

AGA KHAN UNIVERSITY EXAMINATION BOARD

SECONDARY SCHOOL CERTIFICATE

CLASS X

ANNUAL EXAMINATIONS (THEORY) 2024

Chemistry Paper II

Time: 1 hour 50 minutes Marks: 25

INSTRUCTIONS

Please read the following instructions carefully.

1. Check your name and school information. Sign if it is accurate.

**I agree that this is my name and school.
Candidate's Signature**

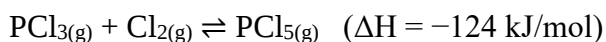
RUBRIC

2. There are SIX questions. Answer ALL questions. Questions 5 & 6 each offer TWO choices. Attempt any ONE choice from each.
3. When answering the questions:

Read each question carefully.
Use a black pointer to write your answers. DO NOT write your answers in pencil.
Use a black pencil for diagrams. DO NOT use coloured pencils.
DO NOT use staples, paper clips, glue correcting fluid, or ink erasers.
Complete your answer in the allocated space only. DO NOT write outside the answer box.
4. The marks for the questions are shown in brackets ().
5. You may use a simple calculator if you wish.

Q.1. (Total 4 Marks)

Consider the given reaction at equilibrium.



- a. With reference to the given chemical reaction, complete the table by writing the reason for each cause and effect. (2 Marks)

S. No.	Cause and Effect	Reason
i.	Increase in temperature shifts equilibrium towards left	
ii.	Increase in pressure shifts equilibrium towards right	

- b. Identify the principle applied to this chemical reaction. Support your identification with a suitable reason. (2 Marks)

Q.2. (Total 3 Marks)

Given are three different compounds with four carbon atoms.

<pre> H H H — C — C — H H — C — C — H H H </pre>	<pre> H H H H — C — C — C — CO₂H H H H </pre>	<pre> H H H H H — C — C — C = C H H H </pre>
I	II	III

- a. Identify compound II based on its functional group. (1 Mark)

- b. Write any ONE similarity and ONE difference between compounds **I** and **III**. (2 Marks)

Q.3. (Total 3 Marks)

Two beakers, labelled as A and B, contain two different carbohydrates. The carbohydrate in beaker A dissolves only in hot water while the carbohydrate in beaker B easily dissolves in cold water.

- a. Which beaker contains sugar and which one has starch? (1 Mark)

- b. Why the carbohydrate in beaker A dissolves in hot water only? (1 Mark)

- c. Name the simplest form of carbohydrates. (1 Mark)

Q.4. (Total 3 Marks)

Write any THREE features of water with reference to its occurrence on the Earth.

PLEASE TURN OVER THE PAGE

Q.5.

(Total 6 Marks)

EITHER

a.

- i. Write any FOUR industrial uses of common salt. (4 Marks)
- ii. Give any ONE example of each of the following types of salt. (2 Marks)
 - I. Mixed salt
 - II. Double salt

OR

- b. Hydrocarbons are used as feedstock (raw material) in many industrial processes. A few examples of hydrocarbon feeds are ethylene and acetylene.
- i. Draw the structure for ethylene and acetylene. (2 Marks)
- ii. Describe the use of the following hydrocarbons in the manufacturing of their respective polymer and any TWO durable articles in the mentioned industries. (4 Marks)
- I. Ethylene in plastic industry
- II. Acetylene in rubber industry

Annual Learning Plan
for Teaching

AKU-EB
Annual Examinations 2024
for Teaching & Learning only

PLEASE TURN OVER THE PAGE

EITHER

- OR**

Annual Examination
for Teaching & Learning

AKU-EB
Annual Examinations 2024
for Teaching & Learning only

END OF PAPER

Please use this page for rough work

AKU-EB
Annual Examinations 2024
for Teaching & Learning only