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63/2 (SEM-3) BIT 306

2022

(held in 2022)

BIOTECHNOLOGY

(Theory Paper)

Paper Code : BIT-306

**(Mushroom Production and Vermicompost
and Value Added Products)**

Full Marks – 50

Time – Two hours

The figures in the margin indicate full marks
for the questions.

1. Answer the following questions : 1×5=5
- (a) *Muscaria* species of *Amanita* is a poisonous mushroom. (True/False)
 - (b) Mushrooms have good amount of dietary and fermentable fibre. (True/False)

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(c) *Calocybe india* can be cultivated with temperature from 28C to 35C. (True/False)

(d) Fumaric acid is commercially extracted from fungi. (True/False)

(e) Wet spot disease is caused by *Mycogone perniciosus*. (True/False)

2. Answer any five of the following questions :

2×5=10

(a) Write the physical factors that affect the growth of mushroom.

(b) What is the functional effect of lyophilization in food processing of mushroom ?

(c) What are the precaution to be taken in production of vermicompost ?

(d) Difference between substrate and compost.

(e) In animals, with reference to nutrition, ingestion is followed by digestion but in fungi digestion is followed by ingestion. Justify.

(f) Name any two medicinally important mushroom species.

(g) Some fungi are bright colored but they don't have chloroplast. Justify.

3. Write short notes on any four : 5×5=25

(a) Value addition of mushroom

(b) Biotransformation

(c) Integration of mushroom with other bio-composting activity as zero waste output

(d) Physiology and reproduction of *Eisenia foetida*

(e) Importance of media in spawn preparation

(f) Biomagnification

(g) Write notes on vermicompost as entrepreneurship in agriculture sector

(h) Spawn production.

4. Answer any one of the following questions :

10×1=10

(a) Describe the cultivation of Oyster mushroom.

(b) Describe the cultivation of *Milky* mushroom.

- (c) Describe the cultivation of *Paddystraw* mushroom.
- (d) Disease management of Mushroom.
- (e) Describe in details the process of vermi-composting with reference to involvement of *Eisenia foetida* in the process of production of vermicomposting.