A-Level Physics: **w25 11**

Multiple Choice Answers

Q29: D

A-Level Physics: **w25 12**

Multiple Choice Answers

Q30: C

A-Level Physics: **w25 14**

Multiple Choice Answers

Q29: C

A-Level Physics: **w25 24**

4(a)	when two (or more) waves meet
	(resultant) displacement equals the sum of the displacements of the (two separate) waves
4(b)(i)	the incident and reflected waves superpose
	(the waves superpose so that the resultant) amplitude is maximum at an antinode
	(the waves superpose so that the resultant) amplitude is minimum / zero at a node
4(b)(ii)	$c = f\lambda$
	$f = (3.00 \times 10^8) / 0.026$ $= 1.2 \times 10^{10}$ Hz
4(b)(iii)	microwave
4(b)(iv)	distance = 0.026 / 4 $= 6.5 \times 10^{-3}$ m

A-Level Physics: **s25 11**

Multiple Choice Answers

Q29: B

Q31: A

A-Level Physics: **s25 12**

Multiple Choice Answers

Q24: C

Q30: D

A-Level Physics: **s25 14**

Multiple Choice Answers

Q25: A

4(a)	(micro)wave (from the transmitter) reflects (at metal/sheet)
	The incident and reflected waves superpose
	(resultant) amplitude is maximum at an antinode
	(resultant) amplitude is minimum/zero at a node
4(b)(i)	$\lambda = c / f$ $= 3 \times 10^8 / 6.3 \times 10^9$
	$= 0.048$ m
4(b)(ii)	distance PQ $= \frac{1}{4}\lambda$ $= 0.048 / 4$ $= 0.012$ m
4(b)(iii)	(Distance QR is the) same (as PQ) and one of: • Distance (between maxima / minima) does not depend on intensity • distance depends only on wavelength • wavelength is unchanged / constant