Question for RC 2 Genetic engineering

1. Describe a traits for improved crop production using transgenic approach.
2. What is a genomic library and its use?
3. Describe Agrobacterium tumefaciens for genetic engineering
4. Present the use of the T‐DNA Transfer process for transformation?
5. Give a characterization of components of yeast artificial chromosome (YACs)?
6. How do you understand Agrobacterium vectors are called “binary vectors?
7. Explain an autonomously replicating sequence (ARS)?
8. Laboratory practice of electroporation
9. Electroporation In vitro and animal studies
10. Explain the method of Agroinfiltration
11. Present components of yeast artificial chromosome (YAC) and explain their roles?
12. Explain the construction of yeast artificial chromosome (YAC) and role of each component?
13. Give a description Modern” Cloning Strategies
14. Define Biolistic particle delivery system
15. Explain *Agrobacterium tumefaciens for* genetic engineering
16. Explain Mechanisms of infection process for further increases in the efficiency of *Agrobacterium*‐mediated transformation
17. Define Future increases in efficiency of *Agrobacterium*
18. Summarize the components of the transcription complex
19. Present a modern” Cloning Strategies
20. Give a characterization the Gateway Cloning.
21. What is the Gibson Assembly Cloning.
22. Explain a vector design steps.
23. Explain expression Vectors and their roles
24. Present vectors for promoter Analysis
25. Give a characterization vectors derived from Plant Sequences
26. Describe particle bombardment is a physical method for DNA introduction
27. Explain laser Micro puncture for direct DNA introduction into plant cells
28. Give a characterization the direct DNA introduction into plant cells
29. Present the two main methods used to introduce DNA into protoplasts are electroporation and polyethylene glycol (PEG) treatment.
30. Laser Micropuncture For direct DNA introduction into plant cells