



UNIVERSITY OF NORTH BENGAL
B.Sc. Honours 2nd Semester Examination, 2020

GE2-PHYSICS

Full Marks: 40

ASSIGNMENT

The figures in the margin indicate full marks.

The question paper contains Section-A and Section-B. Candidates are required to answer any one section from the two sections and they should mention it clearly on the Answer Book.

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

Section-A
Electricity and Magnetism

Write short notes on any four of the following topics

10×4 = 40

1. Gauss law in electrostatics and its applications
2. Capacitance of a parallel plate capacitor filled with and without a dielectric medium
3. Biot-Savart law and its application in a straight current carrying wire
4. Dia-, para- and ferromagnetic materials
5. Laws of electromagnetic induction, differential form and significance
6. Maxwell's equations of electromagnetism and their physical significance.

Section-B
Waves and Optics

Write short notes on any four of the following topics

10×4 = 40

1. Interference in parallel thin film
2. Fraunhofer diffraction at a double Slit
3. Huygen's Principle: Refraction of light
4. Superposition principle: Travelling and standing waves
5. Transverse vibration of an ideal string
6. Diffraction grating and its resolving power.

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