

B.Sc. 3rd Semester (Hons.) Examination, 2020 (CBCS)

Subject : Botany

Paper : SEC 1

(ETHNOBOTANY)

Time: 2 Hours

Full Marks: 40

1. Answer *any eight* questions from the following: 5x8=40
- a) Define Ethnobotany. Briefly describe the objectives of Ethnobotany. 2+3=5
- b) Mention the name of one ethnic group or tribal of India and describe briefly their life style. 1+4=5
- c) Write down the common and scientific names of five plants used by the tribals as food plants. 5
- d) Write down the roles of field work and herbarium in ethanobotanical studies. 2½+2½=5
- e) What are sacred groves? How they help in ethnobotanical studies? 2+3=5
- f) What is the significance of the habitat and morphology of *Azadirachta indica* in ethno botanical practices. 3+1+1=5
- g) Mention the significance of *Gloriosa superba* and *Indigofera tinctoria* in ethno botanical practices. 2½+2½=5
- h) What are the roles of *Rauwolfia serpentina* and *Withania somnifera* in modern medicine? 2½+2½=5
- i) Briefly describe the role of ethnic groups in conservation of plant genetic resources. 5
- j) What is biopiracy? How it is related to ethnobotany? 2+3=5
-

B.Sc. 3rd Semester (Hons.) Examination, 2020 (CBCS) Subject : Botany

Paper : SEC 1

(Agricultural Botany)

Time: 2 Hours

Full Marks: 40

Answer any 8 questions from the following: 5x8=40

1. What is Transpiration? Give an account of the theory of the mechanism of stomatal opening and closing in vascular plants.
 2. What are the sources of nitrogen for higher plants? Briefly describe the process of symbiotic N₂ fixation in soil by free living organisms. What is non-symbiotic N₂ fixation?
 3. What are Trace elements? Discuss the role of magnesium, phosphorus and sulphur in plant metabolism.
 4. What is Translocation? Describe the process by which organic solutes are translocated through phloem?
 5. What is photosystem I and II? Describe the Process of carbon fixation in C₄ plants.
 6. What is CAM? Briefly describe the biochemical processes involved in this cycle.
 7. Describe the process of Auxin Biosynthesis. Briefly describe the mechanism of Auxin Action.
 8. What are short day, long day and day neutral plants? Describe the phytochrome theory of flowering. What is the importance of photoperiodism?
 9. What are bio-fertilizers? Briefly describe how microorganisms can be used as biofertilizers and their application in different cash crops in agriculture.
 10. What is VAM? Write a short note on VAM and commercial crop response in Agriculture.
-

B.Sc. 3rd Semester (Hons.) Examination, 2020 (CBCS)

Subject : Botany

Paper : SEC 1

(Medicinal Botany)

Time: 2 Hours

Full Marks: 40

The figures in the margin indicate full marks. Candidates are required to give their answers in their own words as far as practicable

Answer any eight questions from the following:

5x8=40

1. Write briefly the importance of medicinal plants. 5
 2. Write a short note on Panchamahabhuta. 5
 3. What is Saptadhatu concept in Ayurveda ? 5
 4. What is Umoor - e- tabiya concept in Unani medicine ? 5
 5. Write a short note on endemic and endangered species. 2.5+2.5
 6. Write a short note on In situ conservation. Name one Biosphere Reserve in West Bengal. 4+1
 7. What is Ex situ conservation ? Name one Botanical garden, one National Park and one ethnic community in India. 2+1+1+1
 8. Write two objectives of nursery. Mention the methods of propagation of medicinal plants through grafting. 2+3
 9. Define Ethnobotany and ethnoecology. Name one plant used to treat heart disease. 2+2+1
 10. Name the plant / plants which can cure jaundice, infertility, diabetics, blood pressure and skin disease. 1+1+1+1+1
-

B.Sc. 3rd Semester (Hons.) Examination, 2020 (CBCS)

Subject : Botany

Paper : SEC 1

(Mushroom Culture and Technology)

Time: 2 Hours

Full Marks: 40

A. Answer any eight questions from the following: - 5x8=40

1. Comment on the nutritional and medicinal values of edible mushroom 5
 2. Give an account of composting technology in mushroom production 5
 3. Write the long term storage process of mushroom 5
 4. Comment on the types of foods prepared from mushroom 5
 5. Write down the cost benefit ratio and marketing of mushroom in India 5
 6. Name two edible mushrooms. What do you mean by poisonous mushrooms?
Give an example. 5
 7. Highlight the factors affecting mushroom bed preparation 5
 8. Briefly elaborate spawn preparation 5
 9. Comment on the medium sterilization techniques 5
 10. Write the steps in chronological order for mushroom cultivation 5
-

B.Sc (Hons.) Semester III Examination 2020

Subject Botany

Paper- SEC-I Intellectual

Property Right

Time: 2 Hours

Full Marks: 40

Answer any eight from the following-

5X8 = 40

1. What is the intellectual property and what rights to protect it?
 2. How do patents differ from other intellectual property rights?
 3. How do plant breeder rights differ from patents?
 4. Distinguish between process patents with product patents.
 5. Write a short note on World Intellectual Property Organization (WIPO).
 6. Give a brief account of computer software and intellectual property.
 7. What are the objectives of the protection of traditional knowledge?
 8. What do you understand by a 'sui generis'? How does it differ from patents?
 9. What types of works protected under copyright law? How does the transfer of copyright to be made?
 10. Write a short note on bio-prospecting and bio-piracy.
-