

NEET WAVE OPTICS — POLARISATION, POLAROIDS AND MALUS'S LAW — PYQS

Max. Marks: 16

Questions: 4

Section A (MCQ) — 4 questions

- Q.1** The intensity of transmitted light when a polaroid sheet, placed between two crossed polaroids at 22.5° from the polarization axis of one of the polaroids, is (I_0 is the intensity of polarised light after passing through the first polaroid):

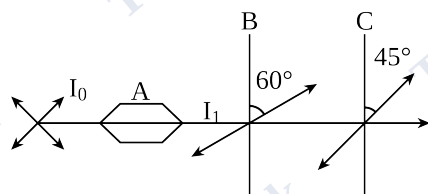
[NEET (UG) 2025]

- (1) $\frac{I_0}{8}$ (2) $\frac{I_0}{16}$ (3) $\frac{I_0}{2}$ (4) $\frac{I_0}{4}$

 Scan or tap for the
full solution


- Q.2** A beam of unpolarized light of intensity I_0 is passed through a polaroid A, then through another polaroid B, oriented at 60° and finally through another polaroid C, oriented at 45° relative to B as shown. The intensity of emergent light is:

[RE-NEET (UG) 2024]



- (1) $\frac{I_0}{16}$ (2) $\frac{I_0}{4}$ (3) $\frac{I_0}{2}$ (4) $\frac{I_0}{32}$

 Scan or tap for the
full solution


- Q.3** After passing through a polariser a linearly polarised light of intensity I is incident on an analyser making an angle of 30° with that of the polariser. The intensity of light emitted from the analyser will be

[NEET (UG) 2022 (Phase 2)]

- (1) $\frac{2I}{3}$ (2) $\frac{I}{2}$ (3) $\frac{I}{3}$ (4) $\frac{3I}{4}$

 Scan or tap for the
full solution


- Q.4** Two polaroids P_1 and P_2 are placed with their axis perpendicular to each other. Unpolarised light I_0 is incident on P_1 . A third polaroid P_3 is kept in between P_1 and P_2 such that its axis makes an angle 45° with that of P_1 . The intensity of transmitted light through P_2 is

[NEET 2017]

- (1) $\frac{I_0}{4}$ (2) $\frac{I_0}{8}$ (3) $\frac{I_0}{16}$ (4) $\frac{I_0}{2}$

 Scan or tap for the
full solution


ANSWER KEY

Ques.	1	2	3	4						
Ans.	1	1	4	2						