

PYRAMID CLASSES®

CLASS XII BIOLOGY TEST

MARKS : 45

TIME : 1½ HOURS

1. If a double stranded DNA has 20 per cent of cytosine, calculate the percentage of adenine in the DNA. 1
2. Mention what caused evolution according to de Vries. 1
3. Malaria, typhoid, pneumonia and amoebiasis are some of the human infectious diseases. Which ones of these are transmitted through mechanical carriers? 1
4. Mention the strategy used to increase homozygosity in cattle for desired traits. 1
5. Name the group of organisms and the substrate they act on, to produce biogas. 1
6. Describe the role of lymph nodes in providing immunity. 2
7. What is the difference between a breed and a species? Give an example for each category. 2
8. Name the source of cyclosporin A. How does this bioactive molecule function in our body? 2
9. State the dual role of deoxyribonucleoside triphosphates during DNA replication. 2
10. How was the earth's atmosphere formed? 2
11. Why is DNA considered a better hereditary material than RNA? 3
13. An antibody molecule is represented as H_2L_2 . Explain. 3
14. What is inbreeding depression and how is it caused? Write any two advantages of inbreeding. 3
15. Mention the importance of microbes Streptococcus, Trichoderma and Monascus in medical sciences. 3
16. Explain antibiotic resistance observed in bacteria in light of Darwinian selection theory. 3
17. a. Name the primates that lived about 15 million years ago. List their characteristic features. 5
b. i. Where was the first man-like animal found?
ii. Write the order in which Neanderthals, Homo habilis and Homo erectus appeared on the earth. State the brain capacity of each one of them.
iii. When did modern Homo sapiens appear on this planet?
18. a. List the three different allelic forms of gene 'I' in humans. Explain the different phenotypic expressions, controlled by these three forms. 5
b. A woman with blood group 'A' marries a man with blood group 'O'. Discuss the possibilities of the inheritance of the blood groups in the following, starting with 'yes' or 'no' for each :
i. They produce children with blood group 'A' only.
ii. They produce children, some with 'O' blood group and some with 'A' blood group.