

Class: XIIth Date:

Solutions

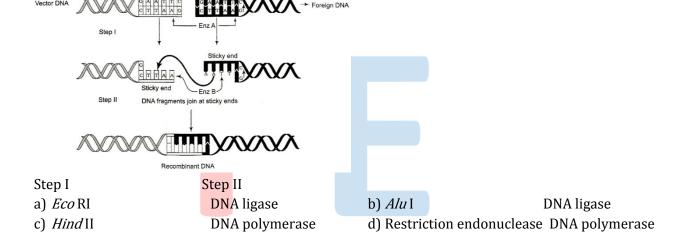
Subject : BIOLOGY

DPP No.: 7

Topic :- Biotechnology Principles & Processes

- 1. The first recombinant DNA was constructed by
 - a) Stanley Cohen
 - c) Both (a) and (b)

- b) Herbert Boyer
- d) Temin and Baltimore
- 2. Study the given diagram and identify the enzymes A and B involves in steps I and II



- 3. Which one of the following is a correct statement
 - a) "Bt" in "Bt-cotton" indicates that it is a genetically modified organism produced through biotechnology
 - b) Somatic hybridization involves fusion of two complete plant cells carrying desired genes
 - c) The anticoagulant hirudin is being produced from transgenic *Brassica napus* seeds
 - d) "Flavr Savr" variety of tomato has enhanced the production of ethylene which improves its taste
- 4. The transgenic animals are those which have:
 - a) Foreign RNA in all its cell

b) Foreign DNA in all its cells

c) Foreign DNA in some of its cells

- d) Both 'A' and 'C'
- 5. Which of the following is not correctly matched for the organism and its cell wall degrading enzyme?
 - a) Plant cells-Cellulase
- b) Algae-Methylase
- c) Fungi-Chitinase
- d) Bacteria-Lysozyme
- 6. Petroleum-lysing bacteria are being engineering for the removal of oil spills. What is the most realistic danger of these bacteria to the environment?

	a) Mutations leading to the production of a strain pathogenic to humansb) Extinction of natural microbes due to the competitive advantage of the "petro-bacterium"c) Destruction of natural oil depositsd) Poisoning of the food chain				
7.	c-DNA probes are copied from the messenger RNA ra) Restriction enzymesc) DNA polymerase	nolecules with the help of b) Reverse transcriptase d) Adenosine deaminase	e		
8.	Mishandling of genetic engineering may cause: a) Genetic erosion b) Green revolution	c) Silver revolution	d) White revolution		
9.	Gene for cloning may be chemically synthesized: a) When the exact sequence of nucleotides is known b) Through the use of restriction enzymes and gel electrophoresis to separate restriction fragments c) By the Sanger method d) By making complementary DNA from genes without introns				
10.	Source of <i>taq</i> polymerase used in PCR is a a) Thermophilic fungus c) Thermophilic bacterium	b) Mesophilic fungus d) Halophilic bacterium			
11.	Genetic engineering has been successfully used for producing: a) Transgenic models for studying new treatment for certain cardiac diseases b) Transgenic Cow-Rosie which produces high fat milk for making ghee c) Animals like bulls for farm work as they have super power d) Transgenic mice for testing safety of polio vaccine before sue in humans				
12.	Which of the following is used as a best genetic vect a) <i>Bacillus thuringiensis</i> c) <i>Pseudomonas putida</i>	or in plants? b) <i>Agrobacterium fume.</i> d) None of the above	faciens		
13.	Plants in comparison to animals are more rapidly manipulated by genetic engineering. Select out the most probable reason for this a) Totipotency shown by plant cells b) Single somatic cell can regenerate a whole plant body c) Genetic engineering is supplemented with plant tissue culture techniques d) All of the above				
14.	Which of the following pairs is correctly matched? a) Central dogma-Codon c) RNA polymerase-RNA primer	b) Okazaki fragments-S ₁ d) Restriction enzymes-			

15.	Recombinant DNA technology is related with: a) Stanley Cohen and Harbert Boyer c) Huxley and Harvey		b) Bateson and Punnet d) Schleiden and Schwann			
16.	Western blotting technique a) Alwin	e was developed by: b) Edwin	c) Towbin	d) Thomas		
17.						
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:					
1).	• •	b) Transduction	c) DNA amplification	d) None of these		
20.	I. X-ray film II. Electrophoresis III. Digestion with restricti IV. Ethidium bromide V. Radioactive probe Choose the option having of	<mark>on en</mark> zyme		d) II, IV, III, V and I		