

RAN-2503000504037001
S.Y.B.Sc. (NEP) Sem.-IV) Examination April - 2026
Medical Laboratory Technology - Instrumentation (Major : MLT-MJ-403)
Time: 2 Hours]
[Total Marks: 50

સૂચના : / Instructions (1) ઉપરોક્ત દર્શાવેલ વિગતો ઉત્તરવહી પર અવશ્ય લખવી. Fill up strictly the above details on your answer book	Seat No.: Student's Signature
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- Q.1. Answer in short: (Any Ten) 10**
1. State Beers law.
 2. Which substances are separated in electrophoresis?
 3. What is chromatography?
 4. Define: Radioactive isotopes.
 5. Enlist the light source of colorimeter.
 6. Which are the supporting media used in electrophoresis?
 7. Which factors are affecting RF value of chromatography?
 8. What are the applications of liquid scintillation counter?
 9. Enlist basic components of emission flame photometer.
 10. Give full form of SDS PAGE.
 11. What are the applications of paper chromatography?
 12. Enlist the types of radiation emission.
- Q.2. Attempt any Two of the following : 10**
1. Describe principle, operation and uses of colorimeter.
 2. Colorimeter UV spectrophotometer
 3. Write a note on Emission flame photometer.
- Q.3. Attempt any Two of the following : 10**
1. Describe the factors affecting electrophoresis.
 2. Explain agarose gel electrophoresis in detail.
 3. Explain - Agarose gel as a supporting media in electrophoresis.
- Q.4. Attempt any Two of the following : 10**
- Explain types of chromatography in brief : Any Two
- Explain procedure of paper chromatography.
- Explain principle, components and applications of thin layer chromatography.
- Q.5. Attempt any Two short notes of the following : 10**
1. Gamma counter
 2. Scintillation cocktails
 3. Applications of radioisotopes