

**DR.KANAILAL BHATTACHARYYA COLLEGE**

**INTERNAL ASSESSMENT – 2022**

**BOTANY HONOURS (BOTA)**

**SEMESTER-V**

**DSE-6**

**INDUSTRIAL AND ENVIRONMENTAL MICROBIOLOGY**

**DATE: 14.12.22**

**TIME-11AM-12PM**

*Answer Any 5 of The Followings:*

**(2X5) = 10**

1. Define Bioremediation.
2. Mention the full name of BOD. How it will be determined?
3. Mention the components of a bioreactor.
4. What do you mean by Pour plate method?
5. Name some methods of isolation of bacteria from wastewater.
6. Sate any 2 scopes of environmental microbiology.
7. Define Mycorrhiza. Mention its 1 beneficial effect.
8. Name some byproducts of Microbial Industry.

DR. KANAILAL BHATTACHARYYA COLLEGE

INTERNAL ASSESSMENT – 2022

SEMESTER – V

BOTANY GENERAL (BOTTDSEG-XVI)

DSE 1 - PHYTOCHEMISTRY AND MEDICINAL BOTANY

Full Marks- 10

DATE: 15.12.22

TIME-12.30PM- 1.00PM

*Answer Any 5 of The Following:*

*(2X5) = 10*

- Q.1. What is Pharmacology? ফার্মাকোলজি বলতে কি বোঝো?
2. Give example of a secondary metabolite? গৌণ বিপাকীয় পদার্থের উদাহরণ দাও.
3. What do you mean by Crude drug? ক্রুড ড্রাগ বলতে কি বোঝো?
4. Name the source plant and function of Reserpine. .Reserpin এর উৎস ও একটি কাজ লেখো.
- 5.What is Alkaloid? Give an example of an Alkaloid. এলকালয়েড কি? এলকালয়েড এর একটি উদাহরণ দাও.
- 6.. What do you mean by Ethnobotany? এথনো বটানি বলতে কি বোঝো?
7. Give example of 2 steroid drugs and state their functions. দুটি স্টেরয়েড ড্রাগ এর উদাহরণ দাও ও কাজ লেখো
8. What do you mean by Organoleptic Evaluation of Drugs? ড্রাগ এর অর্গানোলেপ্টিক মূল্যায়ন বলতে কি বোঝো?

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**DR. KANAILAL BHATTACHARYYA COLLEGE**

**INTERNAL ASSESSMENT – 2022**

**SEMESTER – V**

**BOTANY GENERAL (BOTTDSEG-XVI)**

**DSE 1 - PHYTOCHEMISTRY AND MEDICINAL BOTANY**

**Full Marks- 10**

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**(2X5) = 10**

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DR. KANAILAL BHATTACHARYYA COLLEGE

SEMESTER- IV (UNDER CBCS)- 2022

BOTANY- HONOURS

INTERNAL ASSESSMENT

C.C.- 9 (ECONOMIC BOTANY)

DATE: 20.06.22

TIME: 11 am-12 pm.

FULL MARKS: 10

*Answer any 10 of the followings:*

*1x10 = 10*

1. State one importance of Cinchona.
2. Write one use of Wheat.
3. Write the Scientific name of Teak plant.
4. Write the name of any fibre yielding plant and state one use.
5. Name some byproducts of Sugarcane.
6. State the botanical name and family of Mustard.
7. Point out one health hazard happens while consuming Tobacco.
8. Define Germplasm.
9. Name any 2 important spices and mention their scientific name.
10. Give the Scientific name and family of Tea.
11. Give a morphological character of *Digitalis*.
12. State any one morphological character of Cotton plant.
13. State one use of *Solanum tuberosum*.

DR. KANAILAL BHATTACHARYYA COLLEGE

INTERNAL ASSESSMENT – 2022

SEMESTER – V

BOTANY GENERAL (BOTG)

SEC-A ( BIOFERTILIZERS- BOTTSECG XI)

Full Marks- 10

Date: 15.12.2022

Time : 1.00PM- 1.30PM.

