

SRMVALLIAMMAIENGINEERINGCOLLEGE
(AnAutonomousInstitution)

SRM Nagar-Kattankulathur –603203

DEPARTMENT OF AGRICULTURE ENGINEERING

QUESTIONBANK



IV SEMESTER

**1902404 – PRINCIPLES AND PRACTICES OF CROP
PRODUCTION**

Regulation – 2019

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Preparedby

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SUBJECT : PRINCIPLES AND PRACTICES OF CROP PRODUCTION

SEM/ YEAR: IV/II

UNIT-I: AGRICULTURE AND CROPPRODUCTION

Introduction to agriculture and its crop production sub-sectors - field crop production and horticulture; Factors affecting crop growth and production: genetic (internal) and environmental (external) factors; Crop management through environmental modification and adaptation of crops to the existing environment through crop cultural practices.

PART-A

	QUESTIONS	BTL EVEL	COMPETENCE
1.	Define Agriculture.	BT-1	Remembering
2.	State the importance of horticulture.	BT-2	Understanding
3.	What are the factors affecting crop Growth?	BT-1	Remembering
4.	State Agronomy.	BT-2	Understanding
5.	Show the environmental factors in crop production	BT-1	Remembering
6.	Outline the features of horticulture.	BT-4	Analysing
7.	What is crop adaptation?	BT-2	Understanding
8.	Define Photoperiodism.	BT-1	Remembering
9.	Compare Kharif crops and Rabi crops.	BT-4	Analysing
10.	Tabulate the external factors affecting crop production.	BT-3	Applying
11.	What happens when wind speed is enormous?	BT-1	Remembering
12.	For what purpose the forage crops is used?	BT-3	Applying
13.	Show the internal factors affecting crop production	BT-2	Understanding
14.	Write the difference between Manure and Fertilizer.	BT-1	Remembering
15.	What is meant by precipitation?	BT-4	Analysing
16.	Differentiate climatic factor and edaphic factor.	BT-5	Evaluating
17.	What is meant by precipitation?	BT-2	Understanding
18.	Under what conditions, there is more chances for the outbreak of pest and disease?	BT-4	Analysing
19.	What does it happen, when wind speed is enormous?	BT-2	Understanding
20.	Differentiate between humidity and relative humidity.	BT-4	Analysing

21.	How will you do crop management?	BT-3	Applying
22.	What is meant by cropping pattern?	BT-6	Creating
23.	Define Agronomy.	BT-3	Applying
24.	What is meant by Agriculture Engineering?	BT-1	Remembering
25.	Why visible radiation is important for plants?	BT-2	Understanding

PART-B

Q.NO	QUESTIONS	BTL LEVEL	COMPETENCE
1.	How genetic factors influences crop production?	BT-2	Understanding
2.	Discuss briefly about the scope and importance of agriculture in India.	BT-1	Remembering
3.	What do you mean by internal factors? How it make changes in the crop production?	BT-5	Evaluating
4.	Explain the basic practice of crop production.	BT-3	Applying
5.	Describe in detail about the following (i) Branches of Horticulture (ii) Training	BT-5	Evaluating
6.	Explain the climatic factors affecting crop production	BT-6	Creating
7.	Write short notes on evolution of man and agriculture.	BT-1	Remembering
8.	Outline about the following (i) Classification of vegetable crops. (ii) Internal Factors affecting crop Production	BT-5	Evaluating
9.	How physiographic and socio-economic factors affects growth production?	BT-4	Analysing
10.	How genetic factors influences crop production?	BT-4	Analysing
11.	Explain the edaphic factors affecting crop production and growth.	BT-2	Understanding
12.	Explain agriculture in the aspect of art, science and business.	BT-3	Applying
13.	Describe in detail about the branches of agriculture.	BT-2	Understanding
14.	What adaptation techniques are followed for the existing environmental conditions?	BT-1	Remembering

