered by dry grasses/poly sheet/leaves/paper; Seedlings/saplings are uplifted as per the required number. 		
Related technical knowledge	<ul style="list-style-type: none"> Meaning and importance of uplifting seedlings/saplings; Points to be considered while uplifting seedlings/saplings. 		
Safety/precaution	<ul style="list-style-type: none"> Handle the plants safely; Before uplifting irrigation is prime. 		
Tools, equipment and materials	<ul style="list-style-type: none"> Sickle, tray; Watering cane and packaging materials. 		

Task number	55.		
Task statement:	Perform poly-mulching		
Level of task:	Significance	Ease	Occurrence
	3	2	1
Terminal performance standard	Given Condition: <ul style="list-style-type: none"> Required area to be mulched; Types of seedling, variety and size. Task: Perform poly-mulching. Time: 10 minutes /10m ² . Standard/Criteria: <ul style="list-style-type: none"> Edge of mulched plastic sheet is fixed; Planting holes are made as per the recommended spacing distance; Sheet is spreaded uniformly. 		
Related technical knowledge	<ul style="list-style-type: none"> Meaning and importance of poly mulching; Points to be considered while poly mulching; Recommendation of spacing of different plants species. 		
Safety/precaution	<ul style="list-style-type: none"> Ensure safety of plants. 		
Tools, equipment and materials	<ul style="list-style-type: none"> Mulching plastic, spade, shovel; Planting hole puncher; Scissors / blade / paper cutter. 		

Task number	56.		
Task statement:	Perform hardening of seedling		
Level of task:	Significance	Ease	Occurrence
	3	2	3
Terminal performance standard	Given Condition: <ul style="list-style-type: none"> Required quantity of plants to be hardened; Types of seedlings, variety, size; 2-3 weeks' seedlings. Task: Perform hardening of seedlings. Time: N/A Standard/Criteria: <ul style="list-style-type: none"> Plants are made strong and healthy; Spacing is given consistent. 		
Related technical knowledge	<ul style="list-style-type: none"> Meaning and importance of hardening; Points to be considered while hardening; Duration of hardening for different variety/types. 		
Safety/precaution	<ul style="list-style-type: none"> Ensure the safety of plants. 		
Tools, equipment and materials	<ul style="list-style-type: none"> Planter, garden hoe, khurpi; gtray, poly bag; Poly pot and green net. 		

Task number:	57.		
Task statement:	Transplant seedlings / saplings		
Level of task:	Significance	Ease	Occurrence
	3	3	3
Terminal performance standard	<p>Given Condition:</p> <ul style="list-style-type: none"> • Site or location; • Prepared land or polybags, or vase; • Plant species or types of plant that needs to be transplanted. <p>Task: Transplant seedlings / saplings. Time: 5 minutes /plant. Standard/Criteria:</p> <ul style="list-style-type: none"> • The transplanted plant is in the center of the vase; • Plant is made free from injuries; • Roots are covered by soil; • Plant is transplanted in vertical position; • Soil is pressed after transplantation; • Plant is irrigated after transplant; • Planting distance is given as per the given plant species; • In case of foliar application leaves are wet uniformly. 		
Related technical knowledge	<ul style="list-style-type: none"> • Meaning and importance of transplanting; • Species-wise planting distance; • Points to be consider while transplanting; • Common methods of transplanting. 		
Safety/precaution	<ul style="list-style-type: none"> • Apply safety ware, handle tools safely. 		
Tools, equipment and materials	<ul style="list-style-type: none"> • Saplings, PPE, watering cane; • Polybags or vase, spade, kuto and hoe. 		

