Biology - 12th Class Biology Chapter 23 Short Questions Preparation

Q1. Define genomic library,how it can be made?

Ans 1: A genomic library is a collection of bacterial or bacteriophage clones,each containing a particular segment of DNA from the source cell.
For making genomic library,an organism's DNA is simply sliced up into pieces and pieces are put in to vectors that are taken up by the host bacteria.The entire collection of bacterial or bacteriophage clones that result contains all the genes of that organisms.

Q2. Define plasmid.Give its uses.

Ans 1: Plasmid are natural extra chromosomal circular DNA molecules which carry genes for antibiotic resistance and fertility etc. plamids are used as vector to insert desire gene into bacterial or host cell.

Q3. Define genomic library.

Ans 1: A genomic library is a collection of bacterial or bacteriophage clones,each clone containing a particular segment of DNA from the source cell.

Q4. Define Transgenic Plants.Give its two uses.

Ans 1: Plants having foreign genes incorporated into their cells are known as transgenic plants.Two uses of transgenic plant are:

Ans 2: i) A weed called mouse-eared cress has been engineered to produce a biodegradable plastic in cell grannules.
ii) Plants are being engineered to produce human hormones,clotting factors and antibodies in their seeds.

Q5. Name salt tolerant plant.

Ans 1: Rice and sugar cene are salt tolerance crops.

Q6. What is aspartame?

Ans 1: Aspartame is a dipeptide sweetner better known as nutrasweet.

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.

Q8. Explain the importance of gene sequencing.

Ans 1: i.Human pathogens can be sequenced
ii.Disputed parentage can be settled
iii.Suspected culprits can be identified

Q9. What is meant by totipotent?

Ans 1: Plant cell is said to be totipotent because a single cell has full genetic information for the development of a single plant from a single cell.

Q10. What are restriction enzymes?Who first isolated them?

Ans 1: These are natural enzymes of bacteria which they use for their own protection against viruses. The restriction viruses cut down the viral DNA,but does not harm to the bacterial chromosome.In 1970,Hamilton'O smith isolated the first restriction enzyme.
