



**K23U 2332**

Reg. No. : .....

Name : .....

**V Semester B.Sc. Degree (C.B.C.S.S. – O.B.E. – Regular/Supplementary/  
Improvement) Examination, November 2023  
(2019-2021 Admissions)**

**CORE COURSE IN BOTANY/PLANT SCIENCE**

**5B09BOT/PLS : Research Methodology, Instrumentation and Biostatistics**

Time : 3 Hours

Max. Marks : 40

**SECTION – A**

Answer **all**.

1. A source-neutral abstract and citation database is  
a) Olympus      b) Scopus      c) Blogs      d) Bios
2. A common mounting medium for permanent slides is  
a) Cornuaba wax      b) Glycerine      c) DPX      d) FAA
3. A computer output device is  
a) Mouse      b) Pen-drive      c) Keyboard      d) Printer
4. A multiple sequence alignment soft-ware is  
a) CLUSTALW      b) EMBL      c) Entrez      d) Mozilla      **(4×1=4)**

**SECTION – B**

Answer **any eight**.

5. What is meant by scientific knowledge ?
6. Mention the significance of control in some experiments.
7. Define Monographs.
8. Explain the term Copy-right.

**P.T.O.**

**K23U 2332**



9. Comment on the lenses in a compound microscope.
10. Describe endospore staining.
11. Expand and explain HEPA filter.
12. What is meant by HPLC ?
13. Comment on processor of a computer.
14. Name two types of printers.
15. Explain Disc-drive.
16. Define linear correlation.

**(8×2=16)**

**SECTION – C**

Answer **any four**.

17. Explain Plagiarism. Name 2 soft-wares used to check it.
18. Give an account of different types of experiments.
19. Comment on micrometry in detail.
20. Give an account of electrophoresis.
21. Describe the structure of ultracentrifuge.
22. Write notes on wireless technology.

**(4×3=12)**

**SECTION – D**

Answer **any one**.

23. Give an account of data presentation and interpretation.
24. Explain the structure and functioning of SEM and TEM.
25. Describe various measures of central tendency.

**(1×8=8)**

---



K23U 2329

Reg. No. : .....

Name : .....

V Semester B.Sc. Degree (C.B.C.S.S. – O.B.E. – Regular/Supplementary/  
Improvement) Examination, November 2023

(2019 - 2021 Admissions)

CORE COURSE IN BOTANY/PLANT SCIENCE

5B06BOT/PLS : Angiosperm Systematics and Ethnobotany

Time : 3 Hours

Max. Marks : 40

PART – A  
(Objective Type Questions)

Answer all :

(4×1=4)

1. The system of classification proposed by Linnaeus is
  - a) Natural
  - b) Artificial
  - c) Phenetic
  - d) Phylogenetic
2. Father of Indian Ethnobotany is
  - a) S. K. Jain
  - b) P. Maheswari
  - c) Roxburgh
  - d) J. K. Maheswari
3. Central National Herbarium is located at
  - a) Coimbatore
  - b) Pune
  - c) Hyderabad
  - d) Kolkata
4. Resupination is common in the flowers of
  - a) Orchidaceae
  - b) Zingiberaceae
  - c) Liliaceae
  - d) Poaceae

PART – B  
(Short Essay Questions)

Answer any eight :

(8×2=16)

5. Explain the features of monographs.
6. Comment on systematics.
7. Give the binomial of two plants used by the Paniya tribes in their day today life.

P.T.O.

K23U 2329



8. Write notes on binomial nomenclature.
9. Mention the most important demerits of Bentham and Hooker's system.
10. Give the binomial and family of cashew nut.
11. What is meant by Traditional knowledge ?
12. Describe the androecium of Cucurbitaceae.
13. Give the economic importance of Solanaceae.
14. Write brief notes on Kurichya tribes.
15. Describe the inflorescence of *Euphorbia*.
16. Explain the primitive features of Annonaceae.

PART – C  
(Essay Questions)

Answer **any four** :

(4×3=12)

17. Write a brief account on APG system.
18. Describe the salient features of Rutaceae.
19. Explain the significance of *Trichopus Zeylanicus*.
20. Give the taxonomic hierarchy and economic importance of Sapota.
21. Write an account on ethnobotany and its objectives.
22. Explain the salient features of Apiaceae.

PART – D  
(Long Essay Questions)

Answer **any one** :

(1×8=8)

23. Describe the vegetative and floral characters of Orchidaceae. Add a note on its economic importance.
  24. Write an account on herbariums preparation and add note on its importance.
  25. Describe the family Rubiaceae. Add note on its salient features and economic importance.
-



K23U 2330

Reg. No. : .....

Name : .....

