

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 - II

20UMAAT2D02 - Allied Physics - II

Total Duration : 3 Hrs.

Total Marks : 60

**Section A**

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

1. Define "Angular dispersion" .
2. Define "L-S coupling" .
3. What's mass defect and binding energy?
4. Write Joule Thomson effect .
5. State the Demorgan's theorem .
6. Draw a diagram and truth table for basic logic gates .
7. Write practical application of low temperature .
8. Define dispersion without deviation .

**Section B**

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

9. Briefly describe about Combination of two prisms to produce dispersion without deviation and deviation without dispersion .
10. Describe different Quantum numbers associated with Vector atom model .
11. Explain the liquid drop model for nuclear structure .
12. Explain the porous and plug method for low temperature with theory and application .
13. Prove that NAND and NOR gate can be used as universal building blocks .

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