Question Number	Answer	Acceptable answers	Mark
1(a)(i)	An explanation linking: Angle (of incidence) in glass (1) greater than critical angle / 42° (1)	Angle in air cannot be greater than 90° for 1 mark Glass has a higher refractive index than air for 1 mark	(2)

Question Number	Answer	Acceptable answers	Mark
1 (a)(ii)	Angle of Incidence Glass Angle of Incidence Angle of Incidence	angle i in air and angle r in glass/both angles measured from normal	(2)

Question	Answer	Acceptable answers	Mark
Number			
1 (a)(iii)			(1)

Question Number	Answer	Acceptable answers	Mark
1(b)(i)	An explanation linking any three of the following: (Optical fibres) bend (1) some fibres carry light to the inside of the patient (1) some fibres transmit the reflected light (1) light passes up/down fibres by TIR (1) light is reflected inside the	Accept suitable labelling on a Diagram	
	patient (1) image is analysed by computer (1)	Image projected on a screen	(3)

Question Number	Answer	Acceptable answers	Mark
1(b)(ii)	Either Breaks/blasts/smashes (1) Kidney stones (1) or Energy absorbed (1) to help repair muscle tissue (1) or Use of gel (1) to prevent loss of intensity (1) or	bruising/clots increases blood flow Allow (1) mark for suitable diagnosis e.g. prenatal scan	(2)

Total mark for question 3 = 10