V Semester B.Sc. Degree (C.B.C.S.S. – O.B.E. – Regular/Supplementary/  
Improvement) Examination, November 2023  
(2019 – 2021 Admissions)  
Core Course in Botany/Plant Science  
5B07BOT/PLS – PLANT PHYSIOLOGY AND METABOLISM

Time : 3 Hours

Max. Marks : 40

PART – A  
(Objective Type Questions)

Answer all.

(4×1=4)

1. Premature fall of leaves is due to
  - a) Decrease in Auxin
  - b) Increase in Auxin
  - c) Increase in Ethylene
  - d) None of the above
2. Magnesium is an important constituent of
  - a) Cytochromes
  - b) Chlorophyll
  - c) Carotenes
  - d) Phaeophytin
3. Guttation occurs through
  - a) Lenticels
  - b) Stomata
  - c) Hydathodes
  - d) Both b) and c)
4. Dry seeds when placed on moist substratum absorb water and swell up due to
  - a) Imbibition
  - b) Diffusion
  - c) Exosmosis
  - d) Endosmosis

P.T.O.

K23U 2330



**PART – B**  
**(Short Essay Questions)**

Answer **any eight**.

**(8×2=16)**

5. Explain osmotic potential.
6. What are essential elements ?
7. Explain vital movements in plants.
8. Write notes on isoenzymes.
9. What are monosaccharides ? Give example.
10. Distinguish between apoplast and symplast.
11. Comment on deficiency diseases.
12. Explain Fluorescence.
13. What is Respiratory Quotient ?
14. Comment on phytochromes.
15. What is meant by enzyme inhibition ?
16. Describe renaturation of proteins.

**PART – C**  
**(Essay Questions)**

Answer **any four**.

**(4×3=12)**

17. Write a brief account on the physiological roles of auxin.
18. Give a brief account on ascent of sap.
19. Write short notes on vernalization.
20. Explain the factors affecting enzyme activity.
21. Comment on Glycogen and its role in plant growth.
22. Give a brief account on secondary metabolites and their types.

**PART – D**  
**(Long Essay Questions)**

Answer **any one**.

**(1×8=8)**

23. Describe the Calvin cycle. Add notes on the factors affecting photosynthesis.
  24. Write an account on lipids, its classification and biological functions.
  25. Give a detailed account on absorption of water, its mechanism and the factors affecting the process.
-



K23U 2331

Reg. No. : .....

Name : .....

V Semester B.Sc. Degree (CBCSS – OBE – Regular/Supplementary/  
Improvement) Examination, November 2023  
(2019 – 2021 Admissions)

**CORE COURSE IN BOTANY/PLANT SCIENCE**

**5B08BOT/PLS : Microbiology, Mycology, Lichenology and Phytopathology**

Time : 3 Hours

Max. Marks : 40

*Instruction : Draw diagrams wherever specified.*

**PART – A  
(Objective Type Questions)**

Answer all.

(4×1=4)

- Algal bloom is caused due to  
a) Pollution  
b) Eutrophication  
c) Effluent  
d) Deoxygenation
- Two celled spore of rust of wheat is  
a) Uredial  
b) Telial  
c) Basidial  
d) Aecidial
- Meloidogyne incognita* causes  
a) Soft rot  
b) Quick wilt  
c) Mosaic disease  
d) Root knot
- The region around the root is called  
a) Rhizosphere  
b) Rhizotone  
c) Lithosphere  
d) Phylloplane

**PART – B  
(Short Essay Questions)**

Answer any eight.

(8×2=16)

- What is VAM ? Discuss its significance.
- Write down the characteristic features of Deuteromycetes.

P.T.O.

K23U 2331



7. Describe the structure of *Penicillium* with illustration.
8. Comment on Acervulus. Give example.
9. Write notes on the ecological significance of fungi.
10. What are Rickettsiae ?
11. Describe the transduction in Bacteria.
12. Give an account of structure of HIV.
13. Draw and describe Mycoplasma.
14. Write notes on bio-fertilizers.
15. Discuss various safety measures to be followed in microbiology laboratory.
16. Write a short note on basidiocarp of *Agaricus*.

**PART – C**  
**(Essay Questions)**

Answer any four.

(4×3=12)

17. Discuss serial dilution technique.
18. Explain the causal organism, symptoms and control measures of Bunchy top of Banana.
19. Describe the life cycle of *Usnea*.
20. Describe the procedure of Gram staining.
21. Explain the structure of TMV with illustration.
22. List out the characteristic features of Basidiomycetes.

**PART – D**  
**(Long Essay Questions)**

Answer any one.

(1×8=8)

23. Explain the causal organisms, symptoms and control measures of a bacterial, fungal and nematode disease in the syllabus.
  24. Describe the ultra-structure of a bacterial cell and add a note on its flagellum.
  25. Explain the structure and life cycle of *Saccharomyces*. Add a note on its economic importance.
-





K23U 2518

Reg. No. : .....

Name : .....

