



THE OPENHANDED CLASSROOM

BJC General Science

EXAM
PAST PAPERS

UNDERSTAND.

PRACTICE.

SUCCEED.

THE OPENHANDED CLASSROOM

LEARN MORE. ACHIEVE MORE. SMILE MORE.



BGCSE CLASSES

- ✓ Exam-Focused Learning
- ✓ Past Papers & Strategies
- ✓ Stronger Understanding
- ✓ Better Grades, Brighter Future



[**CLICK HERE**](#)



SAT CLASSES

- ✓ Smart Test Strategies
- ✓ Stronger Scores
- ✓ Time Management Skills
- ✓ College & Scholarship Ready



[**CLICK HERE**](#)



BJC CLASSES

- ✓ Clear, Simple Explanations
- ✓ Focus on Understanding
- ✓ Help That Fits Your Pace
- ✓ Build Confidence, Get Results



[**CLICK HERE**](#)



EXPERT TEACHING.
PROVEN RESULTS.



LEARN SMARTER.
ACHIEVE MORE.



FOCUSED SUPPORT.
REAL RESULTS.



THEOPENHANDEDCLASSROOM:
(242) 426-8891



THE OPENHANDED CLASSROOM

BJC FREE SOLUTIONS MANUALS

COMPLETE SOLUTIONS FOR ALL
MAJOR SUBJECTS

- ⦿ MATHEMATICS
- ⦿ ENGLISH
- ⦿ LANGUAGE
- ⦿ HEALTH SCIENCE
- ⦿ GENERAL SCIENCE
- ⦿ SOCIAL STUDIES
- ⦿ RELIGIOUS STUDIES
- ⦿ FRENCH
- ⦿ SPANISH

UNDERSTAND. PRACTICE. SUCCEED.

CLICK HERE

FREE LISTENING COMPREHENSION — AUDIO FILES —



THE **EXACT AUDIO** USED
IN PAST BJC & BGCSE EXAMS



REAL EXAMS

The exact listening comprehension audio from past papers.



REAL PREPARATION

Hear what you'll hear in the real exam.



REAL RESULTS

Practise with purpose. Improve your confidence and performance.

AVAILABLE FOR:



BJC

ENGLISH



BGCSE

**ENGLISH
LANGUAGE**



BJC

FRENCH



BJC

SPANISH



BGCSE

FRENCH



BGCSE

SPANISH

WHY THESE AUDIO FILES MATTER



EXACT AUDIO

The exact recordings used in past BJC & BGCSE exams.



EXAM FAMILIARITY

Get used to the real voices, speed, accents and exam conditions.



STRATEGIC ADVANTAGE

Walk in confident knowing exactly what to expect.



100% FREE

High quality. No cost. Just results.



CLICK HERE

DOWNLOAD • START PRACTISING



BETTER PREPARATION.
BETTER RESULTS.

You've got this!

0047/1**BJC**

FOR EXAMINERS' USE ONLY	
TOTAL	

SCHOOL No.	CANDIDATE No.
INITIALS	SURNAME

**MINISTRY OF EDUCATION
BAHAMAS JUNIOR CERTIFICATE
EXAMINATION 2010**

**0047 GENERAL SCIENCE
PAPER 1 MULTIPLE CHOICE QUESTIONS
(40 MARKS)**

Monday **31 MAY 2010** 1:00–2:00 P.M.

INSTRUCTIONS TO CANDIDATES

Do not open this booklet until you are told to do so.

Write your school number, candidate number, surname and initials in the spaces provided at the top right hand side of this page.

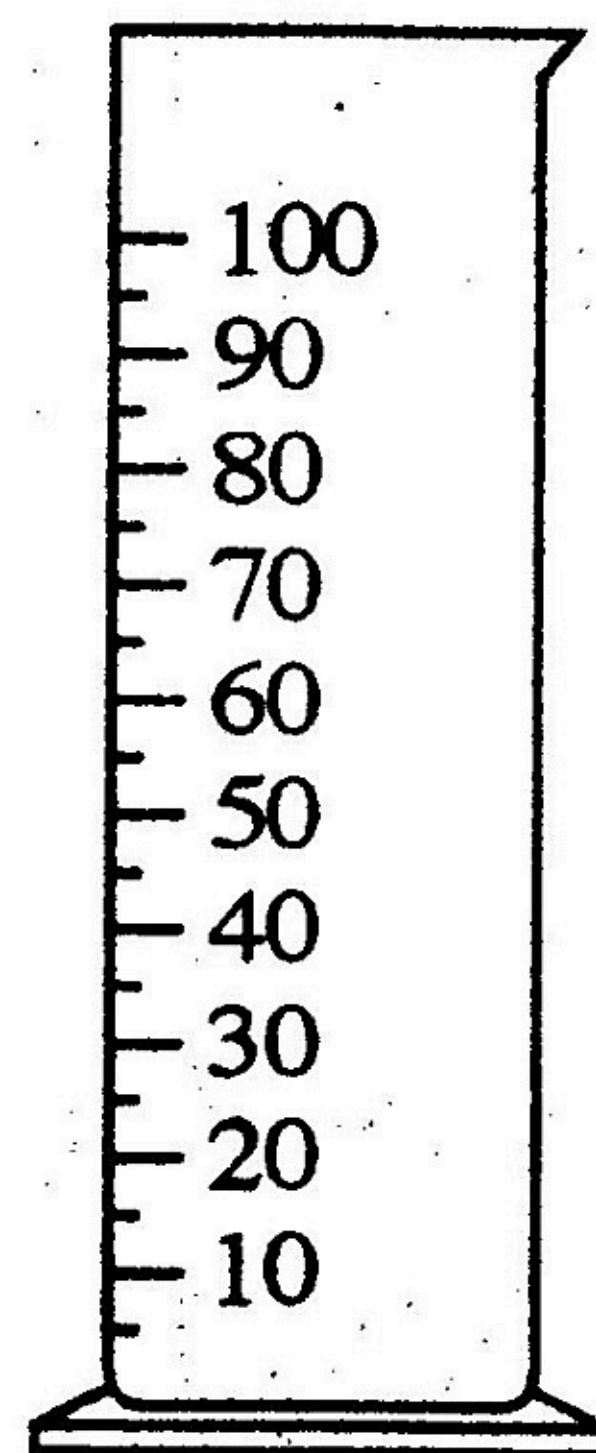
For each question, there are four suggested answers A, B, C and D. When you have selected an answer to a question, circle the letter by the answer which you consider to be correct.

Answer ALL the questions in this booklet. Do any necessary rough work and calculations in your booklet.

1. Which area of science would an airplane pilot study?

- A aviation
- B astronomy
- C astrology
- D classification

2. The diagram shows a measuring cylinder found in a science laboratory.



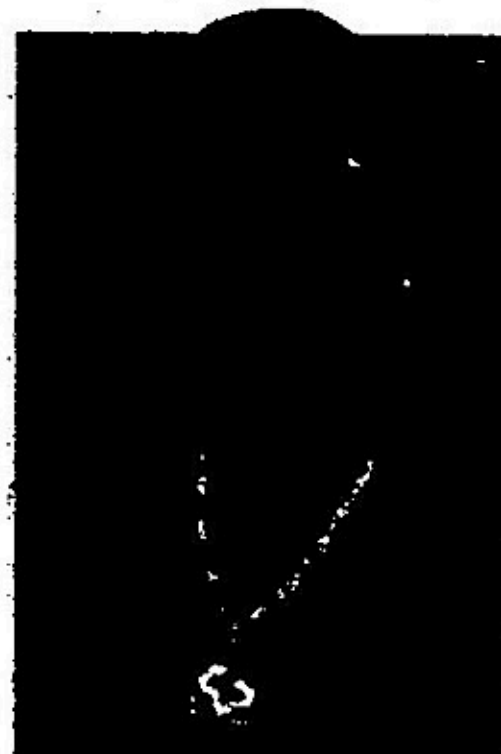
Which row shows what the measuring cylinder measures and its SI units?

	measures	SI unit
A	length	cm
B	length	m
C	volume	m ³
D	volume	cm ³

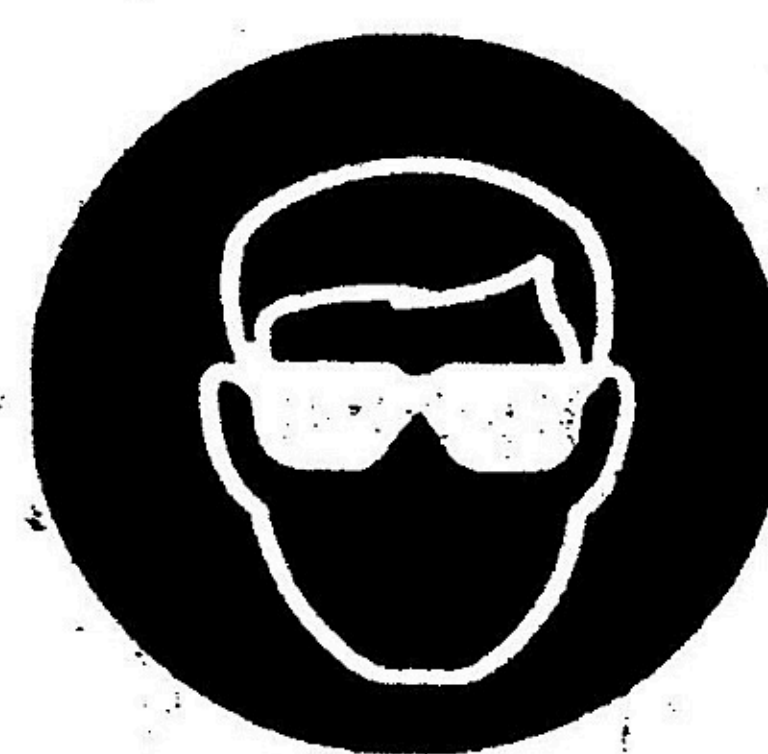
3. What should **not** be worn in the lab when working with heat and or chemicals?



