

## B.B.M. COLLEGE BALIAPUR

### DHANBAD

Internal Exam – 2022

#### SEMESTER – VI

Class – B.Sc. (Hons) Time – 1hr

Sub. – Physics (Core-13) F.M. – 20

Answer Any Two Question

1 show that electromagnetic wave is transverse in nature.

2 Give the construction and working of Babinet Compensator.

3 write the boundary conditions at interference between different media.

## B.B.M. COLLEGE BALIAPUR

### DHANBAD

Internal Exam – 2022

#### SEMESTER – VI

Class – B.Sc. (Hons) Time – 1hr

Sub. – Physics (DSE- 3) F.M. – 20

Answer Any Two Question

1 write the expression for electric and magnetic fields due to uniformly moving charge.

2 Explain Maxwell's equation in tensor form.

3 write short note (any one)

(a) Minkowski space.

(b) Twin paradox

## B.B.M. COLLEGE BALIAPUR

### DHANBAD

Internal Exam – 2022

#### SEMESTER – VI

Class – B.Sc. (Hons) Time – 1hr

Sub. – Physics (Core-14) F.M. – 20

Answer Any Two Question

1 State and Prove Sackur Tetrode equation.

2 Deduce Rayleigh- Jeans law from Planck's law.

3 Explain micro – canonical, canonical and grand canonical ensembles.

## B.B.M. COLLEGE BALIAPUR

### DHANBAD

Internal Exam – 2022

#### SEMESTER – VI

Class – B.Sc. (Hons) Time – 1hr

Sub. – Physics (DSE- 4) F.M. – 20

Answer Any Two Question

1 State and explain Geiger – Nuttal law.

2 Explain Gamow's theory of  $\alpha$ . decay.

3 Give the construction and working of cloud chamber.

**B.B.M. COLLEGE BALIAPUR  
DHANBAD**

**Internal Exam – 2022**

**SEMESTER – VI**

**Class – B.Sc. (GEN)**

**Time – 1hr**

**Sub. – Physics**

**F.M. – 20**

Answer Any Two Question

- 1 State and prove Heisenberg uncertainty principle.
- 2 Define group velocity and phase velocity establish the relation between them
- 3 Derive De-Broglie wave length of matter wave. Also give its experimental verification.