Task number:	58.		
Task statement:	Sow seeds in line		
Level of task:	Significance	Ease	Occurrence
	3	3	3
Terminal performance standard	<p>Given Condition:</p> <ul style="list-style-type: none"> • Site or location; • Prepared land or prepared seed bed; • Species of seeds to be sowed; • References of spacing. <p>Task: Sow seeds in line. Time: 20 minutes (for 1×3 meter sized seed beds and can be varied depending on the area). Standard/Criteria:</p> <ul style="list-style-type: none"> • Seeds are swon in the given bed; • R×R and P×P distance is maintained as per the plant species; • The sowing depth is maintained as per the seed size (double of seed size); • Seed is covered by pulverized soil; • Seeded bed is mulched and irrigated. 		
Related technical knowledge	<ul style="list-style-type: none"> • Meaning of line sowing; • Merits and demerits of line sowing; • Points to be consider while sowing seeds in line; • Standard procedure of line sowing. 		
Safety/precaution	<ul style="list-style-type: none"> • Apply safety wear; • Consistency of line, spacing, and depth of the sowing is prime. 		
Tools, equipment and materials	<ul style="list-style-type: none"> • PPE, Hoe, rope, measuring tape, seeds; • Watering cane/sprayer; • Water and mulch. 		

Task number	59.		
Task statement:	Sow seeds by broadcasting method		
Level of task:	Significance	Ease	Occurrence
	3	2	2
Terminal performance standard	Given Condition: <ul style="list-style-type: none"> Prepared land; Types of seeds/crops. Task: Sow seeds by broadcasting method. Time: 10 minutes /kattha Standard/Criteria: <ul style="list-style-type: none"> Depth is given 2-3 times of the seed; Spacing is done as per the recommendation; The seeds are covered by loose soil; Irrigation is done immediately after sowing. 		
Related technical knowledge	<ul style="list-style-type: none"> Meaning and importance of broadcasting seeds; Merits and demerits of broadcasting method; Points to be considered while broadcasting seeds; Recommended spacing of different crops; Recommended depth of seeds; Types of plants that can be planted by broadcasting method. 		
Safety/precaution	<ul style="list-style-type: none"> Consistency of seeding is prime in broadcasting. 		
Tools, equipment and materials	<ul style="list-style-type: none"> Seeds, container and measuring balance. 		

Task number	60.		
Task statement:	Irrigate plants/field		
Level of task:	Significance	Ease	Occurrence
	3	2	3
Terminal performance standard	Given Condition: <ul style="list-style-type: none"> Crop field requiring irrigation; Types of crops and area to be irrigated; Methods of applying water. Task: Irrigate plants/field. Time: N/A. Standard/Criteria: <ul style="list-style-type: none"> Soil is maintained 75% moisture content; Ensured free from soil erosion and plants are kept safe; Standard procedure of given methods is followed; Free from wastage of water is ensured. 		
Related technical knowledge	<ul style="list-style-type: none"> Meaning and importance of irrigating plants; Points to be considered while irrigating plants; Advantages and disadvantages of irrigation; Methods of irrigation (drip, sprinkle, watering cane, flexible pipe); Stage, time and duration as per the crops. 		
Safety/precaution	<ul style="list-style-type: none"> Irrigation as per requirement of soil moisture, types of plant, field, crop is critical. 		
Tools, equipment and materials	<ul style="list-style-type: none"> Drip irrigation set, watering cane; Spayer/hose pipe, pipe water resource; Pumping set and electricity supply/power. 		

Task number	61.		
Task statement:	Perform weeding		
Level of task:	Significance	Ease	Occurrence
	3	3	3
Terminal performance standard	Given Condition: <ul style="list-style-type: none"> • Methods of weeding; • Crop field and types of crops; • Area to be weeded. Task: Perform weeding Time: N/A (depends on density of weeds and types of crops field) Standard/Criteria: <ul style="list-style-type: none"> • Crop field is made free from any weeds; • Plants are kept safe during the weeding; • Weeded weeds are collected and placed in compost pit/heap. 		
Related technical knowledge	<ul style="list-style-type: none"> • Meaning and importance of weed and weeding; • Points to be considered while weeding; • Common weeds of commercial crops; • Different methods of weeding. 		
Safety/precaution	<ul style="list-style-type: none"> • Crops safety and personal safety is critical. 		
Tools, equipment and materials	<ul style="list-style-type: none"> • Weeder; • Weed collector (Doko) sickle and garden hoe. 		