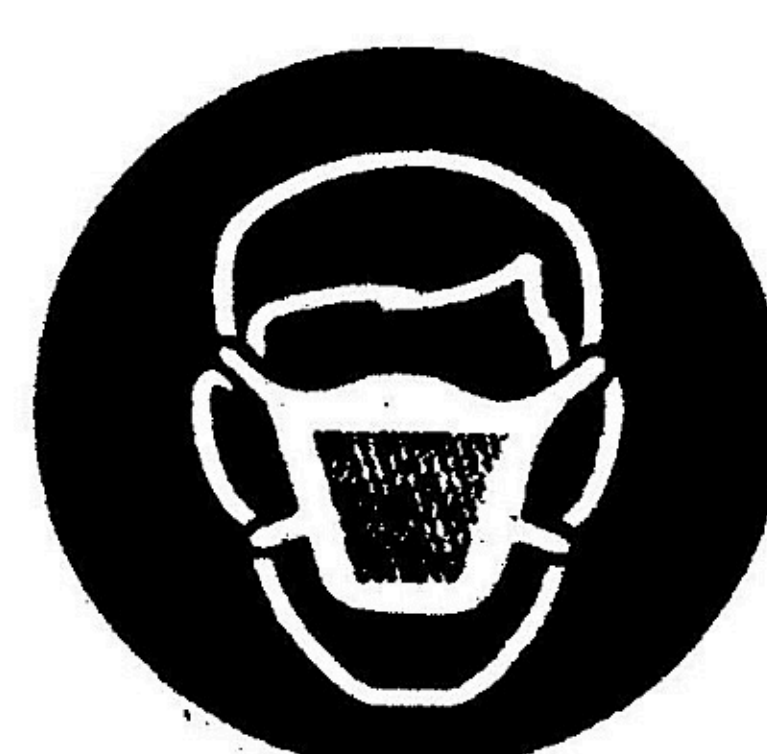
A



B



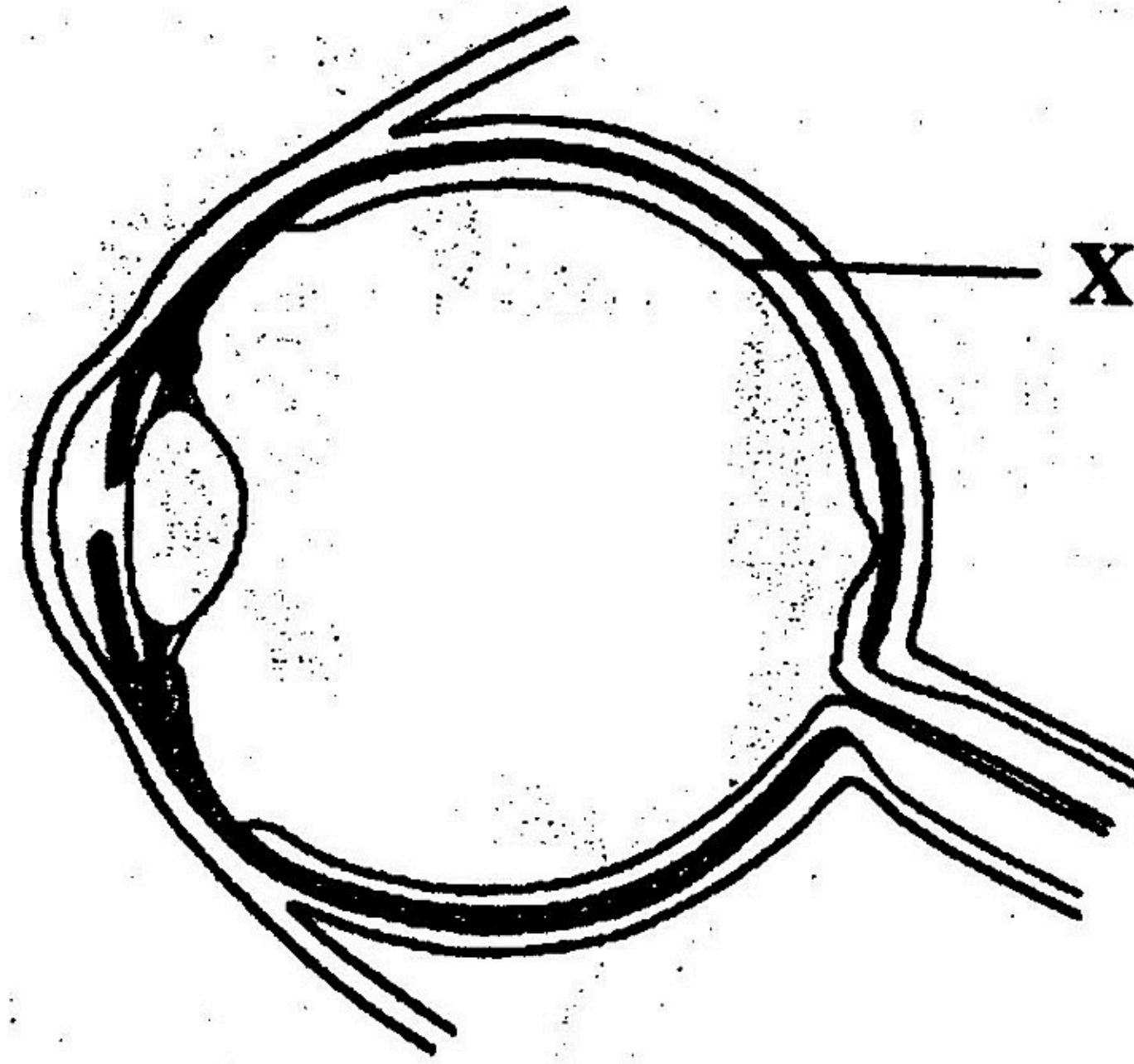
C



D

4. Light from an object passes into the eye and an image is formed on X.

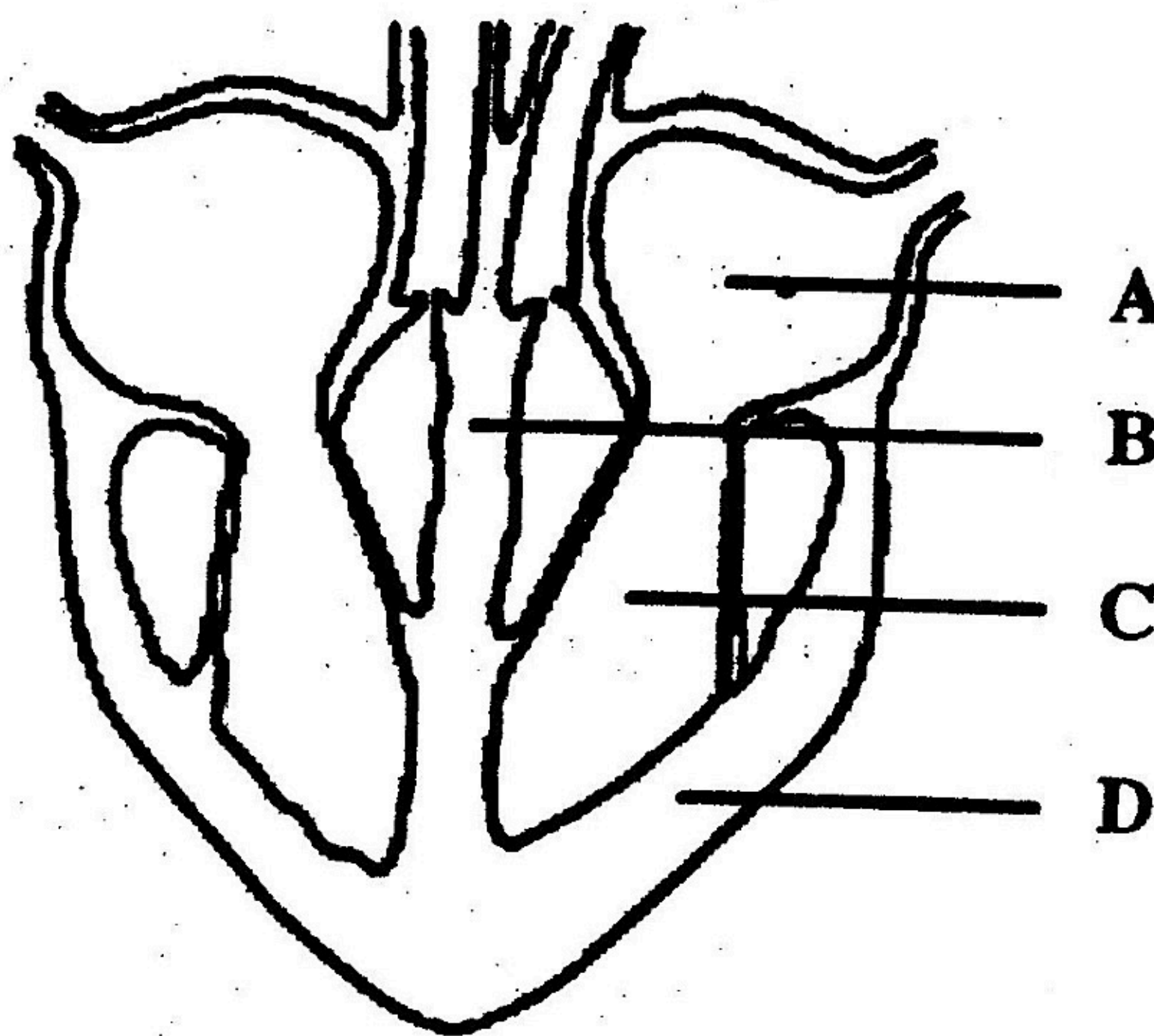
What is structure X?



- A iris
- B lens
- C pupil
- D retina

5. The diagram shows a human heart.

Which labelled structure is the septum?

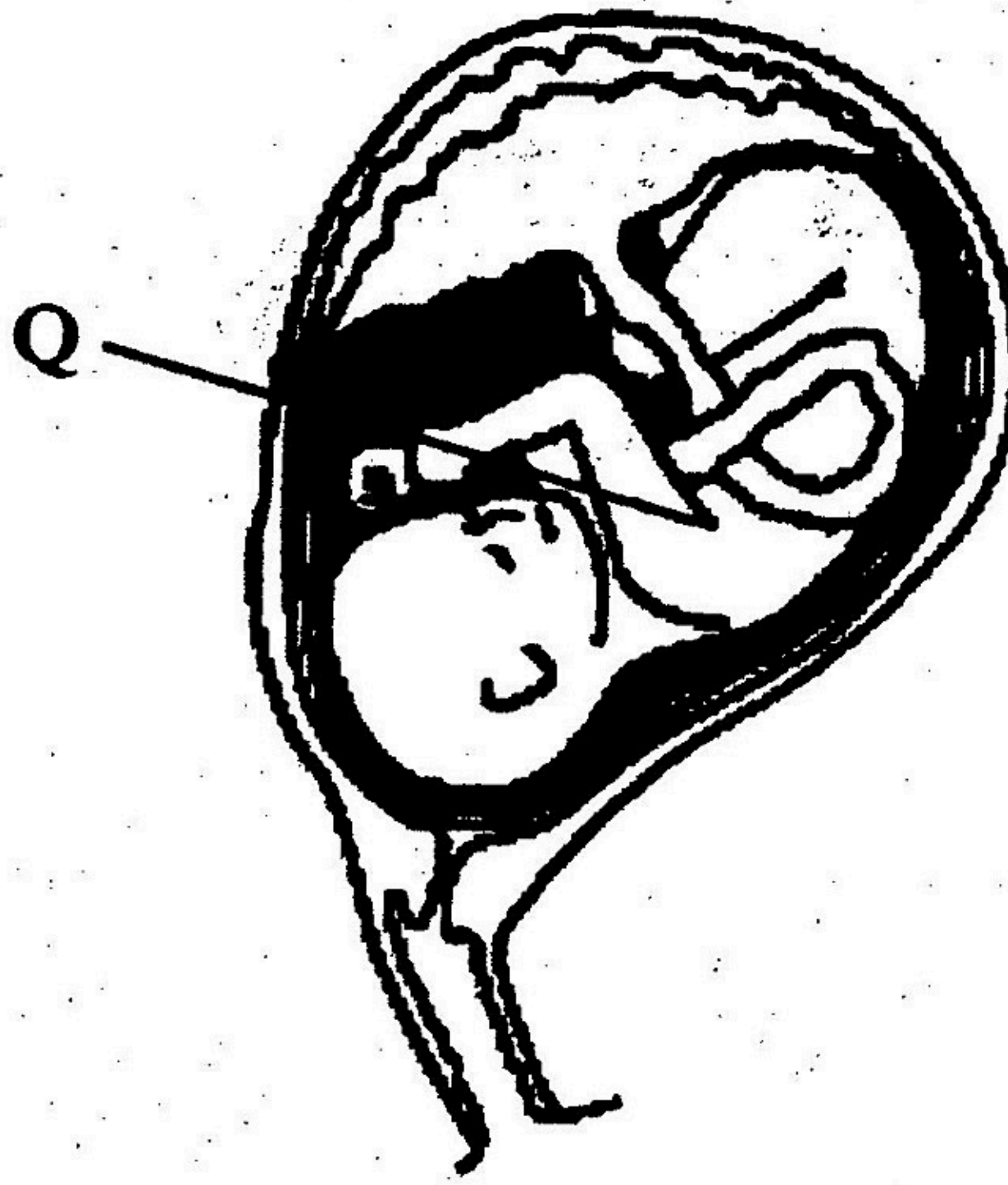


6. Which organism causes AIDS and influenza?

- A bacterium
- B fungus
- C protozoan
- D virus

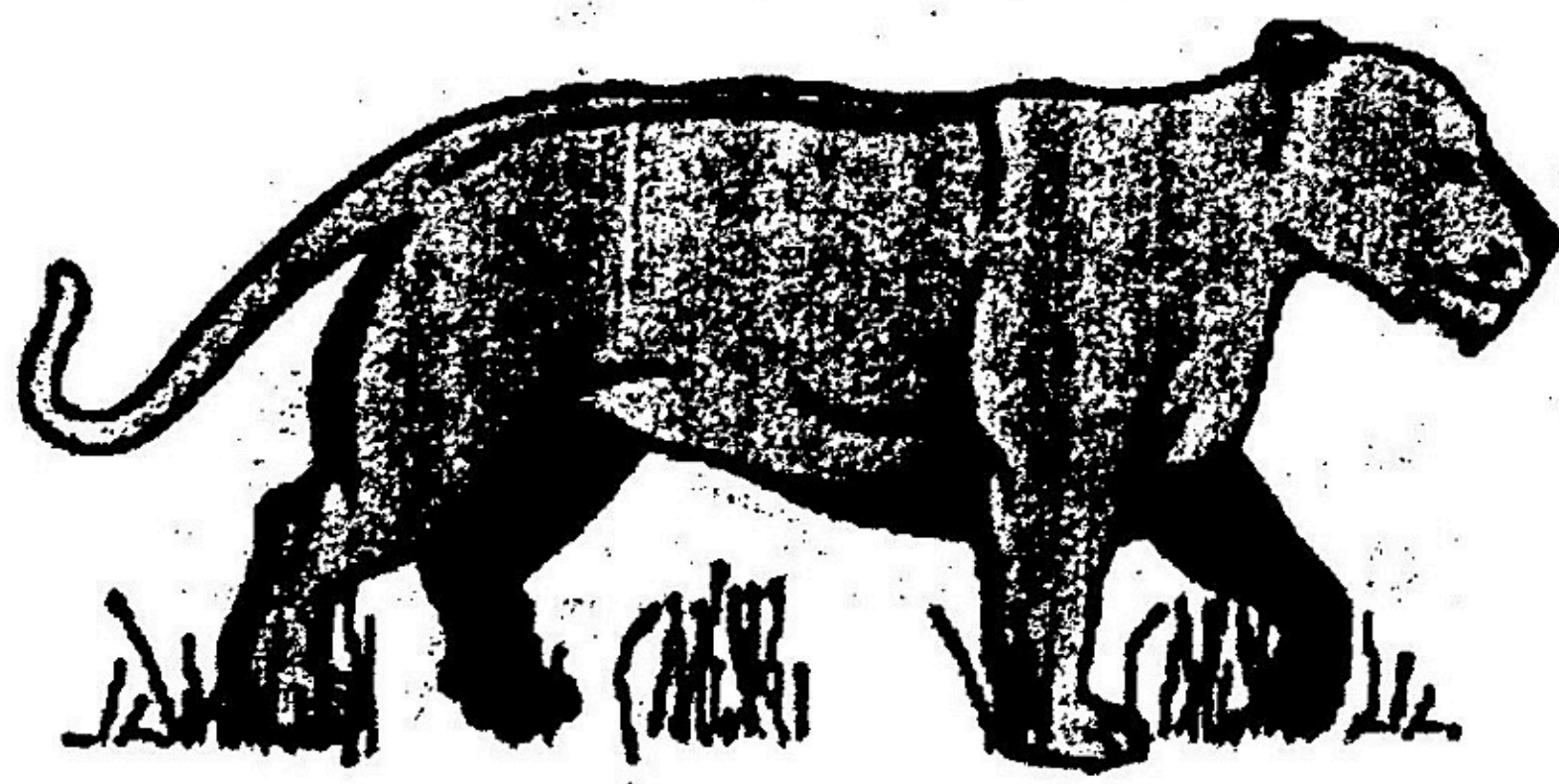
7. The diagram shows the uterus of a pregnant female eight months after fertilization.

