

TELANGANA UNIVERSITY
S.S.R. DEGREE COLLEGE, NIZAMABAD (C.C:5029)
VI SEMESTER INTERNAL ASSESSMENT II EXAMINATIONS
BOTANY (PLANT TISSUE CULTURE AND PLANT BIOTECHNOLOGY)
QUESTION BANK

I. Multiple choice questions.

1. Restriction endonucleases have the ability of cutting _____ [b]
a. RNA at random sites b. DNA at specific sites c. Both a & b d. DNA & RNA random sites
2. Endonucleases a group of enzymes cleave DNA [b]
a. Externally b. Internally c. Both a & b d. Neither a & b
3. The extra chromosomal, self replicating double standard, closed, circular DNA molecules are called [a]
a. Plasmid b. Phages c. Viruses d. Chloroplasts
4. A plasmid consisting of own DNA with a foreign DNA inserted into it is called [a]
a. Recombinant DNA b. Non-coding DNA c. Junk DNA d. None of the above
5. Insulin a protein consisting of [a]
a. 2 Polypeptide chain b. 3 polypeptide chain
c. 4 polypeptide chain d. more than 4 polypeptide chain
6. The first human protein produced through recombinant DNA technology is _____ [c]
a. Erythropoitin b. Interferon c. Insulin d. ABA
7. Before the production of recombinant insulin, insulin for the treatment of diabetes in human was obtained from [c]
a. Healthy humans b. dead human body c. Cows and Pigs d. Dogs and Cats
8. The first plasmid used for the production of recombinant insulin is [a]
a. P^{BR}322 b. Ti plasmid c. ACY17 d. PUC18
9. Which group of enzymes are popularly called "Molecular Stickers" [d]
a. Restriction enzyme b. RNA polymerase c. DNA polymerase d. Ligases
10. Transfer of recombinant plasmid into E.coli cells needs [d]
a. UV rays treatment b. CaCl₂ treatment c. Lysis d. Heat treatment
11. The presence of Restriction endo nucleases were postulated in 1960 by [d]
a. Khorana b. Watson c. Crick d. Arber
12. Restriction endonucleases are also called molecular scissors.
13. Plasmid an example for a autonomously.
14. DNA finger printing was first developed by Alec Jaffrey
15. Southern blotting is used in Genetic finger printing
16. RFLP is Restriction fragment length polymorphism
17. Electrophoresis a technique used in DNA finger printing help to separate DNA segment
18. In DNA finger printing the DNA from the gel is transferred to nitrocellulose membrane for hybridization.
19. Gene therapy a technique that help in curing genetic disorders

20. Bt cotton is transgenic cotton variety
21. The name "golden rice" is given to a rice variety because the presence of β – carotene
22. The first transgenic crop was Tobacco
23. Retrovirus is used as a vector for cloning into higher organisms.
24. PCR technique was invented by karymulis
25. Restriction enzymes were discovered by Smith and Nathans
26. Plasmid DNA acts as vector to transfer the piece of DNA attached to it into the host organism.
27. The process of making many copies of a desired DNA template is known as cloning
28. The plasmid of the Bacillus subtilis bacterium was utilized to create the first recombinant DNA.
29. Bacteria defend themselves against viruses by fragmenting viral DNA with endonucleare
30. The term biotechnology was coined by karoly ereky
31. Agrobacterium Tumefaciens is used extensively for genetic engineering in plants.
32. Ernst Berlines is the father f Bt cotton.
33. E.H.Starling was first discovered the hormone.
34. The Northern blotter technique is used to detection of RNA
35. Vitamin-A is transformed from golden rice.
36. Using living organisms for developing products is known as Biotechnology
37. Ti plasmid infection technique is used to introduce genese into dicots.
38. Ti plasmid length 200kb
39. Electroporation is a technique used with protoplast
40. Pores in protoplast may be opened to DNA by the application of Electricity

1. Gene bank?
2. What is the Biotechnology?
3. Define the recombinant – DNA technology?
4. Gene cloning means?
5. DNA vectors means?
6. Explain the cosmids?
7. C-DNA libraries means?
8. Ti plasmid means?
9. Explain the transgenic plants?
10. Micro Injection?