

BENDEMEER SECONDARY SCHOOL
2018 MID-YEAR EXAMINATION
SECONDARY 1E SCIENCE (CHEMISTRY)

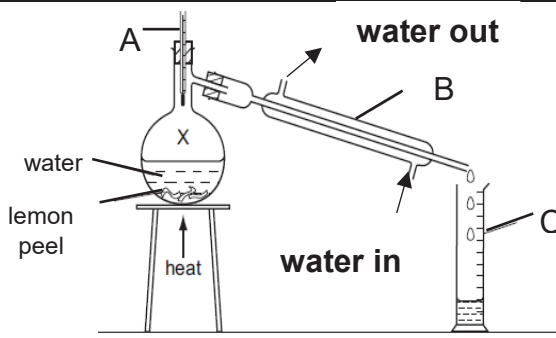
Marking Scheme

Section A

1	A	2	B	3	A	4	C	5	B
6	A	7	D	8	A	9	B	10	A

Section B

Qn	Suggested Answer	Marks
1ai	Non-luminous flame	[1]
ii	Non-luminous flame is hotter than luminous flame so it will boil the water at a shorter time.	[1]
iii	- Luminous flame is orange but non-luminous flame is blue. - Luminous flame can be seen easily but non-luminous flame cannot be seen easily - Luminous flame is unsteady but non-luminous flame is steady - Little soot is produced in non-luminous flame but soot is produced in luminous flame - The air-holes for non-luminous flame is opened but air-holes for luminous flame is closed *any 2 differences	[2]
bi	retort stand	[1]
ii	Bunsen burner	[1]
iii	round-bottomed flask	[1]
iv	wire gauze	[1]
v	tripod stand	[1]
2	M- compound N- element O- mixture P- mixture	[1] [1] [1] [1]

3a	simple distillation	[1]
b	A - thermometer	[1]
	B – condenser	[1]
	C – measuring cylinder	[1]
c	boiling and condensation	[2]
d		[2]
e	To smoothen the boiling.	[1]
f	100 °C	[1]
4a	- Both contain 3 components/ dyes/ colours. - Both contain 2 components that are the same. - Both are impure, *Any 2 similarities	[2]
b	- No, as they contain one colour/ component that is not the same. - No, as the spot that travelled the furthest/ fastest is not aligned/ not the same. - No, as the spot furthest from the starting line/ nearest to the solvent front are not aligned/ not the same. Accept: - They each have one colour that are of different solubility. - The third spot of X is not in line with the third spot of Y. - Not all the spots of X are aligned with Y. *Any 1	[1]
c	Show on diagram: 2 components, both are not aligned to any components in X and Y.	[1]
d	Pen ink is soluble in the solvent and will be separated together with the inks and interfere with results of the chromatography.	[2]
e	EZ-Link cards are exposed to moisture and water so the inks used should not be soluble in water.	[1]

