



CAMEROON GENERAL CERTIFICATE OF EDUCATION BOARD
General Certificate of Education Examination

0510 BIOLOGY 1

JUNE 2017

ORDINARY LEVEL

Centre Number	
Centre Name	
Candidate Identification No.	
Candidate Name	

Mobile phones are NOT allowed in the examination room.

MULTIPLE CHOICE QUESTION PAPER

One and a half hours

INSTRUCTIONS TO CANDIDATES

Read the following instructions carefully before you start answering the questions in this paper. Make sure you have a soft HB pencil and an eraser for this examination.

1. USE A SOFT HB PENCIL THROUGHOUT THE EXAMINATION.
2. DO NOT OPEN THIS BOOKLET UNTIL YOU ARE TOLD TO DO SO.

Before the examination begins:

3. Check that this question booklet is headed "0510 BIOLOGY 1 - Ordinary Level"
4. Fill in the information required in the spaces above.
5. Fill in the information required in the spaces provided on the answer sheet using your HB pencil:
Candidate Name, Exam Session, Subject Code and Candidate Identification Number.
Take care that you do not crease or fold the answer sheet or make any marks on it other than those asked for in these instructions.

How to answer the questions in this examination

6. Answer ALL the 50 questions in this Examination. All questions carry equal marks.
7. Non-programmable calculators are allowed.
8. Each question has FOUR suggested answers: A, B, C and D. Decide on which answer is appropriate. Find the number of the question on the Answer Sheet and draw a horizontal line across the letter to join the square brackets for the answer you have chosen.
For example, if C is your correct answer; mark C as shown below:
[A] [B] [C] [D]
9. Mark only one answer for each question. If you mark more than one answer, you will score a zero for that question. If you change your mind about an answer, erase the first mark carefully, then mark your new answer.
10. Avoid spending too much time on any one question. If you find a question difficult, move on to the next question. You can come back to this question later.
11. Do all rough work in this booklet using the blank spaces in the question booklet.
12. At the end of the examination, the invigilator shall collect first the answer sheet and then the question booklet. DO NOT ATTEMPT TO LEAVE THE EXAMINATION HALL WITH ANY.

Turn Over



SECTION I
Questions 1-7
(Seven questions)

Directions: Each of these questions or incomplete statements is followed by four suggested answers. Select the best answer in each case and mark the answer sheet appropriately.

1. Which of the following sets of environmental factors would most likely cause the release of much oxygen in green plants?

- A High carbon dioxide concentration, low wind velocity and high light intensity.
- B High light intensity, high relative humidity and high wind velocity.
- C High carbon dioxide concentration, high light intensity and availability of water.
- D High light intensity, high atmospheric pressure and low carbon dioxide concentration

2. Which of the following best describes spirogyra

- A Unicellular and saprophytic
- B Unicellular and autotrophic
- C Multicellular and holozoic
- D Multicellular and saprophitic

3. A food solution was tested with Benedict's solution and the result was a brick red precipitate. The solution contains:

- A Protein
- B Starch
- C Reducing sugar
- D Lipid

4. In the female reproductive system, sperms follow the following route.

- A Vagina, cervix, fallopian tube, uterus.
- B Vagina, fallopian tube, cervix, uterus.
- C Vagina, cervix, uterus, fallopian tube.
- D Vagina, uterus, cervix, fallopian tube.

5. The bending of a shoot towards a light source is due to.

- A Attraction of shoot by light.
- B Light causes auxin production.
- C Diffusion of auxin to illuminated side.
- D More auxin on the unilluminated side.

6. Our body releases sweat to:
- A Reduce body temperature.
 - B Eliminate excess water.
 - C Prevent dehydration.
 - D Keep the skin moist.

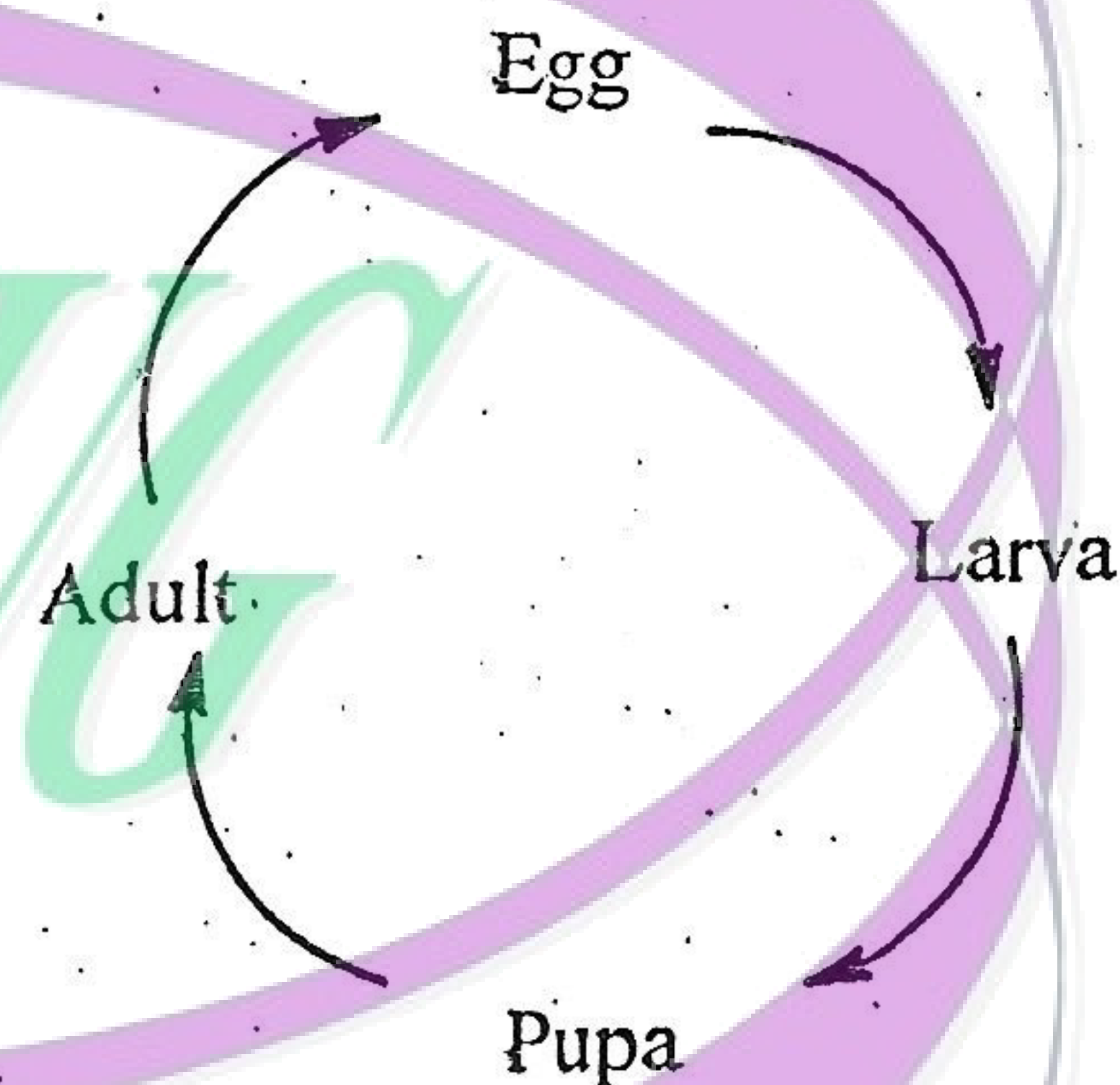
7. Rennin is produced in:

