

B. Sc. 5th Semester Sessional Examination-2023
Sub-Zoology (H)
Paper- PRINCIPLES OF GENETICS
Paper Code: ZOO-HC-5026
Full Marks: 20
Time: 1 Hr

The figure in the margin indicates full marks

1. Choose the correct answers: 1x2=2
- (i) How many different types of genotypes are expected if number of genes is 2?
a. 3 c. 6
b. 4 d. 9
- (ii) How many different types of gametes are expected from an individual with genotype AaBbCc?
a. 3 c. 8
b. 4 d. 10
2. Answer the following questions with examples (Any 4): 2x4=8
- (i) What is Frame Shift Mutation?
(ii) What is Transition Mutation?
(iii) What is Test Cross?
(iv) What is Polygenic Inheritance?
(v) What is Sex-Linked Inheritance?
3. Answer the following (Any 2):
- (i) Define mutation. Describe different types of chromosomal aberration in context to structural changes. 1+4=5
- (ii) What is Duplicate Dominant Epistasis? Explain with example. 1+4=5
- (iii) What is Independent Assortment? Explain with example from Mendelian genetics. 1+4=5