

SRM VALLIAMMAI ENGINEERING COLLEGE
(An Autonomous Institution)

SRM Nagar-Kattankulathur –603203

DEPARTMENT OF AGRICULTURE ENGINEERING

QUESTIONBANK



IV SEMESTER

AG 3463 – PRINCIPLES AND PRACTICES OF CROP PRODUCTION

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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.

Q.NO	QUESTIONS PART-A	BTLEVEL	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	Analyzing
7.	What is crop adaptation?	BT-2	Understanding
8.	Define Photoperiodism.	BT-1	Remembering
9.	Compare Kharif crops and Rabi crops.	BT-4	Analyzing
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	Analyzing
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	Analyzing
19.	What does it happen, when wind speed is enormous?	BT-2	Understanding
20.	Differentiate between humidity and relative humidity.	BT-4	Analyzing
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
Q.NO	QUESTIONS PART-B	BTLEVEL	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.	Explain in detail about internal and external factors affecting crop productions	BT-5	Evaluating
4.	Explain the basic practice of crop production.	BT-3	Applying
5.	Discuss in detail about environmental modification and crop adaptation.	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.	Sketch the tools used in agriculture and write it uses.	BT-4	Analyzing
10.	How genetic factors influences crop production?	BT-4	Analyzing
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
15.	Write the role of the plant nutrients and deficiency symptoms for any 3 nutrients.	BT-3	Applying
16.	Explain in detail the factors affecting the crop growth.	BT-1	Remembering
17.	i. Explain in details the various divisions of Horticulture. ii. What do you understand by crop adaptation? Discuss in details. iii. Describe any 5 factors affecting the crop growth or crop production?	BT-1	Remembering

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.

Q.NO	QUESTIONS PART-A	BTLEVEL	COMPETENCE
1.	What is cropping system?	BT-1	Remembering
2.	How you select crops?	BT-4	Analyzing
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	Analyzing
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	Analyzing
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	Analyzing
19.	List out any 4 major millets	BT-2	Understanding
20.	What is the method of selection of seeds?	BT-4	Analyzing
21.	Write the need of relay cropping.	BT-1	Remembering
22.	What are the types of tillage?	BT-4	Analyzing
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
Q.NO	QUESTIONS PART-B	BTLEVEL	COMPETENCE

1.	What are the key requirements for improving productivity of crops?	BT-4	Analyzing
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	Analyzing
5.	What do you meant by intercropping? why it is necessary?	BT-4	Analyzing
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 Mono Cropping Crop Rotation.	BT-2	Understanding
10.	Explain the types of Multiple cropping.	BT-1	Remembering
11.	State the objectives of Tillages 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
15.	Explains the precautions to taken during the preparation of nursery bed.	BT-4	Analyzing
16.	Explain in detail about any 4 modern concepts in tillage.	BT-5	Evaluating
17.	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

Q.NO	QUESTIONS PART-A	BTLEVEL	COMPETENCE
1.	List any four immobile nutrients.	BT-1	Remembering
2.	What are the primary nutrients?	BT-2	Understanding
3.	Discuss the sources of plant nutrients.	BT-1	Remembering
4.	What are the principles of weed control?	BT-4	Analyzing

5.	Which effluent contain high amounts of chromium?	BT-4	Analyzing
6.	Compare mobile nutrients and immobile nutrients.	BT-2	Understanding
7.	List out the major pests which cause severe threat to rice production	BT-2	Understanding
8.	What are the two main causes for water logging?	BT-4	Analyzing
9.	What is nutrient application?	BT-1	Remembering
10.	How will you compute the field irrigation requirement of Crops ?	BT-5	Evaluating
11.	What do you mean by soil contamination?	BT-2	Understanding
12.	State the advantages of Fertigation.	BT-4	Analyzing
13.	State irrigation frequency.	BT-1	Remembering
14.	Define capillary water.	BT-1	Remembering
15.	Why weed control plants are beneficial for agriculture?	BT-1	Remembering
16.	How do you control plant pathogens?	BT-3	Applying
17.	What do you mean by weed?	BT-2	Understanding
18.	Define irrigation period.	BT-1	Remembering
19.	Enumerate the role of crop protection.	BT-4	Analyzing
20.	List out the reclamation method of alkali soil.	BT-4	Analyzing
21.	What are basic principles of integrated water resource management?	BT-1	Remembering
22.	What are the advantages of cultural weed control method?	BT-3	Applying
23.	Why nutrient iron is necessary for a crop?	BT-3	Applying
24.	What is meant by irrigation efficiency?	BT-2	Understanding
25.	Define Insects	BT-1	Remembering
Q.NO	QUESTIONS PART-B	BTLEVEL	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	Analyzing
4.	Outline the methods of nutrients management.	BT-6	Creating
5.	Describe the following Nitrogen Loss Phosphorus Deficiency	BT-3	Applying

6.	Illustrate the functions of Potassium Nutrients.	BT-4	Analyzing
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	Analyzing
10.	Summarize the measures to Protect paddy from pests	BT-4	Analyzing
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	Analyzing
13.	Suggest a measure to protect Green gram from pests.	BT-3	Applying
14.	Write in detail about classification of weeds.	BT-2	Understanding
15.	How do you know that what your crop needs?	BT-6	Creating
16.	Enumerate the step adopted in Fertigation Processes.	BT-4	Analyzing
17.	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.

Q.NO	QUESTIONS PART-A	BTLEVEL	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	Analyzing
5.	Sketch the uses of green manure.	BT-4	Analyzing
6.	What are grain legumes?	BT-1	Remembering
7.	What do you mean by inter culture?	BT-4	Analyzing
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	Analyzing

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	Analyzing
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	Analyzing
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	Analyzing
Q.NO	QUESTIONS PART-B	BTLEVEL	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	Analyzing
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	Analyzing
12.	Describe briefly about importance of cereals and food value of grain cereals.	BT-4	Analyzing
13.	Analyze the geographic distribution and climatic requirements for production of wheat and Barley.	BT-4	Analyzing

14.	Identify the practice and production techniques for cotton	BT-1	Remembering
15.	How climatic conditions supports cultural practice and production?	BT-3	Applying
16.	Explain about organic agriculture	BT-5	Evaluating
17.	Write about the climatic zones of Tamilnadu.	BT-4	Analyzing

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.

Q.NO	QUESTIONS PART-A	BTLEVEL	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	Analyzing
8.	In which climate conditions mango growth flourishes?	BT-2	Understanding
9.	Which soil is best for banana cultivation?	BT-4	Analyzing
10.	Write down any two advantages of organic farming.	BT-4	Analyzing
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	Analyzing
19.	What do you mean by seasonal fruits?	BT-4	Analyzing

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	Analyzing
25.	List out the special system of cultivation followed in India.	BT-1	Remembering
Q.NO	QUESTIONS PART-B	BTLEVEL	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	Analyzing
3.	How will you classify vegetables based on parts and hardiness?	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	Analyzing
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	Analyzing
14.	Discuss in detail about floral cultivation.	BT-1	Remembering
15.	How fruit classification is done based on climatic requirements. Explain them in detail.	BT-5	Evaluating
16.	Why banana cultivation is important? How will you improve its Productivity?	BT-2	Understanding
17.	What do you mean greenhouse cultivation? Why it is considered Important?	BT-3	Applying