

**Semester – II**  
**Model Test paper**  
**Subject Biology**  
**Class 10+2**

**Time Allowed: 3 hours**

**Maximum Marks: 70.**

**Note :- All Questions are compulsory**

- (i) Question No. 1 to 8 each will be of 1 mark.
- (ii) Question No. 9 to 15 each will be of 2 marks.
- (iii) Question No. 16 to 23 each will be of 3 marks.
- (iv) Question No. 24 to 27 each will be of 6 marks.

Draw neat and well labeled diagrams wherever necessary.

Q No. 1-5 is from syllabus of previous Semester.

- Q1. What is the study of pollen grains called?
- Q2. Expand (i) IUD (ii) STD
- Q3. What are homologous chromosomes?
- Q4. Name two non-sense codons.
- Q5. Define vestigial organs.
- Q6. Name two bacterial diseases.
- Q7. What is exonucleases?
- Q8. Define ecological niche.
- Q9. Differentiate between Active Immunity and Passive Immunity.
- Q10. How is basically thuriangiensis useful in biocontrol of insect pests?
- Q11. Distinguish between plasmid DNA and Chromosomal DNA.
- Q12. Write any two uses of Gene-Cloning.
- Q13. What is DNA probe?
- Q14. What is carrying capacity? Mention two causes for rapid growth of human population.
- Q15. What are threatened species? Name 3 categories of threatened species.
- Q16. Describe 3 type pf T-lymphocytes and mention their function.
- Q17. What is addiction? Name the source of tobacco. List two ill-effects of Nicotine.
- Q18. Expand the term SCP. Give the four advantages of SCP.
- Q19. Define Sewage. Explain the secondary treatment of sewage.
- Q20. Explain different steps of Polymerised Chain reaction.
- Q21. Write a short note on Bio-patent.
- Q22. (a) In which ecosystem is the Pyramid of biomass inverted?  
(b) Why is it inverted?  
(c) Name the type of Pyramid which is always upright?
- Q23. Draw carbon cycle.
- Q24. Explain ill effects of alcohol on different parts of body of an individual.

or

What are antibiotics? List the properties of an antibiotic to be used as medicine.  
Tabulate some antibiotics of bacterial and fungal origin.

Q25. Explain the steps involved in the production of Genetically engineered insulin

or

(a) Mention the role of vector in recombinant DNA technology. Give any two examples.

(b) With the help of diagrammatic representation only, show the steps of DNA recombinant technology .

Q26. Describe briefly the chief edaphic factors affecting the vegetation of a given area.

or

(a) Define 10% law of energy. Name the ecologist who gave this law.

(b) Define commensalisms, Mimicry, aestivation Poikicothermal animals.

Q27. Describe Exsitu and Insitu Conservation of biodiversity.

or

What is meant by air pollution? Describe in detail various sources of air-pollution.