- A Stomach
- B Kidney
- C Liver
- D Pancreas

SECTION II
Questions 8-20
(Thirteen questions)

Directions: This group of questions relates to biological diagrams. Select the best answer for each question.

8. The diagram below shows the life cycle of an organism.



The above life cycle is typical of:

- A A grasshopper
- B A housefly
- C A termite
- D A cockroach.

9. In the diagram of an adult housefly which of the following is true?

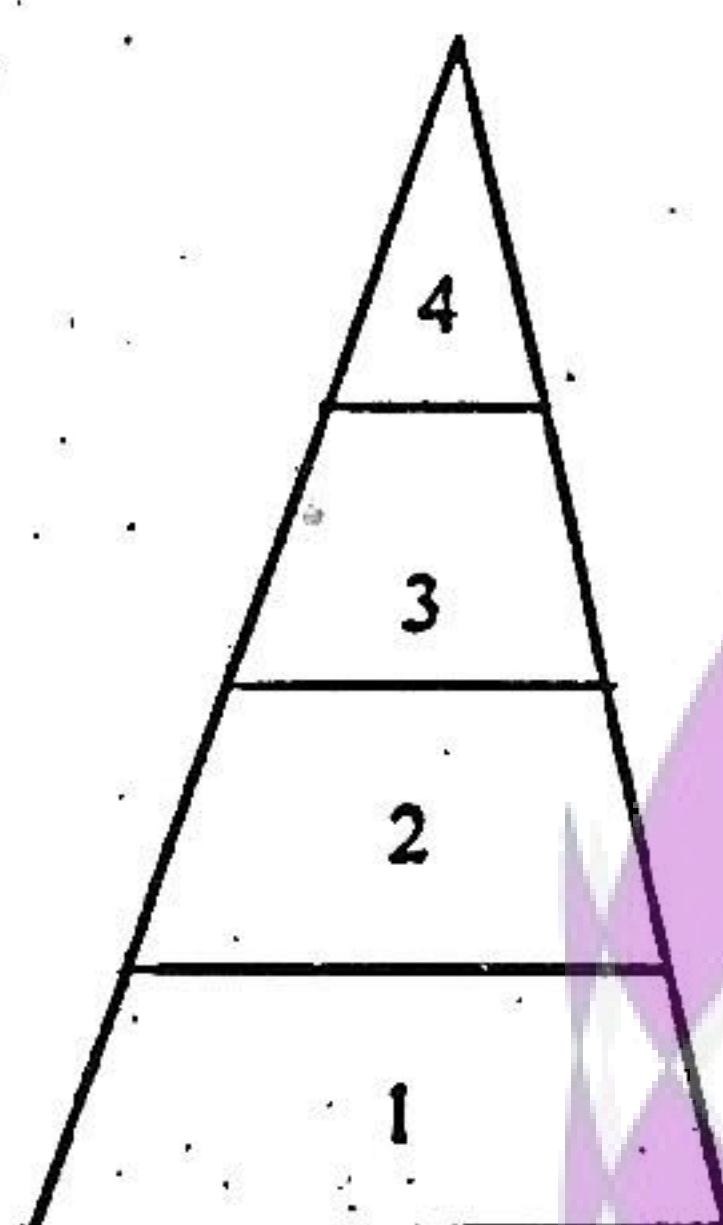
- A Has four pairs of legs.
- B Has jointed appendages.
- C Has two pairs of antennae.
- D Is covered by a cuticle made up of cellulose.



10. Which part of the bird's digestive system contains sand and gravels?
- A Stomach
 - B Crop
 - C Intestine
 - D Gizzard.

11. In the water cycle, which process causes water molecules to return to the atmosphere?
- A Evaporation
 - B Urination
 - C Condensation
 - D Precipitation.

