PHYSICS

BOOKS - VGS PUBLICATION-BRILLIANT

MODEL PAPER - 9 (PAPER - II)

Section A

1. Explain Brewster's law.

View Text Solution

2. A small angled prism of 4° deviates a ray through 2.48°. Find the refractive index of the prism.

View Text Solution

3. How do you 'convert a moving coil galvanometer into an ammeter ?

View Text Solution

4. What do you understand by 'Self-inductance'?

View Text Solution

5. Two slits are made 1 'mm apart and the screen is placed 1 m away. What is the fringe separation when blue-green light of wavelength 500 nm is used ?

View Text Solution

6. What are Eddy currents ?

View Text Solution

7. What is the phenomenon involved in the working of a transformer?

View Text Solution

8. What are the applications of microwaves ?

View Text Solution

9. What are intrinsic and extrinsic semiconductors ?

View Text Solution

10. What is sky wave propagation ?

View Text Solution

Section B

1. With a neat labelled diagram explain the formation of image in a simple microscope.

View Text Solution

2. State Gauss's law in electrostatistics and explain its importance.

View Text Solution

3. Explain series combination of capacitors. Derive the formula for equivalent capacitance

in series combination.

View Text Solution

4. Find the magnetic induction due to a long current carrying conductor.

View Text Solution

5. Compare the properties of para, dia and ferromagnetic substances.

View Text Solution

6. What is the de Broglie wavelength of a ball of mass 0.12 kg moving with a speed of $20ms^{-1}$? What can we infer from this result?

View Text Solution

7. Explain the different types of spectral series of Hydrogen atom.

View Text Solution

8. Define NAND and NOR gates. Give their truth tables.

View Text Solution

Section C

1. What is Doppler shift ? Obtain an expression for the apparent frequency of sound heard when the observer is in motion with respect to a source at rest.

View Text Solution

2. State the working principle of potentiometer. Explain with the help of circuit diagram how the emf of two-primary cells are compared by using the potentiometer.

A potentiometer wire is Sm long and a potential difference of 6V is maintained between its ends. Find the emf of a cell which balances against a'rength of 180 cm of the potentiometer

View Text Solution

3. Explain the principle and working of a nuclear reactor with the help of a labelled diagram.

View Text Solution