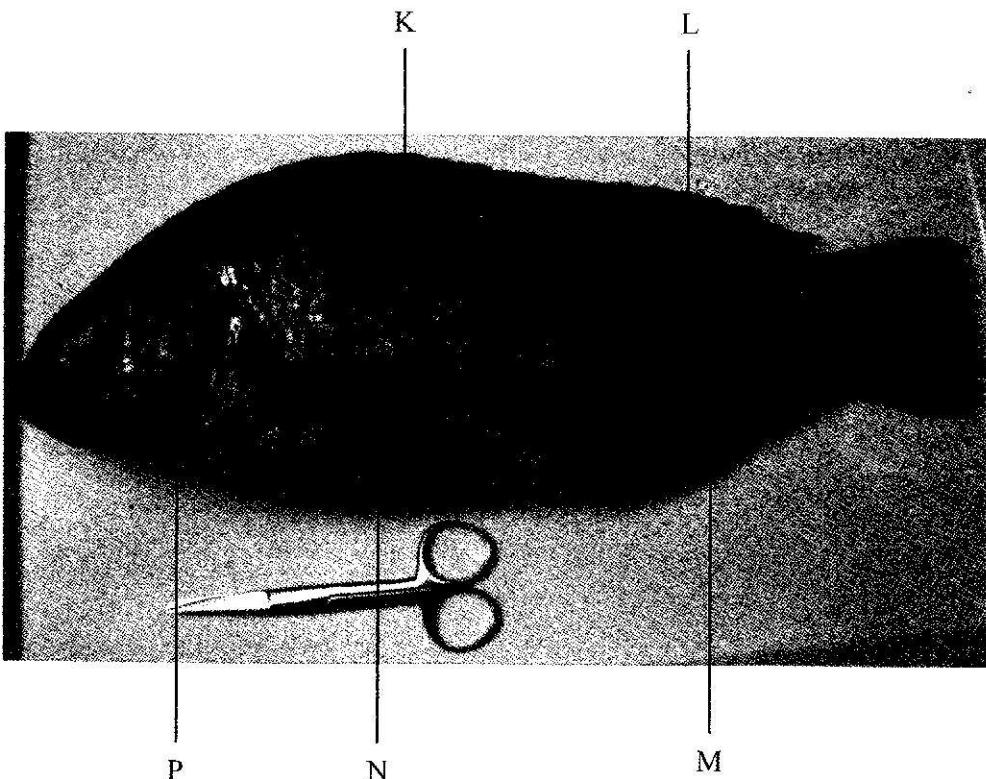


2.1.3 Biology Paper 3 (231/3)

- 1 Below is a photograph of a fish. Examine it and answer the questions that follow.



- (a) Name the parts labelled K, L, M and N. (4 marks)

K

L

M

N

- (b) The actual length of the pair of scissors next to the fish is 12.5cm. Using this information, calculate the actual length of the fish. (3 marks)

- (c) Name the fins that prevent the following movements of fish during swimming. (3 marks)

(i) Yawing:

