



SAMPLE PAPER 1 TERM 2
Class 12 - Biology

Time Allowed: 2 hours

Maximum Marks: 35

General Instructions:

1. All questions are compulsory.
2. The question paper has three sections and 13 questions. All questions are compulsory.
3. Section–A has 6 questions of 2 marks each; Section–B has 6 questions of 3 marks each; and Section–C has a case-based question of 5 marks.
4. There is no overall choice. However, internal choices have been provided in some questions. A student has to attempt only one of the alternatives in such questions.
5. Wherever necessary, neat and properly labeled diagrams should be drawn.

Section A

1. Why cannabinoids are banned in sports and games? [2]
2. During the secondary treatment of the primary effluent how does the significant decrease in BOD occur? [2]

OR

What is sewage? In which way can sewage be harmful to us?

3. Observe the picture related to the discharge of sewage in rivers and answer the following questions: [2]



- i. Name the microorganisms involved in the secondary treatment of sewage.
 - ii. What would happen if a large amount of untreated sewage is discharged into a river?
4. How does addition of a small amount of curd to fresh milk help formation of curd? Mention a nutritional quality that gets added to the curd. [2]
5. Define the following terms: [2]
(a) Leaching
(b) Photoperiodism
6. List any three important characteristics of a population and explain. [2]

OR

Name the types of interactions found amongst species of a community?

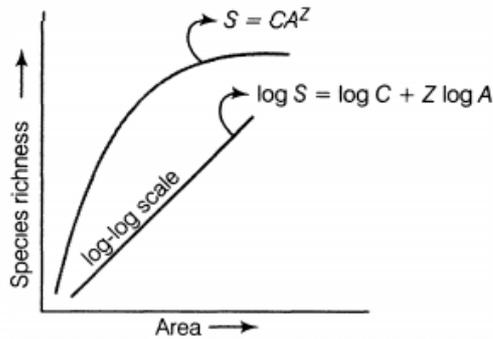
Section B

7. Define the term addiction. Name some drugs which are normally used as medicines but are often abused. [3]

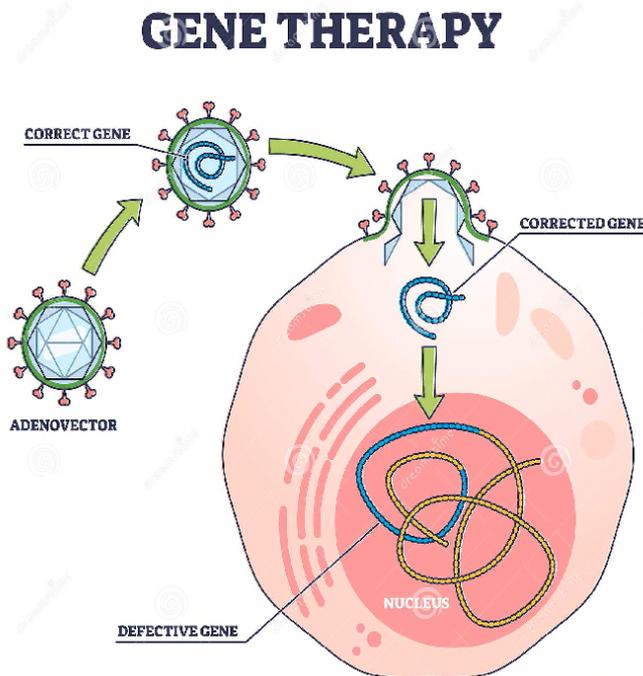
OR

What are carcinogens? Describe their categories.

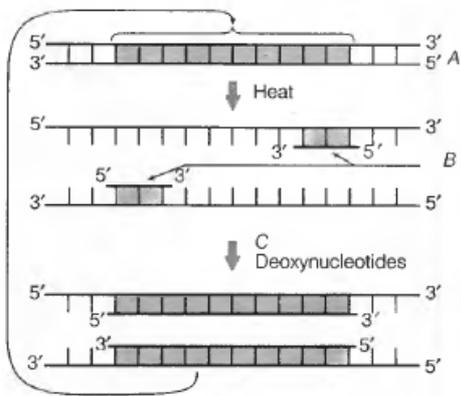
8. Describe the functions of anaerobic sludge in a sewage treatment plant. [3]
9. Inspector Dubey could find only few hair strands from crime scene. He wants to proceed for DNA fingerprinting but the amount of DNA is very less. In your opinion what could be the solution to this problem? Write the basic steps of this technique? [3]
10. Amazonian rain forest has the greatest biodiversity on earth. List any two hypothesis that are proposed by the biologists to account for the greater biological diversity. [3]
11. i. Explain the species-area relationship using the graphical representation given below. [3]



- ii. Explain giving reasons why there is greater biodiversity in tropical regions of the earth. [3]
12. The image below describes the process of Gene Therapy. [3]



- i. What is gene therapy?
- ii. Name the first clinical case in which it was used.
- Section C**
13. A schematic representation of Polymerase Chain Reaction (PCR) upto the extension stage is given below. [5]

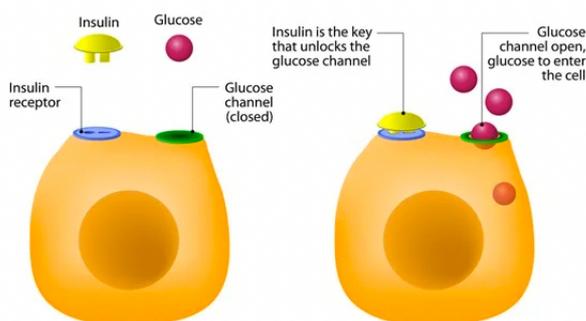


- i. Name the process A
- ii. Identify B.
- iii. Identify C and mention its importance in PCR.

OR

Insulin is a hormone created by your pancreas that controls the amount of glucose in your bloodstream at any given moment. It also helps store glucose in your liver, fat, and muscles. Finally, it regulates your body's metabolism of carbohydrates, fats, and proteins. Sound important? That's because it is.

HOW DOES INSULIN WORK?



- i. Name the source from which insulin was extracted earlier. Why is this insulin no more in use by diabetic people?
- ii. Explain the process of synthesis of insulin by Eli Lilly company. Name the technique used by the company.
- iii. How is the insulin produced by human body different from the insulin produced by the above-mentioned company?

For Solutions: <https://youtu.be/F1aXoIBq0As>