

UNIVERSITY OF NORTH BENGAL

B.Sc. Honours 6th Semester Examination, 2021

CC13-PHYSICS

ELECTROMAGNETIC THEORY

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

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Write short notes on any four of the following topics

 $10 \times 4 = 40$

- 1. Maxwell's equations and displacement current
- 2. Poynting theorem and Poynting vector
- 3. Propagation of electromagnetic wave through conducting medium
- 4. Production and detection of plane and circularly polarized light
- 5. Planar optical waveguides
- 6. Optical fibre and its numerical aperture.

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