

Question number	Answer	Notes	Marks
1 (a)	D - arrow S;  A is incorrect as arrow P shows twice the amplitude B is incorrect as arrow Q shows the wavelength C is incorrect as arrow R shows half of the wavelength		1
(b)	B - arrow Q;  A is incorrect as arrow P shows twice the amplitude C is incorrect as arrow R shows half of the wavelength D is incorrect as arrow S shows the amplitude		1
(c)	D - transverse;  A is incorrect as water waves are not electromagnetic B is incorrect as gravitational waves are not detectable by water C is incorrect as the water molecules vibrate at right angles to the direction of travel of the wave.		1
(d)	substitution into given equation ' $f = 1/T$ '; evaluation;  e.g. frequency = $1/2.7$ frequency = 0.37 (Hz)	accept any value that rounds to 0.37 Hz	2

Total for Question 1 = 5 marks