



ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION



WORKSHEET – 59

Class: XII

Sub: Biological Science

Date: 16.01.2021

Topic: Ch 11 (part 1) Biotechnology: Principles and processes

F.M. : 15

Choose the correct option:

(1x15=15)

- The definition of Biotechnology is given by EFB which stands for:
a) **European Federation of Biotechnology** b) English federation of Biophysics c) European fellow of Biotechnology d) Europe federation of Biotechnology
- The other name for molecular scissors is:
a) DNA Ligase b) Exonuclease c) **Restriction endonuclease** d) DNA endonuclease
- The following is known as the father of genetic engineering :
a) Arber b) **Paul Berg** c) Smith d) Watson
- Isolation and introduction of desirable genes into a target organisms:
a) Gene cloning b) gene amplification c) **gene transfer** d) All of these
- A specific DNA sequence which helps in the inserted DNA to replicate along with the host DNA is:
a) **Origin of replication** b) start signal c) AUG d) TATA Box
- Restriction endonuclease on cutting DNA at specific points generate -
a) sticky ends b) blunt ends c) **both sticky ends and blunt ends** d) Y- shaped structure
- The nucleotide sequence identified by EcoRI is:
a) CCCGGG b) **GAATTC** c) AATTC d) none of these
- The following restriction endonuclease are used in biotechnology :
a) Type I b) **Type II** c) Type III d) Type IV
- The following is not true for Restriction endonuclease :
a) They identify specific nucleotide sequence b) The specific sequence is palindromic c) **the restriction enzyme generates only sticky ends** d) restriction enzymes are obtained from bacteria
- First discovered Restriction endonuclease enzyme is :
a) EcoRI b) Alu I c) **Hind II** d) EcoRII
- The word 'Restriction' in Restriction endonuclease refers to:
a) Restricts bacterial growth on bacteria b) **Restricts virus attack on bacteria** c) restricts growth of bacteria d) all of these
- The first restriction endonuclease was obtained from:
a) *E.coli* b) *Arthrobacter luteus* c) ***Haemophilus influenza Rd*** d) *Streptomyces albus*

13. In recombinant DNA technique the term vector refers to :
a) plasmids that can transfer foreign DNA into living cell b) cosmids that can cut DNA at specific base sequence c) plasmids that can join different DNA fragments d) cosmids that can degrade harmful proteins
14. The enzyme which helps in sealing gaps in DNA fragments is called:
a) Alkaline phosphatase b) DNA Polymerase c) restriction endonuclease d) DNA ligase
15. EcoRI cleaves the DNA strands to produce:
a) blunt ends b) sticky ends c) satellite ends d) ori replication end

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