

SRM VALLIAMMAI ENGINEERING COLLEGE

(An Autonomous Institution)

SRM Nagar, Kattankulathur– 603 203

DEPARTMENT OF AGRICULTURAL ENGINEERING

QUESTION BANK



PROFESSIONAL ELECTIVE

V SEMESTER

PAG502 ORGANIC FARMING

Regulation – 2023

Academic Year 2025– 2026 (ODD SEM)

Prepared by

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SUBJECT CODE/SUBJECT NAME: PAG502 - ORGANIC FARMING

SEM / YEAR: 05 /III

UNIT-I: ORGANIC FARMING PRACTICES – INTRODUCTION			
Organic farming / organic farming concept and development - Principles of Organic Farming -Need of organic farming - Steps of Organic Farming - Basic steps - Successful Organic Transition - Organic Farming Vs Conventional Farming - Crop Rotation			
PART - A			
Q.NO	QUESTIONS	BT LEVEL	COMPETENCE
1	Define organic farming.	BT-1	Remember
2	List any two principles of organic farming.	BT-2	Understand
3	What is meant by sustainable agriculture?	BT-1	Remember
4	Mention two key differences between organic and conventional farming.	BT-2	Understand
5	What are organic inputs? Give two examples.	BT-1	Remember
6	State two benefits of crop rotation in organic farming.	BT-1	Remember
7	What is green manure?	BT-1	Remember
8	Mention any two challenges in organic farming.	BT-3	Apply
9	Define conservation tillage.	BT-1	Remember
10	Write two points about the need for organic farming in India.	BT-2	Understand
11	Difference between mixed cropping and intercropping.	BT-2	Understand
12	List two common crop rotation patterns.	BT-1	Remember
13	Mention two steps involved in converting a conventional farm to organic.	BT-3	Apply
14	Define successful organic transition.	BT-1	Remember
15	What is mixed cropping in organic farming?	BT-1	Remember
16	Write two ways organic farming helps in biodiversity conservation.	BT-2	Understand
17	Mention the benefits and constraints of organic farming.	BT-3	Apply
18	State two differences between natural farming and organic farming.	BT-2	Understand
19	Write the importance of agroforestry.	BT-2	Understand
20	What do you mean by multiple cropping?	BT-1	Remember
21	Difference between rainfed farming and irrigated farming	BT-2	Understand
22	Name any two government schemes promoting organic farming.	BT-1	Remember
23	Mention any two limitations of organic farming.	BT-3	Apply
24	What is the importance of record keeping in organic farming?	BT-1	Remember
25	Write the consequences of green revolution in Agriculture.	BT-2	Understand

PART - B			
Q.NO	QUESTIONS	BT LEVEL	COMPETENCE
1	Explain the concept of organic farming and trace its historical development.	BT-3	Apply
2	Discuss in detail the principles of organic farming with suitable examples.	BT-3	Apply
3	Elaborate on the need and importance of organic farming in the current agricultural scenario.	BT-2	Understand
4	Describe the complete process involved in organic farming from land preparation to harvest.	BT-2	Understand
5	Explain the steps required for a successful transition from conventional to organic farming.	BT-3	Apply
6	Compare organic farming and conventional farming under the following heads: soil health, yield, cost, and environmental impact.	BT-2	Understand
7	Describe the basic steps to be followed for successful organic farming.	BT-2	Understand
8	Discuss the concept of crop rotation and its relevance in organic farming systems.	BT-3	Apply
9	Explain how organic farming enhances soil fertility and ecosystem sustainability.	BT-3	Apply
10	Give a note on status of organic farming in India at present. Briefly explain relevance and future	BT-3	Apply
11	Highlight the economic and environmental advantages of adopting organic farming.	BT-1	Remember
12	Discuss the challenges faced in implementing organic farming in India and suggest solutions.	BT-3	Apply
13	Analyze the role of crop diversification and rotation in sustainable organic agriculture.	BT-3	Apply
14	Explain different types of multiple cropping with examples.	BT-3	Apply
15	Enlist the benefits of conservation tillage in relation to organic farming.	BT-2	Understand
16	Write in brief about the role of relay cropping in relation to organic farming in India.	BT-2	Understand
17	Briefly explain relevance and future prospect of organic farming in India.	BT-2	Understand

UNIT-II: COMPOSTING TECHNIQUES

Compost – Vermi composts - Coir Compost - Sugarcane Trash Composting – Composting of poultry wastes Crop Residue Composting - Recycling of Farm Waste - Soil nourishment and Plant Growth Promotion