Task number	62.		
Task statement:	Perform earthing up/hiling/ridging		
Level of task:	Significance	Ease	Occurrence
	3	3	3
Terminal performance standard	Given Condition: <ul style="list-style-type: none"> • Crop field requiring earthing up; • Types of crops and area to be uphilled. Task: Perform earthing up/hiling/ridging. Time: 1 minute /plant. Standard/Criteria: <ul style="list-style-type: none"> • Plants are made free from injuries; • Roots are covered with soil; • Leaves are made free from soil and • Land is kept free from weeds. 		
Related technical knowledge	<ul style="list-style-type: none"> • Meaning and importance of earthing up; • Points to be considered while earthing up; • Pros and cons of earthing up; • Stages of plants that needs earthing up.. 		
Safety/precaution	<ul style="list-style-type: none"> • Safety of plants roots and leaves are important. 		
Tools, equipment and materials	<ul style="list-style-type: none"> • Spade, garden hoe and sickle. 		

Task number	63.		
Task statement:	Perform steaking		
Level of task:	Significance	Ease	Occurence
	3	3	3
Terminal performance standard	Given Condition: <ul style="list-style-type: none"> Plant field requiring steaking; Types of crops and area to be steaking. Task: Perform steaking. Time: 2 minutes /plant. Standard/Criteria: <ul style="list-style-type: none"> Steaking are selected as per the nature of the plant; Steking is fixed as per steaking materials and plant; Plants are made free from injuries; 		
Related technical knowledge	<ul style="list-style-type: none"> Meaning and importance of steking; Points to be considered while steaking; Steaking materials requirement as per the type and nature of plants; Different techniques of steaking; ime and seasons of steaking. 		
Safety/precaution	<ul style="list-style-type: none"> Types of plants and method of planting determines the method or techniques of steakiing. 		
Tools, equipment and materials	<ul style="list-style-type: none"> Sticks, rope, branches of tree; Sickle, saw, pruning secature, hock; String, iron wire or gabion wire; Bamboo and hand saw. 		

Task number	64.		
Task statement:	Perform top- dressing		
Level of task:	Significance	Ease	Occurence
	3	3	3
Terminal performance standard	Given Condition: <ul style="list-style-type: none"> Crop field requiring top dressing; Types of crops and area to be top dressed; Methods of applying fertilizers. Task: Perform top- dressing. Time: 1 minute /square meter crop area. Standard/Criteria: <ul style="list-style-type: none"> The amount of fertilizer is applied as per the recommendation of given crops; Selected method is fit with the given crops; Fertilizer is placed below the canopy areas. 		
Related technical knowledge	<ul style="list-style-type: none"> Meaning and importance of top dressing; Points to be considered while top dressing; Calculation of split dose; Methods of top dressing; Appropriate time of top dressing. 		
Safety/precaution	<ul style="list-style-type: none"> Use safety wares; Concentration of urea solution, plant hardiness, needs to be consider. 		
Tools, equipment and materials	<ul style="list-style-type: none"> Safety wares, PPE, fertilizer, spade; Container, sprayer and measuring balance. 		

Task number:	65.		
Task statement:	Train plants by using stick and rope		
Level of task:	Significance	Ease	Occurrence
	3	2	3
Terminal performance standard	<p>Given Condition:</p> <ul style="list-style-type: none"> • Assignment or demand of training or instruction; • Site or location of the plant or garden features; • Plants having training requirement; • Desired design or shape of the garden features. <p>Task: Train plants by using stick and rope.</p> <p>Time: N/A (Can be varied depending on the size of plants and desired design).</p> <p>Standard/Criteria:</p> <ul style="list-style-type: none"> • Stick or rope is applied as per the desired shape or design of the plant; • Plant are trained as per the given design or shape or Trained plant is as per the given assignment or instruction; • Plant is made free from injuries; • Plant or feature is observed uniform; • Working area is cleaned after completing of work. 		
Related technical knowledge	<ul style="list-style-type: none"> • Importance of applying stick and rope for training; • Situation of using stick and rope during training; • Plant species required stick and rope for training; • Procedure of applying stick and rope for training. 		
Safety/precaution	<ul style="list-style-type: none"> • Apply PPE and handle tools safely; • Continuous care is required to train in the rope or wire. 		
Tools, equipment and materials	<ul style="list-style-type: none"> • PPE, stick, sickle, secature, rope, tree purner, hedge trimmer; • Hedge shears and garden scissors. 		