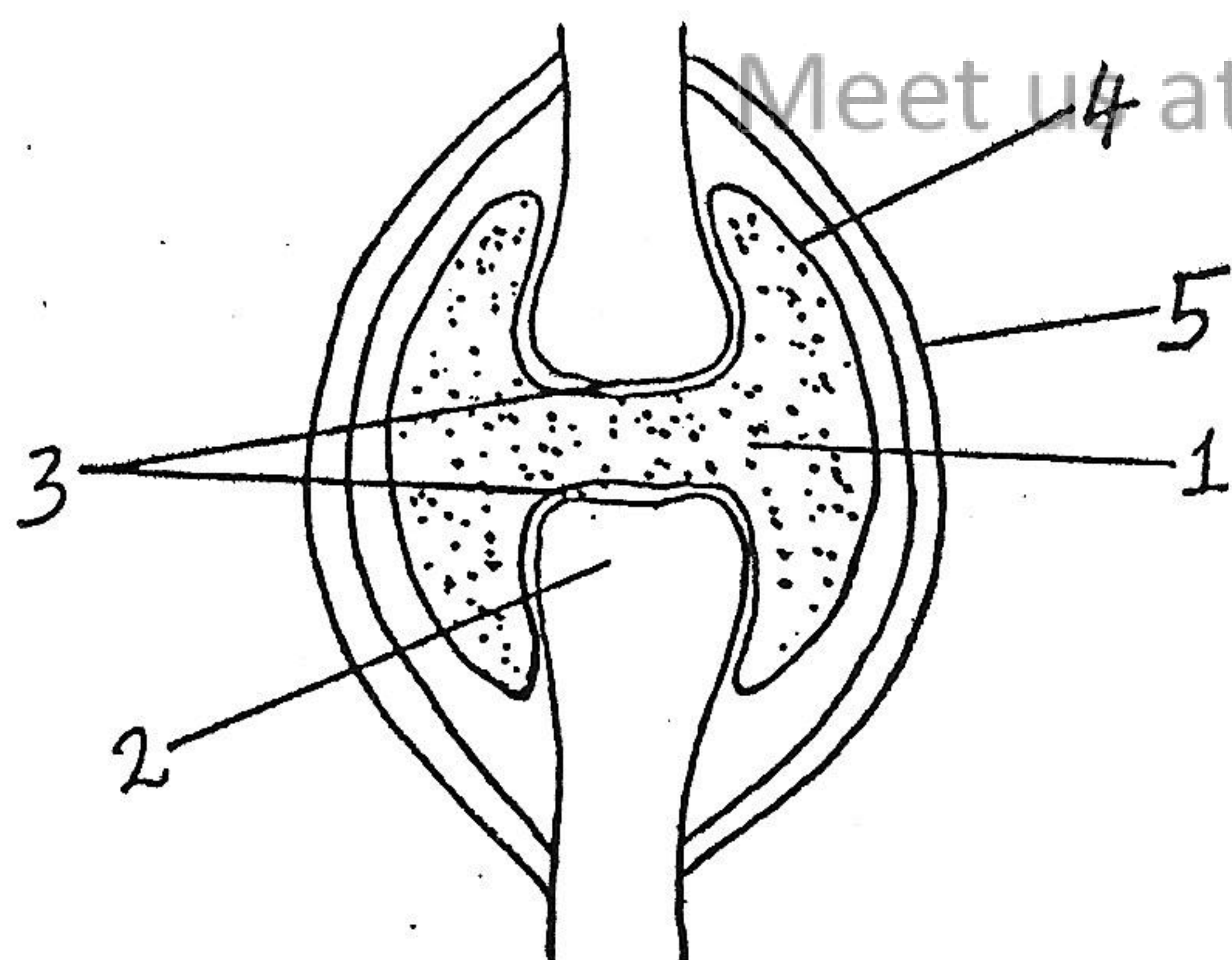
12.



The diagram above is a pyramid of numbers in an ecosystem. Which of the following is true of the diagram?

- A Energy decreases from level 4 to 1.
- B The largest organisms are found at the base.
- C The number of organisms at each level increases from level 1 to 4.
- D Energy flows from level 1 to 4.

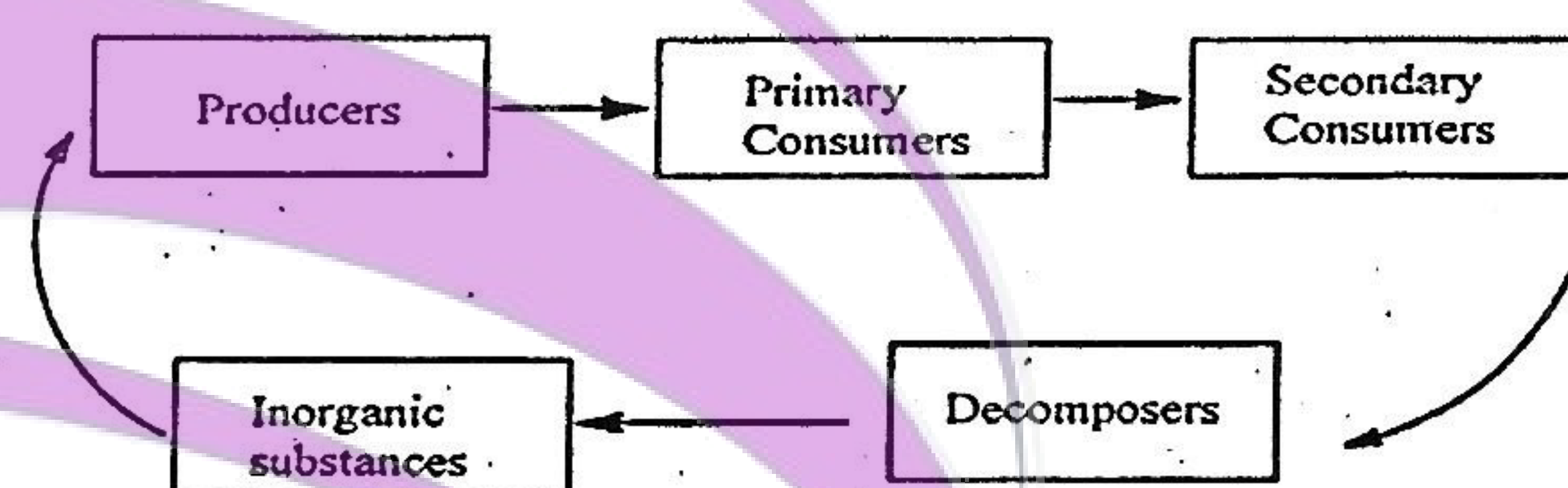
13. Below is the diagram of a joint



- The function of the part labelled 4 is to
- A keep bones in place
 - B produce Red Blood Cells
 - C produce antibodies
 - D produce Synovial fluid

