

**D. K. M. COLLEGE FOR WOMEN (AUTONOMOUS), VELLORE-1**  
**SEMESTER EXAMINATIONS**  
**NOVEMBER - 2017**  
**ANALYTICAL BIOCHEMISTRY**

15CBC3A

Time : 3 Hours

Max. Marks : 75

**SECTION – A (10 x 2 = 20)**

Answer ALL the questions.

Define / Explain the following.

1. Normality.
2. Ionic strength.
3. Buffer.
4.  $p^H$ .
5. Ion exchangers.
6. Rf value.
7. TEMED.
8. Factors affecting electrophoresis.
9. Svedberg unit.
10. Centrifugal force.

**SECTION – B (5 x 5 = 25)**

Answer any FIVE of the following questions.

11. Explain dialysis and ultrafiltration.
12. Derive Henderson - Hessel balch equation.
13. Explain the working principle of Hydrogen electrode.
14. Give an account on Column chromatography.
15. Write about the procedure, principle and applications of molecular sieve chromatography.
16. Give a detailed account on the working principle of Agarose gel electrophoresis.
17. Write an account on moving boundary electrophoresis.
18. Explain about the steps involved in differential centrifugation.

**SECTION – C (3 x 10 = 30)**

Answer ALL the questions.

19. (a) Give a note on the following.
- a) Isotonic    b) Hypertonic    c) Hypotonic solutions and their applications.

(Or)

- (b) Explain the principle and applications of oxygen electrode.

20. (a) Write an account on Affinity chromatography.

(Or)

- (b) Give a detailed account on HPLC.

21. (a) Explain the principle and procedure of SDS - PAGE.

(Or)

- (b) Give an account on analytical ultracentrifugation.

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