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**ASSIGN
BUSTER**

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1. Expand and define the term GMO. Ans. GMO: Genetically modified organisms. Organisms whose genes have been altered by manipulation are called GMO.

Q. 2. Mention any two usefulness of GM plants.

Ans. 1. GM plants are more tolerant to abiotic stresses such as temperature, salt etc. 2. GM plants are pest resistant. Q. 3. Mention the source of Bt gene.

What for it is used? Ans. The source of Bt gene is bacillus thuringiensis. It is used for making bio-pesticide (pest resistant plants) Q. 4. Give two examples to Bt crops.

Ans. Bt cotton, Bt corn. Q. 5. What is cry? Ans. Cry is the gene of Bt that codes for toxin. Q. 6.

What is the number of polypeptide chains in pro insulin in human beings?

Name it. Ans. 3 polypeptide chains. Chain-A, B and C. Q. 7. Define gene therapy? _ Ans. It is the collection of various methods performed that allows the correction of a genetic defect identified/diagnosed in the child/embryo.

Q. 8. Give one example to a gene therapy performed.

Ans. Adenosine deaminase (ADA) deficiency. Q.

9. Define molecular diagnosis? Ans. It is the process of early diagnosis of a disease yet to show its symptoms.

(Note: Usually the purpose of pathological tests is to identify/confirm the presence suspected pathogen in the body. Such a pathogen releases certain chemicals against which the healthy body releases antibodies to counter it.) Till the time it is done the population of pathogen is very high).

Q. 10. Mention any two molecular diagnosis techniques. Ans. PCR and ELISA.

Q.

11. What do you understand by transgenic animals? Give one example that has been extensively been used for the purpose. Ans. Animals that have the DNA manipulated with an extra gene and are used to express it are called transgenic animals. Mice.

Q. 12. Crystals of Bt toxin produced by some bacteria do not kill the bacteria themselves because— (a) bacteria are resistant to the toxin (b) toxin is immature. (c) toxin is inactive (d) bacteria encloses toxin in a special sac. Ans. (c) Toxin is inactive.

Q. 13. Does our blood have proteases and nucleases? Ans. Yes. They have it during infection to fight or destroy the pathogens. Q.

14. Define the term biopiracy. Ans. It stands for the use of bio-resources by MNCs and other organizations without proper authorization from the concerned countries and people without compensatory payment.

Q. 15. Name the rice variety that has been patented by India. Ans. Basmati rice.