

P107 q 1

$$1) B = \frac{\Phi}{A} = \frac{Wb}{m^2} = Tesla.$$

(B is Tesla)

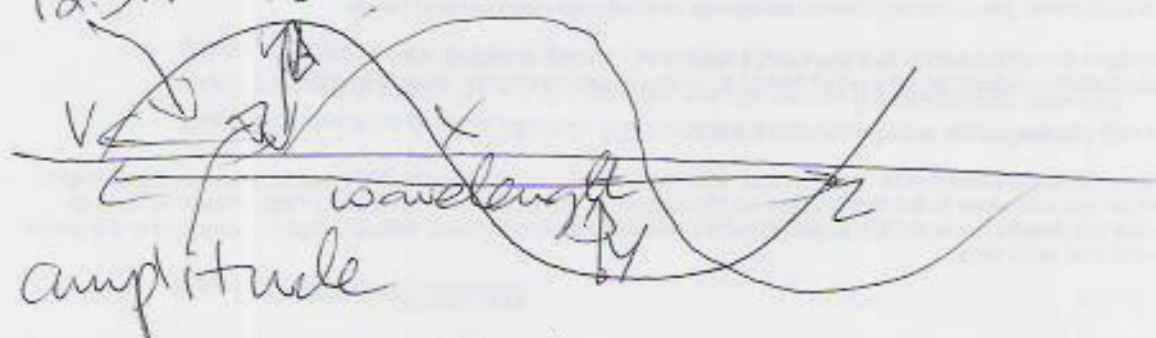
$$2) i) \frac{6 \times 10^{-4}}{300} = 2 \times 10^{-6} Wb.$$

$$ii) B = \frac{\Phi}{A} = \frac{6 \times 10^{-4}}{4 \times 10^{-5}} = 15 T$$

b) The dowel is not magnetic

P 144

1) a) 12.5 mm =  $\frac{1}{4}$  wavelength



W moves down  
Y moves up.

c) W & Y are  $\pi$  out of phase  
V & X are  $\pi$  out of phase  
W & X, V & W, X & Y are  $\pi/2$  out of phase.

Y & Z are  $\pi/4$  out of phase.