14. Friction is prevented at the joints by:
- A Ligament and synovial fluid.
 - B Capsule and tendon.
 - C Synovial fluid and cartilage.
 - D Tendon and cartilage

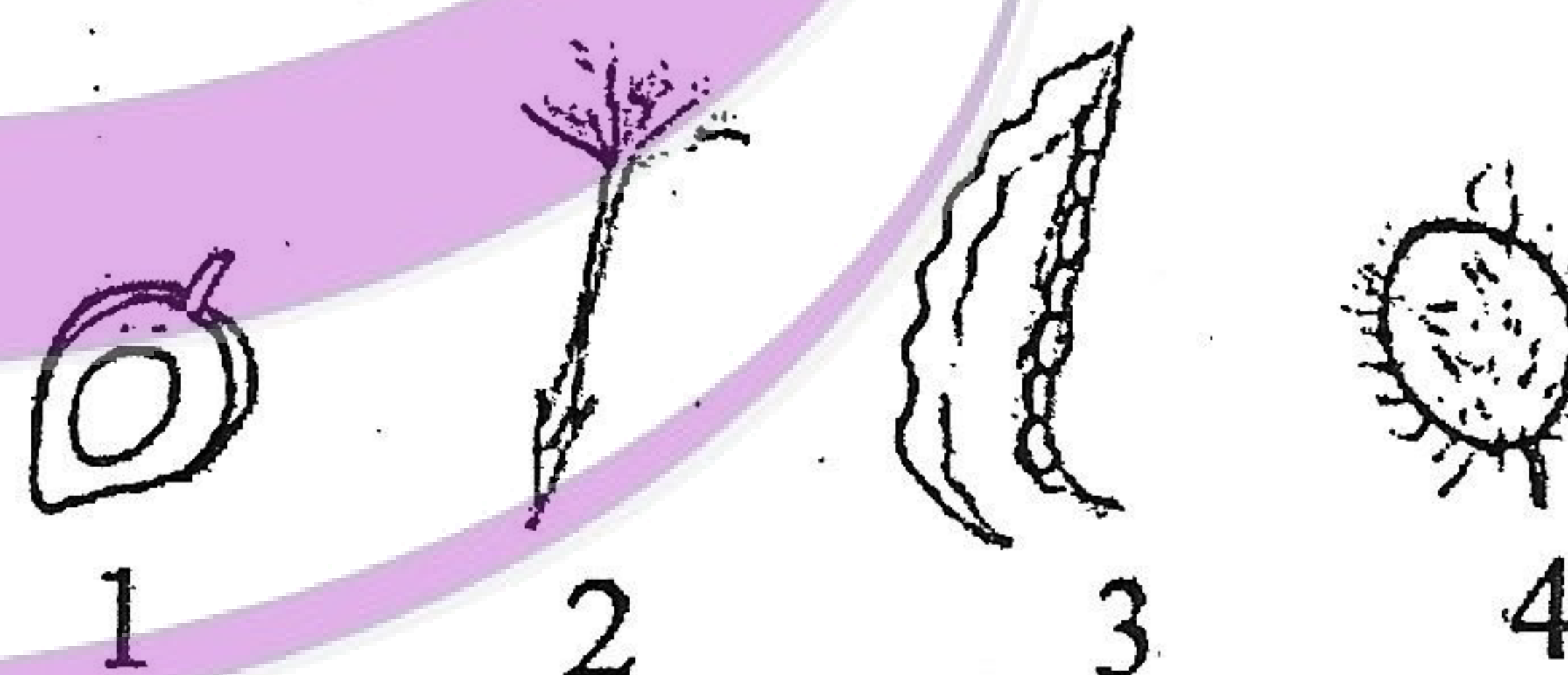
15. The diagram below shows the flow of matter in a forest ecosystem.



Which of these organisms will be secondary consumers?

- A Hawk.
- B Beetle.
- C Goat.
- D Mushroom.

16. Below are diagrams of various types of seeds.



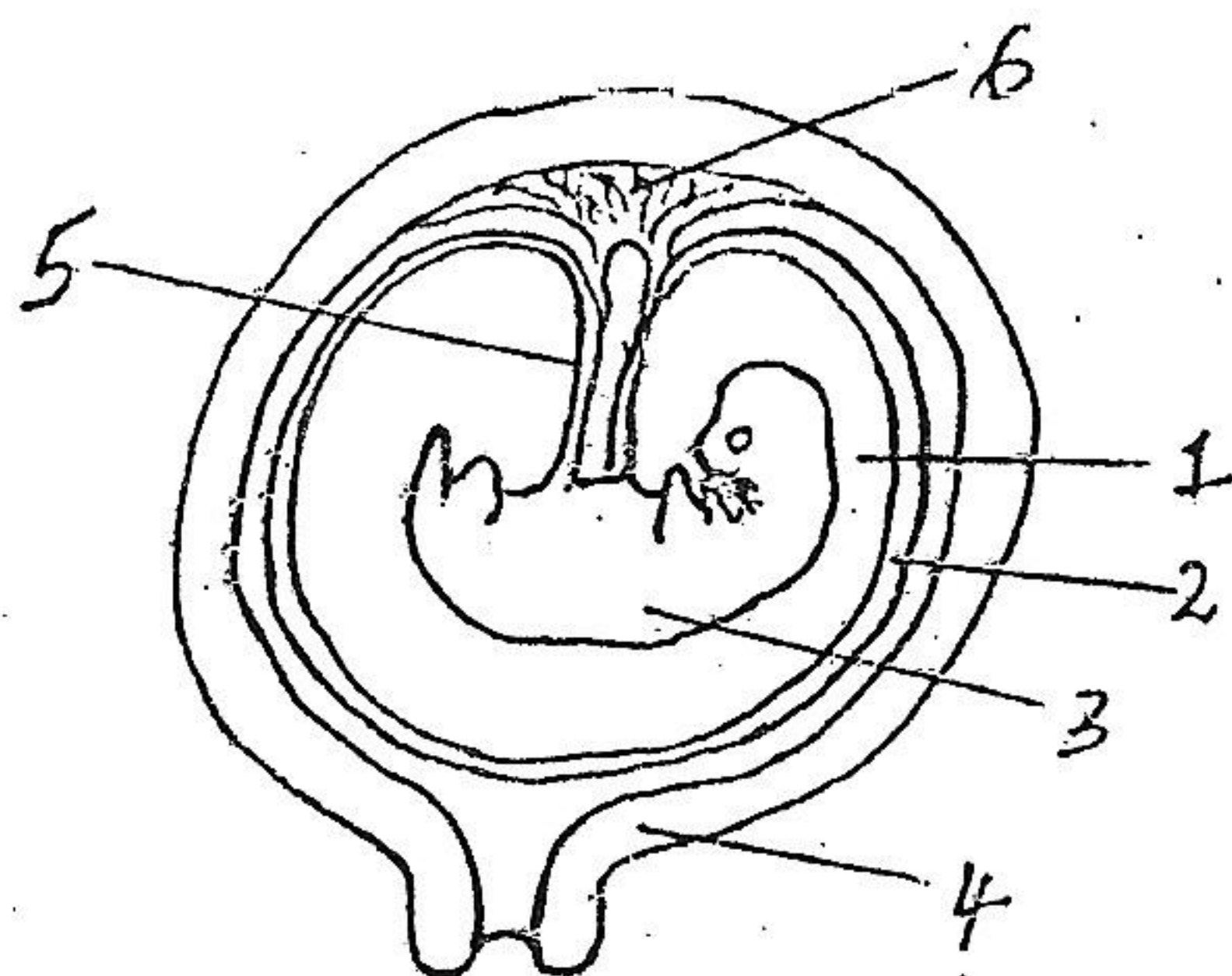
Which seed would be dispersed by wind?

