

# **O-Level Chemistry**

## **Paper 4**

### **Unsolved Topical**

**Past Papers With Marking Scheme**  
**According to New Syllabus (2023-2025)**

**2014-2021**

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## PREFACE

Excellence in learning cannot be claimed without application of concepts in a dexterous way. In this regard one of the logical approach is to start in chunks; like chapter wise learning and applying the concept on exam based questions.

This booklet provides an opportunity to candidates to practice topic wise questions from previous years to the latest. Extensive working of Team MS Books has tried to take this booklet to perfection by collaborating with top of the line teachers.

We have added answer key / marks scheme at the end of each topic for the candidate to compare the his/her answer to the best.

MS Books strives to maintain actual spacing between consecutive questions and within options as per CAIE format which gives students a more realistic feel of attempting question.

Review, feedback and contribution in this booklet by various competent teachers of a subject belonging to renowned school chains make it most valuable resource and tool for both teachers and students.

With all belief in strength of this resource material I can confidently claim that it is worth in achieving brilliance.

Our sincere thanks and gratification to **Mr. Kamal Ahmad** who took out special time to help compile and manage this booklet. We would also like to appreciate chemistry faculty for reviewing and indorsing it.

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# **PAPER P4**

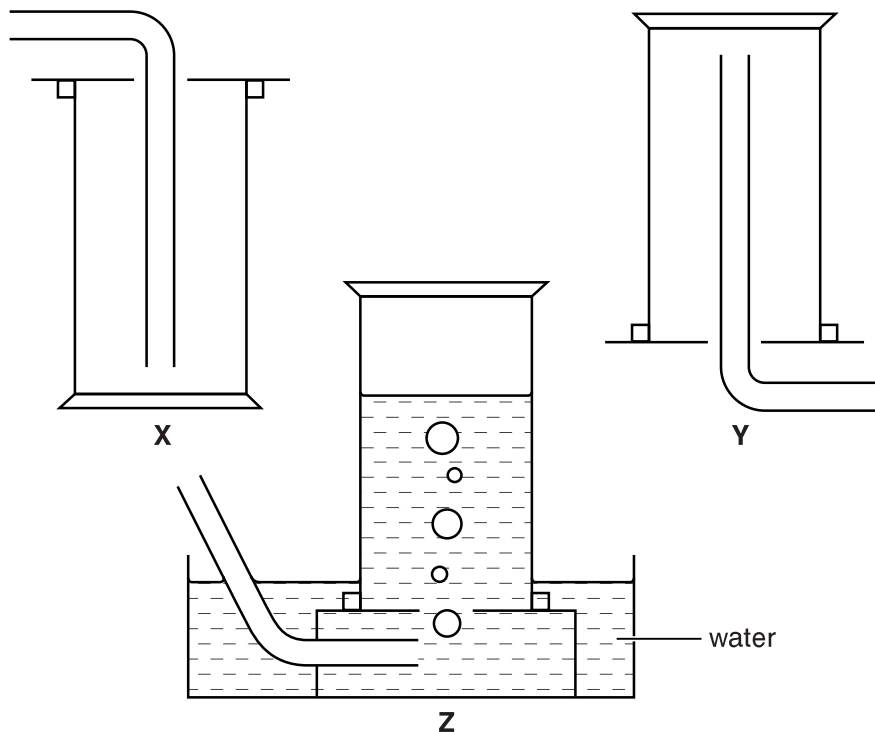
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**Experimental Design**

Q2(c)/41/M/J/14

- 1 (c) Suggest which method, X, Y or Z, is most suitable for the collection of each of the gases NH<sub>3</sub> and HCl. Explain your answers.



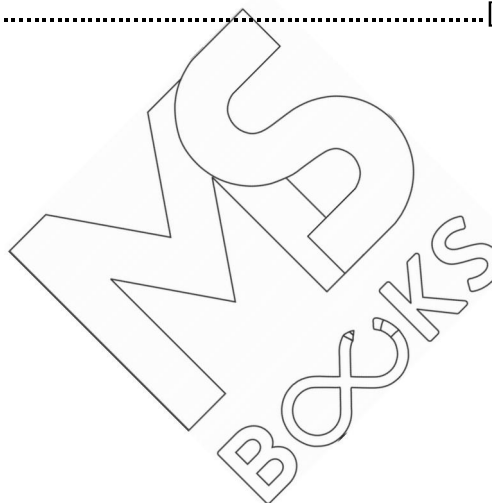
NH<sub>3</sub>.....

