newfoundland | Grade 12

Chemistry 3202 Public Exam

Practice set 1 Student booklet

In this practice exam · 3 hours in all

1	**Part I: Selected Response**	50 questions
2	**Part II: Constructed Response**	12 questions

Before you start

- You have 3 hours to finish.
- You may use an approved calculator.
- Use the reference pages whenever you need them.
- In the written questions, show your work.

Your initials or class number
Not your student number

_____



Finished? Ask an adult to photograph your pages.
MapleMind marks them and shows what to practise next.

Sample

Part I: Selected Response

Questions 1 to 50

1 The table shows a reaction at equilibrium and a change made to the system. Which statement correctly predicts the response?

Equilibrium change

Reaction	Change
$N_2O_4(g) \rightleftharpoons 2NO_2(g)$	Some $NO_2(g)$ removed

- ◯ **A** The equilibrium shifts forward, and K_eq increases.
- ◯ **B** The equilibrium shifts in reverse, and K_eq stays the same.
- ◯ **C** The equilibrium does not shift, and K_eq stays the same.
- ◯ **D** The equilibrium shifts forward, and K_eq stays the same.

2 A student measures the initial rate of the same reaction in two trials. The temperature, reactant amounts, and other conditions are kept constant. The table shows the results. Which statement best explains the difference in rate?

Initial reaction rates

Trial	Catalyst	Rate (mmol/s)
1	Absent	1.6
2	Present	4.8

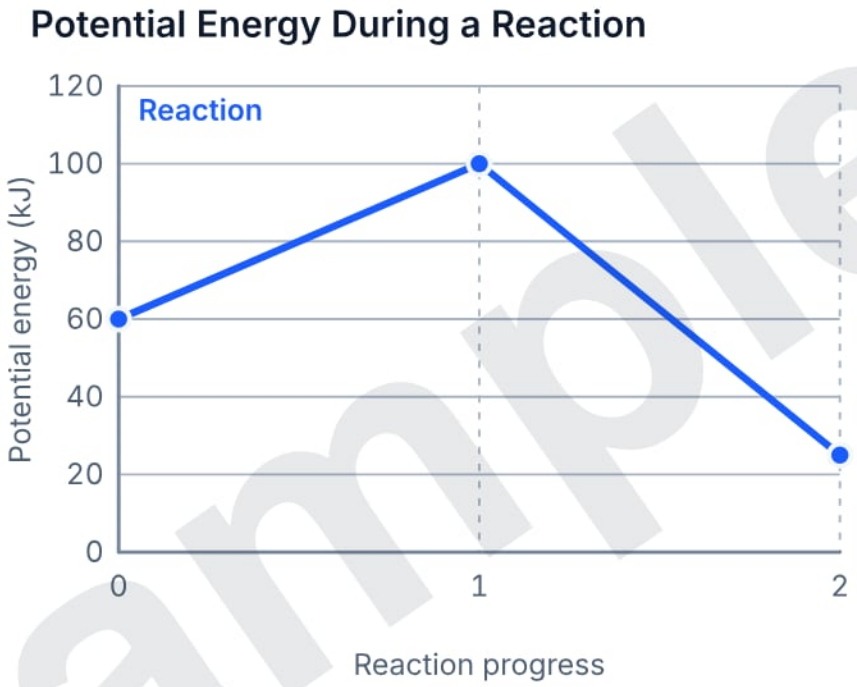
- ◯ **A** The catalyst raises the temperature and is used up.
- ◯ **B** The catalyst increases the reactant concentration and is used up.
- ◯ **C** The catalyst provides a pathway with lower activation energy and is not used up.
- ◯ **D** The catalyst raises the activation energy and is not used up.

Sample

Part II: Constructed Response

Questions 51 to 62

51 The line graph shows the potential energy of a reaction as it progresses. Name the peak, then calculate the activation energy and ΔH. Show all calculations, include units for both values, and give the sign of ΔH.



Sample

For the adult

Answer key

File 3
Answer key

Practice set 1. Add up the marks on the score sheet, page 11.

Part I: Selected Response

1 mark each · 50 marks

No.	Answer	Mark	What it tests	Page
1	[illegible]	1	Unit 1: From Kinetics to Equilibrium	2
2	[illegible]	1	Unit 1: From Kinetics to Equilibrium	2
3	[illegible]	1	Unit 1: From Kinetics to Equilibrium	3
4	[illegible]	1	Unit 1: From Kinetics to Equilibrium	4
5	[illegible]	1	Unit 1: From Kinetics to Equilibrium	4
6	[illegible]	1	Unit 1: From Kinetics to Equilibrium	5
7	[illegible]	1	Unit 1: From Kinetics to Equilibrium	6
8	[illegible]	1	Unit 1: From Kinetics to Equilibrium	7
9	[illegible]	1	Unit 1: From Kinetics to Equilibrium	8
10	[illegible]	1	Unit 1: From Kinetics to Equilibrium	8
11	[illegible]	1	Unit 1: From Kinetics to Equilibrium	9

Sample

Question 52: worked answer and marks

4 marks

Question 53: worked answer and marks

3 marks

Question 55: worked answer and marks

4 marks

Sample

MapleMind

File 1
Start here

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Chemistry 3202 Public Exam

The guide for students and adults

For the student

What to expect	Page 2
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Your progress	Page 8
Exam day	Page 9

For the adult

How to print it, run it and mark it	Page 10
Answer keys	File 3

Keep these files away from the student.

In your download

File 1	Start here (this guide)
File 2	Practice exam, Set 1
File 3	Answer key, Set 1
File 4	Reference sheet
Study plan	To your exam date, when you gave one
Code list	Who has each copy, for a class



Start with page 2, together if you can.
Your study plan is on page 6.

Sample