**NAME:……………………………………………………………………..ADM:……….CLASS:……**

**ANESTAR SCHOOLS**

**BIOLOGY**

**FORM 2**

**TERM 1 OPENER EXAM, 2022**

**TIME: 1 HOURS**

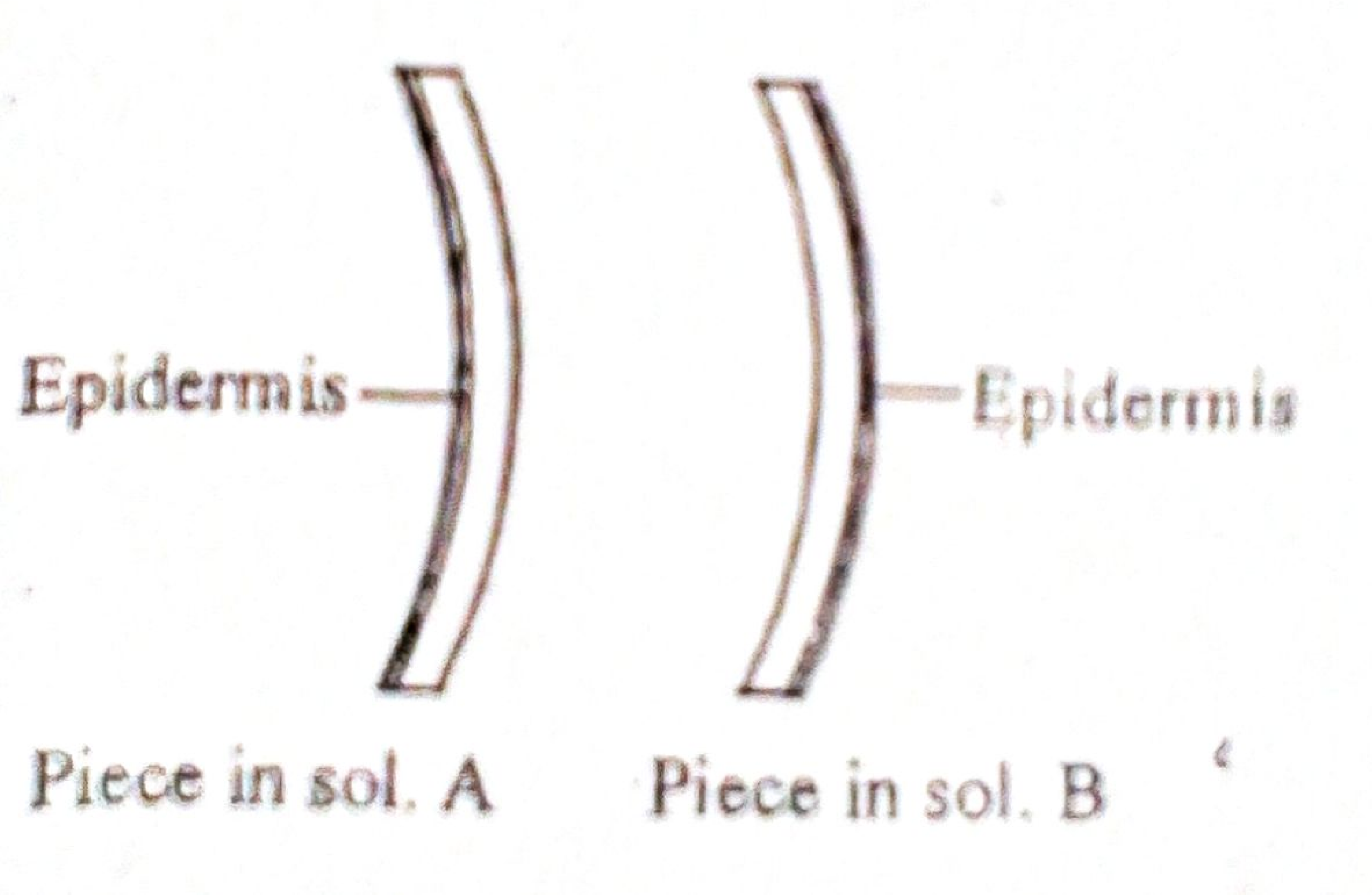
**TOTAL MARKS: 70**

1. Define the following terms (3mks)
2. Anatomy
3. Genetics
4. Ecology
5. (a) Name five Kingdoms used in classification. Give one example in each case. (5mks)

|  |  |
| --- | --- |
| KINGDOM | EXAMPLE |
|  |  |
|  |  |
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|  |  |
|  |  |

(b) Name the taxonomic unit (taxon) whose members. (2mks)

1. Have more common characteristics
2. Have least characteristics in common
3. Give two functions of centrioles in animal cells . (2mks)
4. State the functions of the following tissues (4mks)
5. Muscular tissue
6. Nervous tissue
7. Meristematic tissue
8. Parenchyma tissue.



