

**VINAYAKA MISSION'S RESEARCH FOUNDATIONS, SALEM**  
**(Deemed to be University)**

**DIPLOMA IN MEDICAL LAB TECHNOLOGY EXAMINATION**  
**March 2019**  
**Second Year**

**BIOCHEMISTRY – II**

Time: Three hours

Maximum: 75 marks

**I. Write an essay on any ONE of the following: (1 x 20 = 20)**

1. Describe in detail about Beta Oxidation of fatty acids with regulation and energetics from palmitic acid. Add a note on defects in fatty acid oxidation.
2. Explain in detail about citric acid cycle with energetics and inhibitors. Mention its significance. Add a note on amphibolic role of the pathway.

**II. Write short notes on any TWO of the following: (2 x 10 = 20)**

3. Phenylketonuria and alkaptonuria.
4. Thyroid function tests and its clinical significance.
5. Pancreatic juice-composition, function and clinical importance.
6. Galactosemia and its screening tests.

**III. Write short answers on any SEVEN of the following: (7 x 5 = 35)**

7. Gout.
8. Gene therapy.
9. Abnormal constituents of urine.
10. Radio Immunoassay (RIA).
11. Tests for tubular function.
12. Osmolality and specific gravity.
13. Normal lipid profile.
14. Structure and function of DNA.
15. Lactose intolerance.
16. Sickle cell anemia.