

**VINAYAKA MISSION'S RESEARCH FOUNDATION
(DEEMED TO BE UNIVERSITY), SALEM**

M.D. DEGREE EXAMINATION - April 2019

BIOCHEMISTRY

**PAPER I : PHYSICAL AND ORGANIC ASPECTS OF
BIOCHEMISTRY INSTRUMENTATION BIOCHEMICAL
TECHNIQUES AND BIOSTATISTICS**

Time: Three hours

Maximum: 100 marks

Answer ALL questions

SECTION - A

I. Essay: (1 x 20 = 20)

1. Write in detail about the classification, structure and functions of immunoglobulin. Add a note on chemiluminescence.

II. Write short notes on: (5 x 6 = 30)

2. Define pH and write about Buffers.
3. Glycosaminoglycans.
4. Liposomes and their applications.
5. Synthetic Nucleotide analogs.
6. Channels and pumps in membranes.

SECTION - B

I. Essay: (1 x 20 = 20)

7. Define electrophoresis. Write in detail about SDS polyacrylamide Gel electrophoresis and capillary electrophoresis.

II. Write short notes on: (5 x 6 = 30)

8. Ion selective electrodes.
9. Evaluation of a new diagnostic test.
10. Atomic absorption spectrometry.
11. Delta check and its application in quality assurance.
12. Classification and functions of phospholipids.