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JEE MAIN WAVE OPTICS — HUYGENS PRINCIPLE, REFLECTION AND REFRACTION OF PLANE WAVES — PYQS

Max. Marks: 8 **Questions:** 2

Section A (MCQ) — 2 questions

Q.1 Given below are two statements :

Statement-I: A plane wave after passing through prism remains as plane wave but passing through small pin hole may become spherical wave.

Statement-II: The curvature of a spherical wave emerging from a slit will increase for increasing slit width.

In the light of the above statements, choose the correct answer from the options given below :

[JEE Main 2026 (Online) 28th January Morning Shift]

(1) Both Statement-I and Statement-II are false

(2) Both Statement-I and Statement-II are true

(3) Statement-I is true but Statement-II is false

(4) Statement-I is false but Statement-II is true

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Q.2 A light wave is propagating with plane wave fronts of the type x + y + z = constant. The angle made by the direction of wave propagation with the x-axis is : [JEE Main 2025 (Online) 2nd April Morning Shift]

(1) $\cos^{-1}(2/3)$ (2) $\cos^{-1}\left(\frac{1}{\sqrt{3}}\right)$

(3) $\cos^{-1}\left(\frac{1}{3}\right)$ (4) $\cos^{-1}\left(\sqrt{\frac{2}{3}}\right)$

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ANSWER KEY

Ques.	1	2									
Ans.	3	2									