- A 1
- B 2
- C 3
- D 4

Turn Over



17. The diagram below shows a developing foetus in the womb.



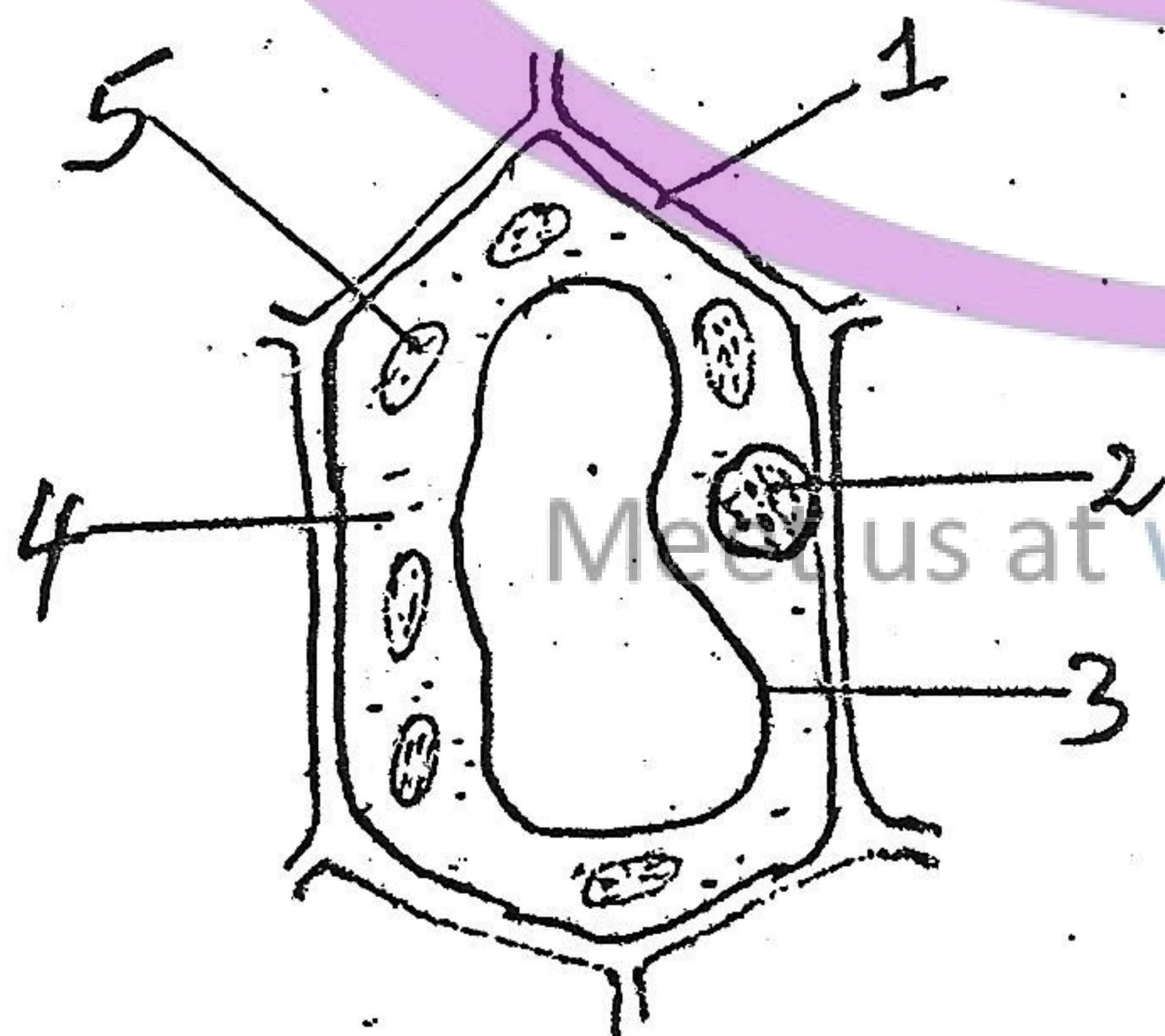
What numbered structure serves as shock absorber?

- A 1
- B 2
- C 5
- D 6

18. In the longitudinal section of the heart, which of the following statements is true?

- A The aorta carries oxygenated blood out of the left atrium.
- B The wall of the left ventricle is thicker than that of the right ventricle.
- C The tricuspid valve separates the left atrium and the left ventricle.
- D A semi-lunar valve prevents backward flow of blood into the right atrium.

