



Shree H.N. Shukla group of colleges

PHYSICS

T.Y.B.Sc. (Sem. VI) (CBCS)

Unit Test examination

PAPER- 603

UNIT - 3 : LASER

DATE :

Total marks :30

Instructions: All questions are compulsory.

The right side figure indicates total marks of the question.

Draw the figure wherever necessary.

Write answers of all the questions in main answer sheets.

SECTION-A

Q.1: One marks questions:

[5 MARKS]

- 1 Give the full form of LASER.
- 2 What is the ration of He:Ne in laser?
- 3 Which are the three process that can occur in laser?
- 4 Give The full form of LIDAR.
- 5 In Nd-Yag LASER Yag stands for _____.

SECTION – B

Q.2 (A): Short Questions: Write all three : [2 Marks each]

[6 MARKS]

- 1 Explain Electrical pumping.
- 2 Expalin spontanous emission.
- 3 Give the advantages of LASER.

Q.2 (B) : Short questions: Write all three: [3 Marks each]

[9 MARKS]

- 1 Explain : LIDAR
- 2 Explain the condition of stimulated emission .
- 3 Expalin : Population inversion.

Q.2 (C): Write Detail Note on [Any two]: [5 Marks each]

[10 MARKS]

- 1 Explain the construction and working of He:Ne laser.
- 2 Explain the principle of : Holography.
- 3 Explain the construction and working of RUBY laser.
- 4 Explain the construction and working of Nd-Yag laser.