Task number:	66.		
Task statement:	Perform pruning		
Level of task:	Significance	Ease	Occurrence
	3	2	3
Terminal performance standard	<p>Given Condition:</p> <ul style="list-style-type: none"> • Assignment or demand of prounning or instruction; • Site or location of the plant or garden features; • Plants having hard or soft pruning requirement. <p>Task: Perform pruning.</p> <p>Time: N/A (Can be varied depending on the size of plants)</p> <p>Standard/Criteria:</p> <ul style="list-style-type: none"> • Prunning is done as per the given assignment or instruction; • Plant is made free from dead branches; • Plant is made free from any unwanted growth; • Branches are observed uniform; • Pruned tree / plants are free from wound or injuries; • Working area is cleaned. 		
Related technical knowledge	<ul style="list-style-type: none"> • Meaning and importance pruning; • Points to be consider during pruning; • Types of pruning; • Procedure of pruning. 		
Safety/precaution	<ul style="list-style-type: none"> • Apply PPE and handle tools and pruning saw safely; • Determine requirement of heavy prounning before the action taken. 		
Tools, equipment and materials	<ul style="list-style-type: none"> • PPE, pruning saw, secature; • Boardeux paste to apply in the wound; • Tree purner, hedge Trimmer, hedge shears, garden scissors and axes. 		

Task number	67.		
Task statement:	Prepare tunnel to protect from heat/cold/ heavy rain		
Level of task:	Significance	Ease	Occurrence
	3	2	2
Terminal performance standard	Given Condition: <ul style="list-style-type: none"> Area to be covered/size; Location/ region; Types of crops and design required. Task: Prepare tunnel to protect from heat/cold/ heavy rain. Time: Standard/Criteria: <ul style="list-style-type: none"> The tunnel is made as per the given shape/size; The tunnel is made as per the requirement of climatic region/location; Tunnel is made strong; Drainage is managed as per the geographical location; Land is raised as per the requirement of the region. 		
Related technical knowledge	<ul style="list-style-type: none"> Meaning and importance of tunnel for protection of plants; Points to be considered while preparing tunnel for protection of plants; Shape/size/height requirement as per geographical location, climatic region, types of crops; Selection of materials as per location/crop. 		
Safety/precaution	<ul style="list-style-type: none"> Use safety wares. 		
Tools, equipment and materials	<ul style="list-style-type: none"> Plastic, bamboo, nails, wire, hammer, blade, saw, haxa,rope, binding wire; Pilas, khanti, sickle, spade, measuring tape. 		

Task number	68.		
Task statement:	Prepare pesticide solution		
Level of task:	Significance	Ease	Occurrence
	3	2	3
Terminal performance standard	Given Condition: <ul style="list-style-type: none"> Strength of the solution; Types of pesticides; Required volume of pesticides' solution. Task: Prepare pesticide solution Time: 20 minutes /10 liter Standard/Criteria: <ul style="list-style-type: none"> Strength of the solution is made as per the given/calculated amount; Safety measures are adopted; Amount is prepared per the required volume. 		
Related technical knowledge	<ul style="list-style-type: none"> Meaning and importance of preparing solution of pesticides; Points to be considered while preparing solution of pesticides; Identify pests/diseases/insects; Methods of spraying pesticides; Calculation of pesticides; Waiting period after application of pesticides; Types and classification, Color code of pesticides; Hazards of pesticides and safety protocols. 		
Safety/precaution	<ul style="list-style-type: none"> Apply safety wares, handle chemicals safely and store in safe place. 		
Tools, equipment and materials	<ul style="list-style-type: none"> Insecticide, water, sprayer, PPE. Bucket, funnel. 		