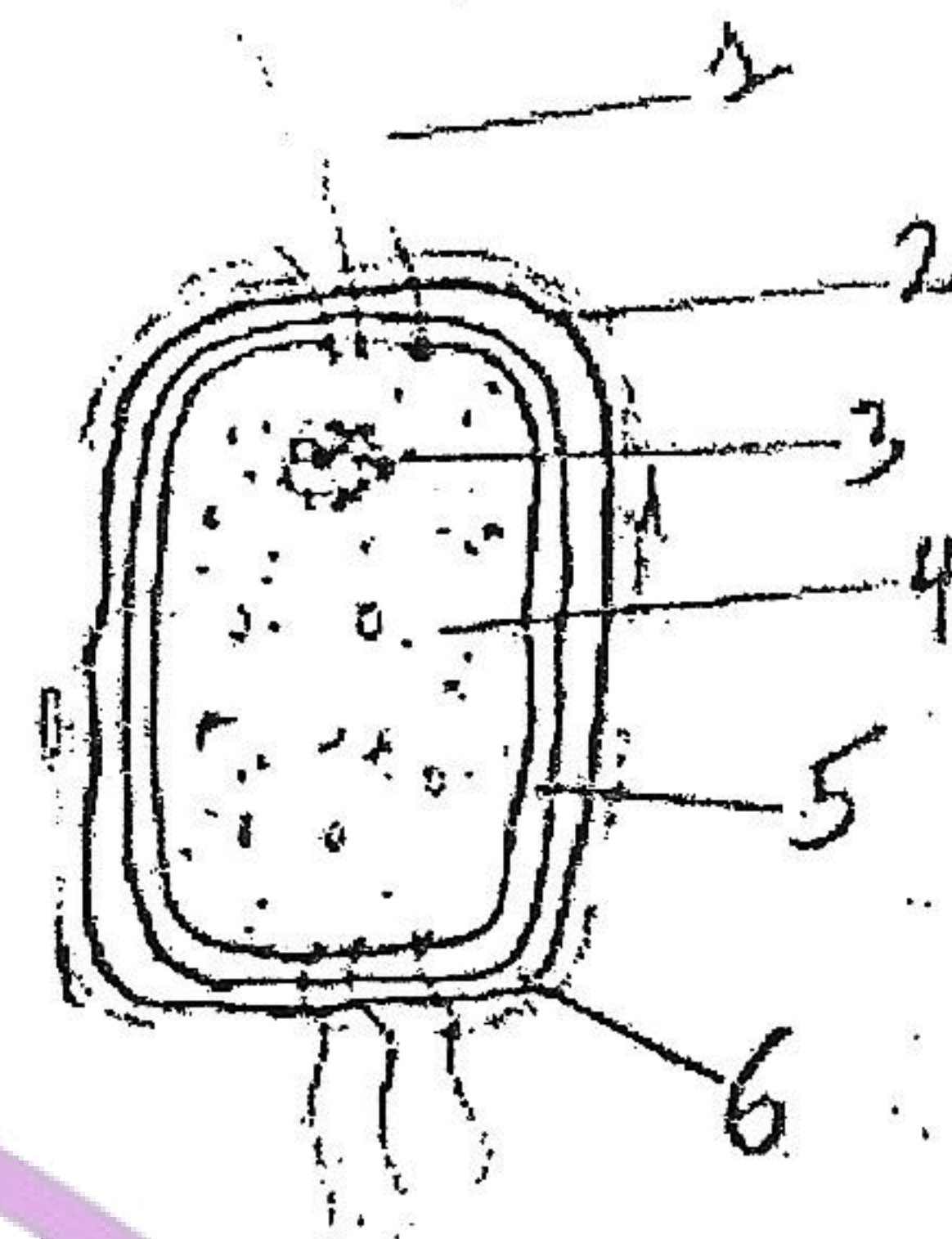
19. Below is the diagram of a typical plant cell.



Which numbered structures make the protoplasm?

- A 1 and 2
- B 2 and 4
- C 2 and 3
- D 3 and 4

20. Below is the diagram of a bacterium.



Which of the numbered structures are absent in an animal cell?

- A 2 and 4
- B 2 and 6
- C 3 and 4
- D 5 and 6

SECTION III

Questions 21 – 25

(Five questions)

Directions: For each of the questions below one or more of the responses is (are) correct. Decide which of the responses is (are) Correct. Then choose:

- A If 1, 2 and 3 are all correct
- B If 1 and 2 only are correct
- C If 2 and 3 only are correct
- D If 1 only is correct.

Direction summarized			
A	B	C	D
1,2,3	1,2 only	2,3 only	1 only

21. Amoeba

- 1 Has a small surface area to volume ratio.
- 2 Has an excretory structure
- 3 Is holozoic

22. An ecosystem

- 1 Is sustained by the interaction of its biotic and abiotic components
- 2 Constitutes a stable unit.
- 3 Is an artificial unit.



23. Absorption of mineral salts by plants is due to:

- 1 Active transport
- 2 Osmosis
- 3 Root pressure

24. Some components of the glomerular filtrate are

- 1 Fibrinogen.
- 2 Glucose
- 3 Salt.

25. When the body temperature rises above normal, the following corrective action(s) take(s) place

- 1 Decreased metabolism.
- 2 Much blood to the surface.
- 3 Hair lies flat on the skin.

SECTION IV

Questions 26 -30

(Five questions)

Directions: Each of the following questions consists of a statement in the left – hand column followed by a second statement in the right – hand column.

Decide whether the first statement is true or false. Decide whether the second statement is true or false. Then, on the answer sheet mark

- A If both statements are true and the second statement is a correct explanation of the first statement.
- B If both statements are true and the second statement is NOT a correct explanation of the first statement
- C If the first statement is true but the second statement is false.
- D If both statements are false.