What is structure Q?

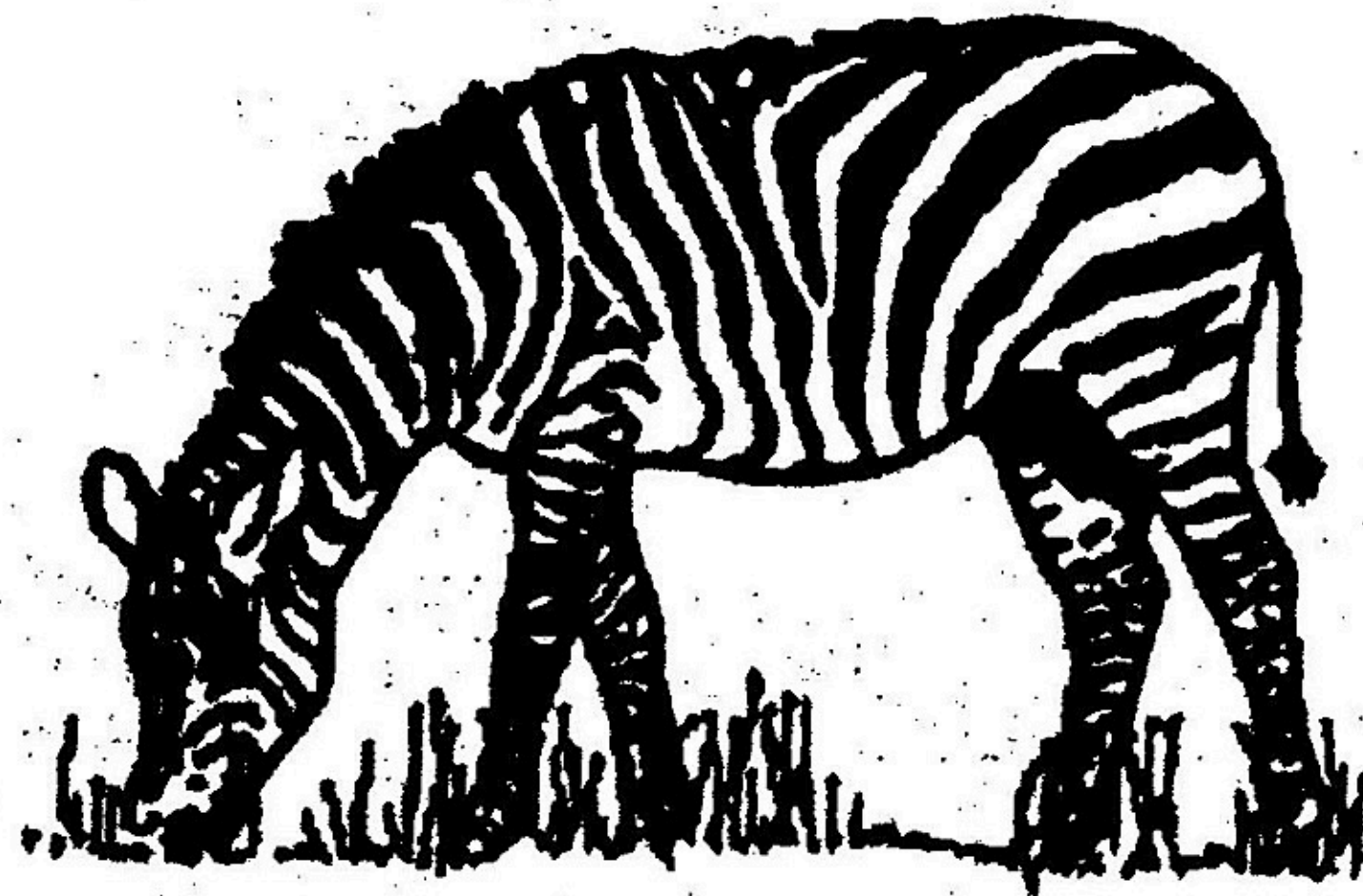


- A embryo
 - B foetus
 - C implanted zygote
 - D new born baby
8. What determines the amount of energy of a sound wave?
- A amplitude
 - B frequency
 - C velocity
 - D wave length
9. Which range of sound waves can be reflected and used for finding distances, scanning documents and cleaning engine parts?
- A infrasonic
 - B sonic
 - C supersonic
 - D ultrasonic
10. What happens when all the organisms in a species die?
- A it adapts
 - B it diversifies
 - C it becomes endangered
 - D** it becomes extinct

11. Which row shows the type of feeding relationship shown?



X



Y

	animal X	animal Y
A	feeds on Y and is a herbivore	feeds on grass and is a carnivore
B	feeds on Y and is a carnivore	feeds on grass and is a herbivore
C	feeds on Y and is a omnivore	feeds on grass and is a predator
D	feeds on Y and is a prey	feeds on grass and is a omnivore

12. What causes an electric current in a conductor?

- A a flow of negatively charged electrons
- B a flow of negatively charged protons
- C a flow of positively charged electrons
- D a flow of positively charged protons

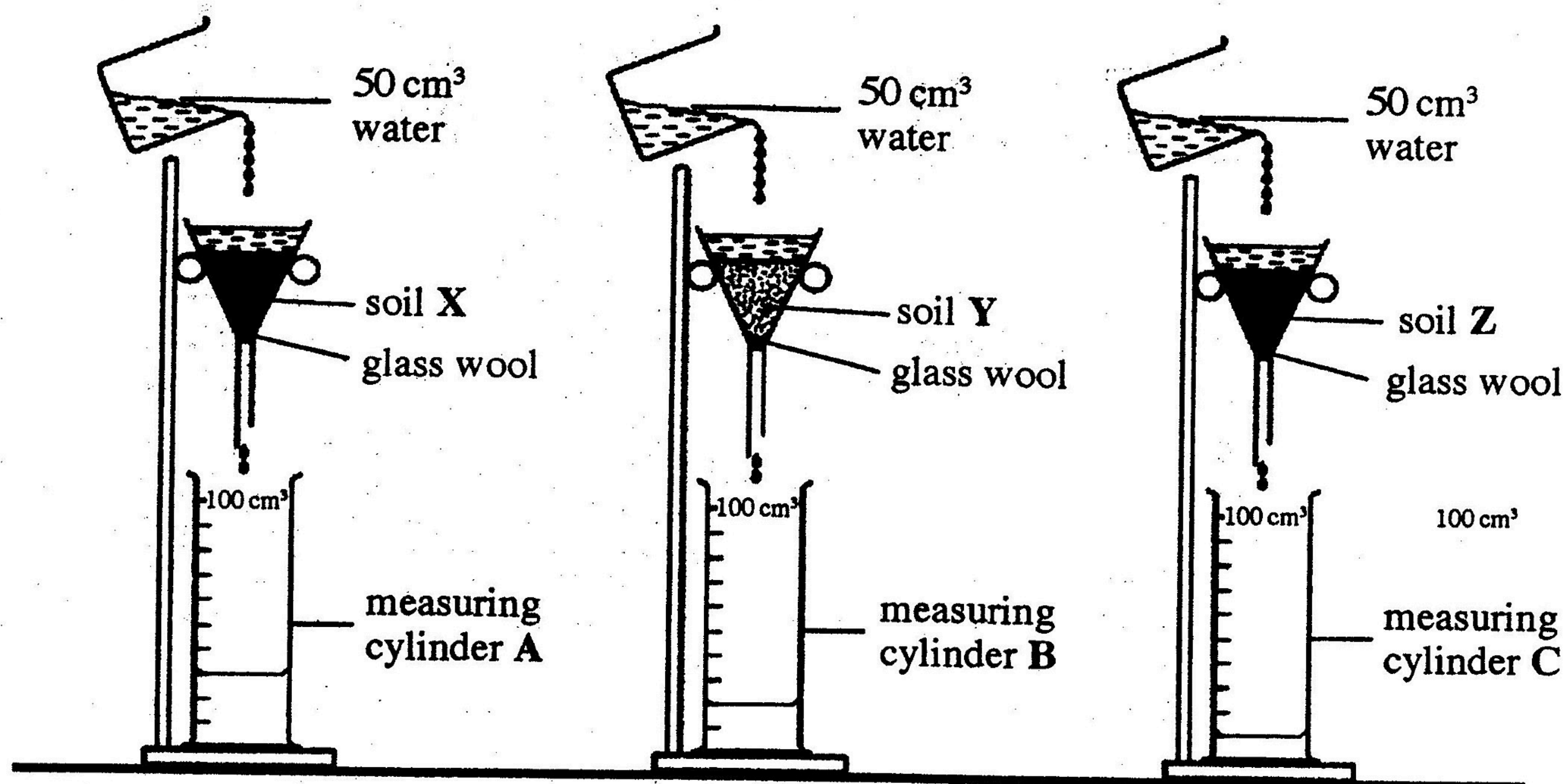
13. What is the electrical **pressure** which pushes electrons through a circuit called?

- A electric charge
- B resistance
- C static electricity
- D voltage

Use the information from the investigation to answer questions 14 and 15.

- Equal masses of soil samples X, Y, and Z were used.
- 50 ml of water is poured into each soil sample.

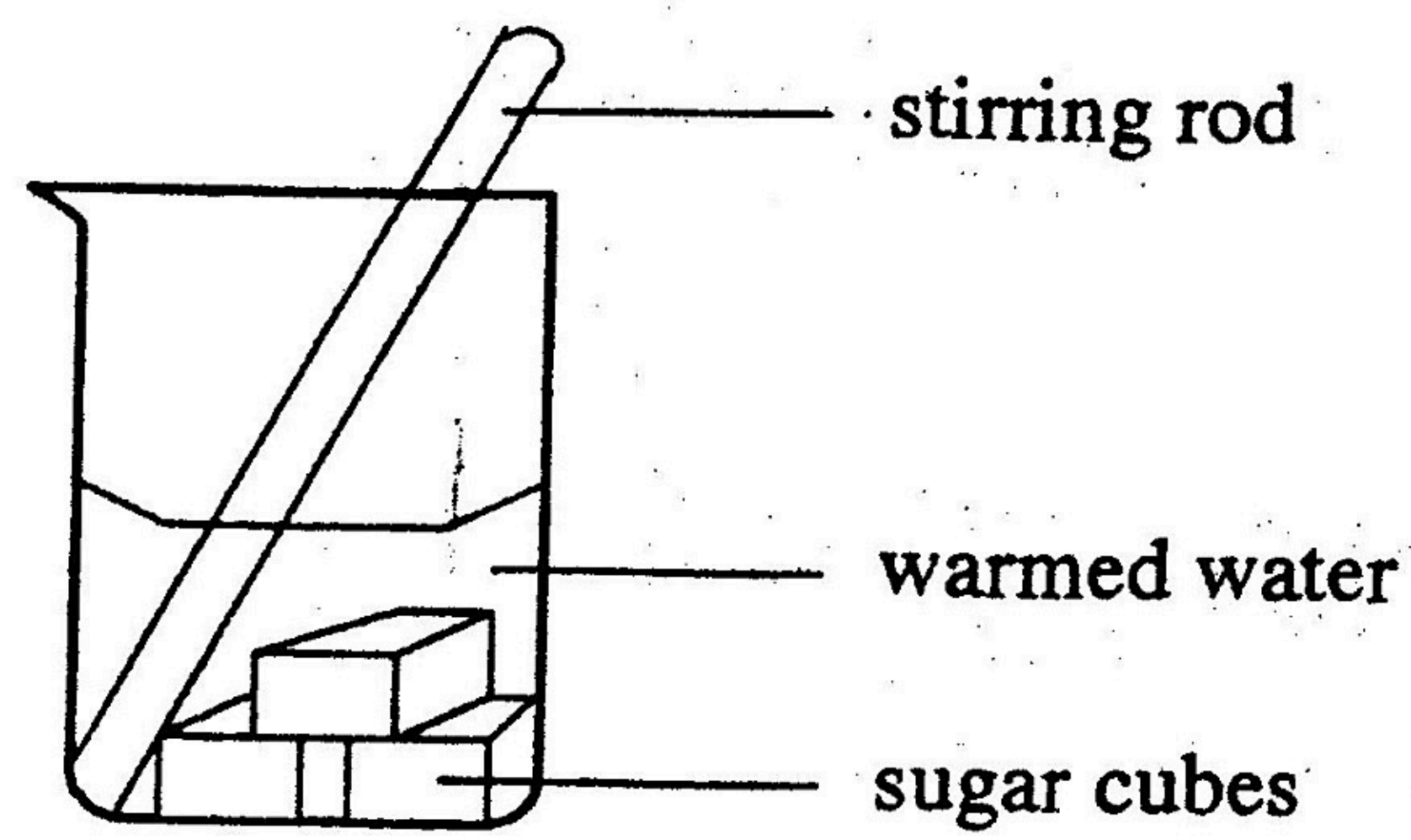
The diagrams show what happens after 10 minutes.