1. A 4cm straight piece of stem from a herbaceous plant was split into two similar pieces. The pieces were placed into sugar solutions of different concentration for 30 minutes. Their final appearance was as shown below.
2. Name the physiological process being investigated (1mk)
3. Explain /account for the appearance of the piece in A. (2mks)
4. Explain what would happen of red blood cells were placed in solution A (1mks)
5. (a) Outline two importance of photosynthesis in nature. (2mks)

(b) (i) Write down a chemical equation that summarizes the reactions of photosynthesis. (1mks)

1. State the name given to the reverse reaction of the equation you have written above. (1mk)

( c) What is the importance of light stage in photosynthesis. (1mks)

1. (i) Other than temperature State two factors that affect the rate of photosynthesis. (2mks)

(ii) Explain how temperature affects the rate of photosynthesis (2mks)

1. (a) State two functions of lipids in the body of organisms. (2mks)

(b) Define the term enzymes. (1mk)

(c) Outline two properties of enzymes. (2mks)

1. State three elements common in carbohydrates, proteins and lipids. (3mks)
2. (a) Write the dental formula of (2mks)

Man

A herbivore

1. State the function of the following in herbivores (2marks)
2. Horny/pad
3. Diastema
4. (i) Define the term digestion. (1mk)

(ii ) State three components of Saliva and their role in digestion ` (3mks)

|  |  |
| --- | --- |
| Components | Function |
|  |  |
|  |  |
|  |  |

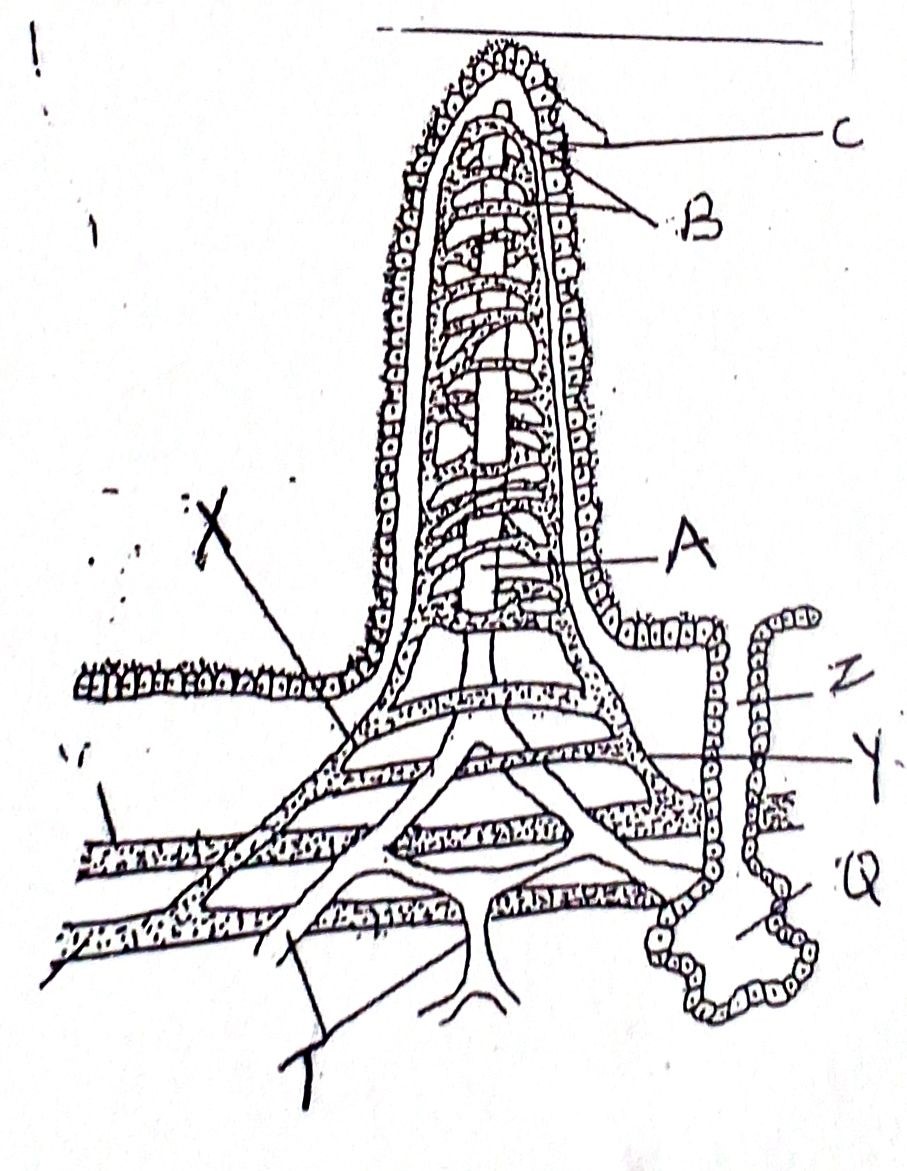
1. (a) State the functions of the following components of Bile. (2mks)

