BT207

Question Bank (for 4 classes held on held on 5th and 6th April)

1. Which expression system will you choose and why, given a protein type?
2. What are the basic characteristics of different host system for recombinant protein production?
3. What are the limitations of mammalian expression vector?
4. State various types of plant expression vector?
5. How Ti plasmid of *Agrobacterium Tumefaciens* is exploited as expression vector?
6. State three most important feature of Ti plasmid?
7. Is virulence gene required if you want to use Ti plasmid as an expression vector and why?
8. Cloning Vs expression vector?
9. What are the modifications we do in natural Ti plasmid when used it as an expression vector?
10. Types of DNA in bacteria with examples?
11. Does fungus have plasmid?
12. Summaries the steps to create genomic DNA library?
13. What kind of cutter will you choose for creating genomic DNA library and why?
14. What type of vectors will you consider for creating genomic DNA library? Support your answer with a few examples.
15. What type of digestion would you prefer for genomic DNA library creation and why?
16. How to calculate probability of finding a particular gene in a given sequence?
17. Choose the incorrect statement for cDNA libraries
    a. They constitute of DNA copies produced from the RNA sequences, usually mRNA.
    b. They represent expressed sequences.
    c. Introns are not represented.

18. In comparison to cDNA library what additional information genomic DNA library possesses?
19. List the enzymes used for creating genomic DNA libraries?
20. What do you mean by in-frame protein fusion?