

AGA KHAN UNIVERSITY EXAMINATION BOARD

SECONDARY SCHOOL CERTIFICATE

CLASS X

General Science Paper II

Time: 2 hours 10 minutes Marks: 40

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 TEN questions. Answer ALL questions. Questions 8, 9 & 10 each offers 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 colour 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 ().

Q.1. (Total 3 Marks)

Write any TWO advantages and ONE disadvantage of greenhouse effect on the Earth's atmosphere.

Q.2. (Total 4 Marks)

Exemplify FOUR ways through which different kinds of pollution affect the water resources.

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Q.3.

(Total 4 Marks)

- a. Write any TWO ways in which genetic engineering has improved the yield of crops. (2 Marks)

- b. How does a patient suffering from thalassemia become anaemic? (2 Marks)

Q.4.

(Total 4 Marks)

Ali is a genetic engineer and he believes that production of genetically modified organisms (GMOs) do not have any social and ethical concerns. However, his brother Karim believes that production of GMOs has serious ethical and social concerns.

Discuss any FOUR points that Karim would put forward to justify his opinion.

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Q.5. (Total 2 Marks)

Most of the people use bleach to lighten the colour of their hair.

How does bleach lighten up dark hair colours?

Q.6. (Total 4 Marks)

a. Describe, in TWO points, how a satellite television is broadcasted. (2 Marks)

b. Mention any TWO uses of semi-conductor diodes. (2 Marks)

Q.7.

(Total 4 Marks)

Mention any FOUR sectors in which the atomic energy is used in Pakistan for peaceful purposes.

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- a.
 - i. Certain human activities result in the extinction of animals and birds. Describe any TWO effects of this extinction on the environment. (2 Marks)
 - ii. Suggest any THREE measures that should be taken to conserve endangered species. (3 Marks)

b. Suggest any FIVE ways to conserve water at home. (5 Marks)

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Q.9.

(Total 5 Marks)

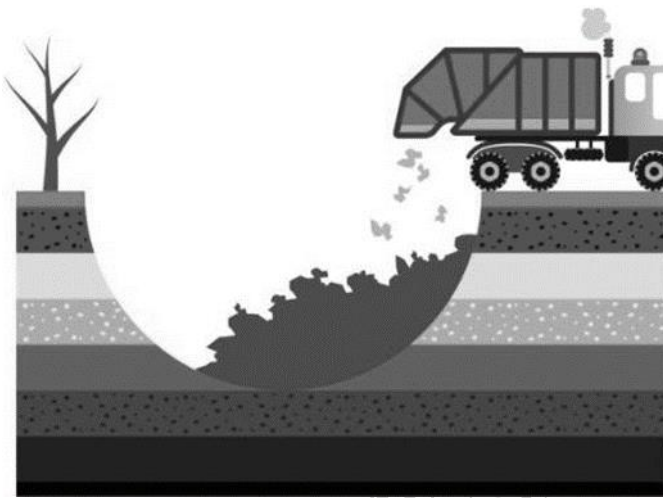
EITHER

a. Ahmed makes fertiliser for gardening by using manure from livestock animals.

- i. State if this type of fertiliser is organic or inorganic? (1 Mark)
- ii. Describe any TWO advantages of the type of fertiliser identified in part i. (4 Marks)

OR

b. The given diagram represents one of the methods of wastes disposal.



- i. Identify the given type of disposal method. (1 Mark)
- ii. Mention any ONE type of waste material that is most suitable to be dumped through the disposal method identified in part i. (1 Mark)
- iii. Describe any THREE safety consequences of the identified disposal method. (3 Marks)

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Q.10.

(Total 5 Marks)

EITHER

- a. Describe in FIVE points, the role of science and technology in the national development of a country. (5 Marks)

OR

- b.
- i. Describe the function of laser light. (1 Mark)
 - ii Mention any TWO applications of laser light in each of the given fields. (4 Marks)
 - Communication
 - Medicine

END OF PAPER

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