

NORTH-EX PUBLIC SCHOOL
(Senior Secondary, Affiliated To CBSE)
School Block, Jain Nagar, Sector-38, Rohini, Delhi – 81
PERIODIC - 02, 2019-20
SUBJECT – BIOLOGY
CLASS - XII

TIME: 1 hr 20 min

MM: 40

General Instructions:

- (i) All questions are compulsory
- (ii) There are 17 questions in total. Questions 1 to 5 are objective type questions carry one mark each.
- (iii) Questions 6 to 10 carry two marks each, questions 11 to 15 carry three marks each
- (iv) Questions 16 and 17 carry five marks each.
- (v) There is no overall choice.

Q1. List the type of cry genes that provide resistance to corn plants and cotton plants respectively against lepidopterans.

Q2. Standing crop and biomass are related to each other, How?

Q3. What is eutrophication?

Q4. State Gause's competitive exclusion principle.

Q5. Name the source of the DNA polymerase used in PCR technique . Mention why it is used?

Q6. Explain parasitism and co evolution with the help of one example each.

Q7. How has RNAi technique helped to prevent the infestation of roots in tobacco plants by a nematode *Meloidogyne incognita*?

Q8. Differentiate between the primary and secondary ecological succession.

Q9. Differentiate between two different types of pyramids of biomass with the help of one example of each.

Q10. Name a genus of baculovirus. Why are they considered good biocontrol agents?

Q11. Name and describe the technique that helps in separating the DNA fragments formed by the use of restriction endonuclease.

Q12. Explain with the help of flow chart recycling of phosphorus in nature. How is phosphorus cycle different from carbon cycle in nature?

Q13. With the help of flow chart ,show the phenomenon of biomagnification of DDT in an aquatic food chain?

Q14. Give an account of causes behind the loss of biodiversity and write a note on habitat loss and fragmentation?

Q15. What is Gene therapy ? Illustrate using the example of adenosine deaminase [ADA] deficiency.

Q16.a) Name the selectable markers in the cloning vector pBR322? Mention the role they play.

b) How does beta- galactosidase coding sequence act as a selectable marker ?Explain why is it a preferred selectable marker to antibiotic resistance genes?

Q17. With the suitable Graph ,Explain the species area relationship given by Alexander Von Humboldt.