

**2020/TDC(CBCS)/ODD/SEM/
BOTSEC-501T/146**

**TDC (CBCS) Odd Semester Exam., 2020
held in March, 2021**

BOTANY

(5th Semester)

Course No. : BOTSEC-501T

(Ethnobotany)

Full Marks : 50

Pass Marks : 20

Time : 3 hours

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

SECTION—A

Answer any *fifteen* of the following questions :

1×15=15

- 1. What is ethnobotany?**
- 2. Name two major tribes of your region.**
- 3. Name one wild edible plant used as food by ethnic people.**

(2)

4. Who coined the term 'ethnobotany'?
5. Name one major festival of Bodo tribe of Assam.
6. What is a tribe?
7. What is sacred groves?
8. What is herbarium?
9. Name one holy plant used by Hindu people.
10. What is vernacular name?
11. What is archaeology?
12. What do you mean by documentation?
13. What is medico-ethnobotany?
14. Name the family of *Gloriosa superba*.
15. What type of fruit is found in *Indigofera tinctoria*?
16. Give one example of ethno-medicinal plant.
17. Write the scientific name of Tulsi and its family.
18. Write the scientific name of Neem and its family.
19. What is endangered taxa?

(3)

20. Name the family of *Rauvolfia serpentina*.
21. What do you mean by modern system of medicine?
22. Name one endangered plant species of Assam.
23. What is the main chemical constituent of *Withania*?
24. Name one example of plant species used in modern system of medicine.
25. What is biopiracy?
26. What is indigenous knowledge?
27. What is folklore?
28. What do you mean by folk medicine?
29. What is intellectual property rights?
30. What is biopatent?

SECTION—B

Answer any five of the following questions : 2×5=10

31. What are the objectives of ethnobotanical study?
32. How does traditional knowledge help in ecology?

(4)

33. What are the common tools in herbarium methodology of ethnobotanical studies?
34. What is the scope of ethnobotany?
35. What are the medicinal uses of *Pongamia pinnata*?
36. Write a note on morphology of *Ocimum sanctum*.
37. What do you mean by plant genetic resource?
38. What do you mean by participatory forest management?
39. How can we prevent biopiracy?
40. What are the types of intellectual property rights?

SECTION—C

Answer any *five* of the following questions : 5×5=25

41. Write a note on ethnobotany as an interdisciplinary science.
42. Write the scientific names and families of five food plants used by tribals.

(5)

43. Write a note on fieldwork for ethnobotanical studies.
44. Write a note on ancient literature on ethnobotany.
45. Write a note on medico-ethnobotanical sources in India.
46. Write a note on morphology and ethnobotany of *Azadirachta indica*.
47. Write a brief account on the role of ethnobotany in modern medicine with examples.
48. Mention five endangered taxa and mention their name of families.
49. Distinguish between traditional knowledge and modern system of medicine.
50. Write a short note on intellectual property rights.

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**2020/TDC(CBCS)/ODD/SEM/
BOTDSE-501T/145**

**TDC (CBCS) Odd Semester Exam., 2020
held in March, 2021**

**BOTANY
(5th Semester)**

Course No. : BOTDSE-501T

(Analytical Techniques in Plant Sciences)

Full Marks : 50
Pass Marks : 20

Time : 3 hours

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

SECTION—A

Answer any *fifteen* of the following questions :

1×15=15

1. What is resolution power of a microscope?
2. Define magnification.
3. What is cyto fixation?

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4. Define flow cytometry.
5. What do you mean by shadow-casting?
6. What is the magnification at which oil immersion is used?
7. Define centrifugation.
8. Name a chemical agent used in density gradient centrifugation.
9. What is cell fractionation?
10. Define radioisotopes.
11. What is the importance of marker enzymes?
12. What is differential centrifugation?
13. Define chromatography.
14. What is silica gel?
15. What do you mean by spectrophotometry?
16. What is the basic principle of molecular sieve chromatography?
17. What is R_f ?

(3)

18. Name two solvents used in paper chromatography.
19. What is the full form of PAGE?
20. Define mass spectrometry.
21. What is the other term of X-ray crystallography?
22. Name the blotting technique used for protein characterization.
23. Name the blotting technique used for RNA analysis.
24. What is Southern blotting?
25. Define data.
26. What is population?
27. What is parameter?
28. Define biostatistics.
29. What is variance?
30. What is arithmetic mean?

(4)

SECTION—B

Answer any five of the following questions : $2 \times 5 = 10$

31. Differentiate between SEM and TEM.
32. Write about freeze fracture.
33. Write a note on tracer technique.
34. What is reversed phase chromatography?
35. Define ion-exchange chromatography.
36. Write the full form of FISH.
37. Write a brief note on SDS-PAGE.
38. Write about nucleic acids.
39. Write a note on variance.
40. Briefly explain the measures of dispersion.

SECTION—C

Answer any five questions

41. Give a detailed account of fluorescence microscopy.

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(Continued)

(5)

42. Write an illustrated account of chromosome banding. 5
43. Write an essay on ultracentrifugation. 5
44. Give a detailed account of autoradiography. 5
45. Write an explanatory note on TLC. 5
46. Give a brief account of affinity chromatography. 5
47. Describe principle and application of HPLC. $4+1=5$
48. Give a detailed account of electrophoresis. 5
49. Write notes on median and mode. $2\frac{1}{2}+2\frac{1}{2}=5$
50. Describe Chi-square test for goodness of fit. 5

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