PART-C

Q.NO	QUESTIONS	BTL LEVEL	COMPETENCE
1.	Explain in detail about internal and external factors affecting crop productions	BT-1	Remembering
2.	Sketch the present status of horticulture crops in India and their growing region in India.	BT-5	Evaluating
3.	Discuss in detail about environmental modification and crop adaptation.	BT-4	Analysing
4.	Sketch the tools used in agriculture and write it uses.	BT-3	Applying

UNIT-II: CROP SELECTION AND ESTABLISHMENT

Regional and seasonal selection of crops; Systems of crop production; Competition among cropplants; Spacing and arrangement of crop plants; Field preparation for crops including systems of tillage; Establishment of an adequate crop stand and groundcover ,including selection and treatment of seed, and nursery growing.

PART-A

Q.NO	QUESTIONS	BTL EVEL	COMPETENCE
1.	What is cropping system?	BT-1	Remembering
2.	How you select crops?	BT-4	Analysing
3.	Show the methods of crop geometry.	BT-1	Remembering
4.	Explain the term Nursery	BT-1	Remembering
5.	What do you meant by duty and delta?	BT-4	Analysing
6.	List out any four rabi crops	BT-5	Evaluating
7.	What are the benefits of cropping system?	BT-2	Understanding
8.	Define annual crop.	BT-3	Applying
9.	What is role of cropping system in crop production?	BT-3	Applying
10.	Classify cropping system.	BT-3	Applying
11.	Distinguish between primary and secondary tillage.	BT-1	Remembering
12.	Based on climatic condition, how will you classify crops?	BT-1	Remembering
13.	What is cropping system advantages and disadvantages?	BT-1	Remembering
14.	State the types of multiple cropping	BT-4	Analysing
15.	Evaluate the methods of seed treatment.	BT-2	Understanding
16.	Define paleo irrigation	BT-2	Understanding
17.	What is tillage in agriculture?	BT-1	Remembering
18.	State crop planting.	BT-4	Analysing
19.	List out any 4 major millets	BT-2	Understanding
20.	What is the method of selection of seeds?	BT-4	Analysing
21.	Write the need of relay cropping.	BT-1	Remembering
22.	What are the types of tillage?	BT-4	Analysing
23.	Illustrate about Nursery growing	BT-6	Creating
24.	Which element is used for tillage?	BT-2	Understanding
25.	Sketch the disadvantages of zero tillage.	BT-1	Remembering

PART-B

Q.NO	QUESTIONS	BTL EVEL	COMPETENCE
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1.	What are the key requirements for improving productivity of crops?	BT-4	Analysing
2.	Evaluate the types of Tillages in detail.	BT-5	Evaluating
3.	Explain the factors influencing decisions on the selection of crops.	BT-5	Evaluating
4.	Illustrate the Factors affecting plant population.	BT-4	Analysing
5.	What do you meant by intercropping? why it is necessary?	BT-4	Analysing
6.	Discuss briefly about agronomic classification of crops.	BT-1	Remembering
7.	Describe in detail about factors influencing selection of cropping system.	BT-6	Creating
8.	How crop geometry and crop planting increases yield	BT-5	Evaluating
9.	Outline the following (i) Mono Cropping (ii) Crop Rotation.	BT-2	Understanding
10.	Explain the types of Multiple cropping.	BT-1	Remembering
11.	(i) State the objectives of Tillages (ii) Importance of Plant Population	BT-2	Understanding
12.	Summarize the methods of seed treatment.	BT-2	Understanding
13.	Sketch the facts about crop stand establishment.	BT-3	Applying
14.	Outline the processes of selection of nursery site.	BT-3	Applying

PART-C

Q.NO	QUESTIONS	BTL EVEL	COMPETENCE
1.	Sketch the indices for evaluation of cropping system.	BT-1	Remembering
2.	Explains the precautions to taken during the preparation of nursery bed.	BT-4	Analysing
3.	Explain in detail about any 4 modern concepts in tillage.	BT-5	Evaluating
4.	How will you prepare nursery in the field to attain good yield?	BT-6	Creating

UNIT-III: CROP MANAGEMENT

Crop water Management; Crop nutrition management - need for supplementation to soil supplied nutrients, sources, generalized recommendations, methods and timing of application of supplemental nutrients; Crop protection including management of weeds, pests and pathogens; Integrated methods of managing water, nutrients and plant protection; Types and methods of harvest.

