



# ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION



## SOLUTION- 62

Class: XII

Sub: Biological Science

Date: 25.01.2021

Topic: Ch 11 (part 4 ) Process of Recombinant DNA technology

F.M. : 15

Choose the correct option:

(1x15=15)

1. The enzyme used for treating a fungal cell in order to extract the DNA from the cell is:  
a) cellulase **b) chitinase** c) lysozyme d) ribonuclease
2. The RNA can be removed from the cell extract to obtain pure DNA extract by using the following enzyme:  
a) deoxyribonuclease b) nuclease **c) ribonuclease** d) endonuclease
3. The purified DNA can be precipitated out by treating it with:  
a) agar agar b) methyl alcohol c) chilled methanol **d) chilled ethanol**
4. The process of separation of fine threads of DNA after its precipitation with chilled ethanol is called:  
**a) spooling** b) elution c) sedimentation d) polymerisation
5. The ..... technique is employed to check the progress of restriction endonuclease digestion.  
a) Elution b) spooling c) precipitation **d) gel electrophoresis**
6. The process of separation and extraction of DNA from the agarose gel is called:  
a) spooling **b) elution** c) fragmentation d) all of these
7. The 'gene of interest' from the source DNA and the cut Vector with space is mixed with the enzyme ..... to form recombinant DNA.  
a) Restriction enzyme **b) DNA ligase** c) lysozyme d) cellulase
8. The enzyme used for synthesis of DNA in PCR is :  
a) DNA Polymerase I b) DNA Polymerase II c) DNA Polymerase III **d) Taq Polymerase**
9. The enzyme Taq polymerase is obtained from:  
a) *E.coli* b) *Thiobacillus* **c) *Thermus aquaticus*** d) *Haemophilus influenzae*
10. The recipient cells after they are made competent can readily take up ..... from the external surroundings.  
**a) DNA** b) RNA c) Proteins d) all of these
11. The process of developing multiple copies of the recombinant DNA in cells:  
**a) Gene cloning** b) gene recombination c) transformation d) gene transfer

12. The protein encoding gene is expressed in a heterologous host ,it is called a :  
a) recombinant protein b) foreign gene product c) gene product d) Both (a) and (b)
13. The following condition/s is required for a bioreactor:  
a)balanced temperature b)balanced pH c) Constant substrate supply d)all of these
14. .... are present in bioreactors to obtain small volumes of the culture periodically.  
a) agitator system b)foam control system c) sampling port d) control system
15. The process of Downstreaming processing include the following :  
a) separation of gene product b) purification of finished product c) gene filtration d)Both (a) and (b)

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