

BIKRAMJEET GOSWAMI MEMORIAL COLLEGE

B.SC. SEMESTER- IV GE COURSE INTERNAL EXAM, 2020

COURSE CODE – 404

COURSE TYPE- GE-4 (BPHSGEHC)

SUBJECT- PHYSICS

FULL MARKS- 20

- a) Answer the following questions: 2X5=10
1. State Gauss's theorem. Write down its differential form.
 2. State the Ampere's law. Express this mathematically.
 3. Define self-inductance . Mention its unit.
 4. Classify the different types of magnetic materials with examples.
 5. State Lenz's law of electromagnetic induction.
- b) State and explain Biot-Savart law. Using this law find the magnetic field due to current in a straight wire of finite length. 2+3=5
- c) Find the potential at any point due to an electric dipole placed in a free space. Obtain the expression for the potential energy of an electric dipole placed in an external electric field. 2+3=5

Guidelines to the students:

- Mention Name, University Roll & Number, Registration Number, Subject & Name of the paper on the top of the Answer copy.
- The Answer Copy should be submitted to the e-mail id :
 - mrakshit007@gmail.com
- Last date of submission of the Assignment : 28th August, 2020

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