



RAN - 2003000205020075

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B. Sc. (Medical Technology) (Sem. - V) Examination March - 2023

Clinical Laboratory Instrumentation : MT - 15

[Total Marks: 50

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:
☛ **B. Sc. (Medical Technology) (Sem. - V)**
- Name of the Subject :
☛ **Clinical Laboratory Instrumentation : MT - 15**
- Subject Code No.: **2003000205020075**

Seat No.:

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Student's Signature

Q. 1. Answer the following briefly: (08)

- What are nebulizer and photosensitive elements in flame photometer?
- What is radioactive decay?
- Define monochromator. Name the monochromators used in spectrophotometer.
- Write down the principle of ion exchange chromatography.
- Write down the importance of P-mercaptoethanol in SDS -PAGE.
- Enlist four factors affecting electrophoretic mobility.

Q. 2. Answer any two of the following: (14)

- Write a note on gradient gel electrophoresis.
- State the principle, procedure and applications of TLC.
- Explain: Polyacrylamide gel is used as supporting medium in electrophoresis.

Q. 3. Answer any two of the following: (14)

- a) What is a scintillation counter? Explain its types and construction in detail.
- b) Explain the principle, instrumental setup of colorimeter and working of each component.
- c) Discuss the use of radioisotopes as tracers.

Q. 4. Write short notes on any two of the following: (14)

- a) Fluorimeter
 - b) GM counter
 - c) Gel Filtration Chromatography
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