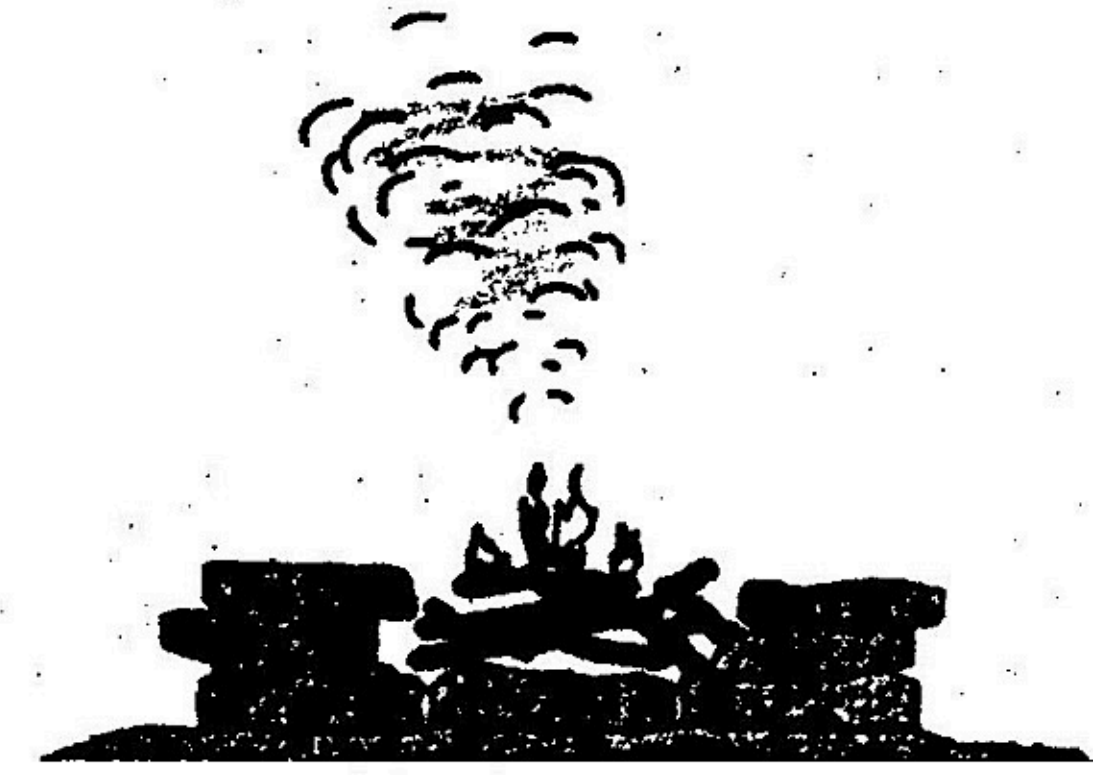
14. Why was glass wool placed in the filter funnel?
- to prevent water from entering the measuring cylinder
 - to prevent soil from entering the measuring cylinder
 - to prevent bacteria from entering the measuring cylinder
 - to speed up the passage of water through the soil
15. What is the volume of water in measuring cylinder B and soil Y?

	volume of water in	
	measuring cylinder B	soil Y
A	10 cm ³	40 cm ³
B	11 cm ³	39 cm ³
C	15 cm ³	35 cm ³
D	20 cm ³	30 cm ³

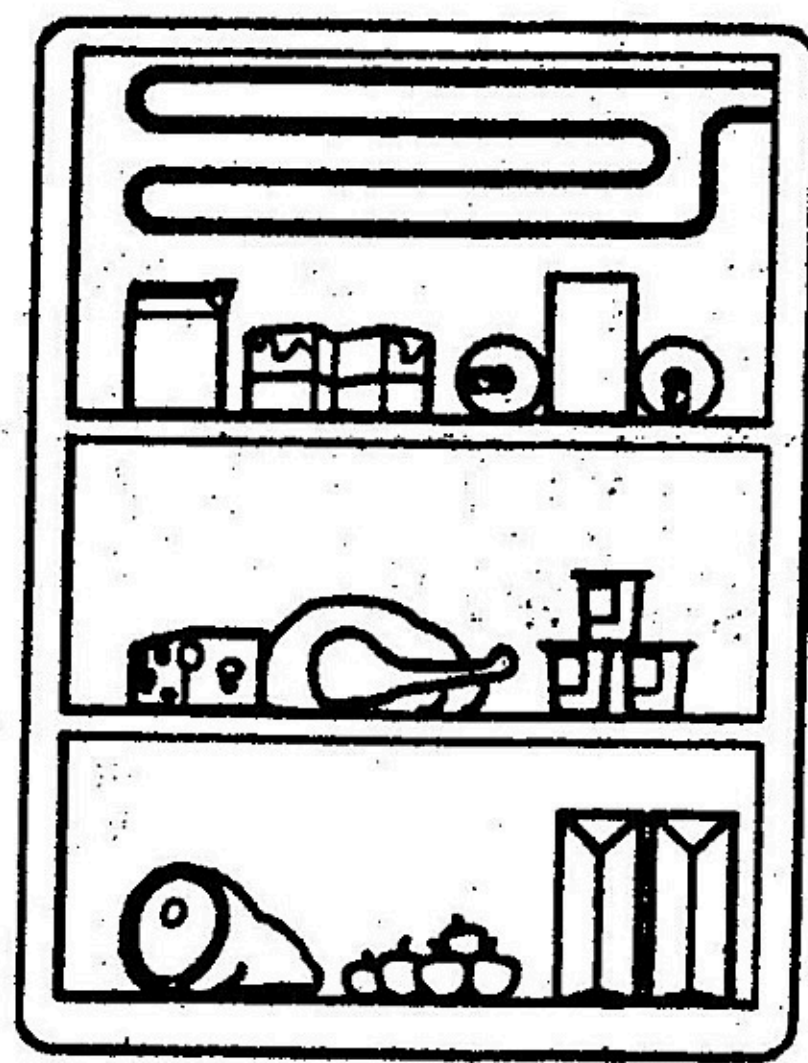
16. Which diagram shows a chemical change taking place?



