RAGHUNATHPUR COLLGE
DEPARTMENT OF ZOOLOGY
UG SEM V CLASS TEST- 2023
PAPER TITLE: GENETICS
PAPER CODE: BZOOCCHC502

Full marks : 30
Time: 2 Hrs.

1. Answer any ten questions from the following: 1×10=10

   a) What is bleeder's disease?

   b) Write the role of SOX9 gene.

   c) What is gynandromorph?

   d) What are epistatic and hypostatic gene?

   e) What is Barr body?

   f) What do you mean by interference?

   g) What is IS elements?

   h) What is P-element in Drosophila?

   i) What do you mean by pleotropism?
   j) What is dosage compensation?
   k) What is Mosaicism?
   l) Name two Y linked characters in human.

   m) What is tautomerism?

   n) What is 'Alu' element?

   o) Define Recombination frequency

2. Answer any five questions from the following: 2×5=10

   a) What is codominance? Give example.

   b) Why do males are more prone to colour blind?

   c) Differentiate between complete and incomplete linkage

   d) Distinguish between sex limited and sex influenced inheritance.

   e) Give an example of autosomal recessive lethal gene in mice and also its inheritance pattern.
   f) "All test-crosses are backcrosses, but all backcrosses are not test-crosses"-explain.
   g) What is Dextral and Sinistral coiling in snail ?
   h) Drosophila has four pairs of chromosomes. How many linkage groups does it have?

3. Answer any two questions from the following: 5×2=10

a) Describe the molecular mechanism of human sex determination and role of SRY.

b) What is Kappa Particles? Explain the phenomenon of inheritance of Kappa particles in Paramoecium.

c) In a three point test cross ABC X abc, following data are obtained:

ABC	abc	aBc	AbC	ABc	abC	aBC	Abc
230	240	96	104	138	142	12	8

Find out the correct order of the genes. Calculate the map distance and calculate the coefficient of coincidence. 1+2+2