

**M.Sc. BOTANY
THIRD SEMESTER
BIOFERTILIZER & ORGANIC FARMING (MDC)
MSB-306 A**

Duration: 3 Hrs.

Marks: 70

PART : A (OBJECTIVE) = 20
PART : B (DESCRIPTIVE) = 50

[PART-B : Descriptive]

Duration: 2 Hrs. 40 Mins.

Marks: 50

[**Answer question no. One (1) & any four (4) from the rest**]

1. What is organic farming? What are the types of organic farming? Describe the production of any one type. (2+2+6=10)
2. What is certified organic? Describe the compost making process. (3+7=10)
3. What are the materials required for vermicomposting? Describe the phase of composting. (5+5=10)
4. Write short notes: (5+5=10)
a. PGPR b. Liquid biofertilizer
5. What is crop rotation? How crop rotation helps in maintaining soil health? (2+8=10)
6. Describe the advantages of organic fertilizer over chemical fertilizers. (10)
7. What is green manure? Describe the function of green manure. (3+7=10)
8. What is liquid biofertilizer? Describe the advantages of liquid biofertilizer over power type biofertilizer. (2+8=10)

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[PART-A : Objective]

Choose the correct answer from the following:

1×20=20

1. Organic farming is the technique of raising crops through uses of:
 - a. Manures
 - b. Bio fertilizer
 - c. Resistant varieties
 - d. All of these
2. Biological fertilizers are obtained from:
 - a. Plants
 - b. Animals
 - c. Plant and animal residues.
 - d. All of the above
3. An asymbiotic blue green algae:
 - a. Anabaena
 - b. Azolla
 - c. Nostoc
 - d. All of them
4. Free living nitrogen fixing bacteria are:
 - a. Azotobacter
 - b. Clostridium
 - c. Both a and b
 - d. None of these
5. Yield of paddy field can be increased by application of:
 - a. Iron bacteria
 - b. Nostoc / Anabaena
 - c. Archae bacteria
 - d. Symbiotic bacteria
6. The proper method of application of biofertilizer in transplanted crops is:
 - a. Seedling root Dip
 - b. Seed treatment
 - c. Main field application
 - d. None of these
7. The value of nitrogen content in vermicompost is:
 - a. 0.1-2.0 %
 - b. 1-1.5%
 - c. 0.5-1.5%
 - d. None of these
8. The 'sour crop' disease of vermicompost worms are caused by:
 - a. Insect
 - b. Pathogen
 - c. Environmental factors
 - d. None of these
9. PSL stands for:
 - a. Permitted Standard List
 - b. Promoted Standard List
 - c. Permitted Substance List
 - d. None of these
10. Bacterial fertilizer is:
 - a. Anabaena
 - b. Nostoc
 - c. Rhizobium
 - d. Phycomyces
11. Which one is not a green manure crop?
 - a. Sorghum
 - b. Soybean
 - c. Sun hemp
 - d. Jute
12. BGA are used as biofertilizer in:
 - a. Rice field
 - b. Wheat field
 - c. Sugarcane field
 - d. Legume field
13. Which one is green manure/biofertilizer?
 - a. Sasbania
 - b. Rice
 - c. Oat
 - d. Millet
14. Choose the incorrect statement.
 - a. Carriers increase the effectiveness of the biofertilizer.
 - b. It enables easy handling.
 - c. It increases the nutrient content.
 - d. Increases the storage or self life.

15. Which one is a biofertilizer?
- VAM
 - Sporeine
 - Devine
 - Agent orange
16. Which of the following is a good compost?
- Compost with offensive smell.
 - Wet compost.
 - Compost with P_{H4} .
 - Compost with P_{H7} and without smell.
17. Rhizobium enters in the root through:
- Root cap
 - Root hair
 - Lenticel
 - Cortex
18. Selection of site for vermicompost must have the following criteria:
- Shady place.
 - Cool and humid place.
 - Dry and humid place.
 - Both a and b.
19. Which one is not a homemade fertilizer?
- Tea leaves
 - Egg shell
 - Thatch
 - None of these
20. Green manure:
- Increases the soil P_H .
 - Decreases the soil P_H .
 - Maintain the soil P_H .
 - None of these.

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UNIVERSITY OF SCIENCE & TECHNOLOGY, MEGHALAYA



[PART (A) : OBJECTIVE]

Duration : 20 Minutes

Serial no. of the
main Answer sheet

Course :

Semester : Roll No :

Enrollment No : Course code :

Course Title :

Session : 2017-18 Date :

Instructions / Guidelines

- The paper contains twenty (20) / ten (10) questions.
- Students shall tick (✓) the correct answer.
- No marks shall be given for overwrite / erasing.
- Students have to submit the Objective Part (Part-A) to the invigilator just after completion of the allotted time from the starting of examination.

Full Marks	Marks Obtained
20	

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Scrutinizer's Signature

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Examiner's Signature

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Invigilator's Signature