Bite salts

Sodium Bicarbonate

1. State the role of Pancreases in digestion. (2mks)
2. (a) Name the cells that secrete mucus in the digestive system .(1mk)

(b) Study the structure illustrated below



1. Identify the structure (1mk)
2. State the role of the structure (1mk)
3. Name the parts A and B (2mks)

A

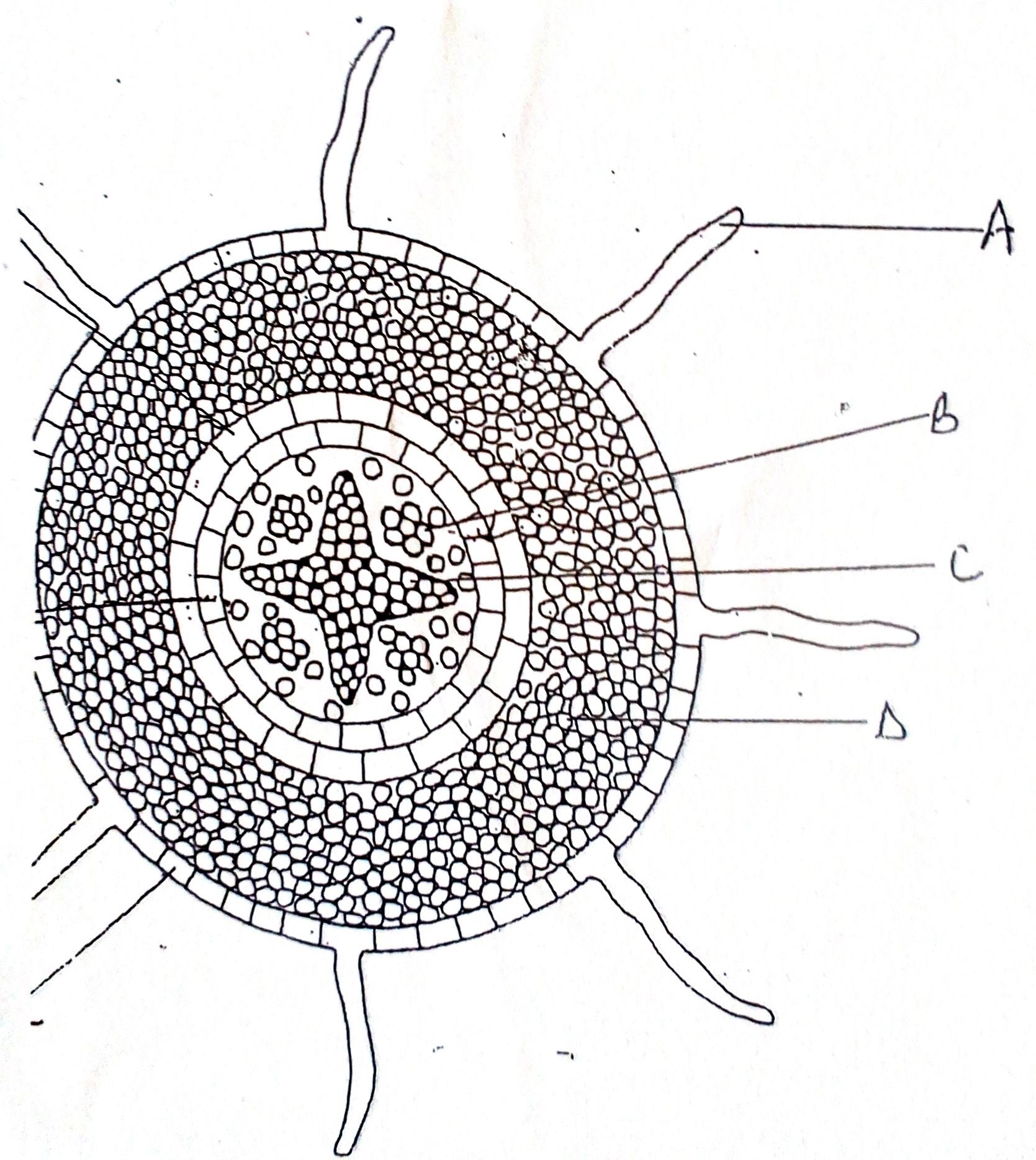
B

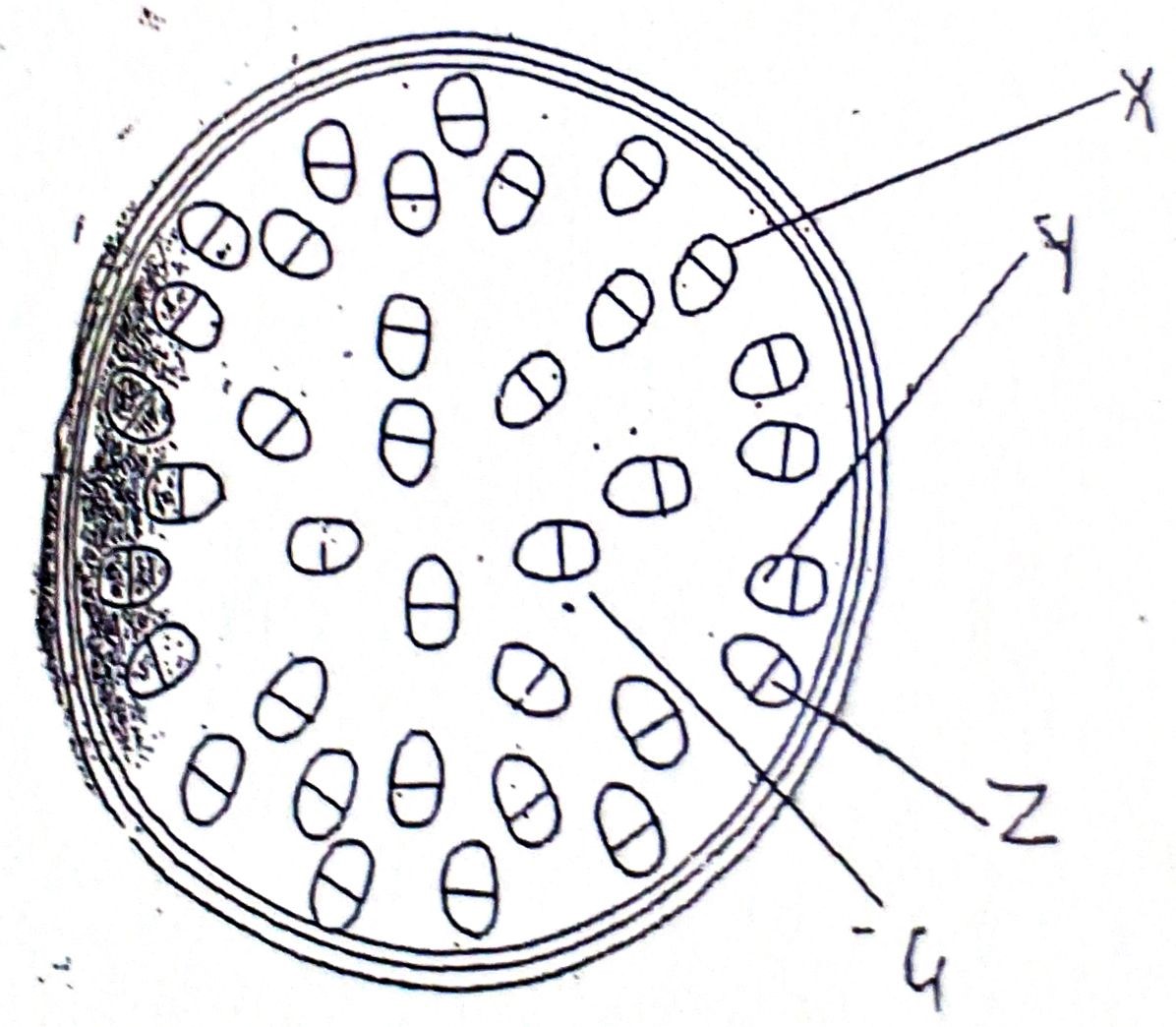
1. (a) Define transport as used in living organisms. (1mk)

