AGA KHAN UNIVERSITY EXAMINATION BOARD

SECONDARY SCHOOL CERTIFICATE

CLASS IX

ALTERNATE TO PRACTICAL (ATP)

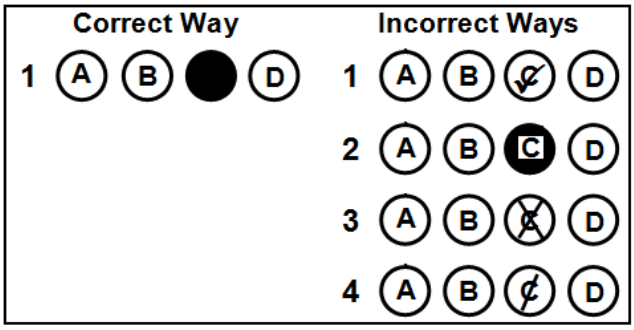
MODEL EXAMINATION PAPER 2021

Biology Paper III

Time: 20 minutes Marks: 10

INSTRUCTIONS

1. Read each question carefully.
2. Answer the questions on the separate answer sheet provided. DO NOT write your answers on the question paper.
3. There are 100 answer numbers on the answer sheet. Use answer numbers 1 to 10 only.
4. In each question, there are four choices A, B, C, D. Choose ONE. On the answer grid, black out the circle for your choice with a pencil as shown below.



Candidate's Signature

5. If you want to change your answer, ERASE the first answer completely with a rubber, before blacking out a new circle.
6. DO NOT write anything in the answer grid. The computer only records what is in the circles.
7. You may use a simple calculator if you wish.

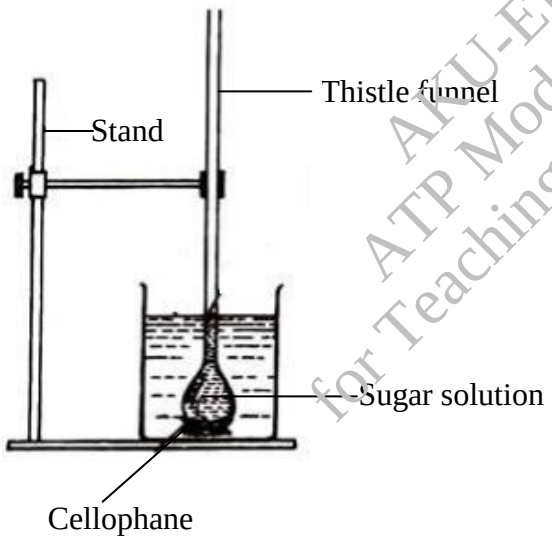
1. The given table shows the length of a side of four different cuboidal pieces of a potato.

Potato Cube	Length (cm)
P	2
Q	4
R	6
S	8

If these potato cubes are kept in a dye, then the potato cube which will absorb the maximum amount of dye is

A. P.
B. Q.
C. R.
D. S.

2. The given diagram represents an experimental set-up for the demonstration of osmosis by using thistle funnel.

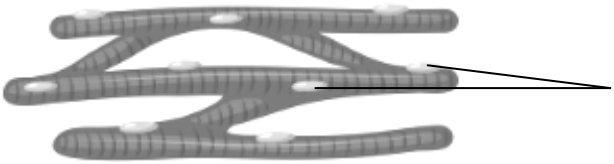


The components of the set-up that correspond to the parts of plant cell are

	Component of Set-Up	Part of Plant Cell
I	cellophane	plasma membrane
II	cellophane	cell wall
III	sugar solution in the thistle funnel	cell sap
IV	sugar solution in the thistle funnel	cell cytoplasm

A. I and III.
B. I and IV.
C. II and IV.
D. II and III.

3. The given diagram represents the microscopic view of one of the types of muscle tissues.



The human body organ which contains the given muscle tissue is

A. liver.
B. heart.
C. stomach.
D. urinary bladder.

4. In the given image, diagram I represents an experimental set-up to investigate the factors necessary for photosynthesis and diagram II represents iodine test on the leaf.

