**Cell Bio Midterm 1 Review Questions**

1. Which of the following techniques separates proteins based on charge?
2. SDS-PAGE and ion exchange
3. SDS-PAGE and gel filtration
4. Gel filtration and ion exchange
5. Ion exchange and affinity chromatography
6. None of the above
7. Which of the following procedures involves biologically active proteins?
8. Centrifugation
9. SDS-PAGE
10. Fractionation
11. Silver staining
12. Column chromatography
13. I only
14. II & IV
15. I, III, V
16. I & III
17. I, II, III, V
18. Which of the following techniques involves staining to visualize proteins?
19. Equilibrium Density-Gradient
20. Isoelectric focusing
21. SDS-PAGE
22. I & II
23. II & III
24. I & III
25. None of the above
26. All of the above
27. Which of the following are protein-protein interactions?

I . Ubiquitin ligase and cyclin destruction box

II. p53 and p21

III. p34 and cyclin

IV. CDK inhibitor and MPF

1. I, III, IV
2. I & II
3. II & IV
4. III & IV
5. All of the above

*Answers on next page*

1. E: SDS-PAGE separates based on mass only, remember ALL polypeptides are given a negative charge for SDS-PAGE
2. C
3. B
4. A