

NTK/KW/15/5832

Bachelor of Science (B.Sc.) Semester—III Examination
ZOOLOGY (Genetics)
Paper—II

Time—Three Hours] [Maximum Marks—50

- N.B. :—** (1) All questions are compulsory
(2) All questions carry equal marks.
(3) Illustrate your answers with suitable diagrams.

1. Describe in detail the inbreeding and outbreeding. 10

OR

Write notes on :

- (A) Recessive and Dominant Epistasis 5
(B) Law of Independent assortment. 5
2. What is Cytoplasmic Inheritance ? Explain it with suitable examples. 10

OR

Write notes on :

- (A) Crossing Over 5
(B) Sickle Cell anemia. 5

3. What is Chromosomal aberrations ? Give an account of types of Chromosomal aberrations. 10

OR

Write notes on :

- (A) ZO-ZZ and ZW-ZZ pattern of Sex determination. 5
- (B) Turner and Klinefelter syndrome. 5
4. Give an account of Hardy Weinberg principle and its significance. 10

OR

Write notes on :

- (A) Recessive lethal genes 5
- (B) Amniocentesis. 5
5. Write **Four** or **Five** lines on the following (Any **Ten**) :
- (i) Mitochondrial DNA
 - (ii) Codominance
 - (iii) Polygenic traits
 - (iv) Linkage groups
 - (v) Mutton

(vi) Phenylketonurea

(vii) Super Female

(viii) Mutagenic agents

(ix) Frameshift mutation

(x) Purpose of genetic counselling

(xi) Nitrocellulose membrane

(xii) Storage of Sperm.

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