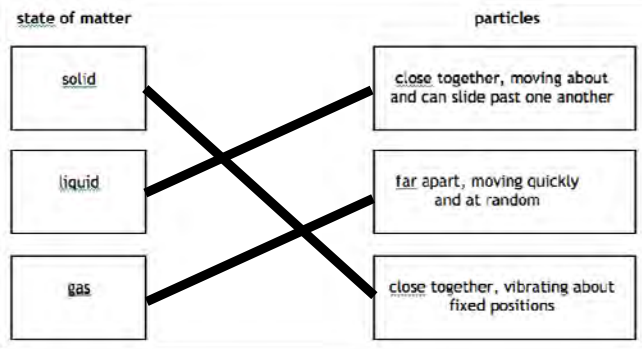
Question number	Answer	Notes	Marks
2 (a)	10 000; N;	allow 9800, 9810, 10^4 allow "newton(s)" marks are independent	2
(b) (i)	density = mass / volume;	allow abbreviation, e.g. ρ = m/V, d = m/V or rearrangements	1
(ii)	substitution OR rearrangement; evaluation; e.g. 2300 = 1000/volume = 0.43 (m^3)	award if either seen in working allow 0.4, 0.434, 0.435, 0.4347... condone 0.44	2
(c) (i)	bar chart / bar graph;	condone histogram	1
(ii)	any 1 from: MP1. idea that (density) data is discontinuous; MP2. materials have non-numerical values / are not quantifiable; MP3. material types identified as categories; MP4. idea that a line graph would indicate continuity;	discrete, categoric, non/not continuous	1
(iii)	cork is less dense OR water is denser; cork 25%, ¼ as dense OR water four times denser;	accept correct calculation of <u>both</u> densities for 2 marks	2

Total 9 marks

Question number	Answer	Notes	Marks
3 (a)	any one line correct for one mark; all three lines correct for two marks;;  	more than one line to a box does not score	2
(b) (i)	18; 192; Temperature in °C / Temperature in kelvin room temperature: **18** / 291 triple point of ethyne: -81 / **192**		2
(ii)	decreases / OWTTE;	ignore “molecules slow down”	1
(iii)	remains constant / no change / nothing;		1

Total 6 marks