



BIOLOGY
CH-12 BIOTCHNOLOGY
– APPLICATIONS –
(BOARD QUESTIONS)

Name: _____

Date: _____

Class: XII-A

1. Give reasons Why?
 - i) DNA cannot pass into a host cell through the cell membrane.
 - ii) Proteases are added during isolation of DNA for genetic engineering
 - iii) Single cloning site is provided in a vector.
2. How does B galactocidase act as a selectable marker? Why is preferred selectable marker to antibiotic resistance genes?
3. What are cry genes? In which organisms are they present? list he types of cry genes
4. What are transgenic animals? give examples
5. Name the genus of baculovirus. Why are they considered good biocontrol agents ?
6. Why does the Bt toxin not kill the bacterium that produces it but kills the insect that ingests it?
7. Why do leptidopterns die when they feed on BT cotton plant ? Explain how does it happen?
8. Explain the application of rDNA technology.
9. What is meant by the term bio-pesticide? Name and explain the mode of action of a popular bio-pesticide.
10. Some multinational companies and other organisations are using bioresources for commercial benefits, without proper authentication and compensation to concerned authorities. (a) Give the term for this unauthorised act. (b) Suggest any two ways to get rid of this.
11. A bacterium *Bacillus thuringiensis* produces a toxic protein named 'cry protein' that is lethal to certain insects but not to bacterium (a) Why this toxin does not kill the bacteria? (b) What type of changes occurs in the gut of insects on consuming this protein? (c) How man has exploited this protein for his benefit?



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