

U.G. 4th Semester Examination - 2020

BOTANY

[HONOURS]

Skill Enhancement Course (SEC)

Course Code : BOT(H)SEC-T-2(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-2(A)

(Medicinal Botany)

1. Answer any **five** of the following : $2 \times 5 = 10$
- What do you mean by commercial drug? Cite an example.
 - Define 'Ayurveda' treatment system. When and where it has been developed?
 - Who and in which year first coined the term 'Ethnobotany'?
 - Name two endemic tribes of India.
 - Name a biosphere reserve of West Bengal state. In which district it is situated?

[Turn Over]

- Give the full form of AJCBIBG.
- Define folk medicine.
- Distinguish between infusion and decoction.

2. Answer any **two** of the following questions :

$5 \times 2 = 10$

- Define siddha system of medicine. Where it is developed? What is the basis of this system of treatment? Mention scientific name of any two medicinal plants used in this system of treatment process. $1+1+2+1$
- Discuss the role of *in situ* conservation for conserving the RET medicinal plant species with suitable example. 5
- Write a brief note on "Umooor-e-tabiya". 5
- Describe some methods generally used to study Ethnobotany. Mention the role played by ethno botany towards the development of modern medicine. $3+2$

3. Answer any **two** of the following questions:

$10 \times 2 = 20$

- Define Biosphere reserve, National parks and sacred groves. Mention their roles in study of Ethnobotany. $4+3+3$

- b) Write a brief note on conservation of medicinal plants through *ex situ* conservational process. Define endemic and endangered medicinal plants with example. What are the Red list criteria? 4+3+3
- c) Give the scientific name and their families of two plant species each used for the treatment of skin disease, infertility, high blood pressure, diabetes and cardiac disease. 10
- d) Define nursery. How it helps in propagation of medicinal plants? Describe the role of green houses in nursery production. 2+5+3

OPTION-B

BOT(H)SEC-T-2(B)

(Mushroom Culture)

1. Answer any **five** of the following : 2×5=10
- a) What is mushroom?
- b) Name two edible mushrooms.
- c) Inoculation loop.
- d) Pure culture.
- e) What do you mean by the term 'spawn'?

- f) What is compost?
- g) Name the National Research centre of mushroom in India.
- h) Poisonous mushrooms.
2. Answer any **two** questions : 5×2=10
- a) Mention the different types of food, prepared from mushrooms.
- b) Mention the low cost technology of mushrooms cultivation.
- c) What are the different factors that affect mushroom cultivation?
- d) What is long term storage of mushroom?
3. Answer any **two** questions : 10×2=20
- a) Describe the medicinal and nutritional value of different edible mushrooms, which are available in India.
- b) What are the feature scopes of export various types of mushrooms in abroad?
- c) Describe in detail the composting technology in mushroom cultivation.
- d) What are the various methods used for cultivation of *Pleurotus citrinopileatus* in India?

OPTION-C
BOT(H)SEC-T-2(C)

(Intellectual Property Rights)

1. Answer any **five** of the following : $2 \times 5 = 10$
- a) Name two categories of IPR that are primarily associated with biological sciences.
 - b) Give the full form of WIPO and mention its location.
 - c) Name two important GIs from West Bengal.
 - d) Write two differences between IPR and other property rights.
 - e) What is plagiarism?
 - f) What does infringement of copyright mean?
 - g) Define biopiracy. Give an example of biopiracy.
 - h) Mention the criteria for patentability.
2. Answer any **two** of the following: $5 \times 2 = 10$
- a) What is the difference between process patent and product patent? Mention the areas where only process patent is granted in India.
 - b) Give brief account of tools for protecting Traditional Knowledge under IPR regime.

- c) Name one common characteristic of commodities that gain protection under Geographical Indications. What are the different means of providing protection under GI in India?
 - d) Give an outline of the procedure of obtaining patent in India.
3. Answer any **two** of the following : $10 \times 2 = 20$
- a) Give a detailed description of the procedure for obtaining a patent.
 - b) What is TRIPS? Write an explanatory note on how TRIPS has influenced IPR regime all over the world.
 - c) Describe the status of Plant Variety Protection in India.
 - d) Highlight and comment on the moral issues in patenting biotechnological inventions.