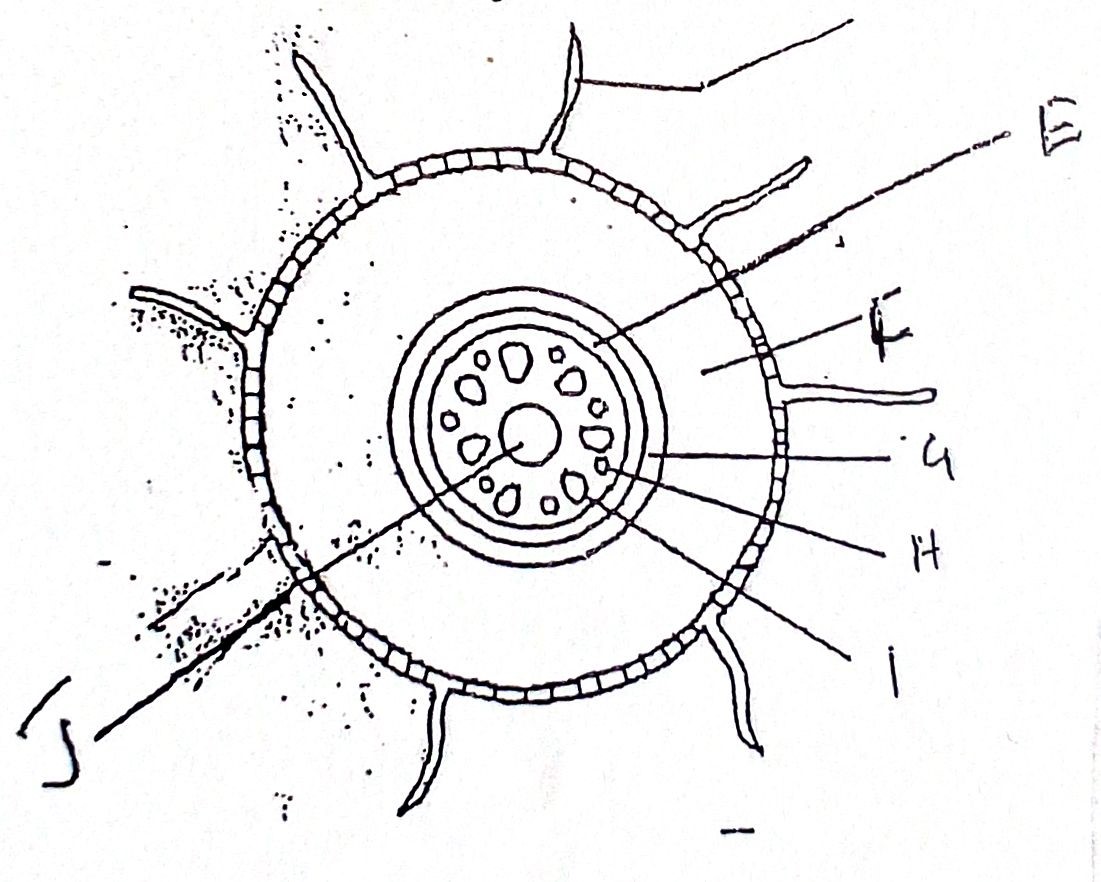
(b) State two primary functions of roots of plants (2mks)

