Reg. No: …………………………….   Name: ………………………………………………………………….

M SC DEGREE END SEMESTER EXAMINATION MAY - 2015

M SC ZOOLOGY   SEMESTER 2

COURSE: P2ZOOT06 - GENETICS AND BIOINFORMATICS

Time: 3 Hours   Max. Marks: 75

PART A

(Answer all **8** questions. Each carries **2** marks)

1. Principle of independent Assortment
2. Lampbrush chromosome
3. Tn3 element
4. Wobble hypothesis
5. Complementation test
6. Define interference
7. Okazaki fragments
8. Position effect
9. Global and Local alignment
10. Genbank
11. Data mining
12. Comparative genomics

(2 x 8 = 16)

PART B

(Answer all **7** questions. Each carries **5** marks)

13. Differentiate between epistasis and Pleiotropy
14. Explain molecular structure of centromere
15. Describe semi conservative replication
16. Explain crossing over. Add a note on its significance
17. Explain the concept of interrupted gene
18. What is histone code hypothesis?

19. Explain analysis of quantitative traits

20. What is proteomics?

21. Explain microarray technology

22. Give a short account on application of bioinformatics

(5 x 7 = 35)

PART C

(Answer all **2** questions. Each carries **12** marks)

23. Give a detailed account on transposable elements

24. Define mutations .Explain the molecular mechanism of mutation

25. Write an essay on sequence alignment

26. Write an essay on Biological databases.

(12 x 2 = 24)