1X10= 10

Answer any 10 of the followings:

1. জীবজ সার কাকে বলে ?
2. জীবজ ও জৈব সারের একটি পার্থক্য লেখো।
3. *Azospirillum* কি ?
4. সবুজ সার কাকে বলে ?
5. কৃষিজ জমিতে মাইকরাইজা প্রয়োগের একটি সুবিধা লেখো।
6. Ecto- মাইকরাইজা-এর একটি বৈশিষ্ট্য লেখো।
7. ড্রিলিং কাকে বলে ?
8. ইন্টিগ্রেটেড চাষ পদ্ধতি বলতে কি বোঝো ?
9. একটি নীলাভ সবুজ শৈবালের উদাহরণ দাও।
10. VAM এর পুরো নাম লেখো।
11. এজোলা (*Azolla*) কি ?
12. জীবজ সার ব্যবহারের একটি সুবিধা লেখো।

DR. KANAILAL BHATTACHARYYA COLLEGE

SEMESTER- VI (UNDER CBCS)- 2022

BOTANY- GENERAL

INTERNAL ASSESSMENT

DSE-B, HORTICULTURAL PRACTICES AND POST HARVEST

DATE: 17.06.22

TIME: 12.30-1.00 pm.

FULL MARKS: 10

Answer any 10 of the followings:

1x10 = 10

1. গাঁদা ফুলের বৈজ্ঞানিক নাম লেখ। Give the scientific name of Marigold.
2. গুলমোহর উদ্ভিদটি কোন গোত্রের অন্তর্গত? Gulmohor plant belongs to which family?
3. কুমড়ো গাছের একটি বৈশিষ্ট্য লেখো। State a characteristics features of *Cucurbita* sp.
4. জারবেরা উদ্ভিদটির একটি বৈশিষ্ট্য উল্লেখ কর। Give a characteristics feature of Gerbera plant.
5. শিমুল এর বৈজ্ঞানিক নাম ও গোত্র লেখ। Write the Scientific name and family of Shimul.
6. জীবজ সার কাকে বলে? What is Bio-fertilizer?
7. উদ্যান পালনের একটি গুরুত্বপূর্ণ ভূমিকা লেখো. State an importance of Horticulture.
8. ক্যাংকার রোগের একটি লক্ষণ লেখো. State a symptom of Canker disease.
9. ফসল সংরক্ষণের একটি পদ্ধতি উল্লেখ করো। Write a method of vegetable preservation.
10. রসালো উদ্ভিদ বলতে কি বোঝো ? উদাহরণ দাও। What do you mean by Succulent plant?  
Give example.
11. ফল সংরক্ষণের একটি জনপ্রিয় পদ্ধতি লেখো। State a process of Fruit preservation.

**DR. KANAILAL BHATTACHARYYA COLLEGE**

**B.Sc. Honours Examination (under CBCS system)– 2022**

**Internal Assessment**

**Semester- VI**

**Subject- BOTANY**

**Paper: CC-13 (Plant Physiology BOT-A-CC-6-13)**

**Time: 30 min (11:00 A.M - 11:30 A.M)**

**Date: 15.6.2022**

**Full marks-10**

1. Answer the following in brief (any ten): 1×10
- a. What is phloem unloading?
  - b. What is xylem cavitation?
  - c. Name one natural auxin.
  - d. What is vernalization?
  - e. What is florigen?
  - f. What is triple response of ethylene?
  - g. Write two functions of cytokinin hormone.
  - h. Name the components of water potential.
  - i. What is P- protein?
  - j. Name two antitranspirants.
  - k. Write the chemical structure of IAA.
  - l. Write Boron deficiency symptoms in plant.
  - m. What is critical day length? Give example.

**DR. KANAILAL BHATTACHARYYA COLLEGE**

**INTERNAL ASSESSMENT – 2022**

**SEMESTER – III**

**BOTANY HONOURS (BOTA)**

**CC-7- PLANT SYSTEMATICS**

**Full Marks- 10**

**Date: 14.12.2022**

**Time : 11 AM- 12 PM.**

*Answer any 10 of the followings:*

*1X10= 10*

1. What is the most primitive family of Dicotyledons?
2. Name the inflorescence type found in the family Lamiaceae.
3. State a character of the family Solanaceae.
4. Define Alpha taxonomy.
5. State one importance of herbaria.
6. Write the name of the largest botanical garden in India.
7. State one advance feature of Asteraceae.
8. Give example of some medicinal plants of the family Acanthaceae.
9. Define Holotype.
10. What do you mean by Phylogenetic system of classification?
11. Give the full form of ICBN.
12. State one economic importance of the family Poaceae.
13. What is Indented Key?



DR. KANAILAL BHATTACHARYYA COLLEGE

INTERNAL ASSESSMENT – 2022

SEMESTER – I

BOTANY GENERAL (BOTG)

CC-1 (PLANT DIVERSITY)

Full Marks- 10

Date: 01.02.2023

Time : 12.30P.M.-1.00P.M.

