

AGA KHAN UNIVERSITY EXAMINATION BOARD
SECONDARY SCHOOL CERTIFICATE
CLASS IX
MODEL EXAMINATION PAPER 2023 AND ONWARDS
Biology 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 SEVEN questions. Answer ALL questions. Questions 6 & 7 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 ().

Q.1. (Total 2 Marks)

Complete the given table by identifying the branch of biology with respect to its significance.

Significance of the Branch of Biology	Name of the Branch of Biology
This branch of biology helps scientists to propose appropriate habitat for the living organisms and find out ways to reduce different types of pollution.	
This branch of biology enables scientists to make use of living organisms for the benefits of mankind.	

Q.2. (Total 3 Marks)

Fahad conducts an experiment to investigate the effect of humidity on the rate of transpiration in plants. After a week, he records the following data.

Day	Humidity (%)	Transpiration Rate (g/m ² /hr)
1	40	198
2	61	188
3	62	186
4	75	150
5	78	80
6	80	60
7	88	57

Construct a graph to represent the given data.

Space for graph

Q.3.

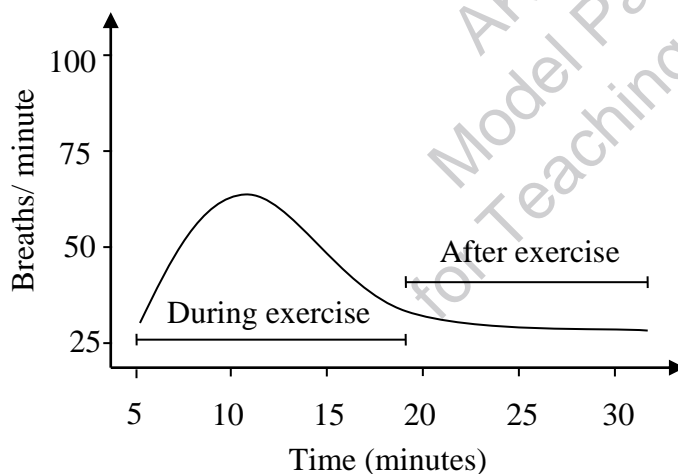
(Total 3 Marks)

State any THREE salient features of prokaryotes.

Q.4.

(Total 3 Marks)

The given graph shows the breathing rate (breaths per minute) of an individual during and after exercise.



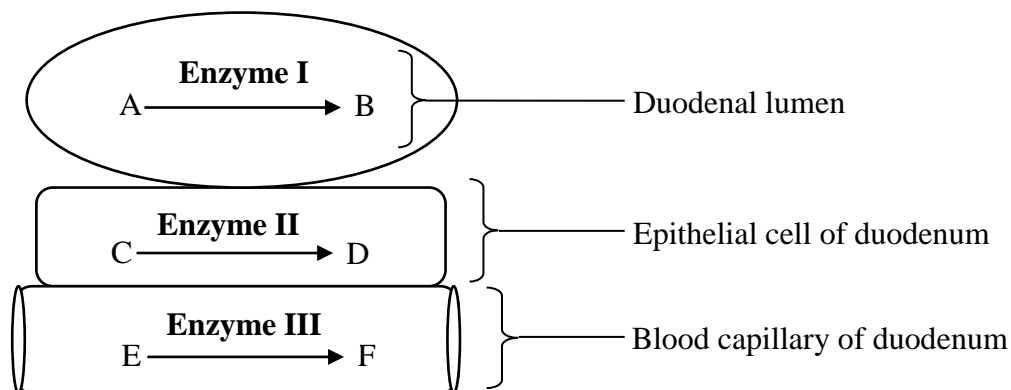
- a. Locate the point on the graph where lactic acid production will be the highest? (1 Mark)
- b. Why is the breathing rate of the individual high during exercise between 10 to 13 minutes? Give any TWO reasons. (2 Marks)

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Q.5.

(Total 2 Marks)

The given diagram illustrates the activity of three enzymes in the duodenum of human beings.



Classify any TWO enzymes from **I**, **II** and **III** as intracellular or extracellular.

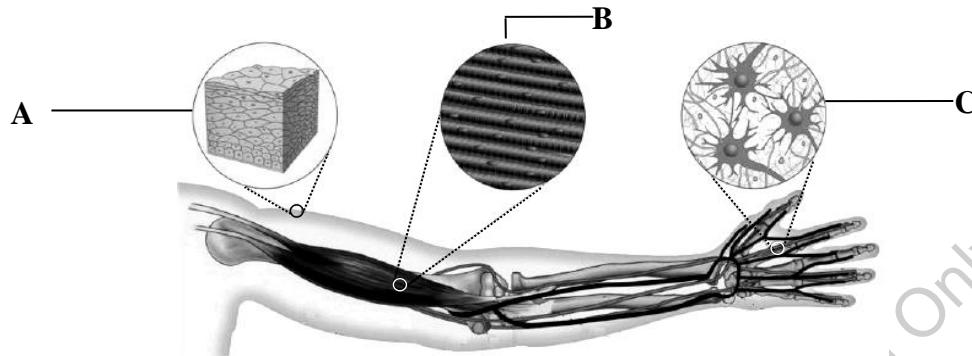
Intracellular Enzyme	Extracellular Enzyme

Q.6.

(Total 6 Marks)

EITHER

- a. The given diagram shows different types of tissues present in the human arm.



Describe the specificities and functions of tissues, labelled as **A**, **B** and **C** shown in the given diagram.

OR

- b. Explain the process of oxidation of glucose that takes place in the cells of human beings with reference to the mechanism of cellular respiration.

[illegible]

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Q.7.

(Total 6 Marks)

EITHER

- a. Explain the effects of excessive use of inorganic fertilisers on the following:
 - i. Global climate
 - ii. Aquatic life

OR

- b. The human heart is adapted to its function.

Explain the given statement with reference to the structure of any THREE parts of the heart and their relevant functions.

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