HCl.....

explanation .....

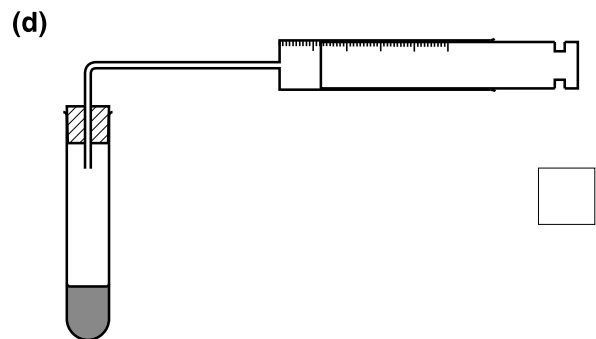
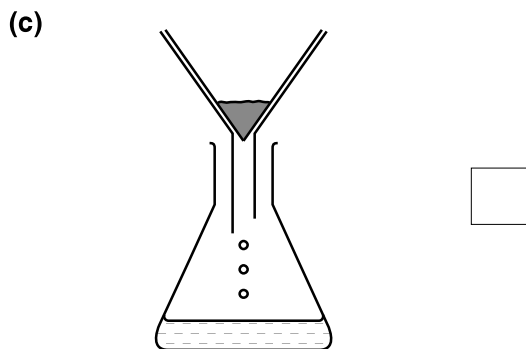
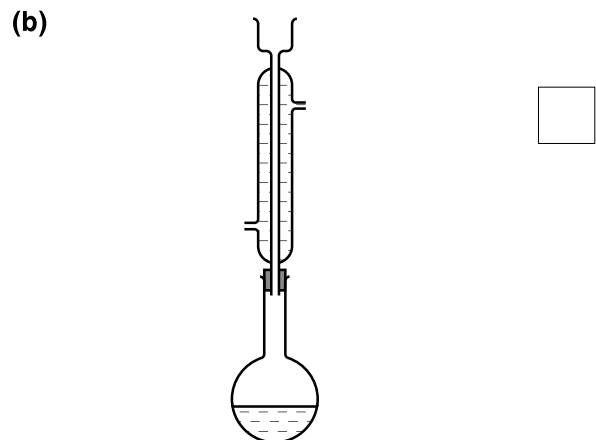
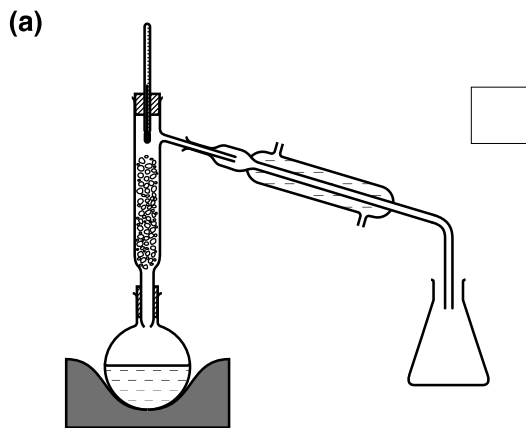
.....

.....[4]



Q5/42/O/N/14

2 Which apparatus is used to separate a mixture of ethanol and water?



[Total: 1]

Q3/41/M/J/15

3 With which piece of apparatus should a safety bulb be used?

- (a) beaker
- (b) burette
- (c) measuring cylinder
- (d) pipette

[Total: 1]

Q3/42/M/J/15

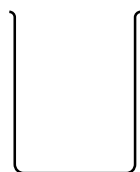
4 Which apparatus should a student use to measure 25.0 cm<sup>3</sup> of a liquid?

- (a) beaker
- (b) conical flask
- (c) measuring cylinder
- (d) pipette

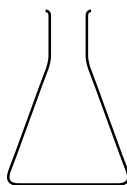
[Total: 1]

Q1/41/M/J/16

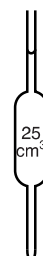
5 (a) The following apparatus is found in a laboratory.



