10(a)	product of density and speed
	speed of sound in medium (and density of the medium)
10(b)	ultrasound waves cause crystal to vibrate
	vibrations (of crystal) cause induced e.m.f. (across crystal)
10(c)(i)	intensity reflection coefficient= $(40.4 - 1.48)^2 / (40.4 + 1.48)^2$
	$= 0.86$
10(c)(ii)	Z values are very similar
	(almost) all the ultrasound will be transmitted **or** (almost) none of the ultrasound will be reflected

10(a)	alternating p.d. (applied to crystal) makes crystal vibrate
	when frequency of applied p.d. equals natural frequency of crystal, crystal resonates
	natural frequency of crystal is in ultrasound range
10(b)(i)	product of density and speed
	speed is speed of ultrasound in medium (and density of medium)
10(b)(ii)	(α is close to) 0 when Z_1 and Z_2 are equal
	(α is close to) 1 when Z_1 and Z_2 are very different
10(c)	$I = I_0 \exp(-\mu x)$
	$\ln (I / I_0) = -\mu x$ $\ln 0.62 = -\mu \times 2.1$ $\mu = 0.23\ \text{cm}^{-1}$