PART - A

Q.NO	QUESTIONS	BT LEVEL	COMPETENCE
1	What is compost and how is it beneficial to soil?	BT-1	Remember
2	Mention two advantages of vermicomposting.	BT-3	Apply
3	List any two earthworm species used in vermicomposting.	BT-2	Understand
4	What is lignin and why is it important in coir composting?	BT-1	Remember
5	List two characteristics of good compost.	BT-2	Understand
6	What is the C:N ratio and why is it important in composting?	BT-1	Remember
7	Name two microbes involved in composting.	BT-1	Remember
8	State two differences between compost and vermicompost.	BT-1	Remember
9	What is nutrient recycling?	BT-1	Remember
10	List two environmental benefits of composting farm waste.	BT-2	Understand
11	Mention any two types of crop residues used in composting.	BT-3	Apply
12	What is windrow composting?	BT-1	Remember
13	How does composting promote soil microbial activity?	BT-2	Understand
14	State two benefits of recycling farm waste.	BT-1	Remember
15	Define humus and its role in soil nourishment.	BT-2	Understand
16	What is the role of compost in promoting plant growth?	BT-1	Remember
17	Give two reasons for slow decomposition in crop residue composting.	BT-1	Remember
18	Difference between green manure in situ and green leaf manuring.	BT-2	Understand
19	What is the role of compost in organic farming?	BT-1	Remember
20	State the importance of green manuring.	BT-1	Remember
21	Compare compost and vermicompost.	BT-2	Understand
22	What do you mean by organic manure?	BT-1	Remember
23	Write briefly about Regenerative Agriculture.	BT-2	Understand
24	Classify green manure crops with appropriate examples.	BT-2	Understand
25	Compare Organic residues and nutrient recycling.	BT-2	Understand

PART - B

Q.NO	QUESTIONS	BT LEVEL	COMPETENCE
1	Briefly explain the vermicomposting process.	BT-2	Understand
2	Enlist benefits of vermicompost over ordinary compost.	BT-2	Understand
3	Write a detailed note on composting methods used in organic farming.	BT-2	Understand
4	Compare aerobic composting and anaerobic composting	BT-2	Understand
5	Discuss different methods of crop residue management with their merits and demerits.	BT-3	Apply
6	Mention different types of organic manures along with nutrient content.	BT-3	Apply

7	Explain Vermicomposting and Vermiculture in detail.	BT-3	Apply
8	Explain the desirable characters of Green Manuring.	BT-3	Apply
9	Describe the method of vermicomposting and the role of earthworms.	BT-2	Understand
10	Discuss the benefits and limitations of vermicompost application in agriculture.	BT-3	Apply
11	Illustrate the preparation and advantages of coir compost in tropical farming.	BT-2	Understand
12	Describe the challenges and methods used in sugarcane trash composting.	BT-2	Understand
13	Discuss the different methods used for crop residue composting.	BT-3	Apply
14	Describe the role of microorganisms in composting and soil health improvement.	BT-2	Understand
15	Discuss the importance of compost in promoting plant growth and yield.	BT-3	Apply
16	Explain the role of compost in sustainable agriculture and environmental conservation.	BT-3	Apply
17	Describe quality parameters and standards used to assess compost maturity.	BT-2	Understand

UNIT-III: ORGANIC INPUTS AND TECHNIQUES

Green Manures and green leaf manure - Organic Fertilizers & Manures - Biofertilizers Organic Special Inputs – Panchagavya – Preparations - Beneficial effect on commercial crops - Panchagavya for animal health - Dasagavya

PART - A

Q.NO	QUESTIONS	BT LEVEL	COMPETENCE
1	Classify bio-fertilizers.	BT-2	Understand
2	Mention the importance of bio-fertilizers in organic farming.	BT-3	Apply
3	What is integrated nutrient management in organic farming?	BT-1	Remember
4	What is On-farm inputs in organic farming?	BT-1	Remember
5	What is soil fertility management in organic farming?	BT-1	Remember
6	What is meant by Liquid biofertilizers	BT-1	Remember
7	Define the term “organic inputs.”	BT-1	Remember
8	Write about the use of Bio fertilizers in Organic Farming?	BT-2	Understand
9	Write down different forms of bio-fertilizer used in crop production.	BT-2	Understand
10	Define green manuring.	BT-1	Remember
11	List any two green manure crops commonly used in agriculture.	BT-2	Understand
12	Mention two benefits of green leaf manure.	BT-3	Apply
13	What are organic fertilizers?	BT-1	Remember
14	What is farmyard manure and how is it prepared?	BT-1	Remember
15	Name two commercial biofertilizer products.	BT-1	Remember
16	Mention two microorganisms used in biofertilizers.	BT-3	Apply
17	What is the role of Rhizobium in agriculture?	BT-1	Remember
18	State two benefits of Azospirillum application.	BT-1	Remember
19	Define Panchagavya.	BT-1	Remember

