



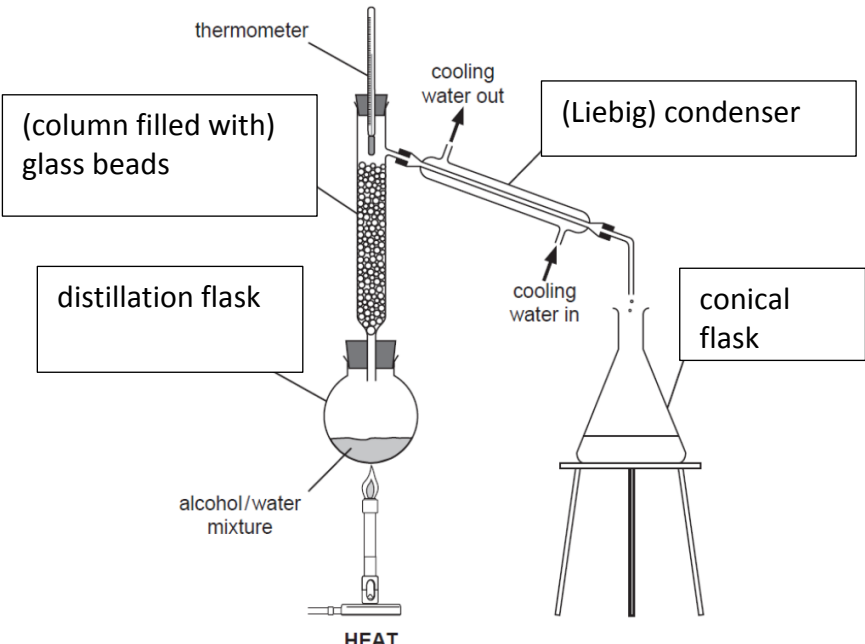
## Year 9 2013 B

/ means OR eg. green / blue – answer needs green OR blue  
 ( ) means additional, not really required eg. Gauze (mat) – gauze would be sufficient  
 : means AND eg. red : hot - answer needs red and hot.

Question	Evidence	Marks
One	Any two dangerous practices e.g. eating, no safety glasses, sniffing chemicals, rubbish of desk, no mat under Bunsen, hair not tied back etc	1 mark each= 2 marks
Two (a)	Conical : flask , filter : funnel , tripod.	2-3 correct = 1 mark
(b)	C	1 mark
Three (a)	(i) Barium chloride (ii) flammable	½ mark each = 1 mark
(b)	Easier to see quickly / understood without reading / understood by people of other languages	1 mark
Four (a)	37°C 91 mL 286 mm	2-3 correct = 1 mark
(b)	217 seconds / s (units not needed)	1 mark
(c)	4.9 cm / 49 mm	1 mark
(d)	14 : mL (units needed)	½ mark each = 1 mark
Five	(a) dissolves (b) solution (c) solvent (d) solubility	½ mark each = 2 marks
Six	Star = luminous. moon = non-luminous. white paper = non-luminous.	2-3 correct = 1 mark
Seven (a)	Normal drawn at right angles to mirror where incident ray hits (does not need to be dotted)	½ mark
(b)	50°	1 mark
(c)	red orange yellow green blue indigo violet	All correct = ½ mark
(d)	Light ray drawn correctly Correct direction arrow on ray	½ mark ½ mark

Eight (a)	Filtrate (in flask) and residue (in paper) correctly labeled	½ mark each = 1 mark
(b)	Copper sulfate is soluble: (so/and) it would pass through the filter paper	½ mark ½ mark
Nine (a)	1015	2-3 correct = 1 mark
(b)		
(c)		
Ten	(objective) lens    eye piece Stage                    (coarse) focus knob	½ mark each = 2 marks
Eleven (a)	B	½ mark
(b)	B : C	½ mark
(c)	gas	½ mark
(d)	Sea water	½ mark
Twelve (a)	A = cornea / aqueous humour (either accepted as arrow was a little ambiguous) B = retina	½ mark ½ mark
(b)	convex	1 mark
(c)	Focuses them / brings them together/ makes them converge : on the retina/back of eye	½ mark ½ mark
Thirteen (a)	Light travels faster than sound So light reaches his eye before sound reaches his ears	½ mark ½ mark
(b)	One "bang" is sound from X to man Other (later sound) is sound of echo off cliff / YZ	½ mark ½ mark
Fourteen	The thickness of the materials are not all the same / are different Without any material the sound was 80 decibels (not 100) for egg carton test	1 mark 1 mark
Fifteen	B : it removes both colour nail polish : it is not poisonous	½ mark ½ mark
Sixteen (a)	B	½ mark
(b)	F	½ mark
Seventeen	(a) A/B (b) E (c) D (d) F	3-4 correct = 1 mark

(e)	Thick fur – keep it warm / insulate it Large feet – so it doesn't sink (so much) in the snow (Must refer to sinking – or something very similar)	½ mark ½ mark
Eighteen (a)	Any valid reason e.g. unreactive, durable metal, hard wearing etc (NOT it's cheap/found everywhere etc.)	½ mark
(b)	Any valid reason e.g. can be moulded, is light, is unreactive, won't smash if dropped (NOT: it can hold milk/it won't rust/its cheap/ it won't make the milk taste strange etc.)	½ mark
Nineteen (a)	Chemical potential (Must say 'Potential' and not just 'Chemical')	½ mark
(b)	Kinetic ..... Sound / Electrical .....Sound	½ mark ½ mark
(c)	Chemical potential (Must say 'Potential' and not just 'Chemical')	½ mark
Twenty (a)	A	2-3 correct: 1 mark
(b)	C	
(c)	B	
Twenty one	A = evaporation B = condensation C = transpiration D= precipitation	½ mark each = 2 marks
Twenty two (a)	Any correct reason e.g. burning more (fossil) fuels	1 mark
(b)	Any correct effect e.g. climate change / rising sea levels	1 mark
Twenty three (a)	(i) cell membrane (ii) vacuole	½ mark each = 1 mark
(b)	Chloroplast : cell wall	½ mark each = 1 mark

<p>Twenty four</p>	 <p>thermometer</p> <p>(column filled with) glass beads</p> <p>distillation flask</p> <p>alcohol/water mixture</p> <p>HEAT</p> <p>cooling water out</p> <p>(Liebig) condenser</p> <p>cooling water in</p> <p>conical flask</p>	<p>½ mark each = 2 marks</p>
<p>Twenty five (a)</p>	<p>metal</p>	<p>1 mark</p>
<p>(b)</p>	<p>(i) nucleus (ii) protons</p>	<p>½ mark each = 1 mark</p>
<p>(c)</p>	<p>11</p>	<p>½ mark</p>
<p>(d)</p>	<p>Protons : electrons (either order)</p>	<p>1 mark</p>
<p>(e)</p>	<p>nitrogen</p>	<p>½ mark</p>
		<p>50</p>