

B. Sc. DEGREE END SEMESTER EXAMINATION - APRIL 2021**SEMESTER –6: ZOOLOGY (CORE COURSE)****COURSE: 15U6CRZOO10: GENETICS AND BIOTECHNOLOGY**

(Common for Regular 2018 admission & Improvement 2017/Supplementary 2017/2016 /2015 admissions)

Time: Three Hours

Max. Marks: 60

PART A***Define all the following***

1. Pedigree
2. Linkage
3. Test cross
4. Eugenics
5. Transgenic animals
6. Vectors
7. SCP
8. Holandric genes

(1 x 8 = 8)

PART B***Answer any Six of the following***

9. State Lyon hypotheses
10. What are sex mosaics?
11. What is FISH?
12. Comment on Biowar. Cite an example
13. Write a note on transposons
14. Distinguish between co-dominance and incomplete dominance
15. Brief note on restriction endonucleases
16. Law of independent assortment

(2 x 6 = 12)

PART C***Answer any Four of the following***

17. Explain the inheritance of ABO blood group in man
18. Describe the process of transduction in bacteria
19. Write a note on types of stem cells and their potential uses
20. Explain different types of gene transfer methods
21. Give an account on extra nuclear inheritance in paramecium
22. Explain inborn errors of metabolism

(5 x 4 = 20)

PART D***Answer any Two of the following***

23. Discuss the various risks and issues associated with genetic engineering
24. Explain DNA finger printing technique and its applications
25. Write an essay on chromosomal mutations
26. Explain chromosome theory of sex determination

(10 x 2 = 20)