Answer any 10 of the followings:

1X10= 10

1. State one character of Cyanophyceae. <sup>সায়ানো</sup>সাইনোফাইসির একটি বৈশিষ্ট্য লেখো।
2. Give one example of algae used as food. খাদ্য হিসাবে ব্যবহৃত হয় এরূপ একটি শৈবালের নাম লেখো।
3. How many ascospores are produced within a Ascus? একটি এসকাস এর ভিতর কতগুলি এস্কোস্পোর তৈরী হয়?
4. Give one salient feature of Deuteromycotina. ডিউটারোমাইকোটিনা এর একটি বৈশিষ্ট্য লেখো।
5. What is Mycorrhiza? মাইকোরাইজা কাকে বলে ?
6. Define biotroph. বায়োট্রফ কাকে বলে ?
7. Name the causal organism of Brown spot of rice disease. ধানের বাদামি চিটে রোগের প্যাথোজেন এর নাম লেখো।
8. Why bryophytes are considered as Amphibian in plant kingdom? ব্রায়োফাইটা কে কোনো উদ্ভিদ জগতে উভচর বলা হয় ?
9. What is Gemma? গেম্মা কি ?
10. What is Siphonostele? সাইফোনোস্টিলি কি ?
11. What do you mean by Anomalous secondary growth? অস্বাভাবিক গৌণ বৃদ্ধি বলতে কি বোঝো ?
12. Define Anomocytic Stomata with example. উদাহরণ সহ সংজ্ঞা লেখো : অ্যানোমোসাইটিক স্টোমাটা.
13. What is Globule? গ্লোবিউল কি ?
14. What do you mean by Hyperplastic symptoms? হাইপার প্লাস্টিক রোগ লক্ষণ বলতে কি বোঝো ?
15. State one feature of Anthocerotopsida. এন্থোসেরোটোপসিড এর একটি বৈশিষ্ট্য লেখো।

**DR. KANAILAL BHATTACHARYYA COLLEGE**

**INTERNAL ASSESSMENT – 2022**

**SEMESTER – I**

**BOTANY HONOURS (BOTA)**

**CC-1 (PHYCOLOGY AND MICROBIOLOGY)**

**Full Marks- 10**

**Date: 03.02.2023**

**Time : 11A.M- 11.30A.M.**

**1X10= 10**

***Answer any 10 of the followings:***

1. Define Pili.
2. State one salient feature of Rhodophyceae.
3. What is Globule?
4. Give one example of Heterocyst bearing algae.
5. What do you mean by Haplobiontic life cycle in algae?
6. Give one example of RNA plant virus.
7. What is viroids?
8. State one feature of Actinobacteria.
9. What are the cell wall components of gram negative bacteria?
10. Define Plasmid.
11. What is Pro-phage?
12. State one feature of plurilocular sporangium of *Ectocarpus*.
13. Differentiate between Firmicutes and Mollicutes.
14. What is Whiplash flagella?



DR. KANAILAL BHATTACHARYYA COLLEGE

SEMESTER – II (UNDER CBCS)

INTERNAL ASSESSMENT – 2022

BOTANY – GENERAL

CC- 2

Time: 1P.M – 1:30P.M.

DATE: 24.06.22

FULL MARKS – 10

1X10 = 10

Answer the following questions (any ten)

1. Acanthaceae - গোত্রের একটি ভেষজ উদ্ভিদের নাম লেখো। Name one medicinal plant of the family Acanthaceae.
2. একটি বিষমরেনুপ্রসূ টেরিডোফাইটার উদাহরণ দাও। Give example of a heterosporous Pteridophyta.
3. সূচক জীবাশ্ম কাকে বলে? What is Index Fossil?
4. Amber কি? What is Amber?
5. ব্যক্তবীজীর একটি চারিত্রিক বৈশিষ্ট্য উল্লেখ করো। State a characteristics feature of Gymnosperm.
6. সোলানেসি গোত্রের একটি উদ্ভিদের বৈজ্ঞানিক নাম সহ গুরুত্ব উল্লেখ করো। Give the scientific name and an importance of the plant belongs to the family Solanaceae.
7. নিয়ত ও অনিয়ত পুষ্পবিন্যাসের একটি পার্থক্য উল্লেখ করো। State a difference between Racemose and Cymose inflorescence.
8. সালফার বৃষ্টি কাকে বলে? What is Sulphur shower?
9. খাদ্য হিসাবে ব্যবহৃত হয় এরূপ একটি ফার্নের নাম করো। Mention the name of a fern used as food.
10. কচু উদ্ভিদে কোন প্রকার পুষ্পবিন্যাস দেখা যায়? What kind of inflorescence is present in the *Colocasia* plant?
11. অসমাপ্ত পুষ্প বলতে কি বোঝো? What do you mean by Zygomorphic flower?
12. কোল বল কাকে বলে? What is Coal Ball?
13. ব্যক্তবীজীর একটি অর্থনৈতিক গুরুত্ব লেখ। State an economic importance of Gymnosperm.