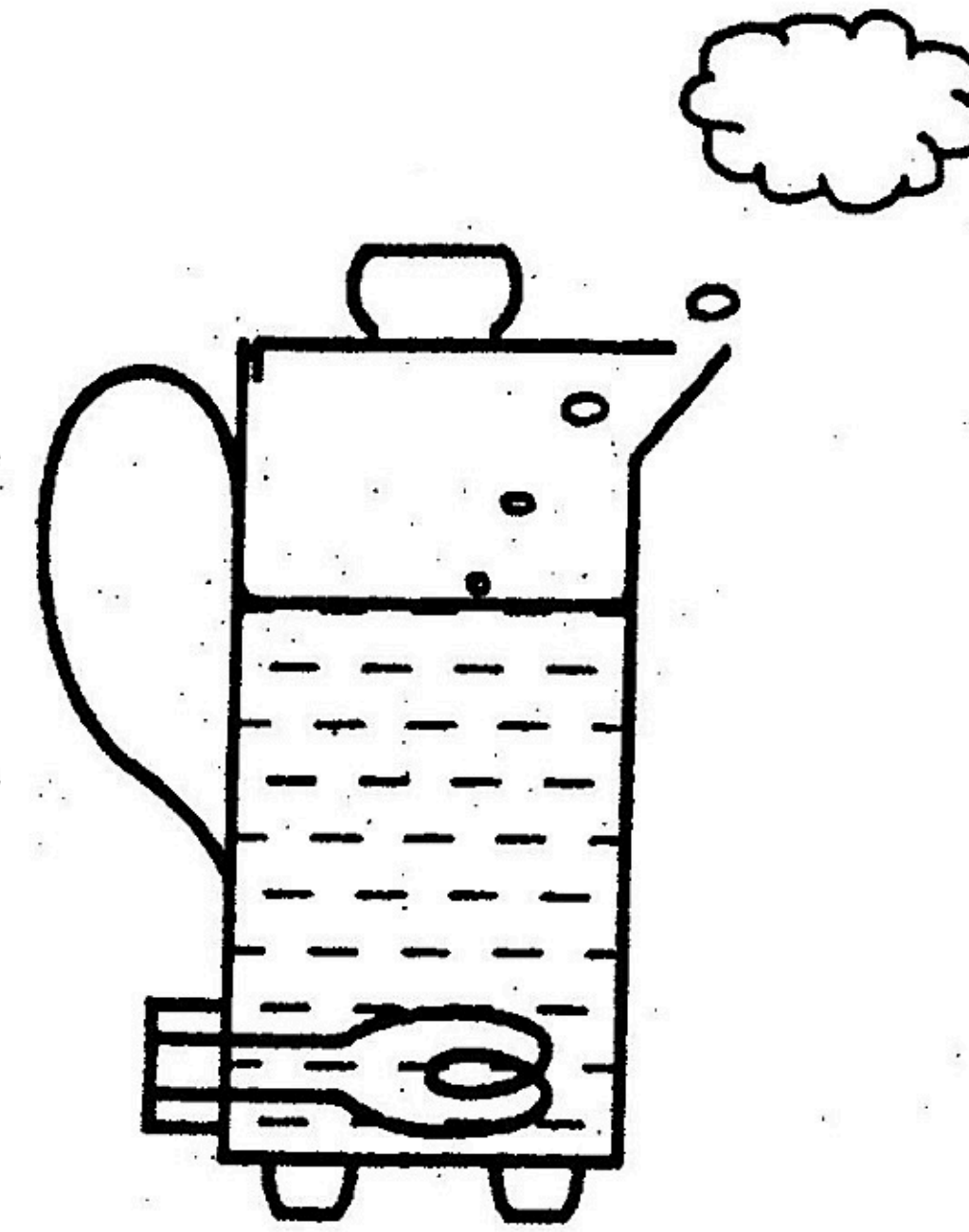
A



B

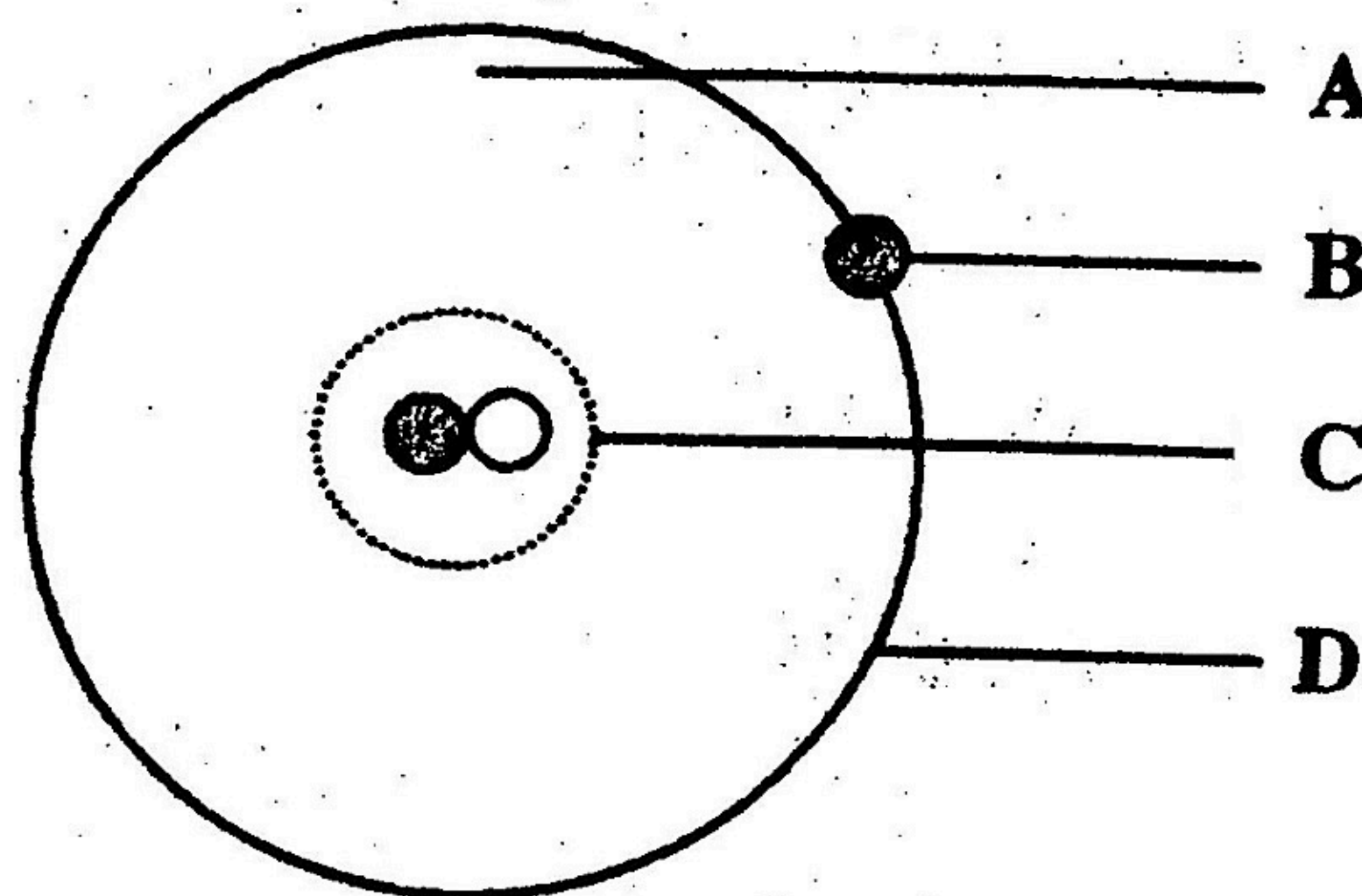


C



D

17. The diagram shows the structure of a typical atom.

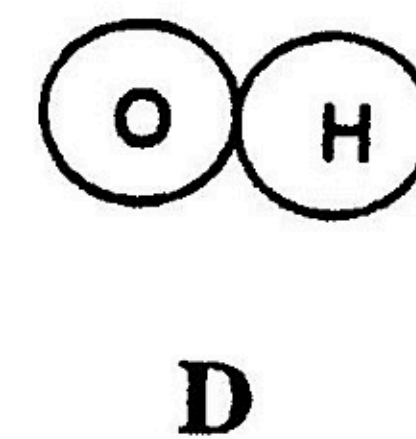
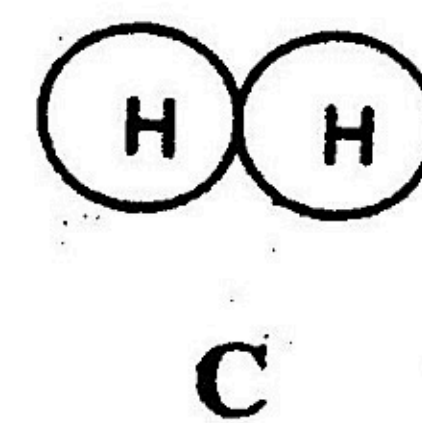
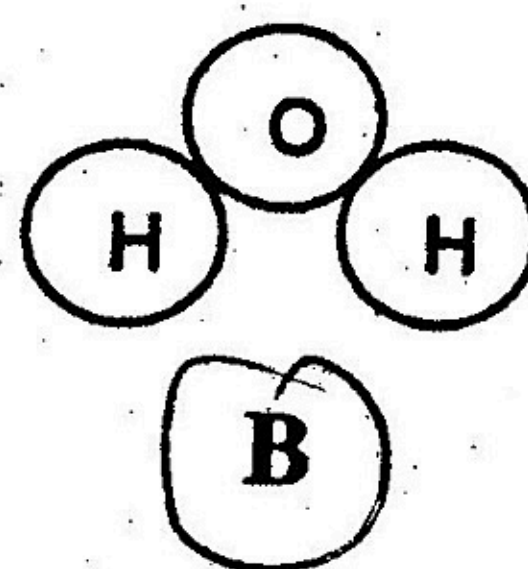
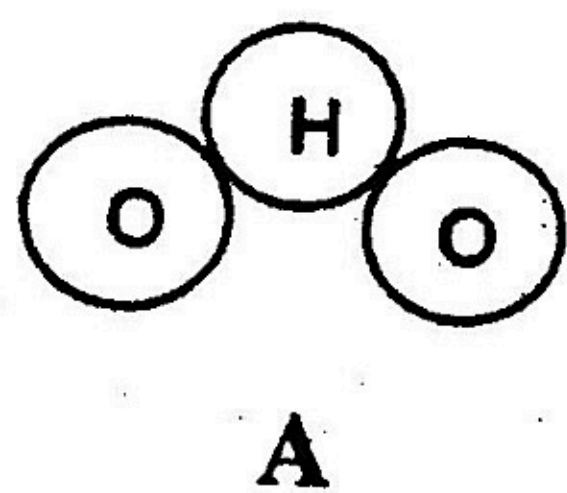


Which letter represents the nucleus?

18. What is the **highest** pH reading for a strong acid?

- A 1
- B 3
- C 5
- D 7

19. Which diagram represents a water molecule?



20. Which body of water has the greatest amount of salt?

- A blue holes
- B lakes
- C mangrove swamps
- D salt ponds

21. Hurricanes usually develop over large bodies of water.

In which ocean do hurricanes which affect The Bahamas develop?

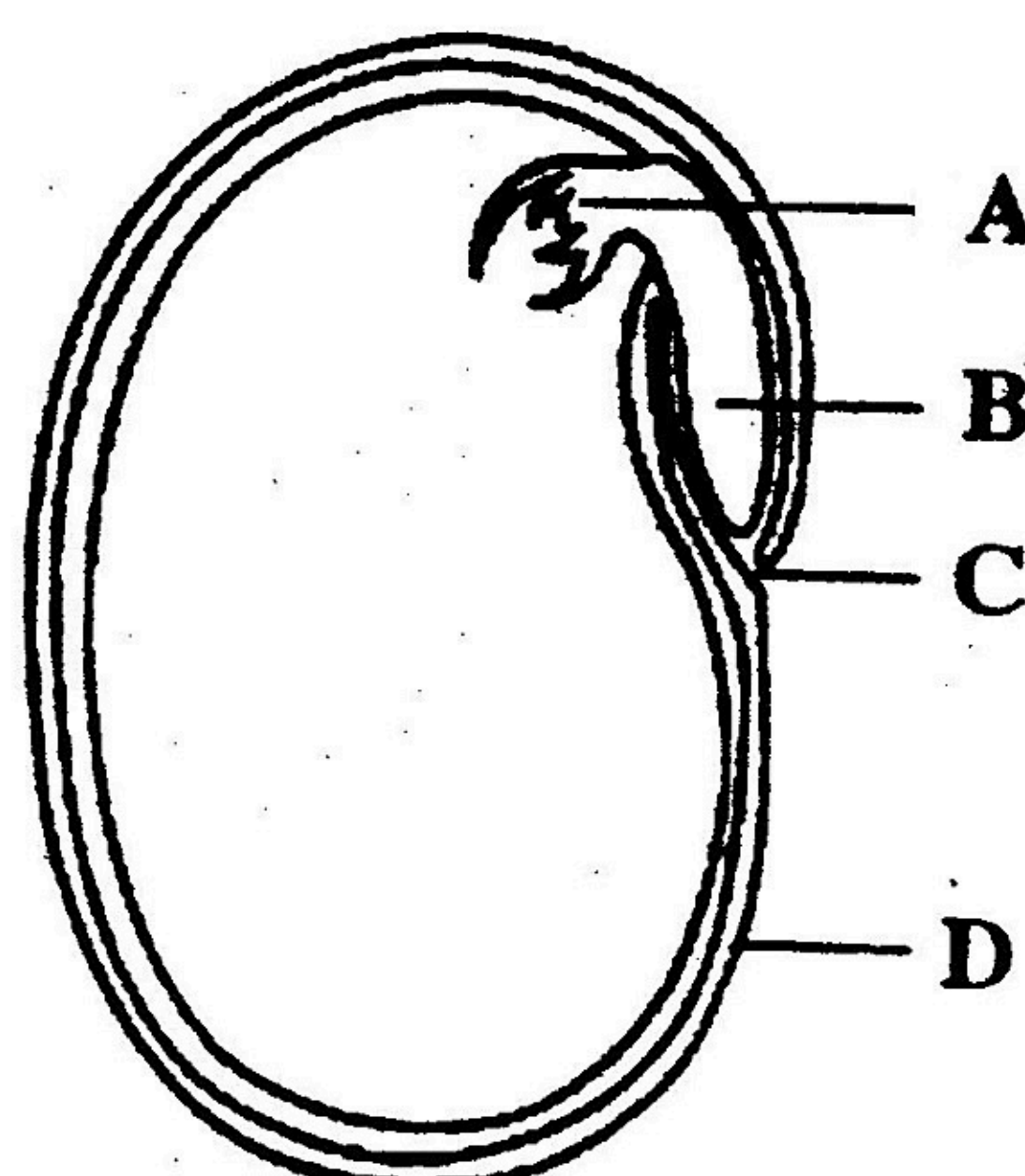
- A Atlantic Ocean
- B Arctic Ocean
- C Indian Ocean
- D Pacific Ocean

22. Which row lists the raw materials necessary for photosynthesis?

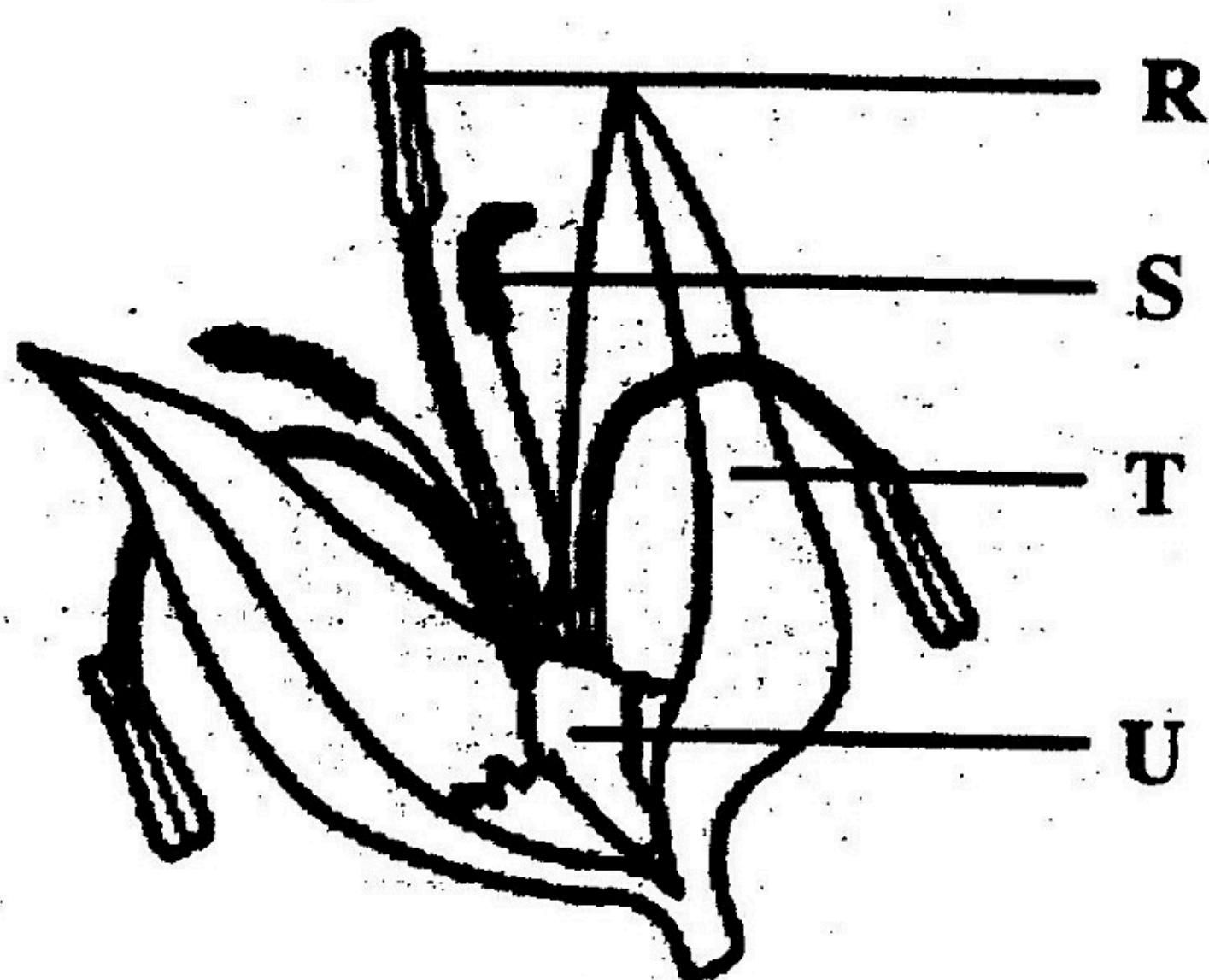
A	carbon dioxide	water
B	carbon dioxide	oxygen
C	carbohydrate	water
D	carbohydrate	oxygen

23. The diagram shows the structures of a bean seed.

Which letter shows the plumule?



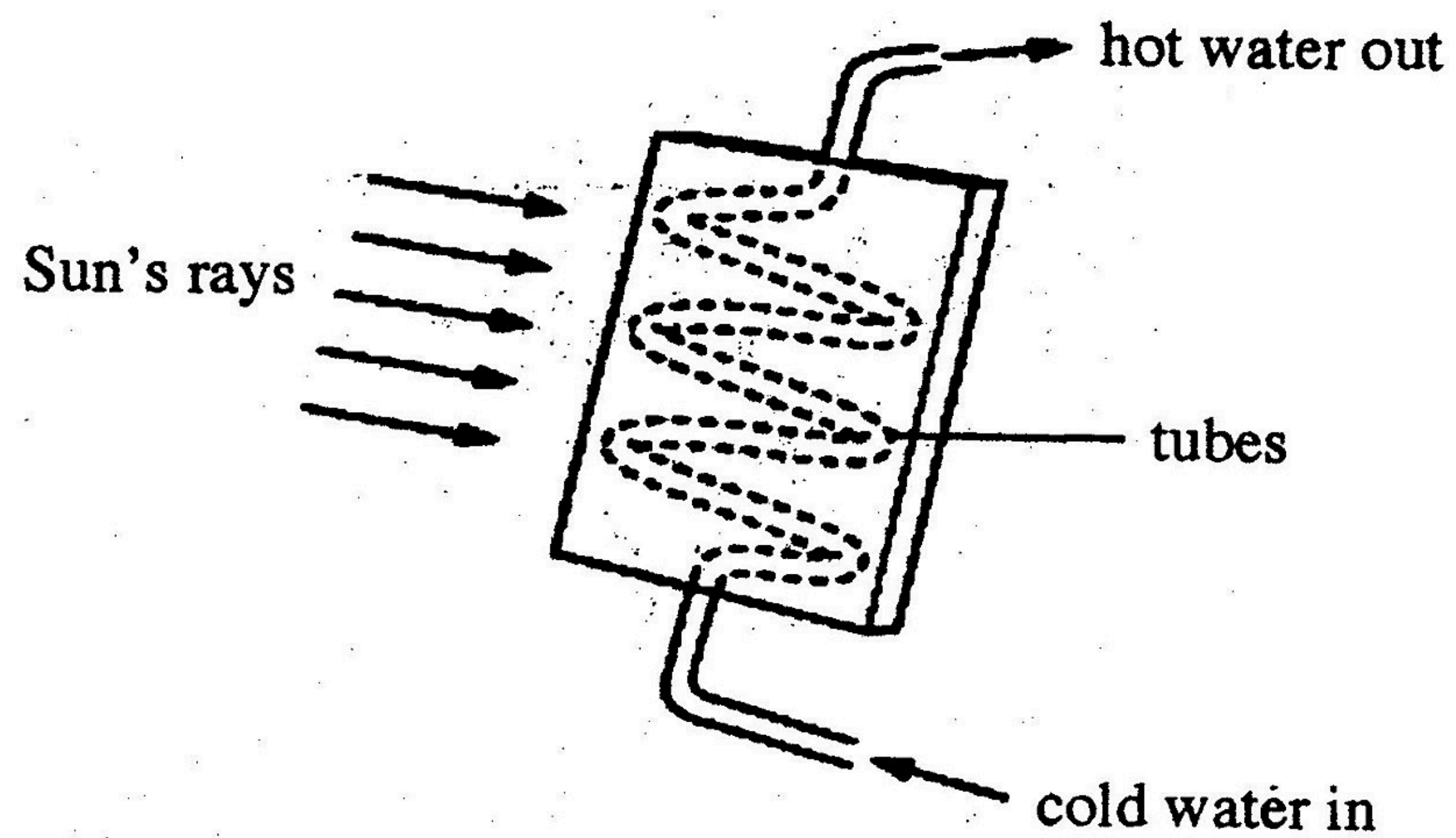
24. The diagram shows the structure of a typical flower.



