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B.Sc. (CBCS) DEGREE EXAMINATION,
NOVEMBER 2025.

Second Semester

Zoology

Skill Enhancement Course — BIO – COMPOSTING
FOR ENTREPRENEURSHIP

(For those who joined in July 2023 onwards)

Time : Three hours Maximum : 75 marks

PART A — (10 × 1 = 10 marks)

Answer ALL questions.

Choose the correct answer.

1. Which of the following is an ecological benefit of biocomposting?
 - (a) Increases soil erosion
 - (b) Increases landfill waste
 - (c) Enhances soil fertility and structure
 - (d) Depletes soil nutrients
2. Which type of biocomposting is most suitable for small-scale, household organic waste management?
 - (a) Aerobic composting
 - (b) Anaerobic composting
 - (c) Industrial composting
 - (d) Vermicomposting
3. Which method allows for better control of temperature, moisture and aeration in biocomposting?
 - (a) Field pits
 - (b) Tank composting
 - (c) Ground heaps
 - (d) Continuous composting
4. In which biocomposting method, organic materials are piled above the ground without any enclosure?
 - (a) Field pits (b) Tank composting
 - (c) Ground heaps (d) Batch composting

5. Which amendment is commonly used to balance the carbon-to-nitrogen ratio in biocompost?
- (a) Plastic waste
 - (b) Synthetic fertilizers
 - (c) Green manure like grass clippings and vegetable peels
 - (d) Chemical pesticides
6. Which of the following amendments acts as a natural compost accelerator?
- (a) Chemical additives
 - (b) Plastic waste
 - (c) Cow dung or poultry manure
 - (d) Metal scraps
7. Which of the following waste materials is NOT suitable for biocomposting?
- (a) Fruit peels
 - (b) Vegetable scraps
 - (c) Dairy products
 - (d) Grass clippings

8. A value-added product obtained from composting that enhances plant immunity is
- (a) Chemical pesticide
 - (b) Inorganic fertilizer
 - (c) Humic acid
 - (d) Plastic mulch
9. In the preparation of biocompost beds, the addition of lime is primarily used to
- (a) Reduce nitrogen content
 - (b) Increase soil salinity
 - (c) Neutralize acidity and enhance microbial activity
 - (d) Attract pests for decomposition
10. Which of the following amendments is used to enhance aeration in biocompost pits?
- (a) Sawdust or straw
 - (b) Plastic bags
 - (c) Clay soil
 - (d) Cooking oil

PART B — (5 × 5 = 25 marks)

Answer ALL questions choosing either (a) or (b).

Each answer should not exceed 250 words.

11. (a) Discuss aerobic composting and anaerobic composting.

Or

- (b) Mention ecological benefits of biocomposting.

12. (a) Describe continuous composting and batch composting.

Or

- (b) What are the potential disadvantages of using field pits for composting?

13. (a) Explain the role of green manure.

Or

- (b) Write the essential steps in preparing a biocompost pit?

14. (a) List out the value-added products obtained from biocomposting.

Or

- (b) Why are microorganisms important in the process of biocomposting?

15. (a) How does biocomposting help in employment generation?

Or

- (b) Evaluate the role of small biocompost units in income and employment generation for self-help groups.

PART C — (5 × 8 = 40 marks)

Answer ALL questions choosing either (a) or (b).

Each answer should not exceed 600 words.

16. (a) Explain the process of biocomposting and discuss its significance in sustainable agriculture.

Or

- (b) Evaluate the role of earthworms in the biocomposting process.

17. (a) Explain the process of composting in field pits and ground heaps.

Or

(b) Evaluate the effectiveness of windrow and aerated static piles.

18. (a) Explain the process of aeration in biocompost beds and its significance.

Or

(b) Describe the preparation and maintenance of biocompost pits.

19. (a) Evaluate the contribution of biocomposting to waste reduction and environmental sustainability.

Or

(b) Discuss the role of biocompost in soil fertility maintenance.

20. (a) Develop a detailed project report proposal for setting up a small biocompost unit for a self-help group.

Or

(b) Evaluate the social and economic impact of small biocompost units on rural communities.