

D. K. M. COLLEGE FOR WOMEN (AUTONOMOUS), VELLORE-1**SEMESTER EXAMINATIONS****NOVEMBER - 2017****15CBT5E****ELECTIVE II : ENZYME TECHNOLOGY****Time : 3 Hours****Max. Marks : 75****SECTION – A (10 x 2 = 20)****Answer ALL the questions.**

1. Define enzyme and its action.
2. What is an enzyme inhibition?
3. Write the principle of electrophoresis.
4. Define specific activity.
5. How to diagnose blood glucose using enzymes?
6. What is the function of creatine kinase?
7. Define enzyme immobilization.
8. What are the enzymes used in biodegradation?
9. What are biosensors?
10. Explain the term nanoparticle.

SECTION – B (5 x 5 = 25)**Answer any FIVE of the following questions.**

11. Write about the classification of enzymes.
12. What is gel exclusion chromatography? How it is used in purifying enzymes?
13. Explain in short about Lactase dehydrogenases.
14. List the various industries involved in employing the enzyme immobilization process.
15. What is bioremediation? How to use enzymes in the process?
16. What are the factors affecting enzyme activity?
17. Explain the principle of SDS - PAGE. How to separate enzymes using this technique?
18. Write the significance of amylases in industries.

SECTION – C (3 x 10 = 30)**Answer ALL the questions.**

19. (a) Derive Michaelis - Menten equation.

(Or)

- (b) Write various methods used in enzyme purification.

20. (a) What are the enzymes used in clinical diagnosis? Explain with appropriate examples.

(Or)

- (b) What is enzyme immobilization? Explain various types of immobilization process.

21. (a) Explain in detail about biosensors.

(Or)

- (b) Write on various types of enzyme inhibition mechanisms with diagrammatic illustration.