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SUBJECT CODE NO:- B-2172
FACULTY OF SCIENCE AND TECHNOLOGY
B.Sc. F.Y (Sem.-II) Examination OCT/NOV 2019
Zoology Paper-V
Genetics – I

[Time: 1:30 Minutes]

[Max.Marks:50]

Please check whether you have got the right question paper.

- N.B
- 1) Attempt all questions.
 - 2) Illustrate your answer with suitable labeled diagram.

Section A

- Q.1 Define genetics and variation. Explain law of Heredity. 20
 OR
 What is epistasis? Explain it with suitable example.
- Q.2 Explain chromosomal aberration (structural and numerical) 20
 OR
 Write short notes on (any four)
- a) X-linked inheritance
 - b) Complementary gene
 - c) Colorblindness
 - d) ABO blood group in man
 - e) Gynandro morphs
 - f) CO₂ sensitivity
- Q.3 Select and write correct answer from the given alternatives in each sub question. 10
- 1) Mendel chose for his experiments the -----plant
 a) Bean b) pea c) rose d) cucumber
 - 2) Which of the following blood groups belongs to the category of universal recipient?
 a) 'A' b) 'AB' c) 'B' d) 'O'
 - 3) Extra nuclear inheritance occurs in -----
 a) Killer paramecium b) killer amoeba c) euglena d) hydra
 - 4) In a cross of chicken with a rose comb to one with a Pea comb produces in f1 generation-----
 a) Walnut b) rose c) single d) Pea
 - 5) The concept of sudden genetic change which breeds true in an organism is visualised in principle of -----
 a) Natural selection b) heredity c) variation d) mutation
 - 6) Mutation is a source of -----
 a) Evolution b) variation c) adaptation d) all of the above

- 7) Multiple allelism controls inheritance of -----
 - a) Blood group
 - b) phenyl ketonuria
 - c) colorblindness
 - d) sickle cell anemia
- 8) A gene suppress its effects in both homozygous and heterozygous condition called as -----
 - a) Recessive
 - b) dominant
 - c) both
 - d) none of these
- 9) An off spring with a pair of unidentical factor (allele) is -----
 - a) Homozygous
 - b) heterozygous
 - c) hybrid
 - d) polyzygous
- 10) Which is not an example of cytoplasmic inheritance
 - a) Kappa particles in paramecium
 - b) Male sterility in plant
 - c) CO₂ sensitivity in plant
 - d) Female sterility in maize