

SAGAR MAHAVIDYALAYA

INTERNAL EVALUATION-2020

B.SC(General):semester-2

Subject-PHSG

Paper-CC-2-TH

Time:10am-12:30pm

full marks:35

Module-I

- **Attempt four questions from group A & five from group B**

Group A

5×4=20

1. State Gauss's theorem & prove it.
2. Find the electric field due to a point charge using Gauss's theorem.
3. Setup the relation between the SI & CGS units of magnetic flux.
4. State Lenz's law & explain the energy conservation.
5. State Ampere's circuital law & find magnetic field due to a solenoid of N turns.
6. Compare the Para-magnetic ,Ferro-magnetic, Dia-magnetic material.

Group B

1×5=5

1. What is electric permittivity?
2. What is Di-electric constant?
3. State Curie's law of magnetic material.
4. State Biot-Savart law.
5. What is eddy current?
6. What is Poynting vector?
7. What is self-inductance(L)?

Module-II

(Internal Assessment)

- **Attempt any two questions from the followings**

5×2=10

1. Find out the vector form of Coulomb's law.
2. Compare the Electrostatic force & Gravitational force.
3. Find out the magnetic field on the axis of a current carrying loop of radius 'R' at a distance X.