

B. Sc. DEGREE (C.B.C.S.S) EXAMINATION, MARCH 2018**(2015 Admission Regular)****SEMESTER VI - CORE (ZOOLOGY)****ZY6B10TB - GENETICS AND BIOTECHNOLOGY****Time : Three Hours****Maximum Marks : 60****Part A****I. Answer all questions. Each question carries 1 marks**

1. What is incomplete dominance?
2. What is a chromosome map?
3. What is extranuclear inheritance?
4. What is Dot blotting?
5. What is bioterrorism?

(5x1=5)**Part B****II. Answer any Five questions. Each question carries 2 marks**

6. What is epistasis?
7. What is Chromosome theory of linkage?
8. What are Free Martins?
9. Explain kappa particles.
10. Explain tautomerisation.
11. What is red biotechnology and white biotechnology?
12. Comment on gene therapy.
13. What do you mean by trade secret?

(5x2=10)**Part C****III. Answer any Five questions. Each question carries 5 marks**

14. Comment on the Chromosome theory of heredity.
15. Give an account on supplementary genes.
16. Write a note on mitochondrial DNA.
17. Explain the basic components of transposons.
18. Explain criss-cross inheritance with an example.
19. Write a note on different types of media used for cell culture.
20. Comment on monoclonal antibodies.
21. Comment on the problems of biologically active biotechnology products

(5x5=25)**Part D****IV. Answer any Two questions. Each question carries 10 marks**

22. Describe Mendelian laws citing suitable examples.
23. Write an essay on different types of chromosomal abnormalities in man.
24. Explain recombinant DNA technology and the steps involved in gene cloning.
25. Describe the blotting techniques used to identify DNA, RNA and proteins.

(2x10=20)