



# ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION



## SOLUTION – 60

Class: XII

Sub: Biological Science

Date: 18.01.2021

**Topic: Ch 11 (part 2) Biotechnology : Principles and processes - Vectors**

**F.M. : 15**

**Choose the correct option:**

**(1x15=15)**

1. A DNA molecule which carries foreign DNA Segment to a suitable host is called:  
a) Vector DNA b) Transporter DNA c) carrier DNA **d) All of these**
2. The newly formed DNA with foreign DNA and host DNA is called:  
a) Recombinant DNA b) Chimaeric DNA c) vector DNA **d) All of these**
3. The circular double stranded autonomously replicating DNA found in the bacterial cell other than the single circular bacterial chromosome is called:  
a) nucleoid **b) Plasmid** c) phasmid d) nucleus
4. The following is not the chief characteristics of plasmid:  
a) extrachromosomal in nature b) carries genes for antibiotic resistance **c) carries all the vital genes** d) autonomously replicating
5. The most common plasmid DNA used as vector is:  
a) pBR322 b) pBIN19 c) BR32 **d) Both (a) and (b)**
6. Lambda phages are used as vectors because of the following feature:  
a) infecting nature b) can transfer big fragments in spite of being small in size c) can be easily detected **d) all of these**
7. Cosmids are restructured vectors formed by joining:  
a) Cos site of plasmid and phage DNA **b) Cos site of phage DNA and bacterial plasmid** c) cos site of phage DNA and bacterial Single stranded DNA d) none of these
8. Cosmids transfer foreign gene of size ..... Kb.  
**a) 40-45** b) 3 c) 300 d) 20
9. Phasmids are vectors consisting of:  
a) cos site of Phage DNA ,Attachment site and bacterial DNA **b) attachment site of Phage DNA and plasmid** c) cos site ,attachment site and plasmid d) attachment site of plasmid and phage DNA
10. Selectable marker is used for:  
a) Detection of transformed cells b) elimination of non transformed cells c) isolation of transformed cells **d) all of these**

11. The following is not used as a selectable marker:  
a) Kanamycin resistant gene b) tetracycline resistant gene c) chloramphenicol resistant gene  
d) Copper resistant gene
12. The vector YAC stands for:  
a) Yeast eukaryotic chromosome b) Yeast artificial chromosome c) Yeast autonomous chromosome  
d) Yeast attachment chromosome
13. YACs are specially constructed for the following purpose:  
a) transfer of eukaryotic DNA b) transfer of prokaryotic DNA c) transfer of phage DNA  
d) fermenting sugar into alcohol
14. The vector must have:  
a) origin of replication b) selectable marker c) high transfer ability d) both (a) and (b)
15. Enzyme used to dissolve bacterial cell wall in biotechnology:  
a) cellulase b) lysozyme c) protease d) chitinase

Shaista Ahmed