PART-A

Q.NO	QUESTIONS	BTL EVEL	COMPETENCE
1.	State the term Macronutrients	BT-2	Understanding

2.	List any four immobile nutrients.	BT-1	Remembering
3.	What are the primary nutrients?	BT-2	Understanding
4.	Discuss the sources of plant nutrients.	BT-1	Remembering
5.	What are the principles of weed control?	BT-4	Analysing
6.	Which effluent contain high amounts of chromium?	BT-4	Analysing
7.	Compare mobile nutrients and immobile nutrients.	BT-2	Understanding
8.	List out the major pests which cause severe threat to rice production	BT-2	Understanding
9.	What are the two main causes for water logging?	BT-4	Analysing
10.	What is nutrient application?	BT-1	Remembering
11.	How will you compute the field irrigation requirement of Crops ?	BT-5	Evaluating
12.	What do you mean by soil contamination?	BT-2	Understanding
13.	State the advantages of Fertigation.	BT-4	Analysing
14.	State irrigation frequency.	BT-1	Remembering
15.	Define capillary water.	BT-1	Remembering
16.	Why weed control plants are beneficial for agriculture?	BT-1	Remembering
17.	How do you control plant pathogens?	BT-3	Applying
18.	What do you mean by weed?	BT-2	Understanding
19.	Define irrigation period.	BT-1	Remembering
20.	Enumerate the role of crop protection.	BT-4	Analysing
21.	List out the reclamation method of alkali soil.	BT-4	Analysing
22.	What are basic principles of integrated water resource management?	BT-1	Remembering
23.	What are the advantages of cultural weed control method?	BT-3	Applying
24.	Why nutrient iron is necessary for a crop?	BT-3	Applying
25.	What is meant by irrigation efficiency?	BT-2	Understanding

PART-B

Q.NO	QUESTIONS	BT LEVEL	COMPETENCE
1.	Explain about Essential Plants Nutrients.	BT-5	Evaluating
2.	Discuss in detail about Fertigation.	BT-5	Evaluating
3.	How Nitrogen improves crop production?	BT-4	Analysing
4.	Outline the methods of nutrients management.	BT-6	Creating
5.	Describe the following (i) Nitrogen Loss (ii) Phosphorus Deficiency	BT-3	Applying
6.	Illustrate the functions of Potassium Nutrients.	BT-4	Analysing
7.	Design the role of nitrogen in crop productions.	BT-6	Creating

8.	Explain the processes of water resources management.	BT-5	Evaluating
9.	Enumerate water use efficiency and indices.	BT-4	Analysing
10.	Summarize the measures to Protect paddy from pests	BT-4	Analysing
11.	Describe briefly about the factors affecting infiltration rate.	BT-2	Understanding
12.	List the harmful effects of weed growth in crops in detail	BT-4	Analysing
13.	Suggest a measure to protect Green gram from pests.	BT-3	Applying
14.	Write in detail about classification of weeds.	BT-2	Understanding

PART-C

Q.NO	QUESTIONS	BTL LEVEL	COMPETENCE
1.	Discuss the role of mobile nutrients and immobile nutrients.	BT-2	Understanding
2.	How do you know that what your crop needs?	BT-6	Creating
3.	Enumerate the step adopted in Fertigation Processes.	BT-4	Analysing
4.	How do farmers protect their crop?	BT-6	Creating

UNIT-IV:PRODUCTION PRACTICESOF AGRICULTURALCROPS

Generalized management and cultivation practices for important groups of field crops in TamilNadu: cereal crops, grain legumes, oil seed crops, sugarcane, and fiber crops, and special purpose crops such as those grown for green manure.

