

Reg. No.

--	--	--	--	--	--	--	--



ZOE 456

Second Semester M.Sc. Examination, September/October 2022

(CBCS)

ZOOLOGY

Human Genetics (OE)

Time : 3 Hours

Max. Marks : 70

Instructions : 1) Answer *all* questions.

2) Give illustrations *wherever* necessary.

I. Write short notes on :

(5×2=10)

- a) Chiasmata.
- b) Trisomy.
- c) VNTR.
- d) Genotype.
- e) Endogamy.

II. a) Explain the process of fertilization.

b) Genetic significance of X-inactivation.

12

OR

Write explanatory notes on :

- c) Sex determination.
- d) Milestones in the development of genetics.

III. a) With suitable examples explain the chromosome aneuploidy in humans.

12

OR

Elaborate :

- b) Duplications.
- c) Factors responsible for chromosome aberrations.

IV. a) Write an account on DNA polymorphism and its applications.

12

OR

Write notes on :

- b) Gene Bank and its importance.
- c) Structure of a gene.

P.T.O.



- V. a) Discuss the contributions of Gregor Mendel in understanding genetics with suitable examples.

12

OR

Discuss on :

- b) Mendelian inheritance of autosomal recessive genes in humans.
- c) Extra chromosomal inheritance.

- VI. a) Discuss the factors influencing Hardy-Weinberg Law of genetic equilibrium.

- b) Write an account on ultrasound and its applications.

12

OR

Write explanatory notes on :

- c) Foetal blood sampling and maternal serum screening.
 - d) Career screening for X-linked disorders.
-