

UNIVERSITY OF NORTH BENGAL

B.Sc. Honours 5th Semester Examination, 2020

CC12-PHYSICS

SOLID STATE PHYSICS

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 <i>four</i> of the following topics | $10 \times 4 = 40$ |
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- 1. Diffraction of Z-rays by crystals and Bragg's law.
- 2. Debye theory of specific heat of solids.
- 3. Langevin's theory of paramagnetism.
- 4. Piezoelectric, ferroelectric and pyroelectric effect.
- 5. Hall effect in semiconductors.
- 6. Superconductivity and Meissner effect.

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