

M.Sc. BOTANY
FOURTH SEMESTER
ORGANIC FARMING & NURSERY MANAGEMENT
MSB – 405 MDC

(Use Separate Answer Scripts for Objective & Descriptive)

Duration: 3 hrs.

Full Marks: 70

[PART-A: Objective]

Time: 20 min.

Marks 20

Choose the correct answer from the following:

1X20=20

1. Propagation of plants from very small plant parts called explants, found in
 - a. Grafting
 - b. Cutting
 - c. Budding
 - d. Micropropagation.
2. Organically grown plants are more drought
 - a. Tolerant
 - b. Resistant
 - c. Susceptible
 - d. Does not effect
3. Weed management is possible through the organic method
 - a. Leaf manure
 - b. Biofertilizer
 - c. Crop rotation
 - d. All of these
4. The Nursery Management Information System (NMIS) was first designed
 - a. 1970
 - b. 1971
 - c. 1965
 - d. 1960
5. Rhizobium is
 - a. Symbiotic bacteria
 - b. Free-living bacteria
 - c. Endophytic bacteria
 - d. None of the above
6. Input in the nursery is-
 - a. Containers,
 - b. Nursery media,
 - c. Propagules.
 - d. All of the above
7. Plants show vegetative propagation through root-
 - a. Agave and Oxalis
 - b. a and d
 - c. sweet potato, Asparagus, and Dahlia
 - d. mint plants.
8. Which of the following is a commonly used earthworm species for the vermicomposting process?
 - a. *Eisenia fetida*
 - b. *Perionix excavatus*
 - c. Both (a) and (b)
 - d. None of these
9. Vermicompost is used as a biofertilizer because it is rich in_____.
 - a. Calcium
 - b. Nitrogen
 - c. Phosphorus
 - d. All of these

10. What materials may be composted
- | | |
|----------|-----------------|
| a. Sod | b. Hay |
| c. hedge | d. All of these |
11. The part which becomes the lower portion that includes the root is called as
- | | |
|----------|-----------------|
| a. Stock | b. Scion |
| c. Bud | d. Both a and b |
12. Carbon to nitrogen ratios in cow manure is
- | | |
|---------|---------|
| a. 20:1 | b. 10:1 |
| c. 15:1 | d. 7:1 |
13. Which one is not a green manure crop
- | | |
|------------|-------------|
| a. Sorghum | b. Sun hemp |
| c. Soybean | d. Millet |
14. Compost worms need which things for their proper growth
- | | |
|----------------------|----------------------|
| a. A food source | b. Bedding materials |
| c. Adequate moisture | d. All of these |
15. Mulching is not used to
- | | |
|-------------------------------|---------------------------------|
| a. To increase soil fertility | b. To conserve moisture |
| c. To control weed | d. To maintain soil temperature |
16. Which one is not included in gardening skills
- | | |
|-----------------|---------------|
| a. Soil testing | b. composting |
| c. punning | d. Harvesting |
17. AM fungi establish symbiotic associations with almost ----- of plants
- | | |
|--------|--------|
| a. 40% | b. 80% |
| c. 50% | d. 70% |
18. Captan can is a
- | | |
|-------------------|---------------|
| a. Pesticides | b. Fungicides |
| c. Biofertilizers | d. A and c |
19. The most quickly available source of nitrogen to plants are
- | | |
|------------------------|--------------------------------|
| a. Amide fertilizers | b. Ammonia fertilizers |
| c. Nitrate fertilizers | d. Ammonia nitrate fertilizers |
20. What should be added to increase the efficiency of biofertilizer?
- | | |
|----------------|--------------|
| a. Calcium | b. Potassium |
| c. Phosphorous | d. Zinc |

(PART-B: Descriptive)

Time : 2 hrs. 40 min.

Marks : 50

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

- | | |
|--|--------------|
| 1. What is a biofertilizer? Write the advantages of biofertilizers over chemical fertilizers. List a few biofertilizers. | 2+5+3
=10 |
| 2. Briefly discussed the role of crop rotation in soil health management. | 10 |
| 3. Define Nursery. Write its role and in what ways a nursery helps in generating employment. | 3+7=10 |
| 4. What is Organic Farming? Write the environmental benefits of organic farming | 2+8=10 |
| 5. Write briefly about a layout of a nursery and the online nursery information and sales system. | 6+4=10 |
| 6. Write a short note on
a. PGPR
b. Rhizobium | 5+5=10 |
| 7. Short notes: a. green manuring, b. components of nursery | 5+5=10 |
| 8. Write the procedure of making vermicompost. | 10 |

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