

0601E997

Candidate's Seat No : \_\_\_\_\_

B.Sc. (F &amp; S) Sem.-1 Examination

DSC-M-113

Applied Physics

January-2024

Time : 1-00 Hour]

[Max. Marks : 25

- Q-I A Define Unit. Write different systems of units. 5
- B Explain representation of vector & write any three different types of vector. 5
- OR
- A Explain law's vector addition & vector multiplication 5
- B Explain types of fluid with figure. 5
- Q-II A What is thermodynamics, thermodynamic variables & thermodynamic equilibrium? 5
- B Write the statement of zeroth law, 1<sup>st</sup> law & 2<sup>nd</sup> law of thermodynamics. 5
- OR
- A Write down the properties of  $\beta$ -particles. 5
- B Write down the short note on discovery of X-rays & give a brief about its properties. 5
- Q-III Short Questions. 5
- 1 The time interval in which the number of nuclei of a radioactive element reduces to half of its number at the beginning of the interval is known as \_\_\_\_\_.
  2. Which of the given particles are positively charged particles? ( $\alpha$ -particles,  $\beta$ -particles,  $\gamma$ -particles)
  3. Isothermal process means during the process \_\_\_\_\_ remains constant.
  4. Give sign conventions for (i) Heat is supplied to the system (ii) Work done by the system
  5. Define Surface Tension.

— X —