V Semester B.A./B.A. Afsal-UI-Ulama/B.Sc./B.Com./B.T.T.M./B.B.A./  
B.B.A.-T.T.M./B.B.A.-A.H./B.C.A./B.S.W./B.M.M.C. Degree (C.B.C.S.S. – O.B.E.  
– Regular/Supplementary/Improvement) Examination, November 2023  
(2019-2021 Admissions)  
Generic Elective Course  
5D03 BOT : PLANT PROPAGATION

Time : 2 Hours

Max. Marks : 20

*Instruction : Draw diagrams wherever necessary.*

PART – A

Answer **all**. Each question carries **1** mark.

1. What are bulbs ? Give example.
2. Define emasculation.
3. What is soil erosion ?
4. Explain depotting.
5. What are grow-bags ?
6. Name 2 local varieties of Banana.

(6×1=6)

PART – B

Answer **any 4**. Each question carries **2** marks.

7. Comment on different types of budding.
8. Write notes on methods of care of seedlings.
9. Explain the term explant.

P.T.O.

**K23U 2518**



10. What are the merits and demerits of organic manures ?

11. Write an account of lawn making techniques.

12. Comment on roof gardening.

**(4×2=8)**

**PART – C**

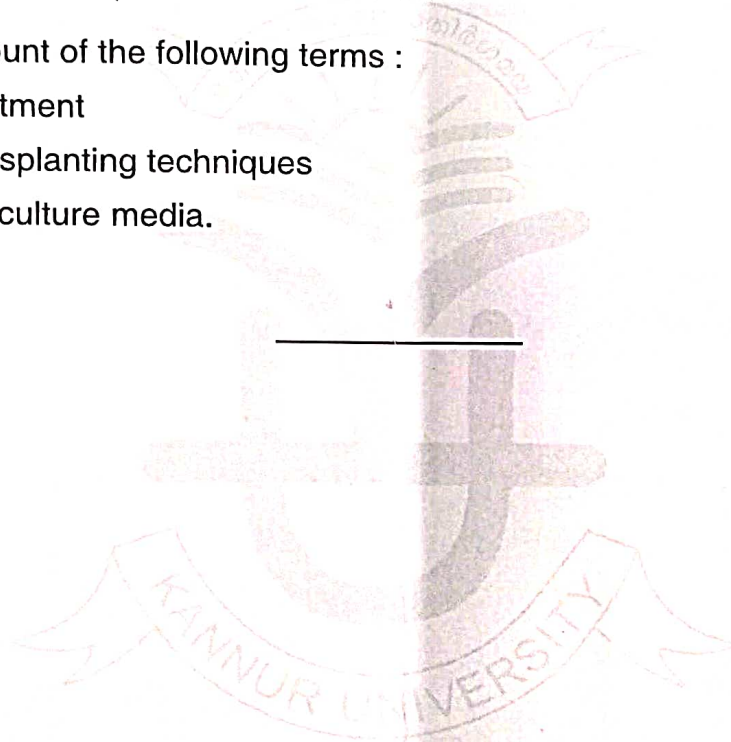
Answer **any 1**. It carries **6** marks.

13. Describe various steps of mushroom cultivation.

14. Give an account of the following terms :

- a) Seed treatment
- b) Seed transplanting techniques
- c) Microbial culture media.

**(1×6=6)**





K23U 2516

Reg. No. : .....

Name : .....

V Semester B.A./B.A. Afsal-UI-Ulama/B.Sc./B.Com./B.T.T.M./B.B.A./  
B.B.A. – T.T.M./B.B.A. – A.H./B.C.A./B.S.W./B.M.M.C. Degree  
(CBCSS – OBE – Regular/Supplementary/Improvement)  
Examination, November 2023  
(2019 – 2021 Admissions)  
Generic Elective Course  
5D01BOT : MUSHROOM CULTIVATION

Time : 2 Hours

Max. Marks : 20

*Instruction : Draw diagrams wherever specified.*

PART – A

Answer **all**. Each question carries 1 mark.

(6×1=6)

1. What are poisonous mushrooms ?
2. Explain biobleaching.
3. What is Mycorrhiza ?
4. Write the binomial of any one edible mushroom.
5. Clarify biotransformation.
6. Explain cropping in mushroom cultivation.

PART – B

Answer **any four**. Each question carries 2 marks.

(4×2=8)

7. Give a detailed account on the harvesting of mushroom.
8. Explain various mushroom preservation techniques practiced.
9. Explain five kingdom classification of organisms.

P.T.O.

**K23U 2516**



10. Write a detailed account on mycofiltration and its applications.
11. Explain poisonous mushrooms.
12. Discuss the importance of mushroom in human nutrition.

**PART – C**

Answer **any one**. It carries **6** marks.

**(1×6=6)**

13. How spawn is prepared ? Explain different types of spawn.
14. Give a detailed account on the life cycle of a typical mushroom providing suitable diagrams.

