

Biology - 12th Class Biology Chapter 23 Short Questions Preparation

Q1. Elaborate molecular carriers.Give example.
Ans 1: Bacterial plasmids are called molecular carriers because they carry the gene of interest to the host cell.
Q2. What are transgenic organisms?
Ans 1: Organisms having foreign DNA or gene in addition to its own DNA are called transgenic organisms.
Q3. Name salt tolerant plant.
Ans 1: Rice and sugar cene are salt tolerance crops.
Q4. Define molecular scissor.How were they obtained?
Ans 1: Restriction enzymes are also called 'molecular scissors' as they cleave DNA at or near specific recognition sequences known as restriction sites. These enzymes make one incision on each of the two strands of DNA are also called restriction endonucleases. Restriction enzymes were obtained from the bacteria by extraction from their bodies.
Q5. What are bioreactors?
Ans 1: Recombinant DNA technology is used to produce bacteria that reproduce in large vats (tanks) called bioreactors.
Q6. What is gene pharming?
Ans 1: Gene pharming is a technology that scientists use to alter an animal's own DNA, or to splice in new DNA, called a transgene, from another species. In pharming these genetically modified animals are used mostly to make human proteins that have medicinal value.
Q7. What is gel electrophoresis? Or Define gel electrophoresis.
Ans 1: It is a process by which fragments of DNA can be separated according to their lengths or size and the result is a number of bands that are so close together that they appear as a smear.
Of Define gone therapy Name two main methods of gone therapy

Ans 1: Gene therapy is the insertion of genetic material into human cells for the treatment of a disorder. It includes procedures that give a patient healthy genes to make up for faulty genes and also includes the use of gene to treat various other human illnesses

such as cancer and cardiovascular diseases.		

Ans 2: There are two main methods used for gene therapy: Ex-vivo and In-vivo gene therapy.

Q9. What is taq polymerase and its significance?

Ans 1: Taq polymerase is an enzyme which is used in PCR. Its significance is that it can withstand with high temperature.

Q10. What is recombinant DNA technology?

Ans 1: It is a technique by which DNA of one organism can be transferred to another organisms and recombinant DNA is made.