SHRIMATHI DEVKUNVAR NANALAL BHATT VAISHNAV COLLEGE FOR WOMEN
(AUTONOMOUS)
(Affiliated to the University of Madras and Re-accredited with 'A+' Grade by NAAC)
Chromepet, Chennai - 600 044.
B.Sc. Chemistry - END SEMESTER EXAMINATIONS APRIL - 2024
SEMESTER - IV
20UCHAT4004 - **Allied Physics - II**

Total Duration : 2 Hrs. 30 Mins.   Total Marks : 60

Section B

Answer any **SIX** questions $(6 \times 5 = 30$ Marks$)$

1. Explain how to determine the thickness of a thin wire using Air wedge method.
2. Explain LS and JJ coupling schemes.
3. Discuss about the nature of alpha, beta and gamma rays.
4. Describe Linde's process for the liquefaction of air.
5. Discuss NAND as an Universal building block.
6. Discuss about the refraction of light through a thin prism.
7. Explain Pauli's exclusion principle.
8. Discuss in detail about Adiabatic demagnetization.

Section C

Answer any **THREE** questions $(3 \times 10 = 30$ Marks$)$

9. Explain the combination of two thin prisms to produce dispersion without deviation.
10. Describe the vector atom model.
11. Discuss in detail about liquid drop model.
12. With a neat diagram, describe the Porous Plug experiment.
13. Explain OR, AND, NOR and NOT gates and verify De Morgan's theorem.

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