

FIFTH SEMESTER B.Sc. DEGREE EXAMINATION, NOVEMBER 2022**(Regular/Improvement/Supplementary)****BOTANY****GBOT5B06T: CELL BIOLOGY, PALAEOBOTANY, PHYTOGEOGRAPHY & EVOLUTION****Time: 2 Hours****Maximum Marks: 60****SECTION A: Answer the following questions. Each carries 2 marks.****(Ceiling 20 Marks)**

1. Differentiate between nullisomy and trisomy. Give examples.
2. What is Cri du chat syndrome?
3. What is the mechanism of cytokinesis?
4. What are giant chromosomes? Why is it called so? Give an example.
5. What is palaeobotany? Write its importance.
6. Enumerate the features of Lepidodendron.
7. Write an account on the external features of Williamsonia.
8. Describe the theory of Land bridge.
9. Write an account on alpine vegetation in India.
10. What is the theory of natural selection?
11. Briefly describe Big bang theory.
12. What is "panspermia or spore" theory?

SECTION B: Answer the following questions. Each carries 5 marks.**(Ceiling 30 Marks)**

13. Describe the ultra structure and functions of chloroplast.
14. Write an account on the structure and functions of Golgi complex.
15. Briefly explain the process of fossilization.
16. Describe the age and area hypothesis of endemism.
17. Discuss the Indus plains in India. Add a note on its significance.
18. Explain the theories of discontinuous distribution.
19. Comment on the theory of inheritance of acquired characters. Add a note on Neo-Lamarckism

SECTION C: Answer any 1 question. Each carries 10 marks.

20. Describe the structure of prokaryotic cell with suitable diagram.
21. Give an account on various evidences of organic evolution with suitable examples.

(1 x 10 = 10 Marks)