

TRIBHUVAN UNIVERSITY
GOKULESHWOR AGRICULTURE AND ANIMAL SCIENCE COLLEGE
B. Sc. Ag., Internal Assessment, 2076

Subject: Genetics of Populations

FM: 10

Time: 60 Minutes

PM: 4

Level: 5th semester

Answer all questions.

Essay type (2 x 2 = 4)

1. Write the significance of GxE interaction? Explain types of GxE interaction with diagrams.
2. Explain the model that best explains the structure of chromosome.

Short answer type (1.5 x 4 = 6)

1. What are restriction enzymes? Enlist any 5 restriction enzymes with their cleavage sites. Why is Type-II restriction enzyme family is more useful than others?
2. Explain “one gene one polypeptide hypothesis” with suitable examples if necessary.
3. Explain Johannsens pureline theory. What is meant by ‘variegation’ in biological tissues?
4. What is recombinant DNA technology? Provide some examples.

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