

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

**DIPLOMA IN OPERATION THEATRE TECHNOLOGY AND**  
**ANAESTHESIA TECHNOLOGY EXAMINATION**

**March 2019**

**First Year**

**BIOCHEMISTRY**

Time: Three hours

Maximum: 75 marks

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

1. Define and classify enzymes with examples. What are coenzymes? Add a note on clinically important enzymes.
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. Functions and deficiency of Vitamin C.
4. Classify proteins on different basis.
5. Briefly write about functions of lipids.
6. Regulation of blood calcium level.

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

7. Protein energy malnutrition.
8. Electrolytes.
9. Define pH and its normal range.
10. Vitamin K cycle.
11. Respiratory quotient and specific dynamic action.
12. Molarity and molality.
13. Blood buffers.
14. Functions and deficiency of Thiamine.
15. Glycogen storage disease.
16. Isoenzymes.

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