Which part of the flower is the anther?

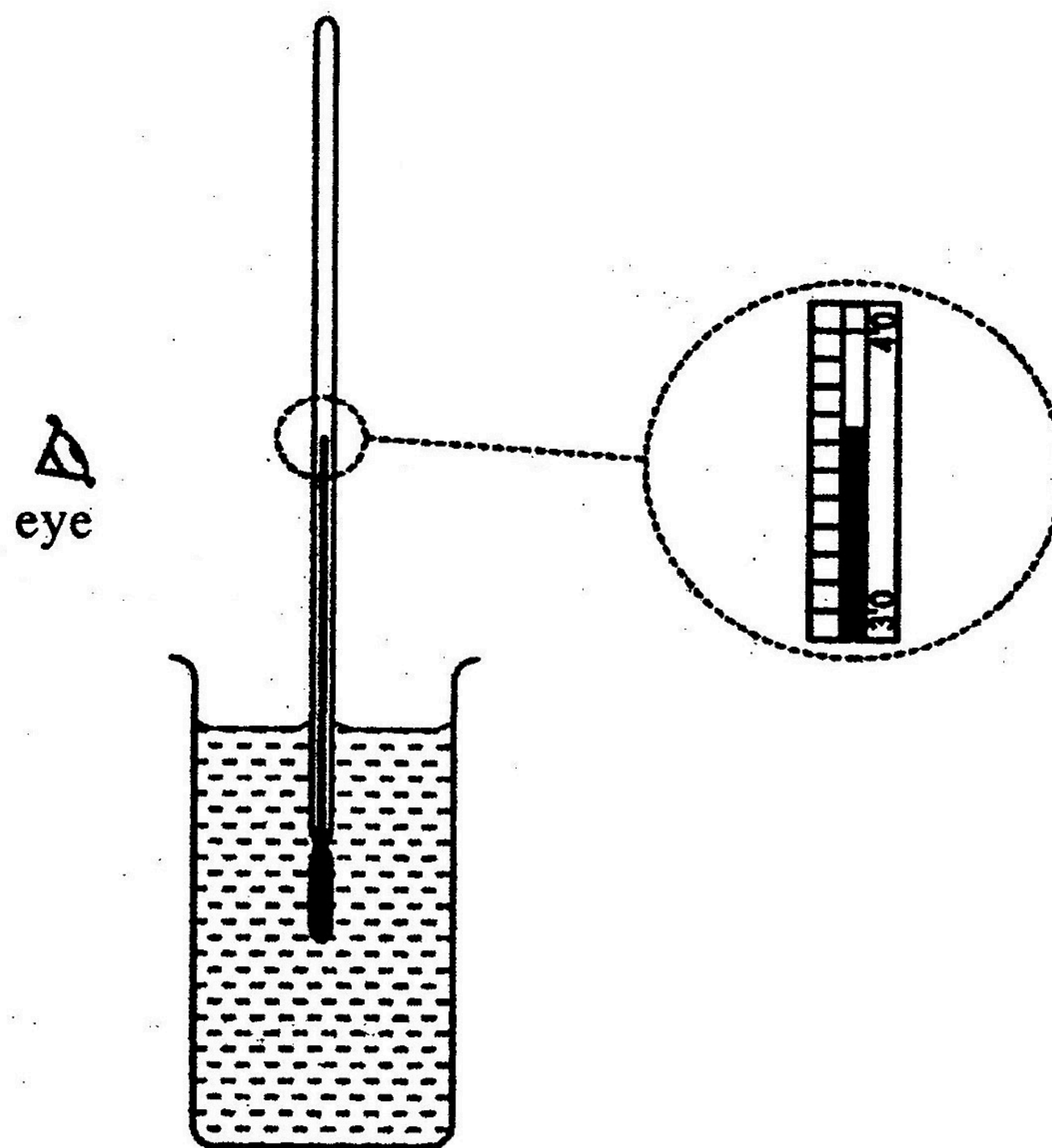
- A R
 - B S
 - C T
 - D U
25. A man lifts a bucket of water 4.5 m, the bucket weighs 1.5 N.
How much work is done in lifting the bucket?
- A 0.33 J
 - B 3.00 J
 - C 6.00 J
 - D 6.75 J
26. Which statement about magnets is **incorrect**?
- A like poles attract
 - B loadstone is a natural magnet
 - C the magnetic field is strongest at the poles
 - D unlike poles attracts
27. Which factors determine the field strength between two magnetic bodies?
- A distance and size
 - B location only
 - C location and distance
 - D size only

28. The diagram shows a solar panel used to heat water.



How does energy from the Sun heat the water in the tubes?

- A convection and conduction only
 - B radiation, conduction and convection
 - C radiation and conduction only
 - D radiation and convection only
29. What is the exact reading shown?



- A 36.0°
- B 36.5°
- C 37.0°
- D 37.5°

30. Ms. Brown science class plans to collect data on air pressure, temperature and wind speed for the month of October.

Which row shows the weather instruments they will need to use?

	air pressure	temperature	wind speed
A	anemometer	hygrometer	barometer
B	barometer	thermometer	anemometer
C	hygrometer	anemometer	hygrometer
D	thermometer	barometer	thermometer

31. How are clouds formed?

- A air is cooled, water vapour condenses around particles to form droplets which cling together
- B air is warmed; water evaporates around particles which cling together
- C air is cooled, water evaporates into the atmosphere
- D air is warmed and rises into the atmosphere where clouds are formed

32. Which planets are the **coldest** and **hottest** in the solar system?

	coldest	hottest
A	Mars	Pluto
B	Mercury	Mars
C	Mercury	Pluto
D	Pluto	Mercury

33. Which planet is the largest planet in the solar system?

- A Jupiter
- B Neptune
- C Uranus
- D Venus

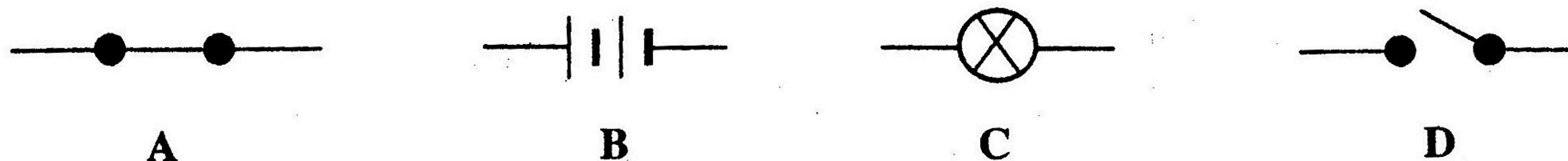
34. Which man-made body orbits (moves around) a planet?

- A constellation
- B comet
- C Moon
- D satellite

35. Which electrical component can prevent a circuit overload?

- A a battery
- B a fuse
- C a lamp
- D a switch

36. What symbol shows an open switch?



37. Which colour refracts most when white light passes through a prism?

- A blue
- B green
- C yellow
- D red

38. Which gas is added to the atmosphere by the processes of combustion, decomposition, fermentation and respiration?

- A argon
- B carbon dioxide
- C nitrogen
- D oxygen

39. Which device changes mechanical energy to electrical energy?

- A a generator
- B a motor
- C a switch
- D a transformer

40. Which substance is colourless, odourless and tasteless?

- A alcohol
- B chlorine
- C kerosene
- D water

0047/2**BJC**

FOR EXAMINERS' USE ONLY	
QUESTION	MARK
1	
2	
3	
4	
5	
6	
TOTAL	

SCHOOL No.	CANDIDATE No.
INITIALS	SURNAME

0047 GENERAL SCIENCE
PAPER 2 STRUCTURED QUESTIONS
(60 MARKS)

Monday **31 MAY 2010** 2:05 – 3:05 P.M.

MINISTRY OF EDUCATION
BAHAMAS JUNIOR CERTIFICATE
EXAMINATION 2010

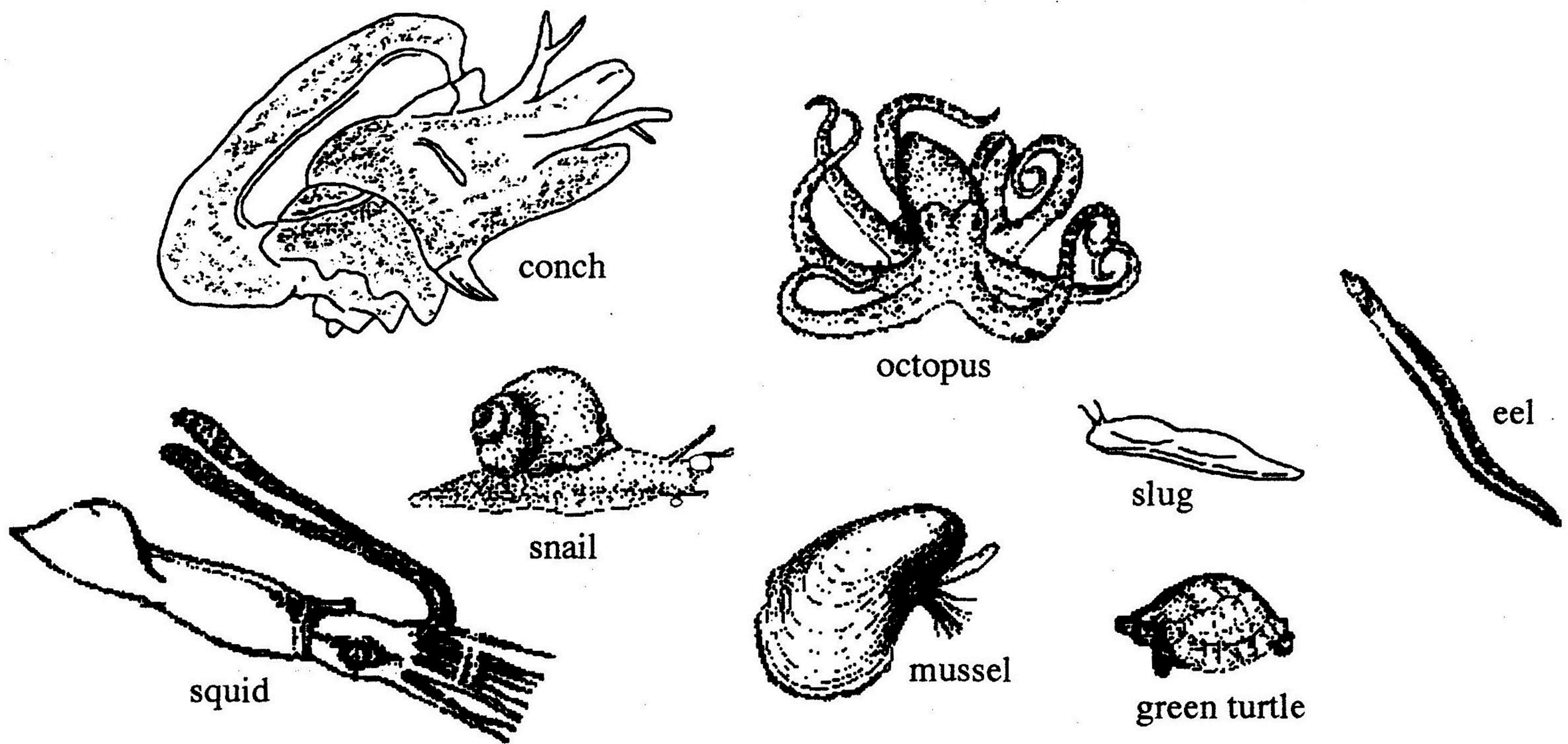
INSTRUCTIONS TO CANDIDATES

Do not open this booklet until you are told to do so.

Write your school number, candidate number, surname and initials in the spaces provided at the top right hand side of this page.

Answer **ALL** questions in the spaces provided.

1. The diagram shows a variety of animals.



- (a) Scientists classify organisms into classes based on their external and internal characteristics.

- (i) Classify the organisms listed into classes to complete the table. [3]

organism	class
conch	
squid	
snail	

- (ii) Name the organism that is a reptile.

_____ [1]

- (iii) State **ONE** similarity between the green turtle and the eel.

