



## Shree H.N.Shukla group of colleges

PHYSICS

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

Unit Test examination

PAPER- 602

UNIT - 2 : CRYSTAL STRUCTURE & BINDING

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 Define : Basis, Lattice
- 2 Give the names of seven crystal system.
- 3 Define : Hydrogen bond.
- 4 In covalent bond the spins of two electrons are \_\_\_\_\_.
- 5 Give one example of ionic crystal and covalent bond.

### SECTION – B

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

**[6 MARKS]**

- 1 Draw the plane of miller indices (001), (010).
- 2 Draw the plane of miller indices (011), (111).
- 3 Find the ration of interceptson the three axes by (123) plane in a simple cubic crystal.

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

**[9 MARKS]**

- 1 Explain simple cubic (SC) structure.
- 2 Explain inonic crystal bond.
- 3 Explain covalent crystal bond .

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

**[10 MARKS]**

- 1 Describe : Miller indices in detail.
- 2 Explain : Hexagonal closed packed structure.
- 3 Explain : metallic bond.
- 4 Explain : BCC crystal structure.