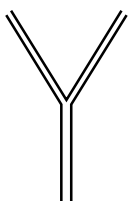
A



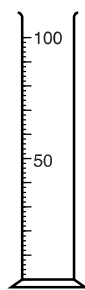
B



C



D



E



F

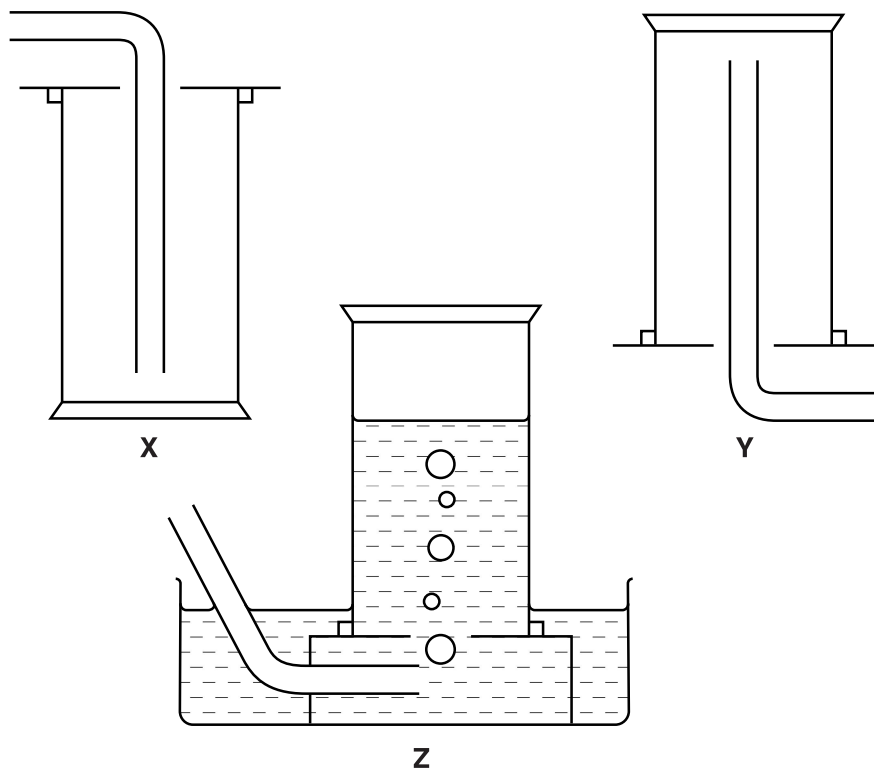
Write in the table the letter of the apparatus most suitable for the purpose.

purpose	apparatus
removing 25.0 cm <sup>3</sup> of a liquid from a container	
measuring 60 cm <sup>3</sup> of a liquid	
as a titrating flask	
separating a precipitate from a solution	

[4]

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(b) The diagrams show three methods for collecting gases.



Which method X, Y or Z is suitable for collecting a gas which is

(i) less dense than air and soluble in water,

.....

[1]

(ii) more dense than air and soluble in water,

.....

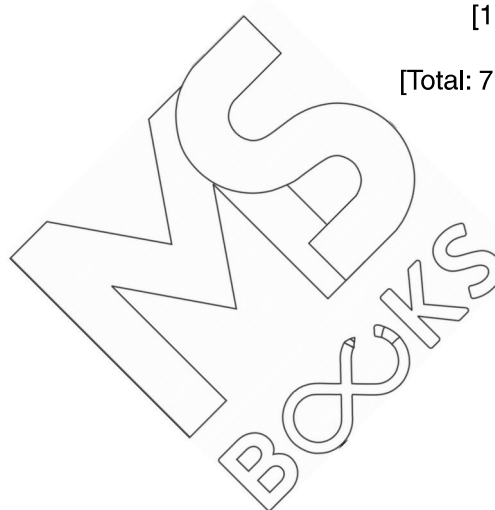
[1]

(iii) insoluble in water?

.....