 _____ [1]

- (b) Define the term **invertebrate**.

_____ [1]

- (c) (i) Name **TWO** molluscs shown that are classified as univalves.

1 _____

2 _____

[2]

- (ii) Name the mollusc that is without a shell.

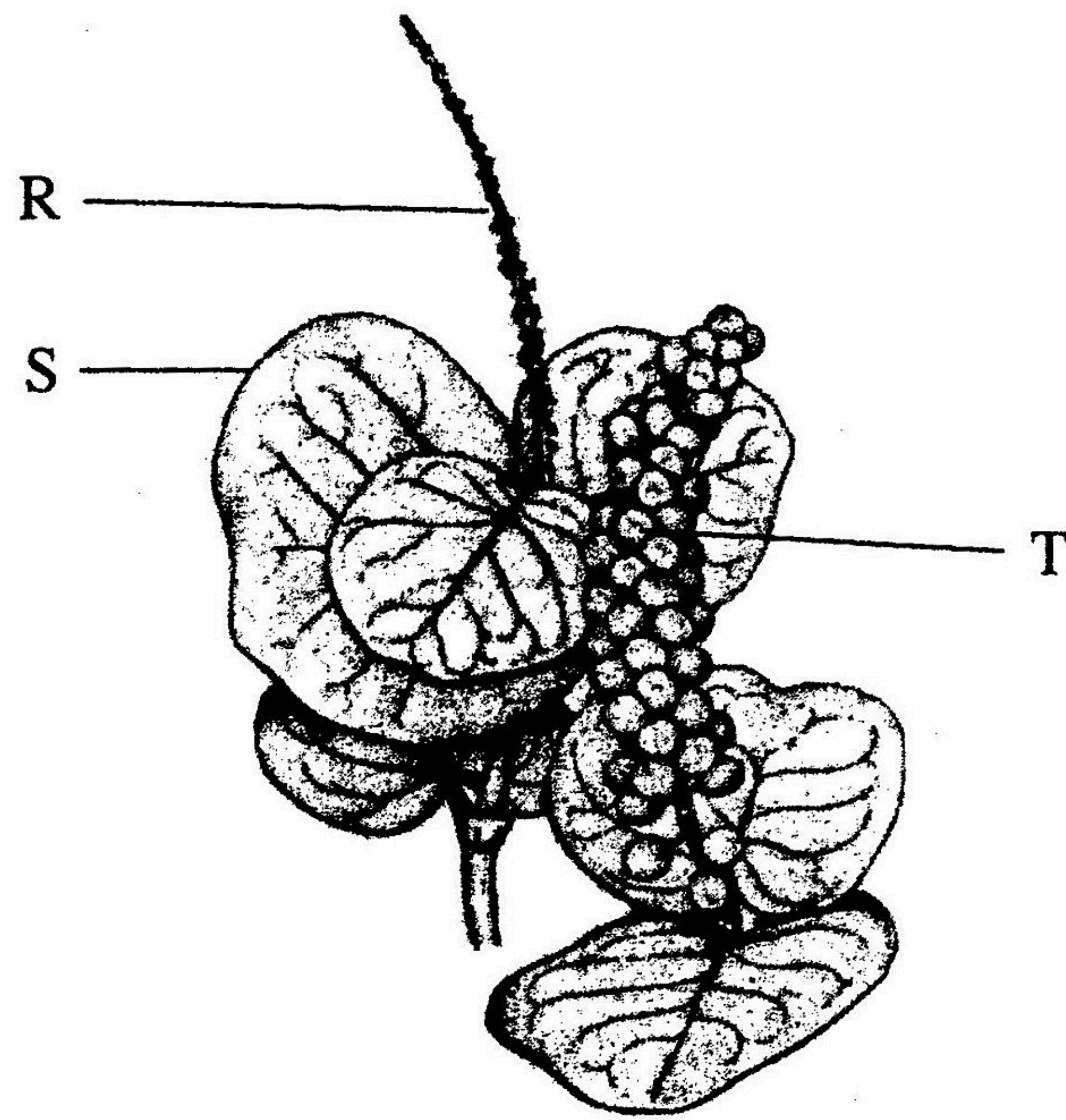
[1]

- (d) Name the animal shown that is an endangered species.

[1]

Total marks [10]

2. The diagram shows structures of a sea grape plant.



- (a) (i) Name the structure labelled S;
_____ [1]

- (ii) Identify the **letter** of the structure which contains seeds.
_____ [1]

- (iii) Fill in the blanks in the table by selecting and placing a tick (✓) next to the characteristic which classifies the sea grape plant.

type of	characteristic			
	monocotyledon		dicotyledon	
plant				
leaf	broad		narrow	
root system	tap		fibrous	

[3]

- (iv) The main function of **R** is given. Give the main function of the other structures **S** and **T**.

structure function

R Reproduction

S _____

T _____

[2]

(b) Sea grape plants grow best near or on the beaches.

(i) Identify the kind of soil found in this environment.

_____ [1]

(ii) Suggest **ONE** reason why the leaf of this plant has a thick, waxy layer.

_____ [1]

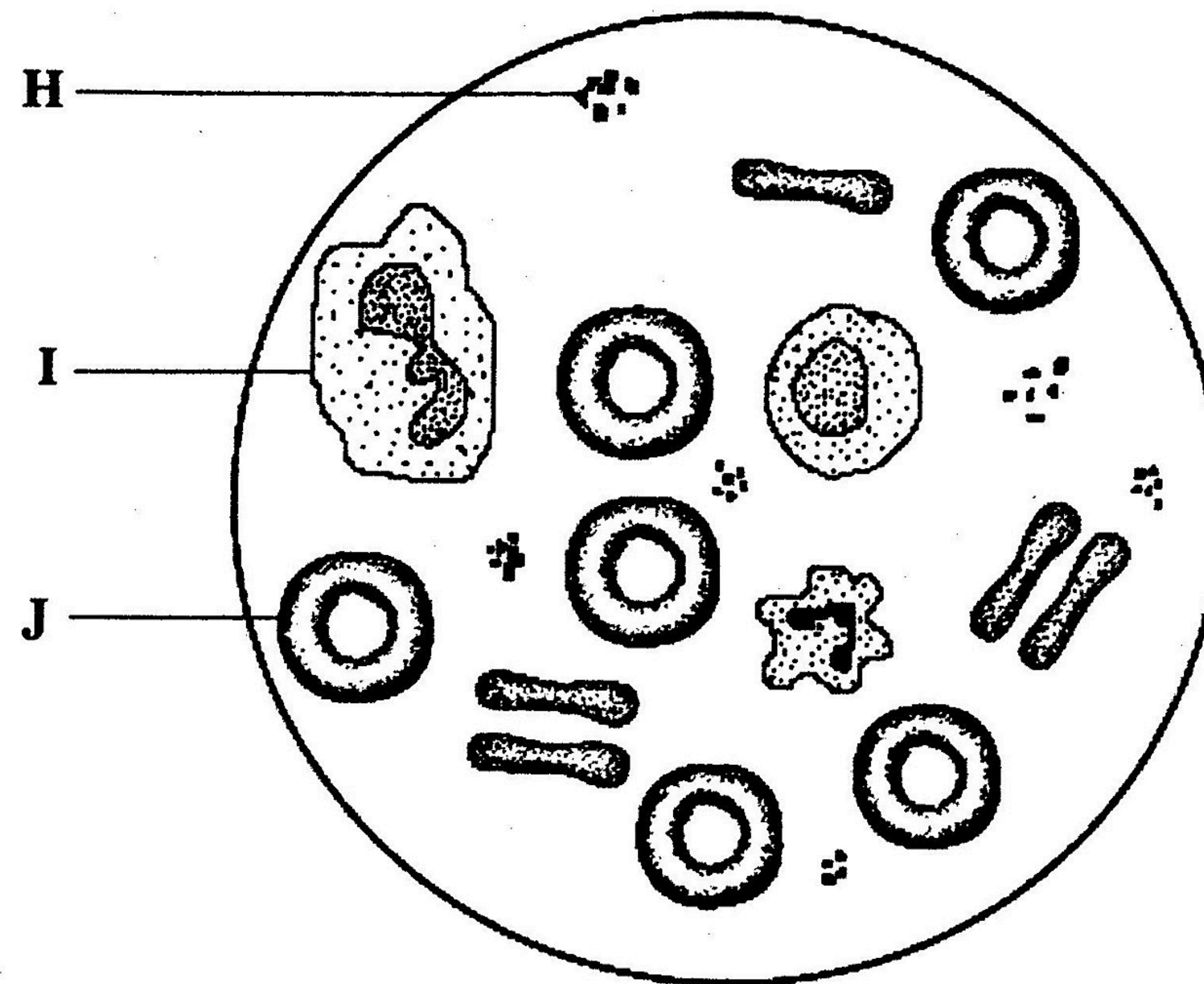
(iii) **Fertilizers** are chemical or natural compounds which promote plant growth.

Name a group of **natural** fertilizers.

_____ [1]

Total marks [10]

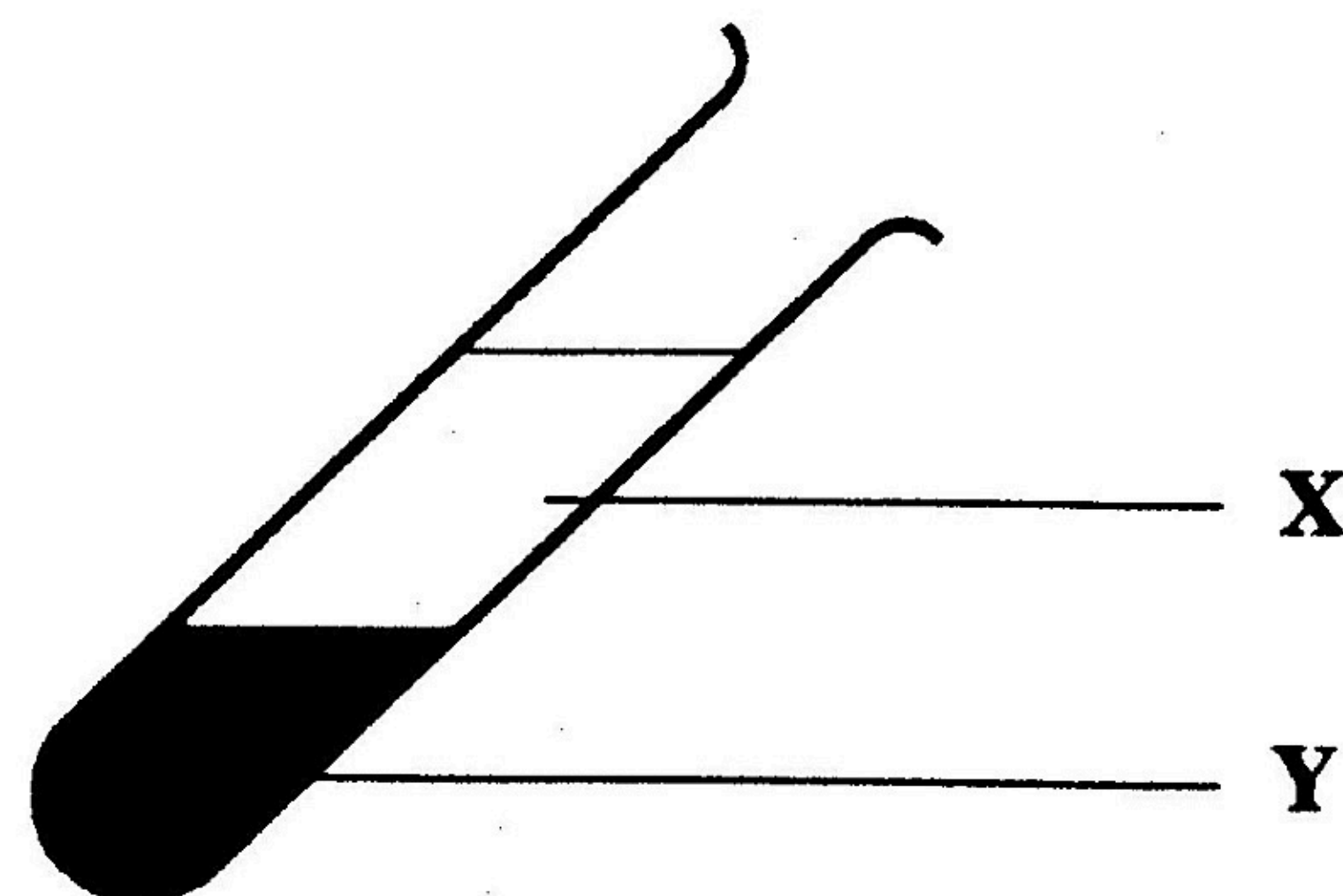
3. The diagram shows a sample of human blood seen through a microscope.



- (a) Name the components **H**, **I** and **J** and give **ONE** function for each. [6]

	name	function
H		
I		
J		

- (b) The test tube contains a blood sample that has been separated into its two main parts **X** and **Y**.



- (i) Identify part **X**. [1]

- (ii) Briefly explain the difference between **X** and **Y**.

