

B.Sc. (FS) Semester - 3 (NEP-2020) Examination**OCT/NOV-2024****Basic Concepts and Principles of Physics (Major-6)****Time: 2:00 Hours****Marks: 50****Instructions:**

1. All questions are compulsory.
 2. Figures to the right indicate marks.
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- Que-1 Answer the following question: (Any one) (10)
- 1) Explain the instrumentation of Atomic Absorption Spectroscopy.
 - 2) Write a brief note on NMR Spectroscopy with its application.
- Que-2 Answer the following question: (Any one) (10)
- 1) Write a short note on DTA with its application and factor affecting its curve.
 - 2) Explain the construction and working of He-Ne laser with its application.
- Que-3 Answer the following question: (Any one) (10)
- 1) What is tampering? & Explain its type.
 - 2) Write a note on visible light examination of Indian Passport.
- Que-4 Answer the following question: (Any one) (10)
- 1) Explain the manufacturing and types of cement.
 - 2) Write the preliminary examination of cement sample in Forensic laboratory.
- Que-5 Answer the following question: (Any one) (10)
- 1) Explain the security features of Indian Denomination of ₹500.
 - 2) Write a note on how to read/ interpret the graph of NMR & its application.
