

RAJA RAVI VARMA GIRLS HIGHER SECONDARY SCHOOL , KILIMANOOR

SECOND YEAR HIGHER SECONDARY PRE MODEL EXAM 2023

BOTANY

Maximum : 30 Scores

Time: 1 Hours

RRV GIRLS KILIMANOOR

1. DNA fragment with same kind of sticky ends can be joined by_____
2. Development of fruit without fertilisation is called _____
3. Natural interlinked food chains are called_____
4. A method of molecular diagnosis based on antigen antibody interaction is_____

Choose the correct answer.

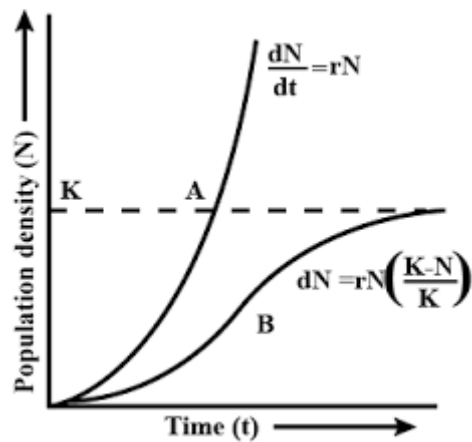
5. The size of a population is not static. Which of the following leads to decrease in population
 - a. natality and mortality
 - b. mortality and emigration
 - c. mortality and immigration
 - c. Natality and immigration

Part –II

Answer any 9 questions from 6 to 16. Each carries 2 score. (9x2 =18)

6. In some plants residual persistent nucellus can be seen. Name this kind of nucellus. Give an example of seed that contains this kind of nucellus.
7. A population has certain attributes that an individual organism does not. What are they ?
8. Explain the separation of DNA fragments using gel electrophoresis.
9. Nature has mechanism to promote outbreeding in plants. Write any two mechanisms existing in plants to promote outbreeding.

10. The following graph shows two types of population growth curves.

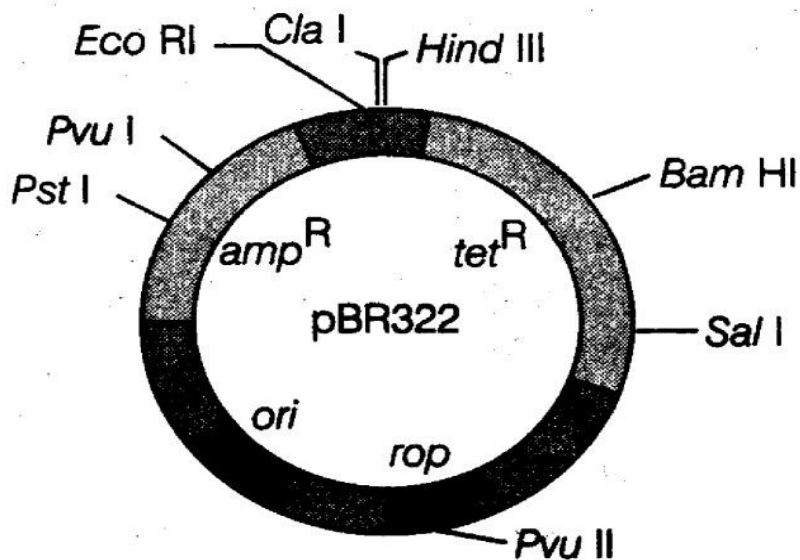


a) Name the growth curves.

b) What does K stand for ?

11. Genetically modified plants have been used in many ways. Give any four advantages of such plants.

12. Distinguish between primary productivity and secondary productivity.



13. The above picture shows cloning vector pBR322. What is ori? Give its importance.

14. Pyramid of energy is always upright can never be inverted. Justify this statement.

15. Bt. Cotton reduce the use of pesticides. Explain.

16. Decomposition is an important function of an ecosystem. Write the steps involved in decomposition.

Part. III

Answer any three questions from 17 to 20. Each carries 3 scores. (3x3= 9)

17. Gene therapy is a corrective therapy for a hereditary disease.

a) Name the disease which was successfully corrected by gene therapy for the first time.

b) How gene therapy is practised for a permanent cure of the disease

18. Wind pollination is common in grasses. Write floral features in grasses that help in pollination.

19. Restriction endonuclease enzymes are used to cut the DNA at specific sequences.

a) Write the name of first isolated one.

b) Write the convention for naming these enzymes.

20. Identify the following interaction.

a) Barnacle on whale

b) Wasp on fig

c) Ticks on dog

d) Abingdon tortoise and goat

e) Tiger and deer

f) mycorrhiza

Prepared By:

Sharmila Beegum.S, HSST Botany, RRVGHSS, Kilimanoor, Mob:9446130834