PART-A

Q.NO	QUESTIONS	BTL LEVEL	COMPETENCE
1	What are cultivation practices?	BT-1	Remembering
2	How land prepared for rice cultivation?	BT-1	Remembering
3	Write the activities in land preparation.	BT-2	Understanding
4	What is the importance of cultivation?	BT-4	Analysing
5	Sketch the uses of green manure.	BT-4	Analysing
6	What are grain legumes?	BT-1	Remembering
7	What do you mean by inter culture?	BT-4	Analysing
8	Give any two land preparation methods	BT-2	Understanding
9	State the Fibre crops.	BT-2	Understanding
10	List out the historical oil seeds in India.	BT-2	Understanding
11	Why in India fodder cultivation is considered important?	BT-4	Analysing
12	What is time of sowing?	BT-1	Remembering

13	Write down any 2 uses of mustard.	BT-3	Applying
14	What is the share of vegetable oil consumption in India?	BT-4	Analysing
15	What are green manure crops?	BT-2	Understanding
16	Give any two methods of sowing.	BT-2	Understanding
17	Outline the importance of green manure.	BT-4	Analysing
18	Estimate the Behaviour of wheat.	BT-5	Evaluating
19	Summarize the soil requirement of oil seeds.	BT-2	Understand
20	List the types of cereal crops.	BT-1	Remembering
21	How seed rate improves crop	BT-1	Remembering
22	What is cover crops?	BT-2	Understanding
23	How spacing of crops decided?	BT-5	Evaluating
24	Which soil condition is suitable for cultivation of sugarcane?	BT-1	Remembering
25	List out the by products of sugarcane	BT-4	Analysing

PARTB

Q.NO	QUESTIONS	BT LEV EL	COMPETENCE
1	Explain about any two cereal crops.	BT-5	Evaluating
2	Describe in detail about green manure crops.	BT-1	Remembering
3	Outline the cultural practices of wheat crops.	BT-2	Understanding
4	Summarize the management and cultural practices of oilseeds.	BT-2	Understanding
5	Describe in detail about cultural practice of barley in Tamilnadu.	BT-4	Analysing
6	How jute production followed in India?	BT-1	Remembering
7	Sketch the cultural practices for cereal crops in Tamilnadu.	BT-2	Understanding
8	Write in detail about green manure crops.	BT-3	Applying
9	Recommend a measure for cultural practices for production of Sugarcane.	BT-5	Evaluating
10	Discuss about the role of sugarcane in Indian economy.	BT-5	Evaluating
11	Illustrate the generalized management and cultural practices of crops.	BT-4	Analysing
12	Describe briefly about importance of cereals and food value of grain cereals.	BT-4	Analysing
13	Analyze the geographic distribution and climatic requirements for production of wheat and Barley.	BT-4	Analysing
14	Identify the practice and production techniques for cotton	BT-1	Remembering

PART-C

Q.NO	QUESTIONS	BTL EVEL	COMPETENCE
1	Describe in detail about economic importance of wheat and barley.	BT-2	Understanding

2	How climatic conditions supports cultural practice and production?	BT-3	Applying
3	Explain about organic agriculture	BT-5	Evaluating
4.	Write about the climatic zones of Tamilnadu.	BT-4	Analysing

UNIT-V: PRODUCTION PRACTICES OF HORTICULTURALCROPS

Important groups of horticultural crops in Tamil Nadu such as vegetable crops, fruit crops, flower crops; Cultivation practices of representatives of each group; Special features of production of horticultural crops - green house cultivation.

