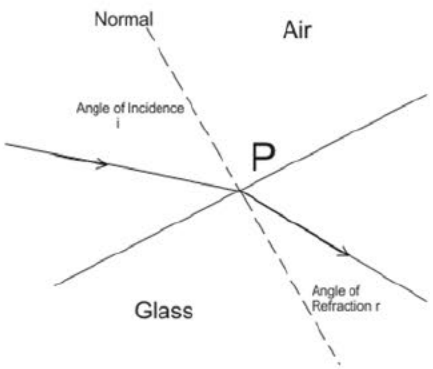
Question Number	Answer	Acceptable answers	Mark
1(a)(i)	An explanation linking: Angle (of incidence) in glass (1) greater than critical angle / 42° (1)	Angle in air cannot be greater than 90° for 1 mark Glass has a higher refractive index than air for 1 mark	**(2)**

Question Number	Answer	Acceptable answers	Mark
1 (a)(ii)	 angle i from normal in air (1) angle r from normal in glass (1)	accept for 1 mark angle i in air <u>and</u> angle r in glass/ <u>both</u> angles measured from normal	**(2)**

Question Number	Answer	Acceptable answers	Mark
1 (a)(iii)	☒ **C** speed decreases		**(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 patient (1) image is analysed by computer (1)	Accept suitable labelling on a Diagram 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