Question number			Answer	Notes	Marks
10	(a)	i	substitution; rearrangement; evaluation; e.g. $80 \times 1.01 \times 10^5 = 10 \times p_2$ $p_2 = \dfrac{80 \times 1.01 \times 10^5}{10}$ $= 8.08 \times 10^5$ (Pa)	equation is given accept 8 or 8.1 $\times 10^5$ (Pa) 808 000 (Pa) POT error loses 1 mark allow 2 marks max for using V_2 as 70 (115 400)	3
		ii	the temperature is constant;		1
		iii	any two from: MP1. friction /rubbing; MP2. between rubber disc and walls OR air molecules and valve; MP3. work is done on the gas;	allow for 1 mark unqualified statement that temperature increases pressure as increases	2
	b	i	work done = force X distance moved;		1
		ii	conversion of mass to N; substitution; evaluation; e.g. 1.25 kg is 12.5N F= 12.5 × 8.70 =109 (J)	allow GPE calculation accept 108.75 (J) 110 (J) 10.875 or 11 J gets 1 mark maximum	3