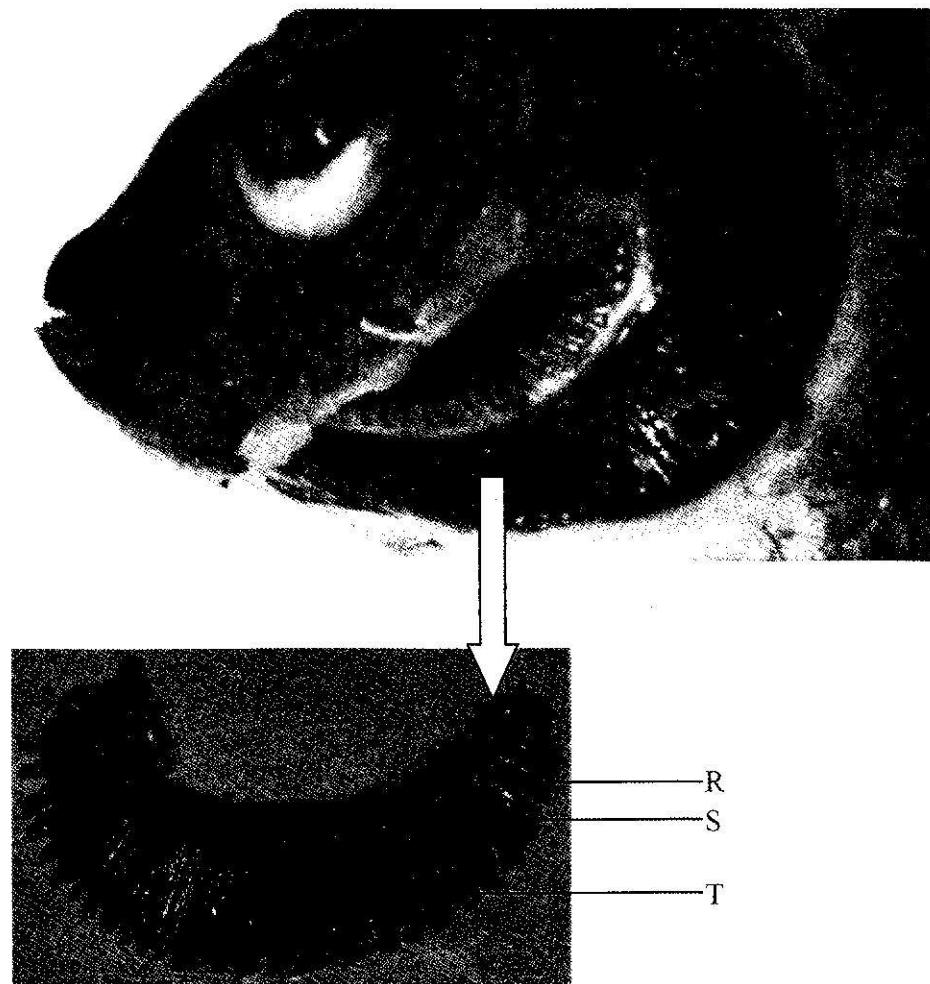
(ii) Pitching: and

(c) Name the fins that prevent the following movements of fish during swimming.
(3 marks)

(i) Yawing:

(ii) Pitching: and

(d) The photograph below shows structures visible after removing the part labelled P.
The inset is a magnified view of one of the structures.



(i) Name the parts labelled R, S and T. (3 marks)