1. Study the following diagrams. (3mks

A



B

C

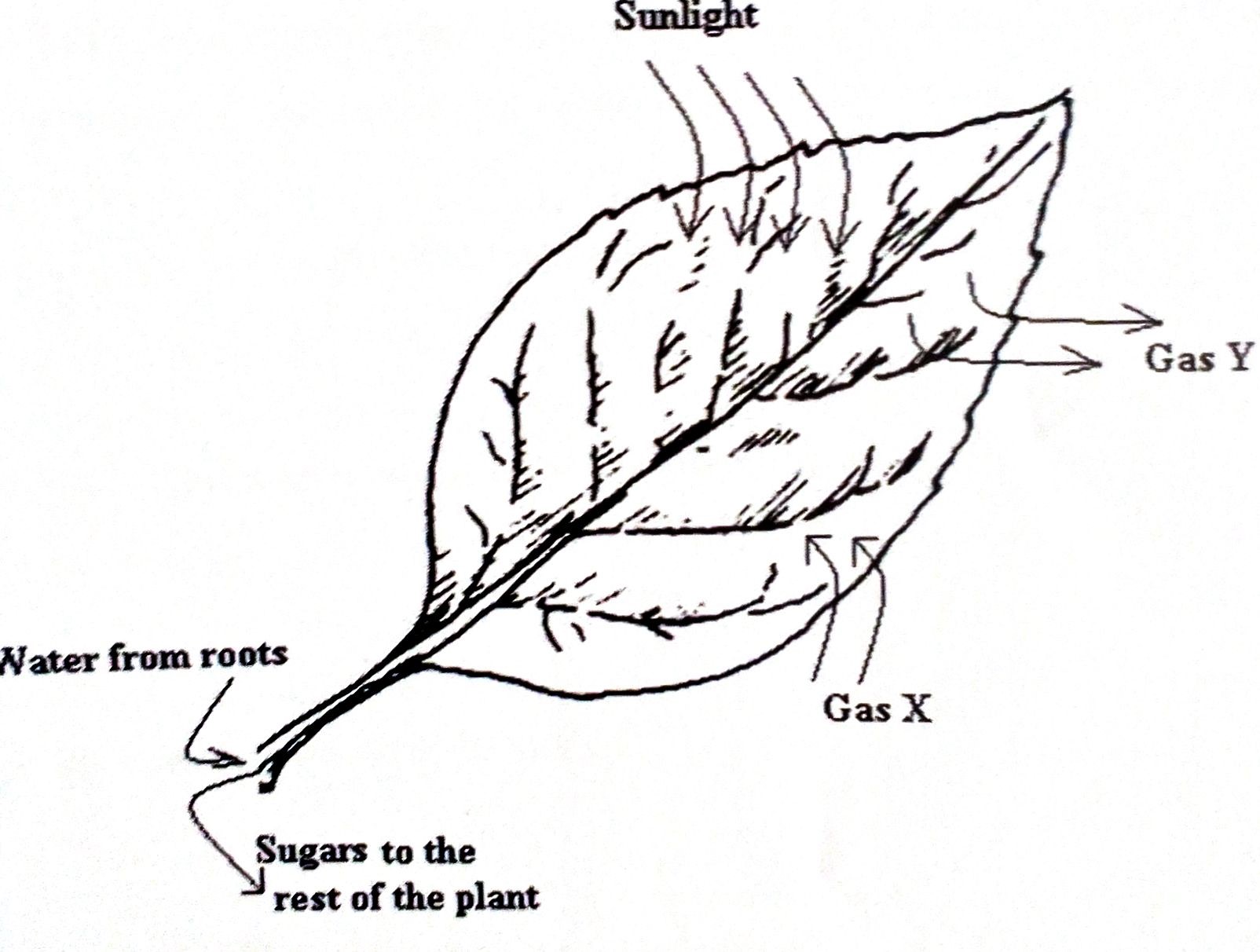
Identify part of plant represented by the diagrams (3mks)

A

B

C

1. Outline two environmental factors that affect the rate of transpiration. (2mks)
2. Name the reagent used for testing presence of (3mks)
3. Starch
4. Reducing sugars
5. Vitamin C
6. State the processes which occur in each of the following organelles. (3mks)
7. Chloroplast
8. Mitochondrion
9. Ribosomes
10. . The following diagram shows what happens in a plant leaf during photosynthesis.



1. Name the gases labelled X and Y. (2mks)

X

Y

1. Name the tissue which transport:
2. Water in to the leaf. (1mk)
3. Sugars out of the leaf. (1mk)