

B.Sc. (FS) Semester - 3 (NEP-2020) Examination**OCT/NOV-2025****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 any one in details. (Any one) (10)
1. Explain principle and working of Atomic Absorption Spectroscopy.
 2. Explain nuclear magnetic resonance spectroscopy and its application in forensic science.
- Que.2 Answer any one in details. (Any one) (10)
1. Write a note on Differential thermal analysis in detail.
 2. What is principle, construction and working of He-Ne Laser?
- Que.3 Answer any one in details. (Any one) (10)
1. Write a note security feature of Indian passport.
 2. Write a note on Tampering in document.
- Que.4 Answer any one in details. (Any one) (10)
1. Which methods are used in forensic cement analysis?
 2. Describe different types of cement and discuss about identification of adulterated cement.
- Que.5 Answer any one in details. (Any one) (10)
1. Explain instrumentation of Differential scanning calorimeter with its forensic application
 2. Explain the security features of Indian Denomination of ₹200 currency note.
