



RAN-2406120201010501

M. D. (Biochemistry) Examination September - 2025

Theory Paper - I (Set - 1)

Time: 3 Hours]

[Total Marks: 100

સૂચના : / Instructions

(1)

નીચે દર્શાવેલ નિશાનીવાળી વિગતો ઉત્તરવહી પર અવશ્ય લખવી.
Fill up strictly the details of signs on your answer book

Name of the Examination:

M. D. (Biochemistry)

Name of the Subject :

Theory Paper - I (Set - 1)

Subject Code No.: **2406120201010501**

Seat No.:

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Student's Signature

- Q. 1.** What is principle of absorption spectrophotometry. Describe basic concepts of light sources, spectral isolation and signal detection systems used in absorption spectrophotometry. **(25)**
- Q. 2.** **Write Notes on:** **(25)**
- Causes, Mechanism and ABG profile of Metabolic alkalosis and its compensation
 - Biochemical difference between skeletal and smooth muscle
 - Water as component of structure of molecules and biochemical reactions
 - Prion protein
 - Overview of Drug metabolism (Xenobiotics)
- Q. 3.** **Write Notes on:** **(25)**
- Statistical vs Clinical significance - role in medical laboratories
 - Ethics dilemmas in clinical laboratories with examples
 - Online learning platforms in Medical education
 - Calculation of sigma in clinical laboratories
 - characteristics of good MCQ question paper

Q. 4. Write Notes on:

(25)

- A. Difference between ISO 15189:2012 and ISO 15189:2022
 - B. Salient features of latest NABL-112
 - C. Concept of Calibration Traceability (including explanation of reference materials/methods)
 - D. Process of NABL accreditation
 - E. Document control and ISO 15189 2022
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