Question number	Answer	Notes	Marks
8 (a) (i)	balance;	condone scales reject scale	1
(ii)	take repeats **and** either find mean, identify or remove anomalies;		1
(b)	mass of air is 0.61 g; correct use of formula: density = mass/volume; correct evaluation to 2 sf; appropriate unit i.e. g/cm^3; correct answer = 0.0012 g/cm^3 e.g. mass of air = 15.61 − 15.00 = 0.61 density = mass ÷ volume density = 0.61 ÷ 490 density = 0.00124 g/cm^3 density = 0.0012 g/cm^3 to 2 sf	 −1 POT error accept use of standard form i.e. 1.2(4) × 10^{-3} g/cm^3	4
(c)	any THREE from: MP1. any reference to displacement method; MP2. measure original volume of water; MP3. (fully) submerge balloon; MP4. re-measure volume of water; MP5. subtract one volume from the other;	 allow reference to displacement to a different vessel and use of measuring cylinder or beaker for three marks	3

Total for Question 8 = 9 marks