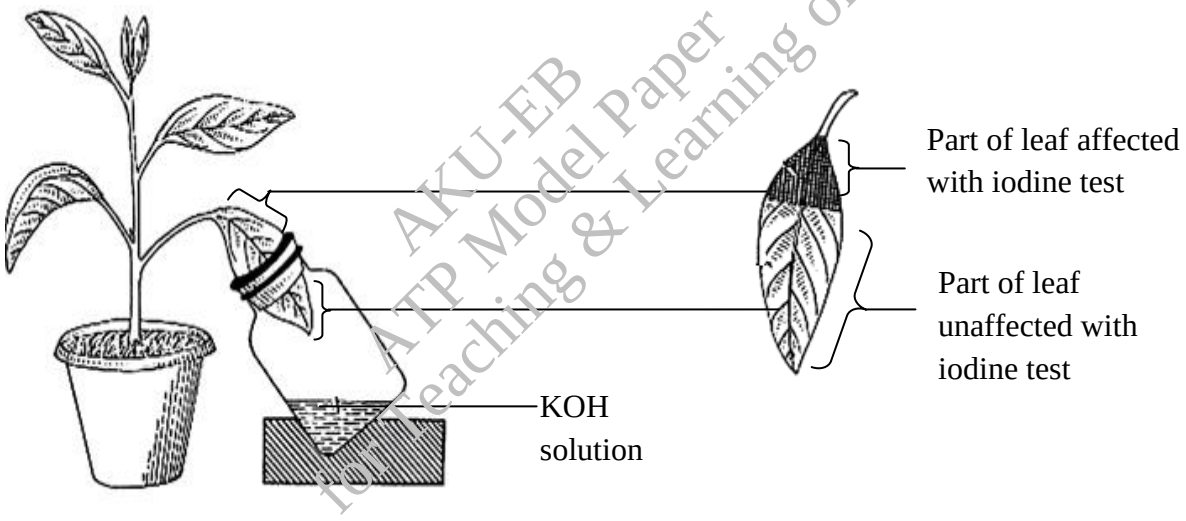


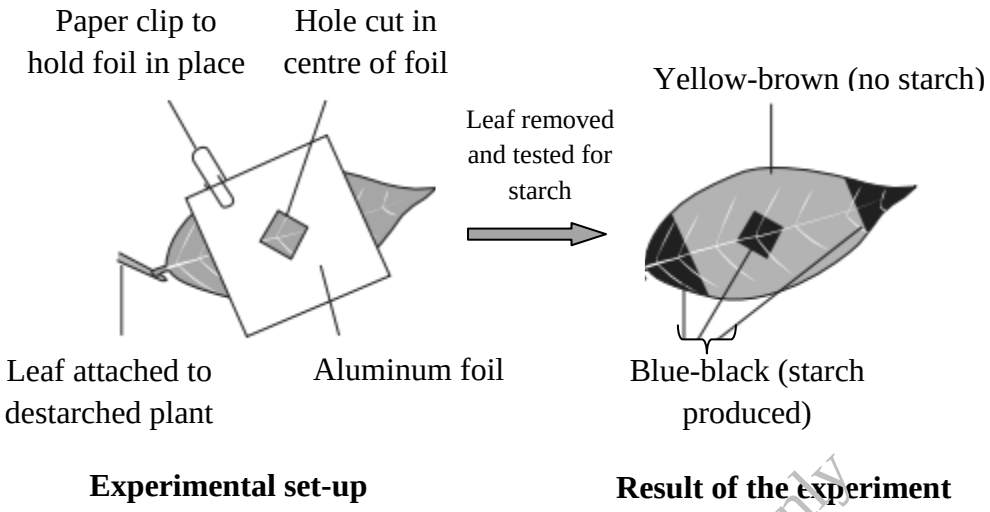
Diagram I: Experimental set-up

Diagram II: Iodine test on the leaf

In the given experiment, part of the leaf unaffected with iodine test indicates the absence of

A. light.
B. oxygen.
C. chlorophyll.
D. carbon dioxide.

5. The given image shows an experimental set-up and its result which is used to investigate a factor that affect the rate of photosynthesis.