[1]

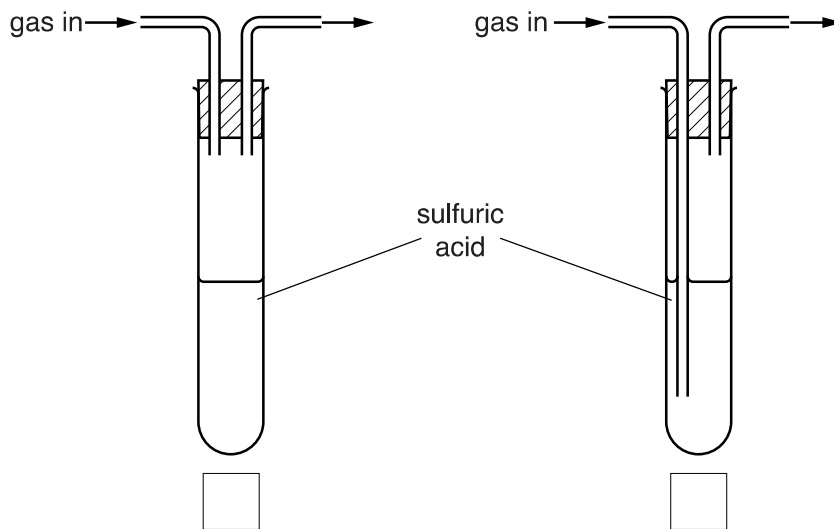
[Total: 7]





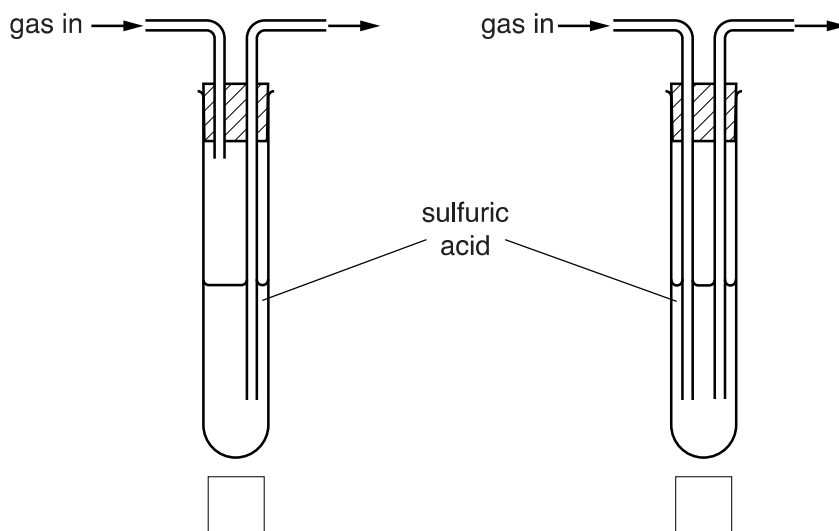
Q3/41/M/J/16

6 A gas may be dried by passing it through concentrated sulfuric acid. Which method should be used?



(a)

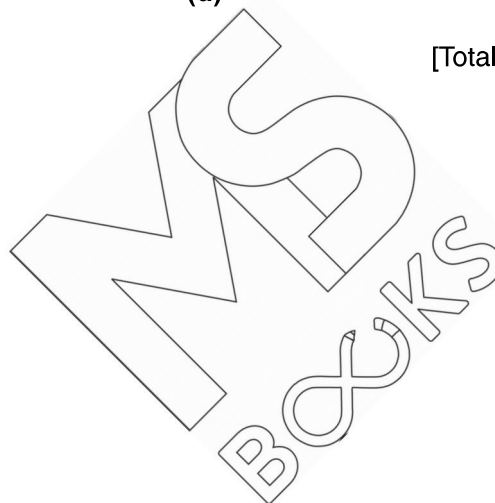
(b)



(c)

(d)

[Total: 1]



Q2(c)/41/M/J/14

1 (c) Y (NH<sub>3</sub>) (1); X (HCl) (1)Both soluble in water (1)HCl is more dense than air **AND** NH<sub>3</sub> is less dense than air (1)

[4]

Q5/42/O/N/14

2 (a) (1)

[Total: 1]

Q3/41/M/J/15

3 (d)

[Total: 1]

Q3/42/M/J/15

4 (d) (1)

[Total: 1]

Q1/41/M/J/16

Question 5	Answer	Marks
1(a)	C (1) E (1) B (1) D (1)	4
1(b)(i)	Y	1
1(b)(ii)	X	1
1(b)(iii)	Z	1

Q3/41/M/J/16

Question 6	Answer	Marks
3	B	1

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