TB245287S

Reg. No :.....

Name :.....

BACHELOR'S DEGREE (C.B.C.S.) EXAMINATION, FEBRUARY 2024

2021 ADMISSIONS SUPPLEMENTARY (SAY)

SEMESTER V - CORE COURSE (ZOOLOGY)

ZY5B06B18 - Cell Biology and Genetics

Time : 3 Hours **Maximum Marks : 60**

Part A

I. Answer any Ten questions. Each question carries 1 mark **(10x1=10)**

1. What is mycoplasma?
2. What is symbiont hypothesis?
3. What are the functions of nucleolus?
4. Write any two functions of lysosomes.
5. Explain contractile ring theory.
6. Distinguish between test cross and back cross.
7. Compare wild type and mutant allele.
8. What are Free Martins?
9. Explain criss cross inheritance.
10. Distinguish between monoecious and dioecious.
11. Define pedigree.
12. Describe Euthenics.

Part B

II. Answer any Six questions. Each question carries 5 marks **(6x5=30)**

13. Write the functions of plasma membrane.
14. Explain active transport across the plasma membrane.
15. Explain the functions of lysosome.
16. Write a note on lethal genes.
17. Explain Chromosome theory of heredity.
18. Describe Barr body and Lyon Hypothesis.
19. Write a note on pseudoautosomal genes
20. Explain the hormonal influence on sex determination by giving suitable examples.
21. Write a note on different types of mutations.

Part C

III. Answer any Two questions. Each question carries 10 marks **(2x10=20)**

22. Explain the structure and functions of interphase nucleus.
23. Explain cAMP pathway. Add a note on types of intercellular signalling.
24. Describe multiple alleles. Explain the inheritance of ABO blood group in man.
25. Write an account on gene mutations and human disorders.