

Multiple Choice Answers

Q30: A

Multiple Choice Answers

Q29: A

Multiple Choice Answers

Q30: B

Multiple Choice Answers

Q30: D

Multiple Choice Answers

Q29: C

Multiple Choice Answers

Q28: B

6(a)	wave passes (through) an aperture and spreads or wave passes (by / through / around) an edge and spreads
6(b)(i)	$v = f\lambda$
	$f = 3.00 \times 10^8 / 720 \times 10^{-9}$ $= 4.2 \times 10^{14} \text{ Hz}$
6(b)(ii)	$d = n\lambda / \sin \theta$
	$d = (2 \times 720 \times 10^{-9}) / \sin 26$
	$(= 3.3 \times 10^{-6} \text{ m})$ number of lines per m $= 1 / (3.3 \times 10^{-6})$ $= 3.0 \times 10^5 \text{ m}^{-1}$
6(b)(iii)	$\lambda \times 3 = 720 \times 2 \text{ or } \frac{1}{3.0 \times 10^5} \sin 26 = 3\lambda$
	$\lambda = 480 \text{ nm}$

Multiple Choice Answers

Q29: C