

KENYA JUNIOR SCHOOL EDUCATION ASSESSMENT (KJSEA)**INTEGRATED SCIENCE — PAPER 2 PRACTICALS (905/2)****Paper Code: 905/2 | Year: KJSEA 2025 | MARKING SCHEME**

NOTE: For practical papers, accept any reasonable reading/measurement within ± 0.5 of stated values. Award method marks where final answer is wrong but working is shown.

QUESTION ONE — Preparing and separating a homogeneous mixture (10 marks)

Q	Expected Answer	Marks
1a(i)	Water (1 mark)	1
1a(ii)	Any TWO: sodium chloride dissolves / solution becomes clear / stirring rod used to mix / solid disappears (1 mark each)	2
1a(iii)	Sodium chloride solution / salt solution (1 mark)	1
1b	To speed up/ensure complete dissolving of sodium chloride (1 mark)	1
1c	Filtration (1 mark)	1
1d(i)	The solution was heated/evaporated to dryness; salt crystals formed as water evaporated; substance Q (water) collected as condensate (2 marks for full description)	2
1d(ii)	Evaporation (1 mark)	1
1d(iii)	Any ONE: wear goggles/safety glasses; handle hot apparatus with care/use tongs; do not overheat (1 mark)	1

QUESTION TWO — Leaf structure and photosynthesis experiment (10 marks)

Q	Expected Answer	Marks
2b(i)	Midrib — the central main vein running along the leaf	1
2b(ii)	Vein — branching lines on the leaf lamina	1
2b(iii)	Lamina — the flat broad part of the leaf	1
2c	Award 1 mark each for any THREE: broad/flat surface (increases surface area for light absorption); thin (short distance for CO_2 diffusion); green colour/chlorophyll (absorbs sunlight); network of veins (transport of water and minerals)	3
2d(i)	Boiling tube (1 mark)	1
2d(I)	$L = 62$ (mean of 62, 63, 61 = 62) (1 mark)	1
2d(II)	40 cm (where mean bubbles = 31) (1 mark)	1
2d(iii)	As light intensity increases, the rate of photosynthesis increases (1 mark)	1

QUESTION THREE — Measurement and pressure (10 marks)

Q	Expected Answer	Marks
3a(i-iii)	Award 1 mark each for length, width, height correctly measured and recorded with appropriate unit (cm) — accept actual measured values within ± 0.2 cm	3
3b(i)	Award 1 mark for correct reading of beam balance — accept any value read correctly from the diagram (pointer appears near 35 g)	1
3b(ii)	Divide mass in grams by 1000 to convert to kg (e.g. 35 g = 0.035 kg) — must show conversion (1 mark)	1
3c	$W = \text{mass} \times \text{gravity}$; substitute correct values; show working; correct unit (N) — 2 marks: 1 for substitution, 1 for correct answer with unit	2
3d	$P = F/A$; identify smallest face (length $\times$ width) as area for maximum pressure; substitute W from (c); correct unit (N/cm^2 or Pa) — 3 marks: 1 for identifying correct area, 1 for substitution, 1 for correct answer with unit	3

Total: 30 marks