Directions summarized			
	First statement	Second statement	
A	True	True	2 nd statement is a correct explanation of the first.
B	True	True	2 nd statement is NOT a correct explanation of the first.
C	True	False	
D	False	False	

FIRST STATEMENT

SECOND STATEMENT

26. Viruses are capable of reproduction
27. Bony fish extract dissolved oxygen from water.
28. Light is needed to manufacture food in plants
29. Arteries carry blood towards the heart in humans.
30. Deforestation reduces the concentration of oxygen in the atmosphere.

Viruses are cells.

Bony fish breathe with their gills.

Plants grown in the dark becomes yellowish.

All blood vessels have valves to prevent back flow.

Plants produce oxygen during photosynthesis.

SECTION V

Questions 31 – 40

(Ten questions)

Directions: Each question consists of four lettered headings, A, B, C, D. Select the heading which is closely related to the description which follows.

31.

- A Amylase
- B Bile
- C Pepsin
- D Enterokinase

Emulsifies fat.

32.

- A Flaccidity.
- B Plasmolysis.
- C Wilting.
- D Turgidity.

Results from the intake of water into a cell.

33.

- A Genes.
- B Chromosomes.
- C Gametes.
- D Zygotes.

Fuse during fertilization.

34.

- A Mutualism.
- B Parasitism.
- C Predation.
- D Saprophytism.

Relationship in which both organisms benefit.

Turn Over



35.

- A Community.
- B Ecosystem.
- C Biome.
- D Population.

Individuals of the same species in a particular habitat.

36.

- A Vector
- B Ligase
- C Plasma
- D Restriction enzyme.

Joins pieces of DNA together.

37.

- A Vagina
- B Placenta
- C Uterus
- D Oviduct

Produces a hormone.

38.

- A Low relative humidity
- B Low light intensity
- C Little or no wind
- D Low temperature.

Will increase the rate of transpiration.

39.

- A Mitosis
- B Cell division
- C Meiosis
- D Fission.

Production of gametes.

40.

- A Carbon dioxide
- B Nitrogen
- C Water vapour
- D Oxygen

Which of these components of air is an excretory product of plants only?

SECTION VI

Questions 41 – 50

(Ten questions)

Directions: This group of questions deals with biological situations. Each situation is followed by a set of questions. Select the best answer for each question.

41.

Anaemia is due to lack of:

- A Sodium
- B Iron
- C Calcium
- D Iodine.

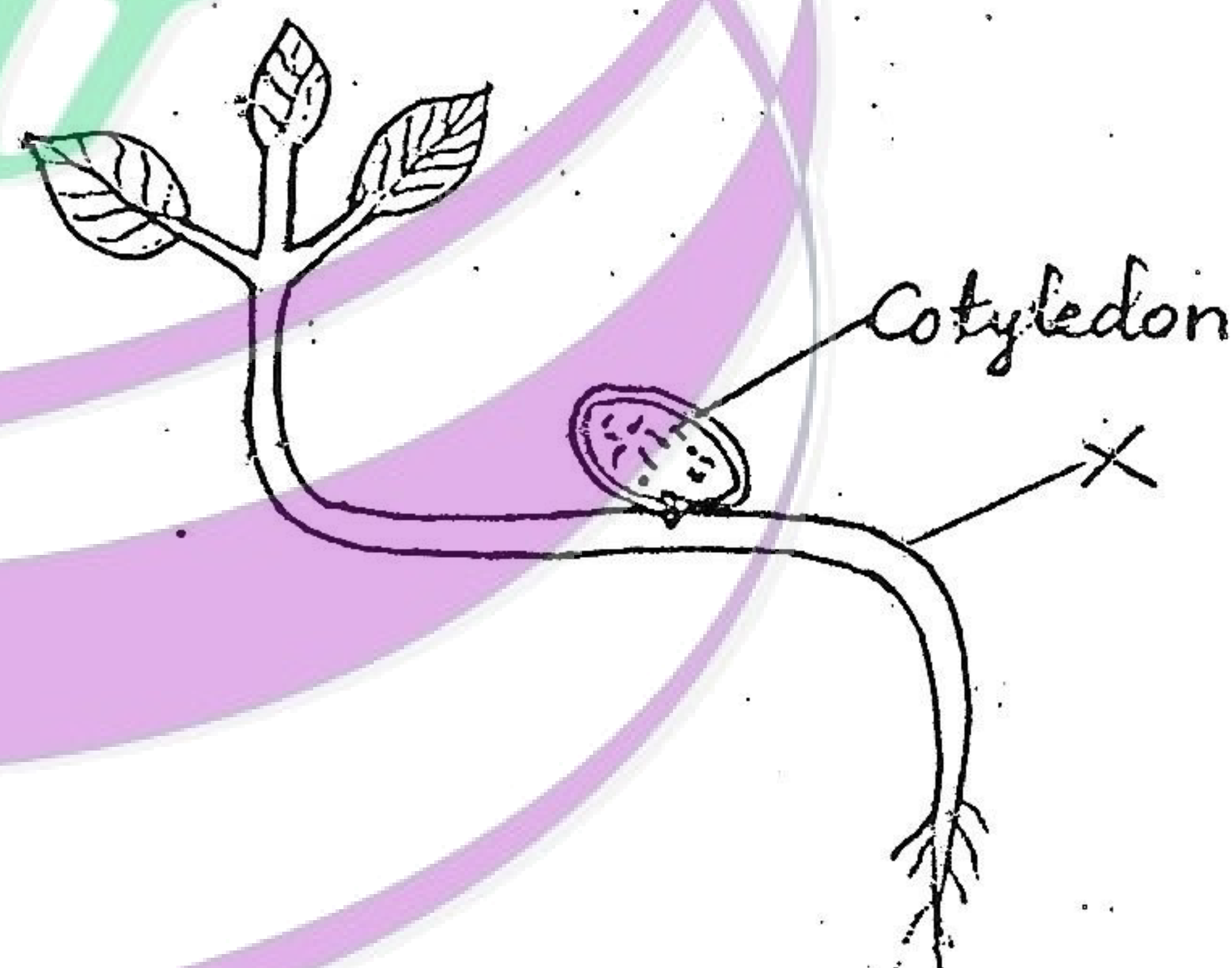
42.

