

DELHI PUBLIC SCHOOL, JAMMU
Assignment Pre Board I
Session: 2018-19

Class: XII

Subject: Biology(044)

Topics included are: Reproduction in Organisms, Sexual Reproduction in Flowering Plants, Human Reproduction, Reproductive Health, Principles of Inheritance, Molecular Basis of Inheritance, Evolution, Human Health and Diseases, Strategies for Food Enhancement, Microbes in Human Welfare, Biotechnology: Principles and Processes and Biotechnology and its Applications.

- Q1. What is embryogenesis? (1)
- Q2. What is rete-testis? (1)
- Q3. What is biofortification? (1)
- Q4. What is the function of cry gene? (1)
- Q5. Name the material used as matrix in gel electrophoresis. (1)
- Q6. What are some of the important adaptations that promote cross pollination in plants? (2)
- Q7. Differentiate between passive and active immunity? (2)
- Q8. State the functions of the following in a cloning vector. (0.5x4)
- i. Ori ii. Lac Z iii. amp^R iv. EcoR1
- Q9. Describe briefly the various types of asexual reproductions. (3)
- Q10. Define juvenile, reproductive and senescence phases of life span? (3)
- Q11. Explain the formation of 7celled, 8 nucleated female gametophyte in plants. (3)
- Q12. What is endosperm? Give an illustrated account of the development of endosperm. (3)
- Q13. Mention any two human diseases caused by bacteria. Name their causative organism and their mode of transmission. (3)
- Q14. How did industrialization play a role in natural selection of light and coloured moth? (3)
- Q15. What is a bioreactor? Name a commonly used bioreactor its components. (3)
- Q16. Explain the structure of tRNA. (3)
- Q17. How microbes are used as biocontrol agents? (3)
- Q18. With the help of diagram explain the double helical structure of DNA molecule. (5)
- Q19. Explain the process of various method of transformation in to produce transgenics. (5)
- Q20. Explain the process of oogenesis in humans. (5)
- Q21. Explain the process of DNA replication in prokaryotes. (5)
- Q22. Explain any two theory of evolution. (5)
- Q23. Discuss the various ethical issues concerned with transgenics. (5)
- Q24. What is genetic engineering? What are the different types of restriction enzymes used in genetic engineering? (5)
- Q25. Write the application of biotechnology in human welfare. (5)