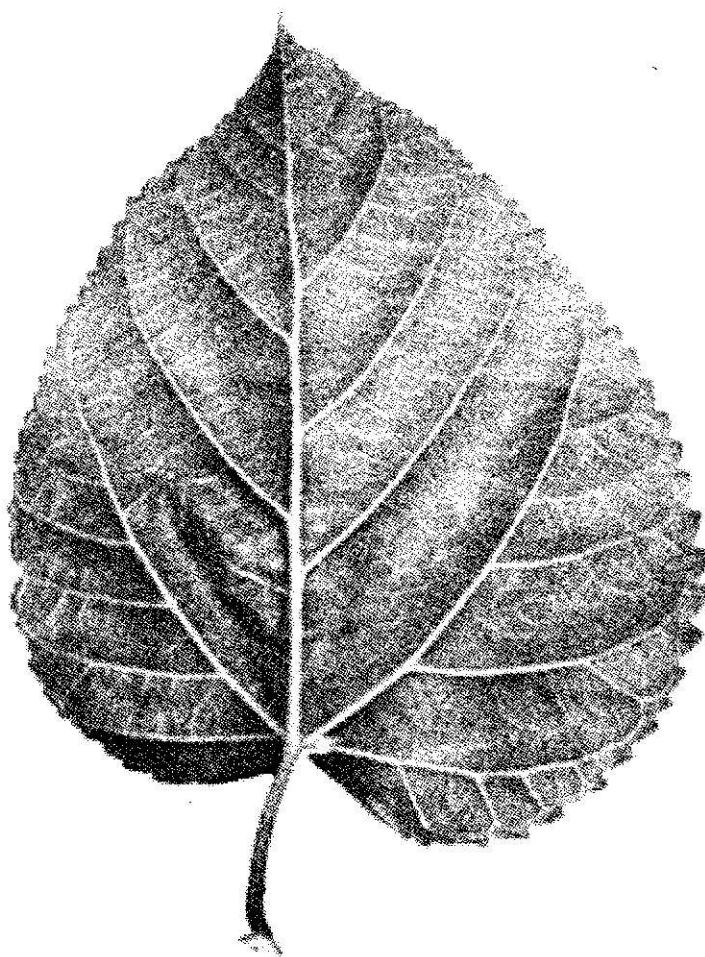
R

S

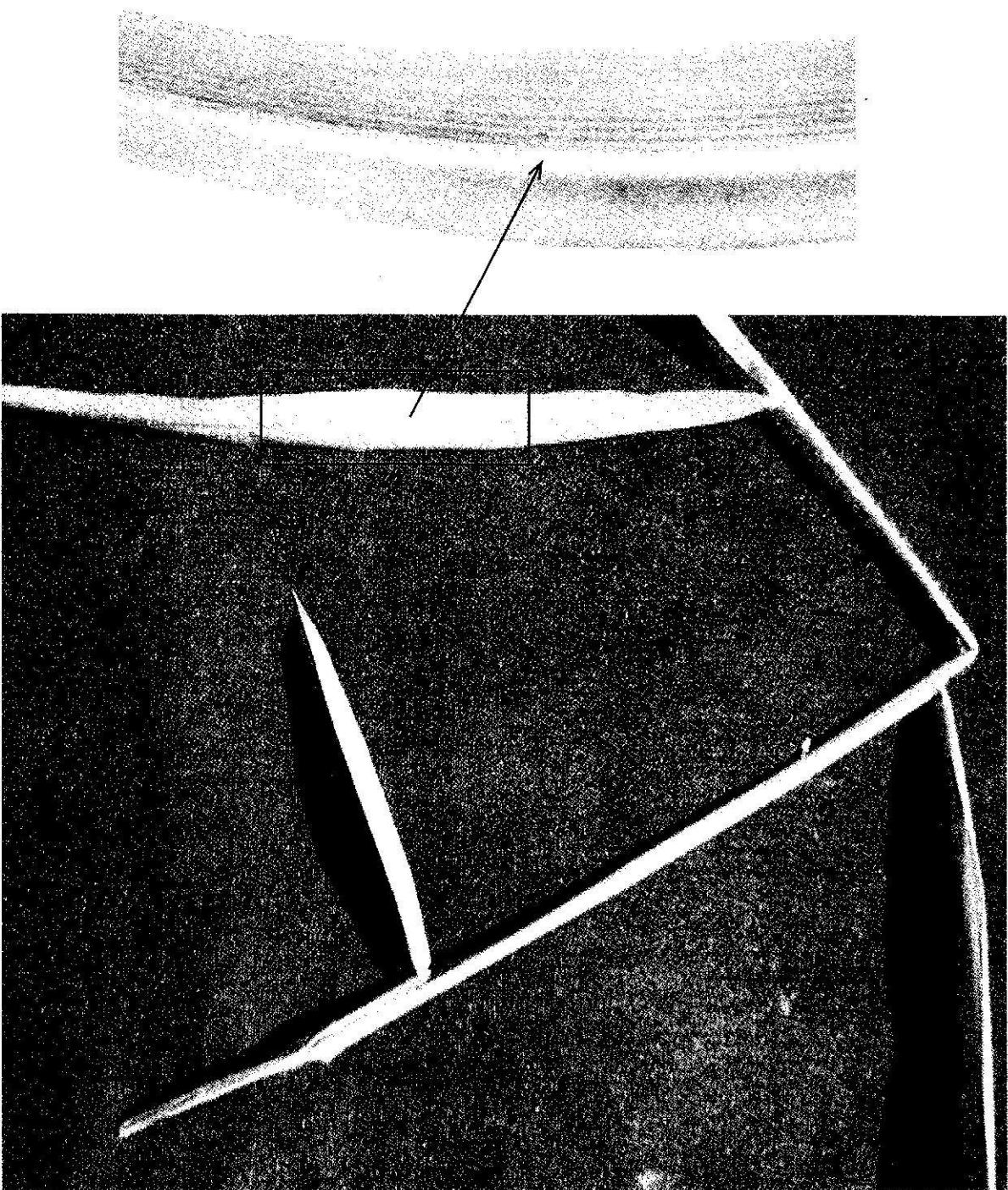
T

(ii) Explain how each of the parts named in (d) (i) above is adapted to its function.
(3 marks)

- 2 The photographs labelled D and E show two types of leaves.



PHOTOGRAPH D



PHOTOGRAPH E

- (a) With a reason, state the classes of plants from which the leaves in Photographs D and E were obtained. (4 marks)

Photograph D

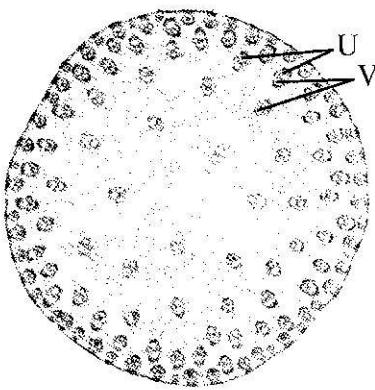
Reason

Photograph E

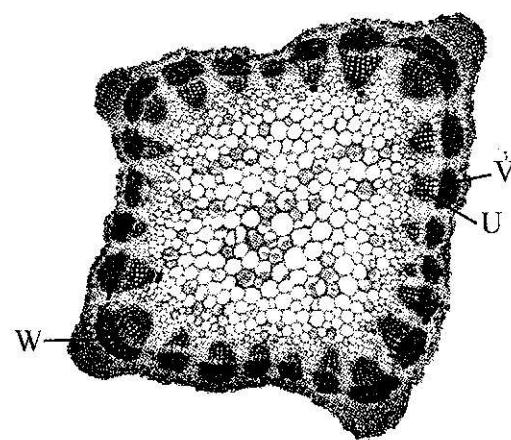
Reason

- (b) State **three** features in the leaf shown in photograph D that adapt it to its functions. (3 marks)

- (c) The photographs below show the structures observed in cross sections of parts of two types of plants as seen under a light microscope.



PHOTOGRAPH F



PHOTOGRAPH G

- (i) Name the parts labelled U, V and W. (3 marks)

U

V

W

- (ii) Identify **five** differences between cross sections F and G and record them in the table below. (5 marks)

Cross Section F	Cross Section G
.....
.....
.....
.....
.....

- 3 You are provided with a sample of food labelled **X** in solution form, solution **J** (Iodine solution), solution **K** (Benedict's solution) and solution **L** (Biuret's reagent). Carry out tests on the food sample to identify the type of food substances present. (9 marks)

Food being tested for	Procedure	Observations	Conclusion