Reg. No. : ....

Name : ....

III Semester B.Sc. Degree (CBCSS – OBE – Regular/Supplementary/ Improvement) Examination, November 2023
(2020 to 2022 Admissions)
GENERAL AWARENESS COURSE IN LIFE SCIENCES (ZOOLOGY) AND COMPUTATIONAL BIOLOGY
3A11ZCB : Cell Biology and Genetics

Time : 3 Hours

Max. Marks : 40

PART – A
(Short Answer)

Answer **all** questions.

(6×1=6)

1. Differentiate endocytosis and exocytosis. Give example.

2. Homozygous and Hetrozygous condition.

3. Linkage.

4. Recombination.

5. Use of Pedigree analysis.

6. Chromosome Banding Technique _____.

PART – B
(Short Essay)

Answer **any 6** questions.

(6×2=12)

7. Differentiate passive and active transport giving examples.

8. Write an account on cell junctions.

9. Endoplasmic reticulum.

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10. Differentiate heterochromatin and euchromatin.

11. Alleles.

12. Represent a back cross and a testcross.

13. Chromosomal theory of inheritance.

14. Mutation theory of De Vries.

PART – C
(Essay)

Answer **any 4** questions.

(4×3=12)

15. Write a comparative account of Prokaryotes and Eukaryotes.

16. Write brief account of microtubules, microfilaments.

17. With the help of a diagram, describe the structure of chromatin.

18. Write a short description on Epistasis and Polygenic inheritance.

19. Explain ABO Blood grouping.

20. Explain Eugenics, euphenics and euthenics.

PART – D
(Long Essay)

Answer **any 2** questions.

(2×5=10)

21. Structure and functions of Plasma membrane.

22. Structure and functions of any three cell organelles. Illustrate your answer with drawings.

23. Structural and numerical aberrations of chromosome.

24. Explain Meiosis. Illustrate with diagram.

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