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SECOND YEAR (Blended)
BIO 401: Genetics, Evolution and Ecology
(Semester IV)

Program: B.Sc. Blended
Program Specific: B. Sc. Blended (Chemistry)
Course Type: Minor
Paper:

Credits: 2
Time: 2 Hours
Max. Marks: 30
SET: A

Instructions to the candidate:

- 1) All questions are compulsory.
- 2) Figures to the right indicate full marks.
- 3) Draw a well labelled diagram wherever necessary.

SECTION: A

Q1) Answer the following [5 X 1 = 5]

1. Define variation.
2. What do you mean by aneuploidy?
3. Name any two Non-Mendelian interactions.
4. How does mutation contribute to genetic variation in populations?
5. Explain the concept of population.

SECTION: B

Q2) Answer the following (Attempt any 5) [5 X 2 = 10]

1. What is epistasis?
2. Explain the term linkage?
3. State the law of Independent assortment.
4. How balanced polymorphisms occur?
5. Write the difference between logistic growth and exponential growth?
6. Discuss how life table used in population studies?
7. Give role of heterozygote in maintaining genetic diversity?

SECTION: C

Q3) Answer the following (Attempt any 2) [2 X 5 = 10]

1. With the help of diagram explain the concept of monohybrid cross.
2. Comment on the Hardy Weinberg principal.
3. What factors influence the size and structure of a population?
4. What are R & K selection species?

SECTION: D

Q4) Answer the following (Attempt any 1) [5 X 1 = 5]

1. Explain the colour blindness in a sex linked disorder.
2. Discuss the various interactions existed among the population