Task number	69.		
Task statement:	Spraying pesticides		
Level of task:	Significance	Ease	Occurrence
	3	2	3
Terminal performance standard	Given Condition: <ul style="list-style-type: none"> Prepared solution of pesticides; Area to be spreaded; Types/stage of crops. Task: Perform spraying of pesticides. Time: 1 hour /kattha. Standard/Criteria: <ul style="list-style-type: none"> Spraying is done uniform; Safety measures are adopted; Plants are seen wet by spray. 		
Related technical knowledge	<ul style="list-style-type: none"> Meaning and importance of spraying pesticides; Points to be considered while spraying pesticides; Safety measures while spraying. 		
Safety/precaution	<ul style="list-style-type: none"> Use safety wares; Apply safety protocol. 		
Tools, equipment and materials	<ul style="list-style-type: none"> Safety wares (PPE), sprayer; Water, soap and towel. 		

Task number	70.		
Task statement:	Apply traps (light/yellow/pheromone)		
Level of task:	Significance	Ease	Occurrence
	3	2	3
Terminal performance standard	Given Condition: <ul style="list-style-type: none"> Crop field and area to be treated; Types of trap to be applied; Types of insects/pest to be controlled. Task: Apply traps (light/yellow/pheromone). Time: 30 minutes /trap. Standard/Criteria: <ul style="list-style-type: none"> Installation height is given as per the crop; Distance/density is given as per the types of pests and traps; Selection of traps is done as per the types of pests. 		
Related technical knowledge	<ul style="list-style-type: none"> Meaning and importance of applying traps; Points to be considered while applying traps; Number of traps required per unit land; Types of traps and their pros and cons. 		
Safety/precaution	<ul style="list-style-type: none"> Apply safety protocol of the traps; Frequency of trap or density is critical. 		
Tools, equipment and materials	<ul style="list-style-type: none"> Yellow sticky trap, pheromone traps/ blue sticky trap, orbanolesis trap; Delta trap, funnel trap, light trap; Stick, rope, cotton, flexible wire, cissor; Holder, solar panel and battery. 		

Task number	71.		
Task statement:	Prepare organic pesticides		
Level of task:	Significance	Ease	Occurrence
	3	2	1
Terminal performance standard	Given Condition: <ul style="list-style-type: none"> Types of organic pesticides/ types of pests to be controlled; Required volume and standard procedure of preparation. Task: Prepare organic pesticides Time: 3 hours /drum. Standard/Criteria: <ul style="list-style-type: none"> Proportion of ingredients is made as per the recommendation; Procedure of preparation is adopted as per the standard procedure; Selection of ingredients is done as per the recommendation. 		
Related technical knowledge	<ul style="list-style-type: none"> Meaning and importance of preparing organic pesticides; Points to be considered while preparing organic pesticides; Types of organic pesticides; Procedure of preparation and application.. 		
Safety/precaution	<ul style="list-style-type: none"> Apply safety protocol; Protect from direct sun light and heat. 		
Tools, equipment and materials	<ul style="list-style-type: none"> Safety wares, drum, Artemisia vulgaris(mugwort), marigold; Red pepper ,goat/cow/rabbit urine; Asuro bakaino, papaya, chopping board; Grinder, mortar, sickle, grinder, bucket, container, water; Net, sprayer, soap and towel. 		