20	List any two ingredients used in the preparation of Panchagavya.	BT-2	Understand
21	How does Panchagavya enhance plant immunity?	BT-1	Remember
22	State two advantages of using Panchagavya for animal health.	BT-1	Remember
23	Mention two differences between Panchagavya and Dasagavya.	BT-3	Apply
24	How are biofertilizers different from organic manures?	BT-1	Remember
25	State two limitations in the use of organic fertilizers.	BT-1	Remember

PART - B

Q.NO	QUESTIONS	BT LEVEL	COMPETENCE
1	Describe the methods of nutrient management in organic farming.	BT-2	Understand
2	What practices do you suggest for soil fertility management in organic farming system?	BT-1	Remember
3	Mention the roles of green manures and bio-fertilizers in organic farming.	BT-3	Apply
4	Explain the concept, advantages, and limitations of green manuring.	BT-3	Apply
5	Describe various types of green manure and green leaf manure crops and their suitability to different soils.	BT-2	Understand
6	Discuss the role of organic fertilizers in improving soil fertility and crop productivity.	BT-3	Apply
7	Explain the preparation, composition, and benefits of farmyard manure and compost.	BT-3	Apply
8	Describe the types, functions, and benefits of biofertilizers in sustainable agriculture.	BT-2	Understand
9	Explain the methods of application and limitations of biofertilizers in crop production.	BT-3	Apply
10	Discuss the importance of organic special inputs in enhancing nutrient availability and crop growth.	BT-3	Apply
11	Elaborate on the preparation and ingredients of Panchagavya.	BT-2	Understand
12	Discuss the beneficial effects of Panchagavya on growth and yield of commercial crops.	BT-3	Apply
13	Explain the use of Panchagavya in animal health and livestock management.	BT-3	Apply
14	Discuss the role of traditional organic inputs in eco-friendly farming practices.	BT-3	Apply
15	Explain the effect of green manures and biofertilizers on soil microbial activity.	BT-3	Apply
16	Evaluate the integrated use of organic fertilizers and biofertilizers in sustainable crop production.	BT-2	Understand
17	Discuss the policy and practical challenges in promoting organic manures and biofertilizers at the farm level.	BT-3	Apply

UNIT-IV: ORGANIC PLANT PROTECTION

Pest, Disease & Weed Management – Conventional - Integrated - Organic – Managing Pests and Diseases - Strategies in organic farming – Prevention (indirect method) - Protection (direct method).

PART - A

Q.NO	QUESTIONS	BT LEVEL	COMPETENCE
1	State the term Bioherbicides	BT-1	Remember
2	What is the role of crop rotation in weed control?	BT-1	Remember
3	What do you mean by biological control of insect pests	BT-1	Remember
4	Compare botanical pesticides and bio-pesticides	BT-2	Understand
5	Define pest in the context of agriculture.	BT-1	Remember
6	What is the difference between a pest and a disease?	BT-1	Remember
7	Mention two common weeds found in crop fields.	BT-3	Apply
8	List any two harmful effects of weeds.	BT-1	Remember
9	Define conventional pest management.	BT-1	Remember
10	State two disadvantages of chemical pesticides.	BT-1	Remember
11	What is Integrated Pest Management (IPM)?	BT-1	Remember
12	Mention two benefits of IPM over conventional methods.	BT-3	Apply
13	Define organic pest management.	BT-1	Remember
14	State two indirect methods of pest prevention in organic farming.	BT-1	Remember
15	List two direct protection techniques used in organic farming.	BT-1	Remember
16	Mention two biological control agents used in pest management.	BT-3	Apply
17	What is mechanical weed control?	BT-1	Remember
18	Name two examples of trap crops.	BT-1	Remember
19	Mention two plant diseases caused by fungi.	BT-3	Apply
20	State two principles of weed management.	BT-1	Remember
21	List two symptoms of viral plant diseases.	BT-1	Remember
22	What is crop rotation and how does it help in pest control?	BT-1	Remember
23	Mention two botanical pesticides used in organic farming.	BT-3	Apply
24	List any two natural predators of crop pests.	BT-1	Remember
25	What is disease resistance in crops?	BT-1	Remember

PART - B

Q.NO	QUESTIONS	BT LEVEL	COMPETENCE
1	Outline the role of biological pest and disease management in organic farming.	BT-2	Understand
2	Compare mechanical control of weeds and cultural control of weeds	BT-2	Understand
3	Write about weed management in Organic farming.	BT-2	Understand
4	Explain the principles, methods, and limitations of conventional pest and disease management.	BT-3	Apply
5	Describe the components and advantages of Integrated Pest Management (IPM) in cropping systems.	BT-2	Understand
6	Discuss the differences between conventional and organic pest and disease control strategies.	BT-3	Apply

