

(g) Describe the traditional cultivation process of mushroom for small-scale mushroom production.

(h) What is short-term storage of mushroom? Discuss various steps that are employed for long-term storage of mushroom products.

Total number of printed pages—8

3 (Sem-6/CBCS) BOT SEC 1/2

2022

BOTANY

(Skill Enhancement Course)

Answer the Questions from any one Option.

OPTION - A

(Ethnobotany)

Paper : BOT-SE-6014

OPTION - B

(Mushroom Culture Techniques)

Paper : BOT-SE-6024

Full Marks : 50

Time : Two hours

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

OPTION - A

Paper : BOT-SE-6014

(Ethnobotany)

1. Fill in the blanks/Answer **any four** of the following : $1 \times 4 = 4$
 - Define ethnobotany.
 - Vitex negundo* is commonly known as _____.
 - What is endangered taxa ?
 - The branch of ethnobotany that deals with folk concepts of classification of plant by habit, habitat, usage or some other parameter is called _____.
 - What is sacred grove ?
 - _____ is the first well-known book on ethnobotany.
 - Define ethnotoxicology.
 - _____ is the main alkaloid that is present in *Withania somnifera*.
2. Answer **any three** of the following questions : $2 \times 3 = 6$
 - What is medico-ethnobotanical source ?

- What do you understand by traditional knowledge ?
- What is biopiracy ?
- Which method is most significant in all ethnobotanical studies ?
- Where do resins come from ?
- What is the relevance of ethnobotany ?

3. Write short notes on **any two** of the following questions : $5 \times 2 = 10$
 - Significance of *Azadirachta indica* in ethnobotanical practices
 - Intoxicant and beverage plants used by the tribes of North-East India
 - Medicinal importance of *Tribulus terrestris*
 - Importance of temples and sacred places in methodology of ethnobotanical studies
 - Participatory forest management
 - Herbarium techniques

4. Answer **any three** of the following questions : $10 \times 3 = 30$

- (a) Discuss the concept, scope and objective of ethnobotanical study.
- (b) What is herbarium ? Discuss the roles of herbaria in teaching and learning process of ethnobotany.
- (c) Describe the detailed ethnobotanical practices of *Ocimum sanctum* and *Indigofera tinctoria*.
- (d) Discuss the role of ethnic group in conservation of plant genetic resources.
- (e) Discuss with the help of examples the role of ethnobotany in modern medicine.
- (f) What are ancient literatures ? Discuss the importance of Indian ancient literatures in framing the traditional medicinal system in India with examples.
- (g) Discuss about the major ethnic groups and their lifestyle that inhabited in Assam.
- (h) What is IPR ? Discuss how IPR gives safeguard to protect the interest of traditional knowledge in India.

OPTION - B

Paper : BOT-SE-6024

(*Mushroom Culture Technique*)

1. Fill in the blanks/Answer **any four** of the following : $1 \times 4 = 4$

- (a) What is mycology ?
- (b) Vitamins _____ and _____ are present in *Agaricus sp.*
- (c) What is mushroom spawn ?
- (d) Write the name of **one** poisonous mushroom.
- (e) The process that refers to the steps taken to safely preserve food for later use is called _____.
- (f) What is pure culture ?
- (g) The _____ considered mushrooms 'the Food of the Gods'.
- (h) What is sugarcane trash ?

2. Answer **any three** of the following questions : $2 \times 3 = 6$

- (a) Write the name of **two** commercially used edible mushrooms in India.

(b) Write about the export value of mushrooms.

(c) Mention some commercial products of mushroom.

(d) What are the bed preparing materials used for mushroom culture ?

(e) What is cost-benefit ratio ? Give an example.

(f) Mention some free amino acids that are present in mushroom.

3. Answer **any two** of the following questions : $5 \times 2 = 10$

(a) Write briefly the differences between edible and poisonous mushrooms.

(b) What is sterilization ? Write about the sterilization process in mushroom culture.

(c) Distinguish between inoculation hook and inoculation loop.

(d) Compare the nutritional values between *Volvariella volvacea* and *Pleurotus citrinopileatus*.

(e) Write a note on pure culture medium that is used for mushroom spawn production.

(f) Write about marketing potentialities of mushroom in North-East India.

4. Answer **any three** of the following questions : $10 \times 3 = 30$

(a) Discuss the nutritional and medicinal values of edible mushroom.

(b) What is composting technology ? Describe the process of composting technology used for commercial production of mushroom.

(c) Describe the morphological structure of the fructification of *Agaricus sp* with labelled diagram.

(d) Discuss the factors affecting the mushroom bed preparation.

(e) Describe various infrastructural managements employed in mushroom cultivation technology.

(f) Discuss about the national and regional level research centres and significance of mushroom research.