



17243



BRAINWARE UNIVERSITY

Term End Examination 2025-2026
Programme – B.Sc.(BT)-Hons-2023
Course Name – Rural Biotechnology
Course Code - BBT50119
(Semester V)

Library
Brainware University
398, Ramkrishnapur Road, Barasat
Kolkata, West Bengal-700125

Full Marks : 60

Time : 2:30 Hours

[The figure in the margin indicates full marks. Candidates are required to give their answers in their own words as far as practicable.]

Group-A

(Multiple Choice Type Question)

1 x 15=15

1. Choose the correct alternative from the following :

- (i) Recall which of the following bacteria is the causal organism of bacterial blotch in mushroom cultivation?
- a) Pantoea
b) Pseudomonas tolaasii
c) Pseudomonas agarici
d) Cladobotryum dendroides
- (ii) Recall which organism is responsible for the green mold disease in mushrooms
- a) Trichoderma spp.
b) Mycogone perniciosa
c) Pseudomonas reactants
d) Lecanicillium fungicola
- (iii) Identify the primary management method for controlling bacterial blotch in mushroom cultivation?
- a) Spraying fungicides
b) Proper sterilization of casing soil, reducing humidity, and sufficient aeration
c) Use of oxtetracycline and streptocycline sprays
d) Pasteurization of the substrate
- (iv) A farmer notices cobweb-like fungal growth on their mushrooms. What should he implement immediate action should they take to control the spread of the disease?
- a) Apply sodium hypochlorite solution
b) Spray prochloraz manganese or metrafenone
c) Adjust humidity levels and increase airflow
d) Use streptocycline and oxytetracycline
- (v) If a farmer wants to increase the shelf life of button mushrooms for long-term storage, identify the method they should apply?
- a) Store in perforated polypacks at room temperature
b) Use canning with brine solution
c) Dry the mushrooms and store in airtight containers
d) Store in a freezer at 0°C
- (vi) Identify the ideal temperature for storing mushrooms in a cold room after harvest?
- a) 10°C
b) 25°C
c) 4°C
d) -40°C

7. Describe the identifying characteristics and management of bacterial blotch disease (5)
8. Explain the factors influencing the number and biomass of earthworms in the soil. (5)
9. Analyze how different methods of composting impact the nutrient profile of the final compost product used for mushroom cultivation. (5)
10. Evaluate the long-term benefits of using vermicompost over chemical fertilizers in improving soil fertility and plant health. (5)
11. Contrast surface water and groundwater in terms of availability and sustainability of use. (5)
12. Evaluate the challenges of public participation in the EIA process for dam construction. (5)

OR

Evaluate the impact of rainwater harvesting on groundwater recharge in semi-arid regions. (5)

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