7	Elaborate on the direct and indirect methods of pest and disease prevention in organic farming.	BT-2	Understand
8	Describe various biological pest control methods and their applications in organic farming.	BT-2	Understand
9	Explain weed management practices under conventional and organic systems.	BT-3	Apply
10	Discuss the role of cultural and mechanical methods in organic weed control.	BT-3	Apply
11	Illustrate how crop rotation and intercropping can be used as preventive measures in organic farming.	BT-2	Understand
12	Describe the principles and practices of disease management in organic agriculture.	BT-2	Understand
13	Explain the use and preparation of botanical pesticides in managing pests organically.	BT-3	Apply
14	Discuss preventive strategies in pest and disease control with examples from organic farming.	BT-3	Apply
15	Describe the integrated weed management approach and its advantages.	BT-2	Understand
16	Discuss the ecological and economic benefits of shifting to organic pest management.	BT-3	Apply
17	Explain the challenges and solutions in implementing pest and disease management in organic farms.	BT-3	Apply

UNIT-V: ORGANIC CERTIFICATION

Guidelines for Organic Certification - Procedures for Organic Certification - Organic Certification Agencies - Grower Group Certification for Organic Agriculture - TNOCD - Accreditation of TNOCD - APEDA - NPOP Standards - Indian Society for Certification of Organic Products (ISCOP) - National Center of Organic Farming (NCOF)

PART - A

Q.NO	QUESTIONS	BT LEVEL	COMPETENCE
1	Define organic certification.	BT-1	Remember
2	Mention two objectives of organic certification.	BT-3	Apply
3	What is third-party certification?	BT-1	Remember
4	State two key features of the National Programme for Organic Production (NPOP).	BT-1	Remember
5	List any two organic certification agencies operating in India.	BT-2	Understand
6	What does APEDA stand for?	BT-1	Remember
7	Mention any two responsibilities of APEDA in organic certification.	BT-1	Remember
8	State the role of the National Centre of Organic Farming (NCOF).	BT-1	Remember
9	What is the function of TNOCD in organic farming?	BT-1	Remember
10	List two requirements for organic certification.	BT-2	Understand
11	What is grower group certification?	BT-1	Remember
12	Mention two benefits of grower group certification.	BT-3	Apply
13	What is the role of ISCOP in organic certification?	BT-1	Remember
14	Mention two documents required during the certification process.	BT-3	Apply
15	Define accreditation in the context of organic certification.	BT-1	Remember
16	What is the purpose of organic farm inspection?	BT-1	Remember
17	Mention any two challenges faced in the certification process.	BT-3	Apply
18	State two reasons why certification is important for organic exports.	BT-1	Remember
19	Name two standards followed under the NPOP.	BT-1	Remember
20	What is internal control system (ICS) in group certification?	BT-1	Remember
21	List two criteria for the accreditation of certification bodies.	BT-2	Understand
22	Mention two steps involved in the certification procedure.	BT-3	Apply
23	What is the minimum conversion period for organic certification?	BT-1	Remember
24	State any two roles of certification in market access.	BT-1	Remember
25	Mention two international equivalency agreements of NPOP.	BT-3	Apply

PART - B

Q.NO	QUESTIONS	BT LEVEL	COMPETENCE
1	What are the Government policies on promoting Organic farming?	BT-1	Remember
2	Describe the structure, roles, and functions of APEDA in organic certification.	BT-2	Understand

3	Discuss the features and implementation of the National Programme for Organic Production (NPOP).	BT-3	Apply
4	Explain the guidelines and documentation required for organic certification.	BT-3	Apply
5	Elaborate on the roles and responsibilities of organic certification agencies in India.	BT-2	Understand
6	Discuss the accreditation process of certification agencies and the role of TNOCD.	BT-3	Apply
7	Describe the process and importance of inspection and audit in organic certification.	BT-2	Understand
8	Explain grower group certification and its advantages for smallholder farmers.	BT-3	Apply
9	Discuss the role and contributions of the Indian Society for Certification of Organic Products (ISCOP).	BT-3	Apply
10	Describe the functions of the National Centre of Organic Farming (NCOF) in promoting organic agriculture.	BT-2	Understand
11	Compare individual certification and group certification in organic farming.	BT-2	Understand
12	Explain the role of TNOCD in the promotion and accreditation of organic farms in Tamil Nadu.	BT-3	Apply
13	Describe the components and significance of the Internal Control System (ICS) in group certification.	BT-2	Understand
14	Discuss the role of APEDA in maintaining equivalency with international organic standards.	BT-3	Apply
15	Evaluate the importance of certification standards under NPOP and their relevance for export.	BT-2	Understand
16	Illustrate the challenges and opportunities in the organic certification process for Indian farmers.	BT-2	Understand
17	Explain the certification flow from application to final certification, including renewal procedures.	BT-3	Apply