

CBSE Board
Class XII Biology
Sample Paper – 10

Time: 3 Hours**Total Marks: 70**

General Instructions:

1. All questions are compulsory.
 2. This question paper consists of four Sections A, B C and D. Section **A** contains **8** questions of **one** mark each, Section **B** is of **10** questions of **two** marks each, Section **C** is of **9** questions of **three** marks each, and Section **D** is of **3** questions of **five** marks each.
 3. There is no overall choice. However an internal choice has been provided in **one** question of **2** marks, **one** question of **3** marks and all the **three** questions of **5** marks weight age. A student has to attempt only one of the alternatives in such questions.
 4. Wherever necessary, the diagrams drawn should be neat and properly labeled.
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Section A

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|---|-----|
| Q.1. Seeds are considered better for a staple food than vegetative parts of the plant. Why? | [1] |
| Q.2. How does cow help the calf by licking it? | [1] |
| Q.3. State whether malpighian tubules and kidney are homologous or analogous. | [1] |
| Q.4. What is the main function of gene gun method? | [1] |
| Q.5. What is biopiracy? | [1] |
| Q.6. State the main function of bioreactors. | [1] |
| Q.7. Define pioneer community. | [1] |
| Q.8. Give two examples of decomposers. | [1] |

Section B

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| Q.9. What is parturition? Which hormones are involved in induction of parturition? | [2] |
| Q.10. Why is Drosophila male fly referred to as heterogametic? | [2] |
| Q.11. If the base sequence of one strand of DNA is CAT, TAG, TAC, GAC, what will be the base sequence
(a) Of complementary DNA strand
(b) Of its complementary RNA strand. | [2] |
| Q.12. What would have happen if the primordial earth's atmosphere at that time were not reducing but oxidizing? | [2] |

- Q.13. Give any two applications of genetic engineering. [2]
Q.14. How does transgenic crops technique differ from normal breeding activities? [2]
Q.15. Mention the importance of carbon cycle in nature. [2]
Q.16. What does genetic diversity reflect? [2]
Q.17. How do nuclear power plants upset ecological balance? [2]
Q.18. Why is that once a person starts taking alcohol or drugs, it is difficult to get rid of this habit? [2]

Or

What should be done when inbreeding depression becomes a problem?

Section C

- Q.19. How long pollen grains retain their viability? [3]
Q.20. Draw a labeled diagram of V.S. of apple. [3]
Q.21. Differentiate between Down's syndrome and Turner's syndrome. [3]
Q.22. In genetics, a reference is made to be an abbreviated expression 'AUG'. Write any three points of scientific information embodied in this combination of three letters. [3]
Q.23. How does an antigen differ from an antibody? [3]
Q.24. What is the significance of SCP? [3]
Q.25. List the various steps that are involved in plant genetic engineering. [3]
Q.26. Write a short note on the adaptations of desert animals. [3]
Q.27. Explain the differences between the seral stage and the climax community during succession. [3]

Or

Describe various techniques used in control of gaseous pollutants.

Section D

- Q.28. Describe briefly the structure of human sperm. [5]

Or

Briefly describe the characteristics of flowers pollinated by birds.

- Q.29. Describe in brief the process of transcription. [5]

Or

Who proposed the chromosome theory of inheritance? Give the salient features of this theory.

- Q.30. Anand a 14 year old boy thinks smoking makes him more energetic and feel like adult and thus more responsible citizen. He tries to smoke when he is with his peer group. As a friend you have to educate him [5]
- (a) Why he feels more energetic while smoking?
 - (b) Effects of CO in smoke
 - (c) Other ill effects on body
 - (d) What values are reflected in it?