Experimental set-up **Result of the experiment**

The factor that is investigated by the given experimental set-up is identified as

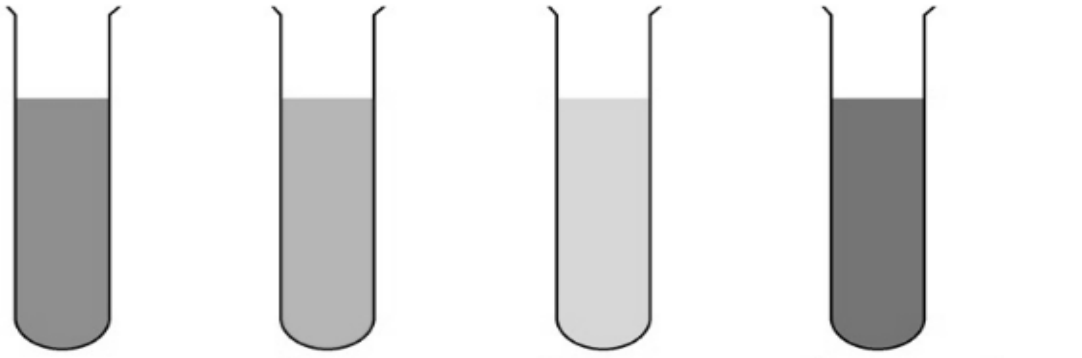
A. light.
B. water.
C. temperature.
D. carbon dioxide.

6. A student while doing his homework in the garden forgot his books on the grass. After four days, when he picked the books he noticed that the grass under the books turned yellow.

The grass changed its colour because it does NOT get the required

A. light.
B. oxygen gas.
C. temperature.
D. carbon dioxide gas.

7. The given test tubes represent the observation of Benedict's test for reducing sugar.



Blue	Green precipitate	Yellow precipitate	Orange-red precipitate
I	II	III	IV

The test tube in which reducing sugar is completely ABSENT is

A. I.
B. II.
C. III.
D. IV.

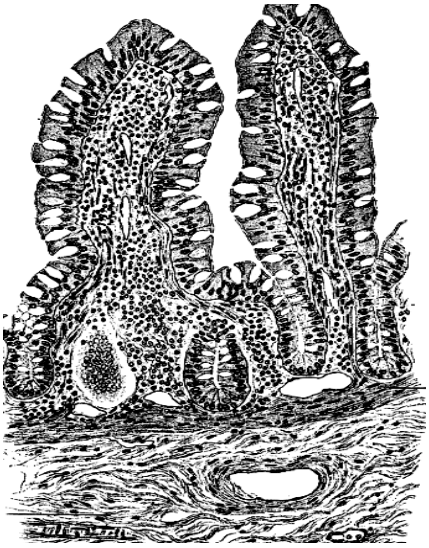
8. Given are the steps to carry out the biochemical test for egg albumin.

- Place 1 cm^3 of the egg albumin in a test tube. Add about 1 cm^3 water to the tube and stir to mix.
- Add an equal volume of sodium hydroxide solution to the tube and stir.
- Add two drops of copper sulphate solution and stir for two minutes.

The expected observation for the given biochemical test would be

A. white cloudy emulsion.
B. brick-red precipitate.
C. blue black solution.
D. violet colour.

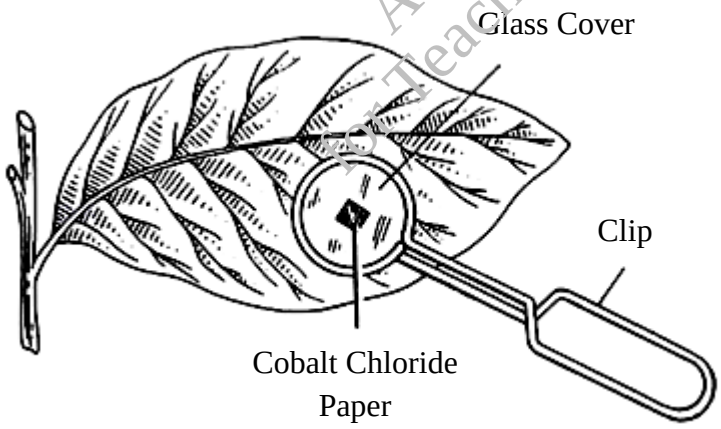
9. The given image represents the transverse section of a part of the human digestive system as seen under a microscope.



This part of the human digestive system can be identified as the

A. pharynx.
B. stomach.
C. esophagus.
D. small intestine.

10. The given image shows experimental set-up to investigate transpiration in plants.



After a few hours, if transpiration has occurred, which change will be observed on the cobalt chloride paper?

A. It will get dissolved
B. It will become stiff and hard
C. It will permanently stick to the leaf
D. Its colour will change from blue to pink

END OF PAPER

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