

(6 pages)

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M.Sc. (CBCS) DEGREE EXAMINATION,
NOVEMBER 2024.

Third Semester

Mathematics

Skill Enhancement Course – ORGANIC FARMING
AND BIO FERTILIZER TECHNOLOGY

(For those who joined in July 2023 onwards)

Time : Three hours

Maximum : 75 marks

PART A — (15 × 1 = 15 marks)

Answer ALL questions.

Choose the correct answer :

1. What is the importance and benefits of Organic Farming
 - (a) No Chemicals used
 - (b) Environment friendly
 - (c) Increases the soil health
 - (d) All the above

2. Vermicompost is produced by
 - (a) Animals
 - (b) Worm
 - (c) Bacteria
 - (d) Fungus
3. National Center of organic farming in India is located at
 - (a) Ghaziabad
 - (b) Hyderabad
 - (c) Kochi
 - (d) Pune
4. Significance of National Project on Management of Soil Health and Fertility (NPMSHF) is
 - (a) Promote the use of chemical fertilizers
 - (b) Promoting use of Integrated Nutrient Management-Organic Manures.
 - (c) Promote chemical fertilizers
 - (d) Increase the productivity by using all fertilizers
5. Assistance for decentralized production and marketing of organic fertilizers is also available under _____ Scheme.
 - (a) RKVY
 - (b) NPOF
 - (c) NPOP
 - (d) HMNEH

6. The marketing and export of organic products is promoted through a system of certification of organic produce under _____ scheme.
 (a) RKVY (b) NPOF
 (c) NPOP (d) HMNEH
7. Which of the following is commonly used as a nitrogen fixer in legume plants?
 (a) Frankia (b) Oscillatoria
 (c) Azospirillum (d) Rhizobium
8. Which of the following is used as a biofertilizer for Sugarcane crop?
 (a) Nostoc (b) Azospirillum
 (c) Rhizobium (d) Azotobacter
9. Which of the following is a nitrogen fixer in the root nodules of Alnus?
 (a) Clostridium (b) Bradyrhizobium
 (c) Azorhizobium (d) Frankia
10. Which of the following is a pair of biofertilizers?
 (a) Salmonella and E.coli
 (b) Rhizobium and grasses
 (c) Nostoc and legume
 (d) Azolla and BGA

11. Which of the following fern is a biofertilizer?
 (a) Salvinia (b) Azolla
 (c) Pteridium (d) Marsilea
12. Which of the following is an endomycorrhiza?
 (a) Rhizobium (b) Agaricus
 (c) Glomus (d) Nostoc
13. This is not used in organic farming
 (a) Snail (b) Earthworm
 (c) Oscillatoria (d) Glomus
14. What are bio-insecticides?
 (a) Insects
 (b) Living organisms that kill specific insects
 (c) Insects that kill other big insects
 (d) Fungi
15. How to apply biofertilizer for rice crop
 (a) Seedling root dip
 (b) Seed Treatment
 (c) Soil Treatment
 (d) All the above

PART B — (5 × 4 = 20 marks)

Answer ALL questions, choosing either (a) or (b).
Each answer should not exceed 250 words.

16. (a) What is biopesticides give its importance?
Or
(b) Describe Green manure.
17. (a) Mention different categories of farmers.
Or
(b) Explain RKVY scheme.
18. (a) State the advantages of Biofertilizers.
Or
(b) How Frankia improve soil fertility? Explain.
19. (a) Explain mechanism of phosphate solubilization.
Or
(b) Illustrate anabaena as biofertilizer.
20. (a) What is sterilization? Give its role in biofertilizer technology.
Or
(b) Write short note on liquid biofertilizers.

PART C — (5 × 8 = 40 marks)

Answer ALL questions, choosing either (a) or (b).
Each answer should not exceed 600 words.

21. (a) Compare organic and chemical farming.
Or
(b) Illustrate biological nutrient management.
22. (a) Briefly describe organic certification.
Or
(b) Write an essay on Integrated Farming system.
23. (a) Give the role played by Rhizobium as biofertilizer.
Or
(b) Describe phosphate solubilizing Bacillus.
24. (a) Write an essay on symbiotic nitrogen fixation.
Or
(b) Describe fungal biofertilizers.
25. (a) Explain biofertilizers and FCO specialization in Biofertilizers.
Or
(b) Write a note on factors influencing the efficiency of biofertilizers.