

PART 1 - PHYSICS

Topic : Wave optics

SECTION-B : (Maximum Marks : 4)

This section contains **ONE** question.

The answer to each question is a **NUMERICAL VALUE**.

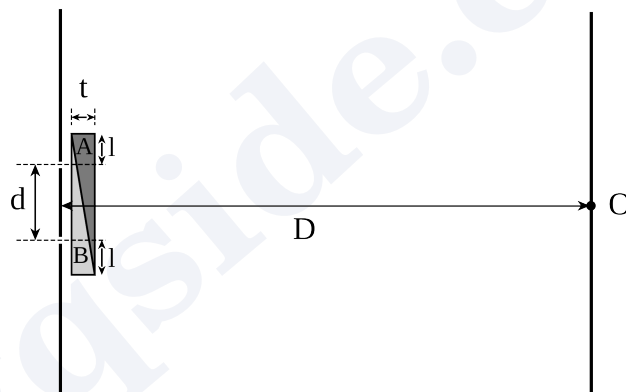
For each question, enter the correct numerical value of the answer (in decimal notation, truncated / rounded-off to the **SECOND DECIMAL PLACE**; e.g. 6.25, 7.00, -0.33, -.30, 30.27, -127.30) in the place designated to enter the answer.

Answer to each question will be evaluated according to the following marking scheme :

Full Marks : +4 If **ONLY** the correct answer is entered;

Zero Marks : 0 In all other cases.

1. In a Young's double slit experiment, a combination of two glass wedges A and B, having refractive indices 1.7 and 1.5, respectively, are placed in front of the slits, as shown in the figure. The separation between the slits is $d = 2$ mm and the shortest distance between the slits and the screen is $D = 2$ m. Thickness of the combination of the wedges is $t = 12$ μm . The value of l as shown in the figure is 1 mm. Neglect any refraction effect at the slanted interface of the wedges. Due to the combination of the wedges, the central maximum shifts (in mm) with respect to O by ____ [JEE Advanced 2025 Paper 2]



Scan or tap for the full solution



Space for Rough Work

JEE ADVANCED WAVE OPTICS — CONDITIONS FOR SUSTAINED INTERFERENCE, THIN FILMS (JEE) — PYQS

Test Pattern : JEE (Advanced)

ANSWER KEY

SECTION-B																											
Ques.	1																										
Ans.	1.2																										