**CLS 332 FINAL EXAM**

 **NAME:**

1. Electrophoresis is a technique used to separate out:
	1. Ionizable substances
	2. Large substances
	3. Small particles
	4. Negatively charged particles.
2. The mobility or rate of migration of ions in electrophoresis depends on all the following except:
3. Net charge of the molecule
4. Size and shape of the molecule
5. Electrodes size
6. Temperature
7. Which of the following carry the current during electrophoresis:
8. The anode and the cathode
9. The buffer ions
10. Support medium
11. polyacrylamide gel

1. Vertical electrophoresis used for:
2. Immunoelectrophoreis
3. DNA separation
4. Separation of proteins
5. Isolectric focusing
6. To prevent microbial growth and contamination
7. Buffer must maintain a constant state of ionization.
8. Buffers must be set at a very low PH.
9. Buffers must be heated before use.
10. Buffers must be refrigerated when not in use.
11. Paper electrophoresis is best used for:
12. Small peptides and amino acid.
13. Protein molecules.
14. Carbohydrates.
15. Oligosaccharides.
16. In separating proteins by paper electrophoresis alkaline medium is used therefore proteins will be:
17. Negatively charged
18. Positively charged
19. Atomized
20. Non-Ionized
21. stationary phase could be:
22. Solid or a liquid.
23. Gas or a liquid.
24. Solid or a gas.
25. Gas or a gel.
26. An example of Liquid -Liquid Chromatography:
27. Column Chromatography
28. Thin Layer Chromatography (TLC)
29. Paper chromatography
30. High Pressure Liquid Chromatography.
31. Gas Chromatography is where the:
32. Mobile phase is an inert gas.
33. Both mobile and stationary phase are an inert gas.
34. Stationary phase is an inert gas.
35. Mobile phase is liquid and stationary phase is a gas.
36. In which of the followings separation depends on the difference between the solubility of the components in the mobile and stationary phases:
37. Adsorption chromatography
38. Ion-exchange chromatography
39. Affinity chromatography
40. Partition chromatography
41. Separation based on Mobile phase in :
42. Molecular exclusion chromatography
43. Chiral Chromatography
44. Liquid Chromatography
45. Affinity chromatography
46. Thin layer chromatography:
47. The mobile phase is a liquid
48. The mobile phase is a solid
49. The mobile phase is a gas
50. The mobile phase is a gel
51. Time required for the sample to travel from the injection port through the column to the detector:
52. Detection time
53. Retention Time
54. Releasing Time
55. Passing Time
56. In Electrophoresis separation of sample depends on all except:
57. Size
58. Shape
59. Type
60. Charge
61. In Electrophoresis the buffer:
62. Maintain a constant state of ionization
63. Maintain a constant voltage or current
64. Maintain a constant movement of molecule
65. Maintain a constant state of energy