

2018

BIOTECHNOLOGY

BIT 306

MUSHROOM CULTIVATION TECHNOLOGY,
VERMICOMPOST AND VALUE ADDED PRODUCTS

Full Marks: 80

Time: 3 hours.

The figures in the margin indicates full marks for the questions :

- 1 Answer the following questions (any eight) 8 X 1=8
- a) *Trichoderma viride* is a black mould of mushroom Yes/No
 - b) The Amanita group in fungi is non poisonous group True /False
 - c) Giant *Armillaria solidipes* (honey mushroom) is considered the largest organism on Earth True/False
 - d) False truffle effects _____ mushroom.
 - e) A fungus is a eukaryote . True /False
 - f) A fungi which gives a visible fruiting body is called _____
 - g) Mushrooms have high dietary and fermentable fibre True/False
 - h) _____ is employed for rearing of earthworms
 - (a) Bamboo tray (b) Apiary
 - (c) Vermibox (d) Poultry farm
 - i) Wet bubble is a fungal disease. True/False
 - j) The color of some fungus is associated with their cell wall True/False
- 2 Answer the following (any six) 6 X2=12
- a) Why is compost said to be rich in essential parameters?
 - b) Why is a minimum dimension (adequate depth, width & length) required to be maintained during the making of vermicompost pit?

- c) What is mummy disease and state the occurrence of the disease?
- d) What is the function effect of lyophilization in food processing of mushroom?
- e) Distinguish between the short and long method of compost preparation of Button mushroom
- f) Distinguish between the dry bubble and wet bubble disease
- g) What are the precaution to be taken in production of vermicompost
- h) What is X disease and state measures to combat the disease.
3. Write the following (any four) 5 X4=20
- a) Agribusiness with mushroom
- b) Value added product of mushroom
- c) Recycling of Spent Mushroom Substrate
- d) Biotransformation
- e) Biomagnification
- f) Preservation and organic preservative
- g) Propagation of mushroom
- h) Importance of media in spawn preparation
4. Answer the following question (any two): 8 x 2=16
- a) What is edibility? How can we differentiate between a poisonous and non poisonous mushroom? 2 + 6=8
- b) What is spawn? Describe the various process of spawn preparation. 2 + 6=8
- c) What is compost? State the importance of good compost with respect to mushroom production. Describe the reparation of compost for paddy straw mushroom. 2 + 6=8
- d) Describe the ethno botanical and traditional use of mushroom. 8
- e) Mushroom cultivation as a tool for agribusiness and bioentrepreneurship development. 8

5. Answer the following questions (any two): 12 X2=24

a) Describe the cultivation of *Calocybe indica*. 12

Or

What are the different types of pest and how they can be managed in context to mushroom cultivation 12

b) Describe the different means of propagation of mushroom germplasm. 12

Or

Describe the cultivation and crop management of button mushroom 12

c) Describe the different types and preparation of value added products of mushroom. 12

d) Describe the biology of *Eisenia foetida* 12

Or

What is vermicompost? Describe in details the process and steps involved in vermicompost production and vermiculture. 12