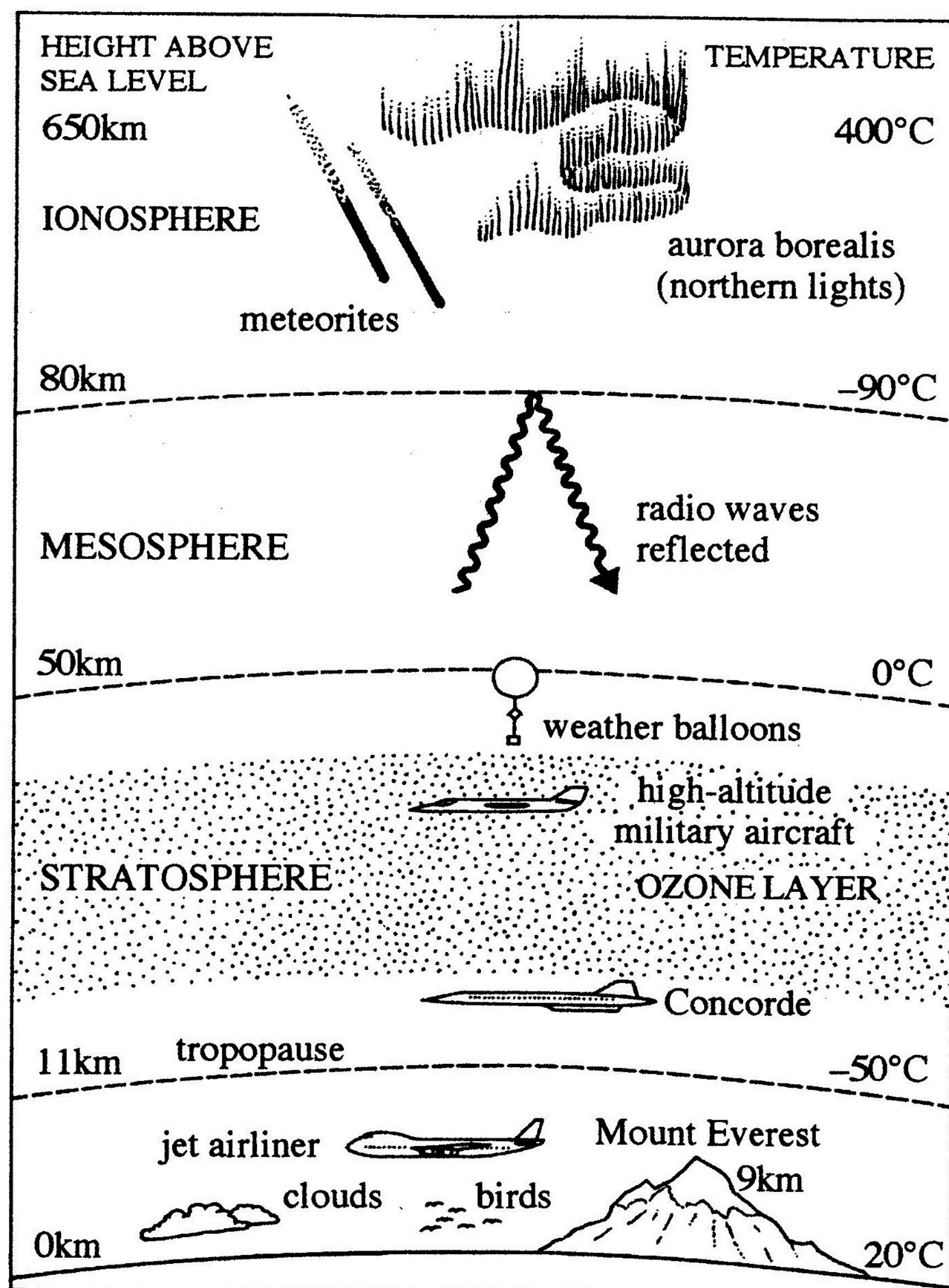
 _____ [1]

- (c) Diabetes is a common disease afflicting many Bahamians.

Name the compound which accumulates in the blood of a person who is diabetic.

_____ [1]

4. The diagram shows the layers of the atmosphere.



- (a) Define the term *atmosphere*.

_____ [2]

- (b) (i) Name the layer of the atmosphere in which we live.

_____ [1]

- (ii) List the **TWO** most abundant gases in this layer.

1 _____

2 _____ [2]

- (iii) Name the layer that makes long distance communications possible.

_____ [1]

- (iv) Suggest a reason why this layer makes this possible.

_____ [1]

- (c) (i) Name the kind of particles found in the **ionosphere**.

_____ [1]

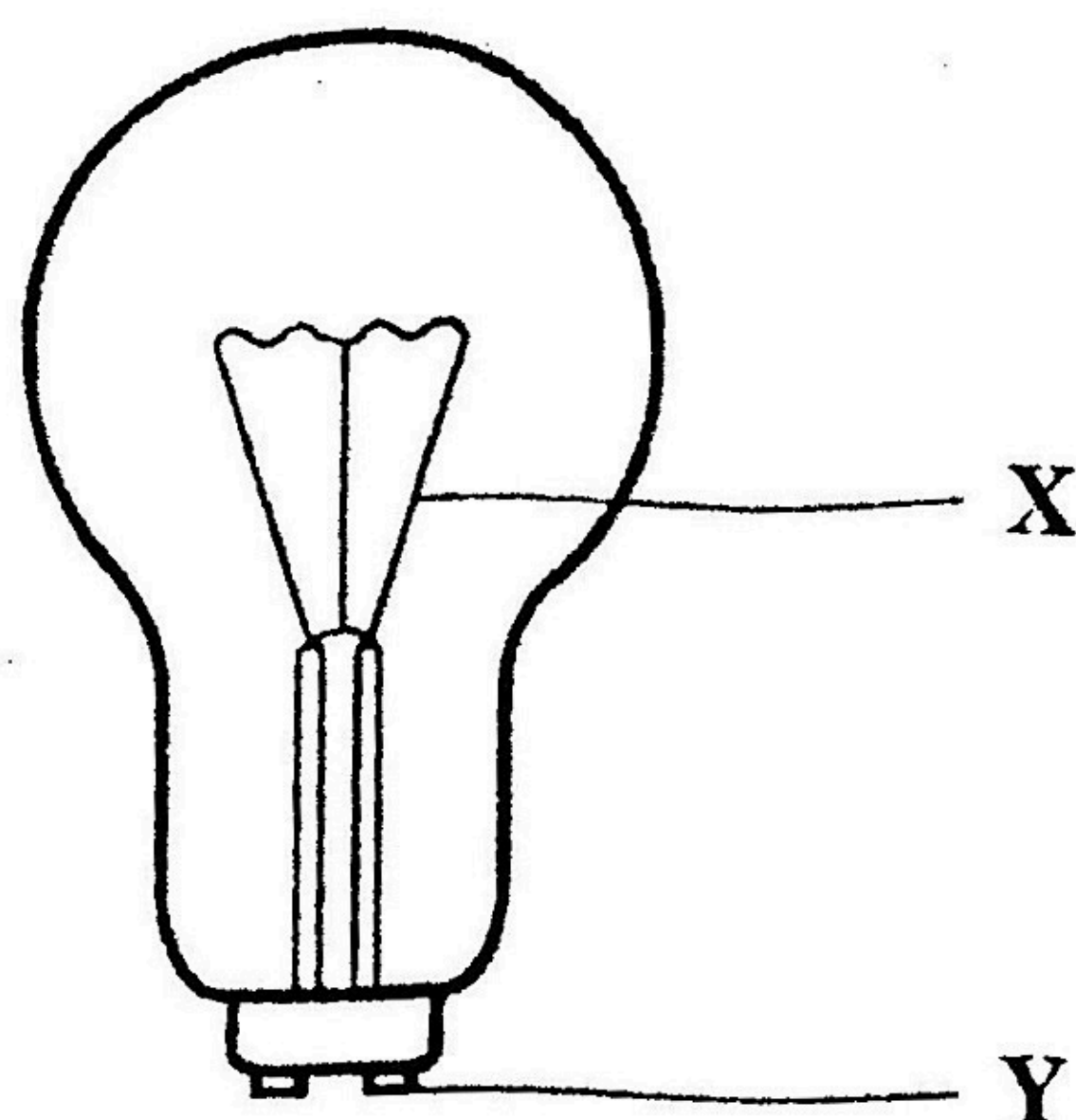
- (ii) State **TWO** natural phenomena which take place in this layer and can be observed from certain locations on the Earth.

1 _____

2 _____ [2]

Total marks [10]

5. This question is about light energy and electricity.



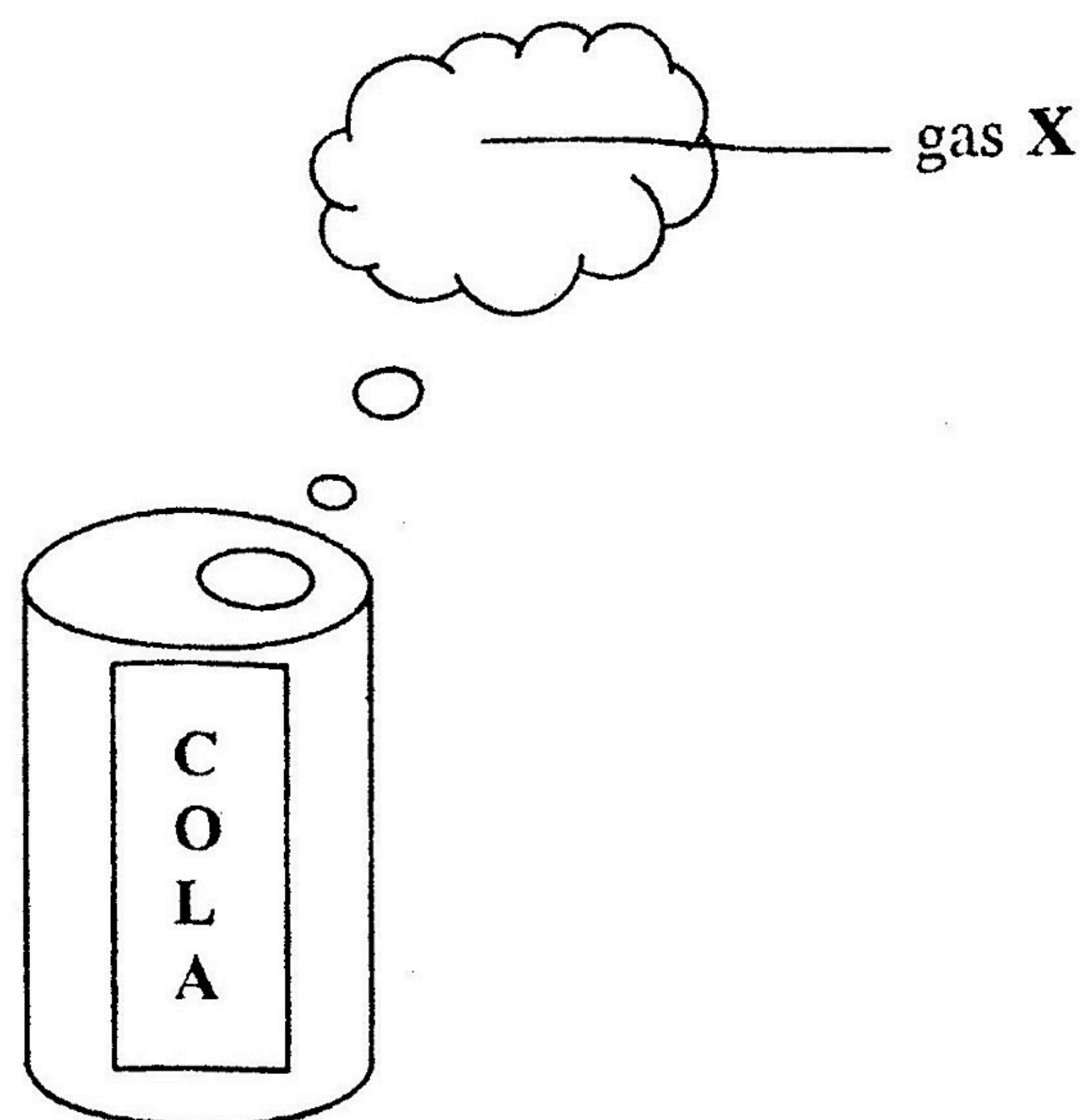
- (a) (i) Light bulbs are luminous objects. Define *luminous*.
 _____ [1]
- (ii) Name the material from which **X** and **Y** is made and give a reason for your answer.
material _____ [1]
reason _____ [1]
- (iii) Name the particles which flow through **X** and **Y**.
 _____ [1]
- (iv) State the name given to this flow of particles.
 _____ [1]
- (c) Fill in the blank spaces to show what happens to light rays from the bulb as they pass through a concave lens, a convex lens and a glass prism. [3]

object	result
concave lens	
convex lens	
glass prism	

Compact fluorescent (energy-efficient) light bulbs use 75% less energy. These bulbs also last 10 times longer than the incandescent bulb shown.

- (d) (i) A home-owner changes incandescent light bulbs 10 times a year. How many times would the home-owner change light bulbs after switching to compact fluorescent light bulbs?
 _____ [1]
- (ii) Mr. Sweeting's light bill for April was \$340.00. After changing all the light bulbs in his home to energy-efficient bulbs his light bill for May was \$255.00. Calculate his savings.

6. The diagram shows a can of soft drink that was just been opened.



Gas X is colourless, odourless and tasteless.

- (a) (i) Name gas X.
_____ [1]

- (ii) Name the property of gas X which makes it ideal for use in soft drinks like sodas.
_____ [1]

- (iii) Write the chemical formula for gas X and draw its molecular structure in the boxes.

chemical formula

[2]

molecular structure

[2]

Substances can be classified as acidic, basic or neutral.

- (c) (i) State the colour of damp, blue litmus paper placed in gas X.
Changes from blue to _____ [1]

- (ii) Suggest how gas X can be classified using this result.
_____ [1]

- (d) State a test for gas X and give its positive results.

test _____

results _____ [2]

Total marks [10]