Question number			Answer	Notes	Marks
10	(a)	(i)	pressure difference = height × density × g;	allow in words or standard symbols e.g. $p = h \times \boldsymbol{\rho} \times g$ condone d for density	1
		(ii)	substitution; evaluation of pressure difference in kPa;	allow 343 (kPa) for use of g=9.8 N/kg	3
			evaluation of total pressure by adding 100 (kPa);	**ECF candidate's water** pressure allow 443 (kPa) for use of g=9.8(1) N/kg allow 450 000 Pa with clear intent from candidate i.e. **removal of 'k' from unit on** answer line. -1 for POT error but not if due to physics error such as missing g, substitution of 100 (kPa) for g	
			e.g. (pressure difference =) 35 × 1000 × 10 (pressure difference =) 350 (kPa) (pressure = 350 + 100 =) 450 (kPa)	350 kPa gets 2 marks 350 100 kPa gets 2 marks unqualified 350 000 (kPa) gets 1 mark	
	(b)	(i)	pressure = force ÷ area;	allow in words or standard symbols e.g. p = F / A	1
		(ii)	substitution; rearrangement; evaluation;	condone pressure in Pa or kPa accept standard form i.e. 1.7×10^{-3} (m^2)	4
			corresponding unit of area; e.g. 260 000 = 430 / area (area =) 430 / 260 000 (area =) 0.0017 m^2	**allow 0.0016538... m^2 etc** **allow 17, 16.5... (cm^2) etc** allow 1.65... m^2 scores 3 allow 1.65...cm^2 scores 2	
	(c)		pressure (at bottom) is greater than before / eq; wider base /eq;	allow stronger material/eq ignore taller	2

Total for Question 10 = 11 marks