

**Shree Manibhai Virani and Smt. Navalben Virani Science College (Autonomous), Rajkot**  
Affiliated to Saurashtra University, Rajkot

**SEMESTER END EXAMINATION NOVEMBER - 2017**

**M.Sc. Analytical Chemistry**

**16PCEDA01 - CHEMISTRY OF FOOD ANALYSIS**

*Duration of Exam – 3 hrs*

*Semester – III*

*Max. Marks – 70*

**Part A (5x2= 10 marks)**

Answer **ALL** questions

1. What is holoenzyme?
2. Define isozyme with one example.
3. What are amphipathic lipids?
4. Enlist aromatic amino acids.
5. Mention important function of vitamin A.

**Part B (5x5= 25 marks)**

Answer **ALL** questions

- 6a. Write a short note on enzyme specificity.

**OR**

- 6b. Write a short note on enzyme inhibition.

- 7a. Write a note on methods of enzyme assay.

**OR**

- 7b. Define enzyme units. Add a note on effect of temperature and pH on enzyme activity.

- 8a. What is TAG? Give example and structure of simple and mixed TAG.

**OR**

- 8b. Explain in detail cholesterol.

- 9a. Write a short note on protein separation by ion exchange chromatography.

**OR**

- 9b. Explain in brief chemical properties of amino acids.

- 10a. Write a short note on vitamin K.

**OR**

- 10b. Define vitamin, vitamer and provitamin with examples.

**Part C (5x7= 35 marks)**

Answer **ALL** questions

11a. Describe the structure and functions of phospholipids.

**OR**

11b. Write a detailed account on fatty acids

12a. Explain in detail classification of amino acids

**OR**

12b. Discuss functional classification of proteins.

13a. Write a note on glycolipids.

**OR**

13b. Describe structural organization of protein.

14a. Discuss biotechnological applications of enzymes.

**OR**

14b. Give an overview, rationale of IUB enzyme classification with specific examples.

15a. Discuss difference between water and fat soluble vitamins. Add a brief note on any one fat soluble vitamin.

**OR**

15b. Discuss vitamin B complex role as coenzymes.

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