DR. KANAILAL BHATTACHARYYA COLLEGE

SEMESTER – VI (UNDER CBCS)

INTERNAL ASSESSMENT – 2022

BOTANY – HONOURS

PAPER: DSE – B - 8

(NATURAL RESOURCE MANAGEMENT)

DATE: 16/06/2022

F.M – 10

Time: 11A.M – 12P.M

*Answer the followings (any ten):*

1X10

- |  |         |
|--|---------|
| a. What do you mean by natural resources? Give two examples.                 | 1/2+1/2 |
| b. Distinguish between agricultural and pastoral land.                       | 1       |
| c. Mention the reasons for depletion of forest in India.                     | 1       |
| d. What do you mean by non renewable energy resources? Give one example.     | 1/2+1/2 |
| e. What do you mean by ecological foot print and carbon foot print           | 1/2+1/2 |
| f. Write the full form of IUCN. State one major objective of IUCN.           | 1/2+1/2 |
| g. What is biodiversity threat?  | 1       |
| h. What is aquifer? Give an example.   | 1/2+1/2 |
| i. What do you mean by bioprospecting?                                       | 1       |
| j. What is GIS?  | 1       |
| k. What do you mean by Waste management?                                     | 1       |
| l. What do you mean by carbon foot print?                                    | 1       |
| m. What is the main significance of forest cover? Write two forest products. | 1/2+1/2 |
| n. Mention two reasons for soil degradation.                                 | 1/2+1/2 |
| o. What is silviculture?   | 1       |

DR. KANAILAL BHATTACHARYYA COLLEGE

SEMESTER – IV (UNDER CBCS)

INTERNAL ASSESSMENT – 2022

BOTANY – HONOURS

BOT-A-CC- 10

GENETICS

DATE: 21 – 06 - 2022

F.M – 10

Time: 11A.M – 12P.M

*Answer the following questions (any ten)*

**1X10**

- a. What do you mean by mapping function?
- b. What are linked genes?
- c. Explain aneuploidy.
- d. Define frame shift mutation with an example.
- e. Explain about tautomerisation.
- f. Define chromosomal translocation.
- g. What is Co-efficient of coincidence?
- h. Explain ABC model of flower development.
- i. What do you mean by overlapping gene?
- j. Define transposon with example.
- k. What is split gene?
- l. Write down the full name of FISH.
- m. Write down the cytological effects of duplication.
- n. Explain Epistasis with example.
- o. Explain base analogues incorporation with example.

DR. KANAILAL BHATTACHARYYA COLLEGE

SEMESTER – VI (UNDER CBCS)

INTERNAL ASSESSMENT – 2022

BOTANY – HONOURS

PAPER: ~~DSE~~ – CC14

(PLANT METABOLISM)

DATE: 15/06/2022

F.M – 10

Time: 11A.M – 12P.M

Answer the followings (any ten):

1X10

- |  |           |
|--|-----------|
| a. What is an 'action spectrum'?   | 1         |
| b. Define isoenzyme with example.  | 1         |
| c. Distinguish between C3 and C4 plant.                                  | 1         |
| d. What is the first product of C3 cycle?                                | 1         |
| e. What is 'uncoupler'? Cite one example.                                | $1/2+1/2$ |
| f. What do you mean by beta oxidation of fatty acid?                     | 1         |
| g. What is the function of 'G protein'?                                  | 1         |
| h. What is the full form of GOGAT? Mention its function.                 | $1/2+1/2$ |
| i. What do you mean by allosteric regulation of enzyme?                  | 1         |
| j. What do you mean by second messenger? Give an example.                | $1/2+1/2$ |
| k. Mention the biological significance of carotenoid pigments.           | 1         |
| l. What do you mean by substrate level phosphorylation? Give an example. | $1/2+1/2$ |
| m. Distinguish between cyclic and non cyclic electron transport system.  | 1         |
| n. Define electron transport system in Respiration.                      | 1         |
| o. What is photophosphorylation?   | 1         |