It is advisable to look at distant objects after reading for a while, this is to:

- A Relax the iris and pupil
- B Relax the lens and optic nerve
- C Relax the suspensory ligaments and ciliary muscles
- D Relax the lens and retina.

43.

Below is the diagram of a seedling after being placed horizontally for 3 days on moist saw dust.



The bending at x is due to:

- A Exposure to light.
- B More auxins on upper side of root
- C More auxins on lower side of root.
- D Gravitational pull on root.

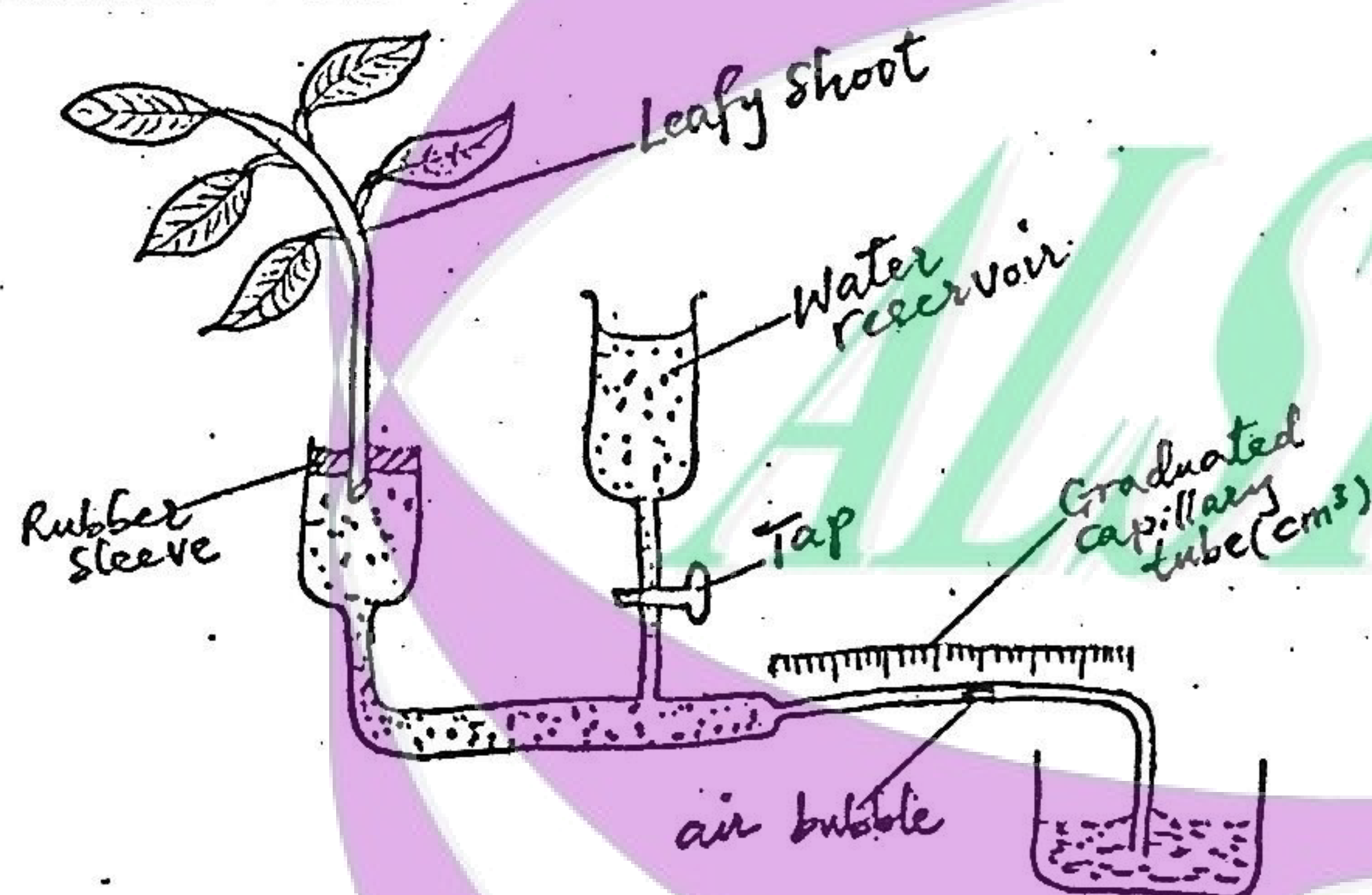
44.

A seedling growing in a dark cupboard looks yellowish due to:

- A No chlorophyll formation
- B No absorption of water
- C Lack of starch
- D No photosynthesis



45. The fore-arm is withdrawn when it is touched by a hot object. Which of the following statements is true about the withdrawal?
- It is due to information from the brain.
 - It is a slow action.
 - It is due to the secretion of adrenaline.
 - It is due to the contraction of biceps.
46. In an experiment, a ring of the bark of a tree was removed. This will result in:
- Lack of water in the leaves.
 - Lack of minerals in the leaves
 - A reduction in transpiration rate.
 - The swelling of the bark on the upper side where the ring was removed.
47. Below is a diagram of the potometer.
48. What will be the possible parental genotypes of an individual with blood group O
- AO, BB
 - AA, BO
 - AO, BO
 - AO, AB
49. The presence of carbon dioxide in inspired air is indicated by:
- Sodium bicarbonate becoming milky.
 - Lime water becoming milky.
 - Lime water becoming clear.
 - Pyrogalllic acid becoming clear.
50. The presence of mucus in the trachea of humans is:
- To dissolve oxygen.
 - To reduce friction.
 - To detect the presence of bacteria.
 - To trap impurities.



The leafy shoot in the set up was cut under water to

- Ensure that water enters the xylem.
- Ensure that no air bubbles enter the xylem.
- Ensure that no dust particles enter the xylem.
- Ensure that water does not leave the xylem.

STOP

GO BACK AND CHECK YOUR WORK

Meet us at www.alstug.com