

B.Sc. DEGREE EXAMINATION - NOVEMBER 2019
BRANCH VI A – ADVANCED ZOOLOGY & BIOTECHNOLOGY
FIFTH SEMESTER

COURSE : MAJOR CORE
PAPER : GENETICS
TIME : 3 HOURS

MAX. MARKS: 100

SECTION – A

ANSWER ALL THE QUESTIONS

(10 x 3 = 30)

1. What is a test cross?
2. Define Law of segregation.
3. What is the significance of Rh factor?
4. Who are mullatoes?
5. Enumerate the importance of Y chromosome.
6. What is a Barr body?
7. Define point mutation.
8. List any two consequences of inbreeding.
9. What is gene pool?
10. What are homeotic genes?

SECTION – B

ANSWER ANY FIVE QUESTIONS

(5 x 6=30)

11. Define maternal inheritance and explain the shell coiling in *Limnaea*.
12. Discuss the inheritance of blood group in man.
13. Discuss the environmental factors affecting sex determination.
14. Explain numerical variations in chromosomes.
15. Write a note on any two inborn errors of metabolism.
16. Illustrate the cytological proof of crossing over.
17. Differentiate Sex linked and Sex influenced genes in man.

SECTION - C

ANSWER ANY TWO QUESTIONS

(2 x20=40)

18. Explain law of independent assortment with a suitable example.
19. Discuss linkage and crossing over in *Drosophila*.
20. Explain inbreeding, outbreeding and hybrid vigour.
21. Define Hardy Weinberg Law and discuss the factors affecting it.