Task number	72.		
Task statement:	Apply biological control measures		
Level of task:	Significance	Ease	Occurrence
	3	2	1
Terminal performance standard	Given Condition: <ul style="list-style-type: none"> Types of crop field; Required area to be treated; Types of biological agents; Standard procedure of application. Task: Apply biological control measures. Time: N/A. Standard/Criteria: <ul style="list-style-type: none"> Biological control measures are selected as per the recommendation; Biological control measures are applied as per the standard procedure. 		
Related technical knowledge	<ul style="list-style-type: none"> Meaning and importance of application of biological control measures; Points to be considered while applying biological control measures; Types of crops/pest that can be controlled by biological control measures; Methods/ procedure of biological control measures. 		
Safety/precaution	<ul style="list-style-type: none"> Use safety wares; Appropriate time of application is essential. 		
Tools, equipment and materials	<ul style="list-style-type: none"> Trichogramma or other available commercial biological agents and Trichochard. 		

Task number	73.		
Task statement:	Prepare bordeaux mixture/paste		
Level of task:	Significance	Ease	Occurence
	3	2	2
Terminal performance standard	Given Condition: <ul style="list-style-type: none"> Ratio of copper sulphate,lime and water; Required volume; Standard procedure; Task: Prepare bordeaux mixture/paste. Time: 2 hour /10 liters. Standard/Criteria: <ul style="list-style-type: none"> Bordeaux mixture/paste is prepared as per the given ratio; Safety measures are adopted. 		
Related technical knowledge	<ul style="list-style-type: none"> Meaning and importance of bordeaux mixture/paste; Points to be considered while preparing bordeaux mixture/paste; Procedure of making bordeaux mixture/paste; Ratio of mixture/paste and safety measures. 		
Safety/precaution	<ul style="list-style-type: none"> Use safety wares; Handle chemicals safely and ratio of ingredients are critical. 		
Tools, equipment and materials	<ul style="list-style-type: none"> Copper sulphate, lime, water; Plastic bucket; Weighing balance, grinder; Litmus paper, nail, soap and towel. 		

Task number	74.		
Task statement:	Perform harvesting by cutting/plucking		
Level of task:	Significance	Ease	Occurence
	3	3	3
Terminal performance standard	Given Condition: <ul style="list-style-type: none"> Matured crop field; Area to be harvested and types of tool/equipment used. Task:. Perform harvesting by cutting/plucking. Time: N/A. Standard/Criteria: <ul style="list-style-type: none"> Grains are made safe and cutting is made uniform; Spreading is made uniform (if required); Crown/head/ fruits are made safe; Mother plants are kept free from injury. 		
Related technical knowledge	<ul style="list-style-type: none"> Meaning and importance of harvesting by cutting; Points to be considered while performing harvesting by cutting; Sign of maturity of different crops; Procedure of cutting; Different methods of cutting as per the crops/ tools/machine/ equipment. 		
Safety/precaution	<ul style="list-style-type: none"> Use safety wares. Determine harvesting time critically before harvesting. 		
Tools, equipment and materials	<ul style="list-style-type: none"> Sickle, scissors, secateurs; Tray, container and crate. 		

Task number	75.		
Task statement:	Perform sorting and grading		
Level of task:	Significance	Ease	Occurrence
	3	3	3
Terminal performance standard	Given Condition: <ul style="list-style-type: none"> Harvested crops; Volume and criteria (grade size) Task: Perform grading. Time: 1 hour /quintal. Standard/Criteria: <ul style="list-style-type: none"> The size /weight/volume are made consistent as per the given criteria; Similar size, quality, riping condition, volume/weight are made in one grade; Each grades are kept separately. 		
Related technical knowledge	<ul style="list-style-type: none"> Meaning and importance of grading; Points to be considered while grading; Types of crops that needs to be graded; Grading criteria on the basis of size, disease, maturity, etc; Grading is done as per the given volume; Grading ingredients are free from injuries. 		
Safety/precaution	<ul style="list-style-type: none"> Apply safety protocol; Grade consistency is prime. 		
Tools, equipment and materials	<ul style="list-style-type: none"> Container, carat; Grading machine and sacks. 		

