

## CBSE Class 12 Science Worksheet

1. The process of introducing specific changes in the DNA sequence of a gene is called:

A)

Gene cloning

B)

Transfection

C)

Site-directed mutagenesis

D)

DNA splicing

2. Smallest bone in human body is -

A)

Incus

B)

Stapes

C)

Malleus

3.

Bioinformatics involves the use of:

A)

Biological molecules for computing

B)

Computers to study biological information

C)

Proteins as data storage devices

D)

DNA sequencing for weather forecasting

4.

The process of separation and purification of expressed protein before marketing is called ?

A)

postproduction processing

B)

upstream processing

C)

downstream processing

D)

bioprocessing

5. Which of the following is a potential application of nanotechnology in biotechnology?

A)

Enhancing fermentation efficiency

B)

DNA amplification

C)

Developing biofuels

D)

DNA sequencing

6.

Which one is a true statement regarding DNA polymerase used in PCR?

- (1) It is used to ligate introduced DNA in recipient cell
- (2) It serves as a selectable marker
- (3) It is isolated from a virus
- (4) It remains active at high temperature

A)

1

B)

2

C)

3

D)

4

7. Which among the following is based on antigen-antibody interaction?

A)

PCR

B)

Electrophoresis

C)

ELISA

D)

FISH

8. The  $T_1$  plasmid used for producing transgenic plants is found in

A)

Azotobacter

B)

(a) Azotobacter  
Rhizobium

C)

Azospirillum

D)

Agrobacterium

9.

1. By RNA interference in the tobacco plant, resistance has been achieved against

A)

*Agrobacterium tumifaciens*

B)

*Meloidogyne incognita*

C)

*Trichoderma* species

D)

Tobacco mosaic virus

10.

The DNA fragments produced by the use of restriction endonucleases can be separated by

A)

Polymerase chain reaction

B)

Gel electrophoresis

C)

PAGE

D)

Density gradient centrifugation

11. Biolistics (gene gun) is suitable for

A)

Introducing rDNA into plant cells

B)

Introducing rDNA into animal cells

C)

Disarming the pathogen vectors

D)

DNA fingerprinting.



## CBSE Class 12 Science Worksheet

### Answers

1. Option C
2. Option B
3. Option B
4. Option C
5. Option A
6. Option D
7. Option C
8. Option D
9. Option B
10. Option B
11. Option A