UNIVERSITY OF NORTH BENGAL

B.Sc. Honours 6th Semester Examination, 2021

CC14-PHYSICS

STATISTICAL MECHANICS

Full Marks: 40

ASSIGNMENT

The figures in the margin indicate full marks.
All symbols are of usual significance.

For each question, the candidates will be graded according to the quality of the presentation of the topic (8 marks) and originality of language (2 marks). Maximum word limit of each topic is 400

Write short notes on any *four* of the following topics $10 \times 4 = 40$

1. Thermodynamic parameters of ideal gas using microcanonical ensemble.

2. Establishment of Gibbs paradox and its solution.

3. Canonical partition function and its application to ideal gas.

4. Plank radiation law using B-E statistics.

5. B-E condensation.

6. Specific heat capacity of conduction electrons in metals.

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