



K20U 1561

Reg. No. :

Name :

V Semester B.Sc. Degree (CBCSS – Reg./Sup./Imp.)

Examination, November 2020

(2014 Admn. Onwards)

CORE COURSE IN ZOOLOGY

5B08 ZLG : Hereditary Science

Time : 3 Hours

Max. Marks : 40

I. Answer **any one** of the following :

(1×8=8)

- 1) With suitable example explain Allelic interaction.
- 2) Explain the molecular mechanisms of crossing over.

II. Answer **any one** of the following :

(1×8=8)

- 3) Explain the molecular basis of gene mutation.
- 4) Describe the autosomal and sex chromosomal abnormalities in human.

III. Answer **any two** of the following :

(2×4=8)

- 5) What is incomplete dominance ? Give an example for incomplete dominance.
- 6) Differences between cytoplasmic and chromosomal inheritance.
- 7) What is epistasis ? Mention the different types of epistasis.
- 8) Erythroblastosis fetalis.

IV. Answer **any six** of the following :

(6×2=12)

- 9) Chiasmata.
- 10) Criss – cross inheritance.
- 11) Mutation.
- 12) Pleiotropy.
- 13) Sex limited genes.

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- 14) Gynadromorphism.
- 15) Gene mapping.
- 16) Recombination.
- 17) Epistasis.
- 18) Maternal effect.

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V. Answer **all** the following :

(4×1=4)

- 19) 9 : 7 is the ratio produced by
 - a) Multiple allelism
 - b) Recessive epistasis
 - c) Dihybrid cross
 - d) Dominant epistasis.
- 20) The universal donor blood group is
 - a) A
 - b) B
 - c) AB
 - d) O.
- 21) 21 trisomy is also called
 - a) Turners syndrome
 - b) Klinfelters syndrome
 - c) Down syndrome
 - d) Huntingtons disease.
- 22) The in vitro amplification of genetic material can be achieved by
 - a) PCR
 - b) ELISA
 - c) Crossing over
 - d) Criss cross inheritance.
