B.B.M. COLLEGE, BALIAPUR, DHANBAD

Internal Exam – 2024

(Session 2020-23/2021-23)

SEMESTER – I to IV

Special Exam

Class – B.Sc. (Physics) Time –
Sub. – GE Paper -II F.M. – 20 each Sem.

SEMESTER – I

Answer any two question

Time – 1 Hr **F.M. - 20**

1. State and prove Gauss divergence theorem.
2. Find the expression for work done in stretching a wire.
3. What is modulus of rigidity? Find the modulus of rigidity by state method.
4. Define surface tension and surface energy? Establish the retatian then.

PRACTICAL

1. To determine elastic constants of a wire lay Searl's method. OR
2. To determine 'g' lay bar pendulum.

SEMESTER – II

Answer any two question

Time – 1 Hr **F.M. - 20**

1. State and prove Gauss theorem.
2. Electromagnetic wave is transverse in nature. Prove it.
3. What is electric potential? Find the potential at a point due to point change.
4. Find the expression for parallel plate condenser completely filled with dielectric.

Practical

1. To compare capacitances using De'sauty's bridge.

OR

2. To determine a low resistance by Carey foster's bridge.

SEMESTER – III

Answer any two question

Time – 1 Hr **F.M. - 20**

1. Find the expression for work done isothermal process.
2. Define C_p and C_v? Estsblish the relation between then.
3. What is mean free path? Find the expression for mean free path.
4. Drive Fermi Dirac distribution law.

Practical

1. To determine the co-efficient of Thermal conductivity of a had conductor by lee and Charlton's disc method.

OR

2. to determine Stefan's constant.

SEMESTER – IV

Answer any two question

Time – 1 Hr **F.M. - 20**

1. State and prove Sabine formula in acoustic.
2. State and prove Fourier's theorem.
3. Define group velocity and phase velocity.
4. Give the construction and working of Michelson interferometer. How will you determine refractive index using this Instrument.

PRACTICAL

1. To determine the refractive index of the material of a prism sodium light.

OR

2. To determine wave of sodium light using Newton's ring.