

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. END SEMESTER EXAMINATIONS APRIL-2022

SEMESTER - IV

20UCHAT4004 - Allied Physics - II

Total Duration : 3 Hrs.

Total Marks : 60

Section A

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

1. Define “dispersive power” .
2. State the Pauli’s exclusion principle .
3. What’s half-life period of radioactive element?
4. Write Joule Thomson effect .
5. State the De Morgan’s theorem .
6. Draw a diagram and truth table for basic logic gates .
7. Write practical application of low temperature .
8. Define deviation without dispersion .

Section B

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

9. Briefly describe about Air-Wedge method for determination of wire thickness.
10. Describe different Quantum numbers associated with Vector atom model.
11. Explain the liquid drop model for nuclear structure.
12. How adiabatic demagnetization is related to low temperature process-Explain?
13. Prove that NAND and NOR gate can be used as universal building blocks.
