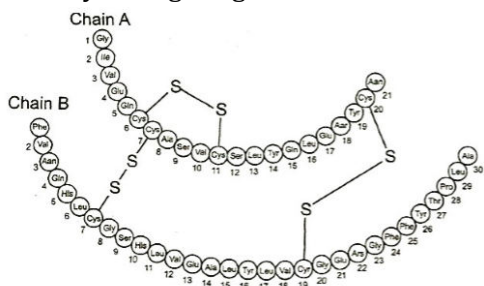


Class : XIIth
Date :

Subject : BIOLOGY
DPP No. : 4

Topic :- Biotechnology & It's Applications

1. Identify the figure given below



- a) Glyphosphatase b) Insulin c) TPA d) Erythropoietin
2. *Bt* cotton is not
- a) a GM plant b) Insect resistant
c) A bacterial gene expressing system d) Resistant to all pesticides
3. Which of the following is/are true?
- I. Biowar is the use of biological weapons against humans and/or their crops and animals.
II. Bioethics is the unauthorized use of bioresources and traditional knowledge related to bioresources for commercial benefits.
III. Biopatent is exploitation of bioresources of other nations without proper authorization.
- a) II only b) I only c) I and II d) I and III
4. Alec Jeffreys developed the DNA fingerprinting technique. The probe he used was
- a) Ribozyme b) Sex chromosomes c) SNP d) VNTR
5. ADA is an enzyme, which is found lacking in a genetic disorder SCID. What is the full form of ADA?
- a) Adenosine Deoxyaminase b) Adenosine Deaminase
c) Aspartate Deaminase d) Arginine Deaminase
6. Cellular totipotency is demonstrated by
- a) All eukaryotic cells b) Only bacterial cells
c) Only gymnosperm cells d) All plant cells
7. The problem of blindness in poor countries can be taken care of by using which of the following?

- a) Golden rice b) Transgenic tomato c) Transgenic maize d) *Bt* brinjal
8. Consider the following statements about the responsibility of GEAC (set-up by the Indian Government)
- I. GEAC make decisions regarding the validity of the GM research
 II. It checks the safety of introducing GM organisms for the public services for their large scale use
 Which of the statements given above is/are correct?
- a) Only I b) Only II c) I and II d) None of these
9. All are the biotechnological application in order to increase food production, except
- a) Pisciculture b) Agro-chemical based agriculture
 c) Organic-agriculture d) Genetically engineered crop-based agriculture
10. Which of the following is false for *Bt* transgenic plant?
- a) Disease resistance b) Prepared by *Bacillus thuringiensis*
 c) It is recombinant type d) No such plant is known
11. DNA fingerprinting technique was discovered by
- a) Wilmut b) A Jeffreys c) Ethoven d) Kary Mullis
12. C-peptide of human insulin is
- a) A part of mature insulin molecule b) Responsible for the formation of disulphide bridges
 c) Removed during the maturation of pro-insulin to insulin d) Responsible for its biological activity
13. Consider the following statements about therapeutic drugs
- I. The recombinant DNA technology is used for production of therapeutic drugs which are safe and effective
 II. It avoid unwanted immunological responses, commonly observed with similar products isolated from non-human sources
 III. About thirty recombinant therapeutics have been approved for human use in the world including India
 Which of the statements given above are correct?
- a) I and II b) I and III c) II and III d) I, II and III
14. Choose a correct option for the uses of PCR technique in diagnosis
- I. It is used to detect HIV in suspected AIDS patients
 II. It is used to detect mutations in the genes in suspected cancer patients
 III. It is used to detect swine flu in human beings
 IV. It is used to detect different common diseases in pigs, sheep and cow
 V. It is a good technique to identify many other genetic disorders
 Which of the above statements are correct?
- a) I and II b) III and IV c) I, II and V d) II, III and IV

15. What might be an advantage of beginning gene therapy prior to birth?
- a) This would give the body plenty of time
 - b) The body would not reject it as it has not yet recognised 'self'
 - c) The cells being extremely young are more receptive of gene therapy
 - d) There probably is not any advantage
16. Which of the following transgenic animals are used in testing safety of polio vaccine before they are used on human?
- a) Transgenic cow
 - b) Transgenic monkey
 - c) Transgenic mice
 - d) Transgenic sheep
17. Which Indian plants have either been patented or attempts have been made to patent them by Western nations for their use?
- a) Basmati rice
 - b) Turmeric
 - c) Neem
 - d) All of these
18. The T_i –plasmid, is often used for making transgenic plants. This plasmid is found in
- a) *Azotobacter*
 - b) *Rhizobium* of the roots of leguminous plants
 - c) *Agrobacterium*
 - d) Yeast as a 2 μ m plasmid
19. Which step was proved to be the main challenge in the production of human insulin by recombinant DNA technology?
- a) Splitting A and B-peptide chain
 - b) Addition of C-peptide to proinsulin
 - c) Getting insulin assembled into mature form
 - d) Removal of C-peptide from active insulin
20. A nutritionally wild type organism, which does not required any additional growth supplement is known as
- a) Phenotype
 - b) Holotype
 - c) Auxotroph
 - d) Prototroph