

U.G. 4th Semester Examination - 2022

BOTANY

[HONOURS]

Skill Enhancement Course (SEC)

Course Code : BOT-H-SEC-T-02(A,B,C)

Full Marks : 40

Time : 2 Hours

The figures in the right-hand margin indicate marks.

Candidates are required to give their answers in their own words as far as practicable.

Answer all the questions from selected Option.

OPTION–A

BOT-H-SEC-T-2A

(Medicinal Botany)

1. Answer any **five** questions: $2 \times 5 = 10$

- a) What is Red Data Book?
- b) Name two crude drugs used in Ayurvedic treatment.
- c) Define Folk-medicine.

- d) Write the name of any two methods used in ethnobotanical study.
- e) Name a research institute doing Palaeo-ethnobotanical studies in India.
- f) What is Panchamahabhutas?
- g) What do you mean by an endangered plant species?
- h) Name a medicinal plant used in the treatment of Jaundice.

2. Answer any **two** questions: $5 \times 2 = 10$

- a) Explain all the categories of the Red list criteria as per IUCN. 5
- b) Discuss tumors treatments/therapy from Unani perspective. 5
- c) Differentiate between an endemic and endangered species. Give an example of medicinal plant from each category. 3+2
- d) What is Saptadhatu concept? Write a brief note on each of the Dhatus in the human body. 1+4

3. Answer any **two** questions: $10 \times 2 = 20$

- a) Explain 'in-situ' conservation. Give an example of 'in-situ' conservation within and outside of West Bengal. What are the advantages and disadvantages of in-situ conservation of medicinal plants over the Ex-situ conservation?

$2+2+3+3$

- b) What is Ethno-medicine? How is Ethno-medicine significant to the tribal people of India? Discuss about the major ethnic communities of India.

$2+4+4$

- c) Why is endangered medicinal plant conservation important? Name two endangered medicinal plant and their uses?

$6+4$

- d) What is the full form of the acronym AYUSH? Write down a brief note on each of the following mode of treatment:

$1+3+3+3$

- i) Ayurveda
- ii) Unani
- iii) Siddha

OPTION-B

BOT-H-SEC-T-2B

(Mushroom Culture)

1. Answer any **five** questions: $2 \times 5 = 10$

- a) What is spawn?
- b) What is pure culture?
- c) What is mushroom bed?
- d) Write down the scientific name of button mushroom.
- e) Write two medicinal values of mushroom.
- f) What is compost?
- g) Write down the name of National Centre for Mushroom Research.
- h) Name two poisonous mushroom.

2. Answer any **two** questions: $5 \times 2 = 10$

- a) Describe the preparation of bed for cultivation of Oyster mushroom.
- b) Discuss the different methods used for storage of mushrooms.
- c) What are the different environmental factors affecting the cultivation of edible mushrooms.

- d) Briefly describe the preparation of spawn for mushroom cultivation.

3. Answer any **two** questions: $10 \times 2 = 20$

- a) Explain the different types of food prepared from edible mushroom.
- b) Briefly discuss the nutritional and medicinal values of mushroom.
- c) Explain the marketing process of mushrooms in India and abroad.
- d) Discuss the different types of compost prepared for button mushroom cultivation.

OPTION-C

BOT-H-SEC-T-2C

(Intellectual Property Right)

1. Answer any **five** of the following: $2 \times 5 = 10$

- a) Name two categories of rights that are primarily associated with Copyright.
- b) Differentiate between IPR and other property rights.
- c) Write in brief the importance of TRIPS.
- d) What is plagiarism? Name an online plagiarism checker software.
- e) Explain biopiracy with a suitable example.
- f) Mention two penalties for infringement of copyright.
- g) What are the different rights associated with the concept of copyright?
- h) Name two important GIs from West Bengal.

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

- a) What is PPV&FR Act? Write a short note on the PPV & FR Regulatory authority and their role in protection of such IP.

- b) Using a flowchart depict the procedure of obtaining patent in India.
 - c) What are Geographical Indications? What are the different means of providing protection under GI in India?
 - d) Write a short note on Biosafety Protocol.
3. Answer any **two** of the following: $10 \times 2 = 20$
- a) Mention the advantages of research in biotechnology. How does intellectual property regime play an important role in biotechnological research arena? $4+6$
 - b) Explain the prerequisites for obtaining patents? Give an elaborate account of non-patentable inventions. $4+6$
 - c) Give the full form of WIPO? What is the role of WIPO in governing IP issues at international level? $1+9$
 - d) What are trademarks? How are they different from industrial designs? What is 'passing off' in the context of trademarks? Write a short note on infringement with reference to both industrial designs and trademark. $1+2+3+4$
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