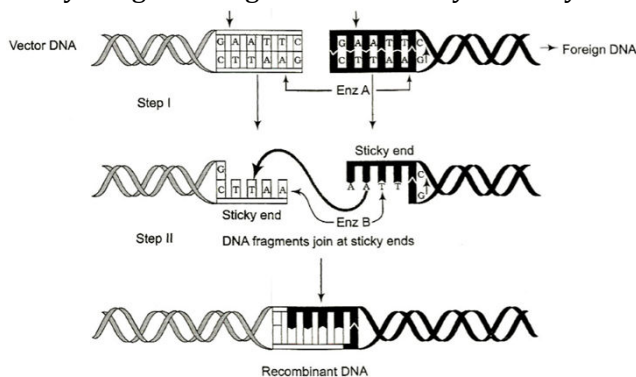


Topic :- Biotechnology Principles & Processes

- The first recombinant DNA was constructed by
 - Stanley Cohen
 - Herbert Boyer
 - Both (a) and (b)
 - Temin and Baltimore
- Study the given diagram and identify the enzymes A and B involved in steps I and II



Step I

- Eco* RI
- Hind* II

Step II

- DNA ligase
- DNA polymerase

b) *Alu* I

d) Restriction endonuclease DNA polymerase

DNA ligase

- Which one of the following is a correct statement
 - “Bt” in “Bt-cotton” indicates that it is a genetically modified organism produced through biotechnology
 - Somatic hybridization involves fusion of two complete plant cells carrying desired genes
 - The anticoagulant hirudin is being produced from transgenic *Brassica napus* seeds
 - “Flavr Savr” variety of tomato has enhanced the production of ethylene which improves its taste
- The transgenic animals are those which have:
 - Foreign RNA in all its cell
 - Foreign DNA in all its cells
 - Foreign DNA in some of its cells
 - Both ‘A’ and ‘C’
- Which of the following is not correctly matched for the organism and its cell wall degrading enzyme?
 - Plant cells-Cellulase
 - Algae-Methylase
 - Fungi-Chitinase
 - Bacteria-Lysozyme
- Petroleum-lysing bacteria are being engineered for the removal of oil spills. What is the most realistic danger of these bacteria to the environment?

15. Recombinant DNA technology is related with:
a) Stanley Cohen and Harbert Boyer
b) Bateson and Punnet
c) Huxley and Harvey
d) Schleiden and Schwann
16. Western blotting technique was developed by:
a) Alwin
b) Edwin
c) Towbin
d) Thomas
17. In recombinant DNA technique, the term vector refers to a
a) Donor DNA, it is identified and picked up through electrophoresis
b) Plasmid, transfers DNA into living cell
c) Collection of entire genome in form of plasmid
d) Enzyme, cuts the DNA at specific sites
18. Complete transduction is:
a) Transfer of whole genome with the help of virus
b) Picking up of one or more genes by a phage and transfer it to second host
c) Integration of gene brought by viral particle into genome of new host
d) Both B and C
19. The function of polymerase chain reaction (PCR) is:
a) Translation
b) Transduction
c) DNA amplification
d) None of these
20. The steps involved in the Southern blot test are as follows
I. X-ray film
II. Electrophoresis
III. Digestion with restriction enzyme
IV. Ethidium bromide
V. Radioactive probe
Choose the option having correct sequential order of these events
a) III, II, IV, V and I
b) III, IV, II, V and I
c) III, II, V, IV and I
d) II, IV, III, V and I