

TB205465V

Reg. No : .....

Name : .....

**B. Sc. DEGREE (C.B.C.S.) EXAMINATION, NOVEMBER 2022**  
**2020 ADMISSIONS REGULAR AND 2019, 2018 ADMISSIONS SUPPLEMENTARY**  
**SEMESTER V - CORE COURSE (ZOOLOGY)**  
**ZY5B06B18 - CELL BIOLOGY & GENETICS**

Time : 3 Hours

Maximum Marks : 60

**Part A**

**I. Answer any Ten questions. Each question carries 1 mark**

**(10x1=10)**

1. Comment on prions.
2. Why lysosomes are called suicidal bags?
3. What is satellite?
4. Define Telomere.
5. Define cytokines.
6. Define allele.
7. Define the terms gene and genome.
8. What do you mean by hermaphroditism?
9. What are Free Martins?
10. What is cross over value?
11. Differentiate between metacentric and acrocentric chromosome.
12. Explain frameshift mutation.

**Part B**

**II. Answer any Six questions. Each question carries 5 marks**

**(6x5=30)**

13. Explain the structure and classification of viruses.
14. Explain the characteristics of a bacterial cell.
15. Distinguish between euchromatin and heterochromatin.
16. Comment on complementary genes.
17. Describe pleiotropism citing examples.
18. What are sex linked genes? Explain the characteristics of sex-linked inheritance.
19. Write an account on sex influenced genes.
20. Explain the hormonal influence on sex determination by giving suitable examples.
21. Write an account on Alkaptonuria.

**Part C**

**III. Answer any Two questions. Each question carries 10 marks**

**(2x10=20)**

22. Explain the structure and functions of interphase nucleus.
23. Give an account on the sequence of mitotic events with the help of suitable labelled diagrams.
24. Describe Mendelian laws citing suitable examples.
25. Write an essay on different types of chromosomal abnormalities in man.