Task number:	76.		
Task statement:	Place force ripening		
Level of task:	Significance	Ease	Occurrence
	2	1	1
Terminal performance standard	Given Condition: <ul style="list-style-type: none"> Types of harvest or raw materials to be ripened and their quantity; Prescribed or desired criteria of the ripened fruits; Task: Place force ripening. Time: N/A Standard/Criteria: <ul style="list-style-type: none"> Storage condition is maintained as per the given criteria; Temperature of ripening store/place/container are adjusted as per the nature of materials or prescription; Materials are labelled (name, date, required duration, tentative date for ripen, quantity). 		
Related technical knowledge	<ul style="list-style-type: none"> Meaning and importance of ripening; Points to be considered while ripening; Ripening temperature requirement as per the material; Procedure of ripening and chemicals used for ripening. 		
Safety/precaution	<ul style="list-style-type: none"> Apply PPE; Apply safety protocol. 		
Tools, equipment and materials	<ul style="list-style-type: none"> Ripening chamber, ethylene, container; Wheel barrow, lifter, sack; Carton, shovel, rope, plastic sheet and Tarpolin. 		

Task number	77.		
Task statement:	Perform packaging		
Level of task:	Significance	Ease	Occurrence
	3	2	3
Terminal performance standard	Given Condition: <ul style="list-style-type: none"> Graded fruits/vegetables/grains; Quantity to be packed and size of packaging; Types of products and packaging materials. Task: Perform packaging. Time: 20 minutes /packet. Standard/Criteria: <ul style="list-style-type: none"> Packaging is made safe; Packaging is done as per the given size/quantity; Packaging materials are selected as per the requirement of fruits/vegetables/crops; Packets are made uniform and consistent. 		
Related technical knowledge	<ul style="list-style-type: none"> Meaning and importance of packaging; Points to be considered while packaging; Procedure of packaging; Types of packaging materials. 		
Safety/precaution	<ul style="list-style-type: none"> Apply safety protocol. Ensure safety of fruits and vegetables. 		
Tools, equipment and materials	<ul style="list-style-type: none"> Crate, cartoon, paper, saw dust, rope; Masking tape, cartoon tape; Husk/straw/leaves, container, safety cover, net bag; Safety cover, scissors/knife and bags. 		

Task number	78.		
Task statement:	Perform labelling		
Level of task:	Significance	Ease	Occurrence
	3	2	3
Terminal performance standard	Given Condition: <ul style="list-style-type: none"> Packed fruits/vegetable and others; Number of packs and sticker / information needed. Task: Perform labelling. Time: 3 minutes /packet. Standard/Criteria: <ul style="list-style-type: none"> Labelled of packets are made visible information; Labelling sticker is stucked strongly; Labelling is done as per the required information (brand company,mfg.date expiry date, lot no, weight). 		
Related technical knowledge	<ul style="list-style-type: none"> Meaning and importance of labelling; Points to be considered while labelling; Labelling information to be included. 		
Safety/precaution	<ul style="list-style-type: none"> Consistency and required information needs to be maintained. 		
Tools, equipment and materials	<ul style="list-style-type: none"> Sticker/marker, record book, stapler; Packets, wire, tag, information and stamp. 		

Task number	79.		
Task statement:	Perform storage		
Level of task:	Significance	Ease	Occurence
	3	2	3
Terminal performance standard	Given Condition: <ul style="list-style-type: none"> • Labelled packets and other products or tools, equipment and machinaries; • Quantity of tools/equipments/materials/machines to be stored. Task: Perform storage. Time: 1 hour /day routine work. Standard/Criteria: <ul style="list-style-type: none"> • Storage is done as 'first in first out' basis; • Passage is maintained 3 feet; • Temperature is set as per the requirement of the products; • Relative humidity is maintained as per the requirement of the products; • Air circulation is managed; • Stored things are recorded. 		
Related technical knowledge	<ul style="list-style-type: none"> • Meaning and importance of storage; • Points to be considered while storing; • Procedure of storage; • Types of products and storage requirement; • Common storage problems and protection measures. 		
Safety/precaution	<ul style="list-style-type: none"> • Apply safety protocol; • First in first out principle is essential. 		
Tools, equipment and materials	<ul style="list-style-type: none"> • Vakari, drum, bin, sack, racks; • Repellants, room, crate chiller/cooler; • Cold storage, ladder, wheel barrow and cane. 		

