

**PHYSICS HONOURS**

**PART II (1+1+1)**

**PAPAER IVB**

Full Marks-25

Date: 09/12/2020

Time: 5:30-6:00

A. Answer any five questions:

5x5=25

1. Write down working formula for Newton's ring experiment and define every term used. Is the centre dark or bright?
2. Write down the working formulas for polarimeter experiment and define all the parameters.
3. Write down the expression for resonant frequency of series LCR circuit. Define q factor.
4. Draw circuit diagram for Thevenin Norton theorem experiment. Draw the nature of power vs load resistance graph.
5. Write down the working formula for band gap experiment. Show the nature of the graph.
6. Draw the circuit diagram of an npn transistor in CE mode.
7. Write down the working formulas for mutual inductance and define every term.

---

pdf copy of scanned answer sheets to be mailed to the Email: **snecphys@gmail.com**