**DR. KANAILAL BHATTACHARYYA COLLEGE**

**B.Sc. Honours Examination (under CBCS system)– 2022**

**Internal Assessment**

**Semester- II**

**Subject- BOTANY**

**Paper: CC-4 (ARCHAEGONIATE- BOT-A-CC-2-4)**

**Time: 30 min**

**Date: 20.6.2022**

**Full marks-10**

1. Answer the following in brief (any ten): 1×10
- a. Name two Indian species of *Anthoceros*.
  - b. Write economic importance of *Sphagnum*.
  - c. What is gemma?
  - d. Write two characteristic features of bryopsida.
  - e. What is heterospory?
  - f. Name two pteridophytes used as medicine.
  - g. What is telome?
  - h. What is mixed sorus?
  - i. Name one microphyllous pteridophytes.
  - j. Name one gymnosperm where polyembryony is found.
  - k. Write two angiospermic character of *Gnetum*.
  - l. Write two characteristic features of progymnosperms.
  - m. Write fern characters of *Cycas*.

DR. KANAILAL BHATTACHARYYA COLLEGE  
SEMESTER – IV (UNDER CBCS)  
INTERNAL ASSESSMENT – 2022  
BOTANY – HONOURS  
SEC - B  
MUSHROOM CULTIVATION TECHNOLOGY

DATE: 21/06/2022

F.M – 10

Time : 11A.M – 12P.M

*Answer the followings (any ten):*

1X10

- a. Name two poisonous mushrooms
- b. What do you mean by composting unit for mushroom cultivation?
- c. Mention two food recipes of mushroom
- d. Mention two medicinal important mushrooms (Scientific name of mushroom)
- e. What is spawn?
- f. What are the cultivation medium of Button Mushroom?
- g. What are the typical characters (only two) of poisonous Mushroom?
- h. Name two example of Basidiomycetous Mushroom (Scientific name only).
- i. What is death cap?
- j. What are the main laboratory equipments needed for Mushroom Cultivation?
- k. Name any Mushroom research institute.
- l. Why Banana leaves are used for mushroom cultivation?
- m. Which type of amino acid is very rich in Mushroom?
- n. What are the main components of PDA medium?
- o. What is humidifier chamber?



**DR. KANAILAL BHATTACHARYYA COLLEGE**

**B.Sc. Honours Examination (under CBCS system)– 2022**

**Internal Assessment**

**Semester- IV**

**Subject- BOTANY**

**Paper: CC-8 (PLANT GEOGRAPHY, ECOLOGY AND EVOLUTION- BOT-A-CC-4-8)**

**Time: 30 min**

**Date: 20.6.2022**

**Full marks-10**

1. Answer the following in brief (any ten): 1×10
- a. What is genetic diversity?
  - b. Name two metal indicator plants.
  - c. What is allogenic succession?
  - d. Define endemism.
  - e. What is allopatric speciation?
  - f. What is directional selection?
  - g. Name two dominant species of Western Himalaya.
  - h. What is hydrosere?
  - i. Write two criteria of biodiversity hotspots.
  - j. Define *in-situ* conservation.
  - k. Name two Indian biodiversity hotspots.
  - l. What is natural selection?
  - m. What is microclimate?

DR. KANAILAL BHATTACHARYYA COLLEGE

SEMESTER – II (UNDER CBCS)

INTERNAL ASSESSMENT – 2022

BOTANY – HONOURS

BOT-A-CC- 3

PLANT ANATOMY

DATE: 20 – 06 - 2022

F.M – 10

Time: 1P.M – 2P.M

1X10

*Answer the following questions (any ten)*

- a. What do you mean by anomalous secondary growth?
- b. Write down important chemical compositions of plant cell wall.
- c. Differentiate between apoplast and symplast.
- d. Explain Tunica – Corpus theory in few words only.
- e. Distinguish between protosteles and siphonosteles.
- f. What is plasmodesmata?
- g. Write one adaptive anatomical features of Xerophytic plants.
- h. Differentiate between monocot and dicot root.
- i. What is Plastochron?
- j. What is protophloem?
- k. Differentiate between (one difference) dorsiventral and isobilateral leaves.
- l. Draw a diagram of Paracytic type of stomata. Give an example.
- m. What do you mean by quiescent centre?
- n. What is heart wood?
- o. Differentiated between (one difference) stomata and hydathodes.