Subject Title: Applied Biochemistry | Prepared by: M Madhavi
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Unit - I: Enzyme and Protein purification methods

Essay Answer Type

1. What is Homogenization and explain homogenization techniques.
2. Discuss briefly about centrifugation methods.
3. Explain the process of protein purification by ammonium sulphate precipitation.
4. Describe briefly about column chromatography and determination of molecular weight.
5. How to determine protein concentration by using UV spectra.
6. Write the principle and procedure of SDS-PAGE.
7. Explain about Native PAGE.

Short Answer Type

8. Definition of Homogenization and write Applications of Homogenization.
9. Differential centrifugation.
10. Dialysis of proteins.
11. Applications of column chromatography
12. Principle involved in SDS-PAGE
13. What is the difference between SDS-PAGE and Native PAGE.

Unit - II: Nucleic acid analysis and Cell cultures

Essay Answer Type

14. Write the principle and process of agarose gel electrophoresis.
15. Write briefly about PCR and its applications.
16. Explain about different types of blotting techniques.
17. Discuss briefly about plant cell cultures.
18. Discuss briefly about animal cell cultures.
19. Write about Amylase producing microbial cultures.
20. Explain cellulase production process by using microbial cultures.

21. Explain the process of protease production by using microbial cultures.

Short Answer Type

22. Principle involved in agarose gel electrophoresis.
23. Applications of PCR
24. Western blotting
25. Southern blotting
26. Plant cell cultures
27. Northern blotting
28. Animal cell cultures
29. How amylase produced by microbial cultures?
30. Applications of amylase