PART-A

Q.NO	QUESTIONS	BTL LEVEL	COMPETENCE
1	Define horticulture.	BT-1	Remembering
2	Enlist horticultural crops grown in Tamil Nadu.	BT-3	Applying
3	What do you mean by organic farming	BT-2	Understanding
4	What are citrus fruits? Give some example.	BT-2	Understand
5	Compare Organic culture and normal culture.	BT-6	Creating
6	State the advantages of Organic farming.	BT-6	Creating
7	Write down the advantages of kitchen garden.	BT-4	Analysing
8	In which climate conditions mango growth flourishes?	BT-2	Understanding
9	Which soil is best for banana cultivation?	BT-4	Analysing
10	Write down any two advantages of organic farming.	BT-4	Analysing
11	List out the fruits which are cultivated in Tamil Nadu	BT-1	Remembering
12	What do you mean by perennial vegetables?	BT-2	Understanding
13	What is meant by market garden?	BT-2	Understanding
14	What is meant by crop rotation?	BT-6	Creating
15	What do you mean by kitchen garden?	BT-2	Understanding
16	What do you mean by cropping pattern?	BT-2	Understanding
17	Which organization supports horticulture production?	BT-1	Remembering
18	What is tunnel cultivation?	BT-4	Analysing
19	What do you mean by seasonal fruits?	BT-4	Analysing
20	Differentiate between hot beds and cold frame.	BT-2	Understanding
21	What do you mean by inter cropping?	BT-5	Evaluating
22	Define Olericulture	BT-1	Remembering
23	Write down the vegetable classification based on cultural Requirement	BT-2	Understanding
24	What do you mean by hydroponics?	BT-4	Analysing
25	List out the special system of cultivation followed in India.	BT-1	Remembering

PART-B

Q.NO	QUESTIONS	BTL EVEL	COMPETENCE
1	Why organic farming is considered important? Justify your Answer.	BT-5	Evaluating
2	Enumerate the scope and importance of fruit cultivation.	BT-4	Analysing
3	How will you classify vegetables based on parts and hardness?	BT-1	Remembering
4	Differentiate market garden and truck garden.	BT-2	Understanding
5	Enumerate briefly about mango cultivation.	BT-2	Understanding
6.	Explain the procedure for preparing layout for the kitchen garden	BT-4	Analysing
7	Write short notes on fruit production scenario in India.	BT-5	Evaluating
8	How will you classify vegetables based on cultural requirement and season?	BT-2	Understanding
9	Explain in detail about special systems of vegetable farming.	BT-3	Applying
10	How will cultivate vegetables in floating water bodies? Explain it.	BT-2	Understanding
11	How will you choose site and size for kitchen garden?	BT-5	Evaluating
12	Enlist the fruit growing regions in India.	BT-5	Evaluating
13	Explain in detail about the material requirement for floral Cultivation.	BT-4	Analysing
14	Discuss in detail about floral cultivation.	BT-1	Remembering

PART-C

Q.NO	QUESTIONS	BTL EVEL	COMPETENCE
1.	Explain in detail about vegetable crop production.	BT-4	Analysing
2.	How fruit classification is done based on climatic requirements. Explain them in detail.	BT-5	Evaluating
3.	Why banana cultivation is important? How will you improve its Productivity?	BT-2	Understanding
4.	What do you mean greenhouse cultivation ?Why it is considered Important?	BT-3	Applying

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S.No	Unit No		BT1	BT2	BT3	BT4	BT5	BT6	Total Questions
1	Unit-1	Part A	7	7	4	5	1	1	25
		Part B	3	3	2	2	3	1	14
		Part C	1	-	1	1	1	-	4
2	Unit-2	Part A	9	5	3	6	1	1	25
		Part B	2	2	2	3	4	1	14
		Part C	1	-	-	1	1	1	4
3	Unit-3	Part A	8	7	3	6	1	0	25
		Part B	0	2	2	5	3	2	14
		Part C	0	1	0	1	0	2	4
4	Unit-4	Part A	7	8	1	7	2	0	25
		Part B	3	3	1	4	3	0	14
		Part C	0	1	1	1	1	0	4
5	Unit-5	Part A	5	9	1	6	1	3	25
		Part B	2	4	1	3	4	0	14
		Part C	0	1	1	1	1	0	4

TOTAL NO. OF QUESTIONS IN EACH PART

PART A – 125 PART B – 70 PART C – 20

TOTAL = 215