



Shree H.N.Shukla group of colleges

PHYSICS

F.Y.B.Sc. (Sem. I) (CBCS)

Unit Test examination

PAPER- 101

UNIT - 1, 2 : VECTOR & SEMICONDUCTOR PHYSICS .

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 What is called active component?
- 2 What is called passive component?
- 3 Define : scalar quantities.
- 4 Define : unit vectors.
- 5 Define : constant voltage source.

SECTION – B

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

[6 MARKS]

- 1 Explain addition of two vectors.
- 2 Define scalar products of two vector.
- 3 Explain the formation of PN junction diode.

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

[9 MARKS]

- 1 Explain forward characteristic of PN junction diode.
- 2 What is P - type , N- type semiconductor.
- 3 Explain intrinsic semiconductor.

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

[10 MARKS]

- 1 Describe vector tripple product.
- 2 Explain : discharging of a capacitor in R-C circuit.
- 3 Explain : ZENER DIODE.
- 4 Explain VI characteristic of P N JUNCTION diode .