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Question Paper Code:U8A61

B.E./B.Tech. DEGREE EXAMINATION, NOV-2025

One Credit Course

Agricultural Engineering

21UAG861 – MUSHROOM CULTIVATION TECHNOLOGY

(Regulations 2021)

Duration: 1.30 Hours

Maximum: 50 Marks

Answer ALL Questions

PART A - (6 x 1 = 6 Marks)

1. The earliest record of mushroom consumption comes from which ancient civilization? CO1 – U
(a) Indian (b) Egyptian (c) Greek (d) Chinese
2. The French began commercial cultivation of mushrooms in the 17th century in: CO1 – U
(a) Wine cellars (b) Underground caves (c) Wooden logs (d) Farmlands
3. Which of the following is used as a common medium for mushroom culture? CO1 – U
(a) Potato Dextrose Agar (PDA) (b) Nutrient Agar
(c) MacConkey Agar (d) Sabouraud Agar
4. The ideal moisture content of grains during spawn preparation is around: CO1 – U
(a) 10–15% (b) 20–25% (c) 40–50% (d) 60–65%
5. The Primary substrate used for *Volvariella* (Paddy straw mushroom) cultivation is: CO1 – U
(a) Wheat bran (b) Paddy straw bundles
(c) Sawdust (d) Sorghum grains

6. The optimum temperature for the cultivation of *Pleurotus* species is: CO1 – U
- (a) 15–20°C (b) 20–30°C (c)) 30–40°C (d) 10–15°C

PART – B (6 x 2= 12 Marks)

7. Explain the medicinal value of mushrooms in human health. CO1-U
8. Describe the role of the pileus in mushroom morphology. CO1-U
9. Explain the importance of gills in mushrooms. CO1-U
10. What is meant by “mother culture” in mushroom production? CO1-U
11. Outline the purpose of purification in mushroom culture development. CO1-U
12. Explain why cereal grains are commonly used for spawn preparation. CO1-U

PART – C (2 x 16= 32 Marks)

13. (a) Describe the cultivation method of Volvariella (Paddy straw mushroom) with neat sketches. CO2 – U (16)
- Or
- (b) Illustrate the structure and functions of different parts of a mushroom fruiting body. CO2 – U (16)
14. (a) Describe the harmful effects and importance of studying poisonous mushrooms. CO1 – U (16)
- Or
- (b) Explain the methods of isolation and purification of mushroom cultures for mother culture development. CO1 – U (16)