

This question paper contains 2 printed pages]

PA—31—2024

FACULTY OF SCIENCE AND TECHNOLOGY

B.Sc. (First Year) (Second Semester) EXAMINATION

APRIL/MAY, 2024

(New Pattern)

PHYSICS

Paper III

(Heat and Thermodynamics)

(Monday, 15-04-2024)

Time : 10.00 a.m. to 12.00 noon

Time—2 Hours

Maximum Marks—40

Note :—All questions are compulsory.

1. Explain in detail Maxwell's thermodynamic relations. 15

Or

(a) What is difference between Centigrade and Fahrenheit scale. 8

(b) Explain Andrews experiment on CO₂. 7

2 Define transports phenomena. Give the interrelation between three transport coefficients. 15

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(2)

PA—31—2024

Or

- (a) Describe platinum resistance thermometer. 8
- (b) Derive van der Waal's equation of state. 7
3. Write short notes on any *two* (each of 5 marks) : 10
- (a) Gas thermometer
- (b) Temperature of inversion
- (c) Internal energy
- (d) Thermal conductivity of gas.