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SUBJECT CODE NO: - Y-2191
FACULTY OF SCIENCE AND TECHNOLOGY
B.Sc. (PATTERN-2013) (F.Y SEM II)
Examination April / May - 2024
Zoology Paper-V Genetics - I

[Time:1:30 Hours] **[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 labelled diagram.

Q.1 Define Law of Independent assortment with suitable example. **20**

OR

Triploid intersexes and Gynandromorphs in Drosophila

Q.2 Define Gene Mutation. Describe types of gene mutations **20**

OR

Write short notes on: (any four)

a) Test Cross
b) Supplementary Genes
c) Coat colour in Rabbit
d) CO_2 Sensitivity in Drosophila
e) Y-linked - Sex linked inheritance
f) Spontaneous mutations

Q.3 Select and Write correct answer from the given alternatives in each sub question **10**

1) When sudden genetic change occurred in organism and expressed in the phenotype is called as_____
   a) Heredity b) Mutation
   c) Variation d) Domination

2) Lors of part of chromosome is called as_____
   a) Deletion b) Duplication
   c) Inversion d) All of these

3) Organism having more than two complete sets of chromosomes is known as_____

a) Polyploidy b) Euploidy
c) Aneuploidy d) None

4) Which is a sex linked disease in man?
a) Colour blindness b) Beriberi
c) Sickle cell anaemia d) None

5) An Universal donor has this type of blood group.
a) $I^O I^O$ b) $I^A I^A$
c) $I^B I^B$ d) $I^{AB} I^{AB}$

6) 9:7 ratio in F_2 generation is an example of
a) Incomplete dominance b) Co- dominance
c) Epistasis d) Complementary genes

7) A cross between pea comb and single comb chicken in F_2 generation ratio is_____
a) 1:2:1 b) 9:3:3:1
c) 9:7 d) 9:3:4

8) The characters not expressed in F_1 generation is called as_____
a) Dominant b) Recessive
c) Sex linked d) Cytoplasmic inheritance

9) Phenotypic mutations are_____
a) Dominant b) Recessive
c) Is allelic d) All of these

10) Which of the following is not Mendel's Law?
a) Law of Dominance b) Law of Segregation
c) Law of independent assortment d) Law of incomplete dominance

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