Task number	80.		
Task statement:	Perform record keeping		
Level of task:	Significance	Ease	Occurence
	3	2	3
Terminal performance standard	Given Condition: <ul style="list-style-type: none"> • Types of records/forms/formats; • Daily activities. Task: Perform record keeping. Time: 30 minutes /daily routine work. Standard/Criteria: <ul style="list-style-type: none"> • Recording is done as per the given forms/formats; • Recording is updated; • Recording is made clear and comprehensible; • Record book, file, formats are kept safely. 		
Related technical knowledge	<ul style="list-style-type: none"> • Meaning and importance of keeping records; • Points to be considered while keeping records; • Types of records, cultivation, harvesting, sales, purchasing, human resource, insurance. 		
Safety/precaution	<ul style="list-style-type: none"> • Update records regularly. 		
Tools, equipment and materials	<ul style="list-style-type: none"> • Forms and formats, pen, log books; • Computer / laptop and calculator. 		

Task number	81.		
Task statement:	Collect demands		
Level of task:	Significance	Ease	Occurence
	3	2	3
Terminal performance standard	Given Condition: <ul style="list-style-type: none"> Types of products and quantity; Production plan; Market stakeholders. Task: Collect demands. Time: N/A Standard/Criteria: <ul style="list-style-type: none"> Collected demand is matched with the production plan; Collected demand is made reliable and recorded; Delivery methods/means and date is recorded; Verbal/written agreement is made. 		
Related technical knowledge	<ul style="list-style-type: none"> Meaning and importance of collecting demands; Points to be considered while collecting demands; Market information channel; Value chain and means of marketing. 		
Safety/precaution	<ul style="list-style-type: none"> Interact to collect demand with full information of the products. 		
Tools, equipment and materials	<ul style="list-style-type: none"> Means of communication (phone, laptop, internet advertisement, etc); Paper, pen; Vehicle, and product information sheet. 		

Task number	82.		
Task statement:	Manage delivery		
Level of task:	Significance	Ease	Occurence
	3	1	3
Terminal performance standard	Given Condition: <ul style="list-style-type: none"> Products to be delivered; Demand to be delivered; Location/address, time and date of delivery; Receiver and means of transportation. Task: Manage delivery. Time: N/A Standard/Criteria: <ul style="list-style-type: none"> Receipt report is made available. 		
Related technical knowledge	<ul style="list-style-type: none"> Meaning and importance of managing delivery; Points to be considered while managing delivery; Means of delivery and delivery channel; Delivery procedures. 		
Safety/precaution	<ul style="list-style-type: none"> Take delivery permission before delivering any products with concern authority. 		
Tools, equipment and materials	<ul style="list-style-type: none"> Vehicle; transportation service provider and cargo service. 		

Task number:	83.		
Task statement:	Record debit / credit		
Level of task:	Significance	Ease	Occurrence
	3	1	3
Terminal performance standard	<p>Given Condition:</p> <ul style="list-style-type: none"> • Debit and credit records; • Debit and credit bill and voucher; • Agreements papers or records. <p>Task: Record debit / credit.</p> <p>Time: 30 minutes for daily routine work financial records.</p> <p>Standard/Criteria:</p> <ul style="list-style-type: none"> • Debit is mentioned in the debit column; • Credit is mentioned in credit column; • Recorded amount is as per the given bill/voucher; • Recording is done as per the given agreement paper; • Bill/voucher is filed. 		
Related technical knowledge	<ul style="list-style-type: none"> • Meaning of debit and credit; • Importance of recording debit and credit; • Point to be considered while recording debit and credit; • Common methods of recording debit and credit. 		
Safety/precaution	<ul style="list-style-type: none"> • Balance of debit and credit needs to be visualized. 		
Tools, equipment and materials	<ul style="list-style-type: none"> • Records of debit and credit, vehicle; • Mobile, telephone, money and calculator. 		





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