

B G C S E

BIOLOGY

EXAMINATION 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

BGCSE FREE SOLUTIONS MANUALS

COMPLETE SOLUTIONS FOR ALL
MAJOR SUBJECTS

- ⦿ MATHEMATICS
- ⦿ ENGLISH LANGUAGE
- ⦿ HISTORY
- ⦿ RELIGIOUS STUDIES
- ⦿ ACCOUNTS
- ⦿ SCIENCES (BIOLOGY, PHYSICS,
COMBINED SCIENCE)
- ⦿ FOREIGN LANGUAGE
(FRENCH AND SPANISH)

UNDERSTAND. PRACTICE. SUCCEED.

[CLICK HERE](#)

EXAM-REAL.

EXAM-PROVEN.

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!

PAST EXAMS. **REAL AUDIO.** BETTER PREP. GREATER CONFIDENCE.

3009/1

BGCSE

School Number	Candidate Number
Surname and Initials	

BIOLOGY

PAPER 1 3009/1

Friday **15 MAY 2020** 9:00 A.M.–10:15 A.M.

MINISTRY OF EDUCATION NATIONAL EXAMINATIONS

BAHAMAS GENERAL CERTIFICATE OF SECONDARY EDUCATION

INSTRUCTIONS AND INFORMATION FOR 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 above.

There are fifty questions on this paper.

Answer **ALL** questions.

For each question, there are four possible answers labelled **A, B, C, and D.**

Choose the **one** you consider correct and circle the **LETTER** of your choice in the booklet.



This question paper consists of 27 printed pages and 1 blank page.

1. Which characteristics are common to all living organisms?

- A breathing, excretion, growth, irritability
- B excretion, growth, irritability, reflex action
- C growth, irritability, photosynthesis, reproduction
- D irritability, excretion, growth, reproduction

2. The scientific name for the seagrape tree is *Coccoloba uvifera*.

What do the two words in the name *Coccoloba uvifera* represent?

- A genus, species
- B genus, class
- C kingdom, phylum
- D kingdom, species

3. Which of the following includes organisms of only one species?

- A community
- B ecosystem
- C kingdom
- D population

4. Which is the correct definition of an omnivore?

- A an organism that eats only animals
- B an organism that eats both animals and plants
- C an organism that eats only plants
- D an organism that eats dead plants



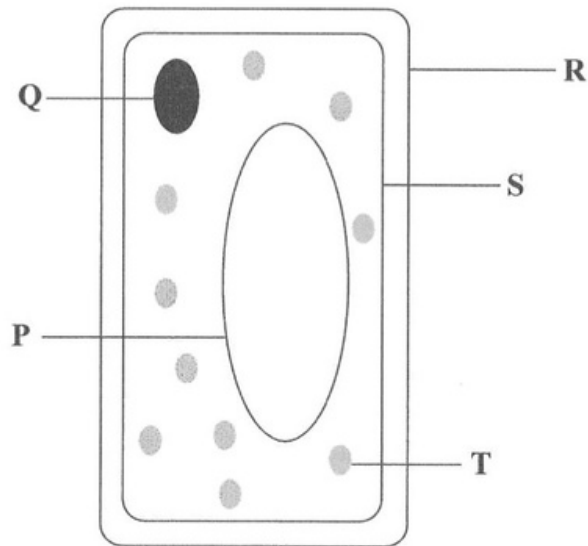
5. In which ecosystem would a sea fan be found?
- A coral reef
 - B mangrove
 - C rocky shore
 - D sandy shore
6. Eagles have hooked beaks that help them to ingest food.
What is this an example of?
- A adaptation
 - B absorption
 - C assimilation
 - D digestion
7. What is the correct order in which organisms occur in a food chain?
- A carnivore → herbivore → producer
 - B herbivore → carnivore → producer
 - C producer → carnivore → herbivore
 - D producer → herbivore → carnivore
8. Which is **not** an important marine resource in The Bahamas?
- A conch
 - B lobster
 - C Nassau grouper
 - D salmon

9. Which pollutant can cause eutrophication if dumped in an open body of water?
- A aluminum cans
 - B cardboard boxes
 - C fertilisers
 - D waste oil
10. Limiting the amount of organisms that could be caught at a specific time of the year is referred to as which of the following?
- A conservation
 - B diversification
 - C endangerment
 - D eutrophication
11. Which nutrient is broken down by the enzymes pepsin and trypsin?
- A carbohydrates
 - B fats
 - C proteins
 - D vitamins



Questions 12,13 and 14 refer to the diagram of a cell.

12. Which label on the diagram shows the part of the cell where substances enter and leave?



- | | |
|---|---|
| A | P |
| B | Q |
| C | S |
| D | T |
13. Which organelle transfers energy from the sun into energy in sugar?
- | | |
|---|---|
| A | P |
| B | Q |
| C | R |
| D | T |



14. What would happen to structure **P** if the cell was placed in a concentrated salt solution?
- A It would become turgid.
 - B It would remain the same size.
 - C It would shrink and shrivel.
 - D It would swell and burst.
15. A pregnant woman must select a meal for lunch. Which selection best meets her nutritional needs?
- A chicken souse, Johnny cake and coffee
 - B fried chicken, macaroni and water
 - C meatloaf, garden salad and milk
 - D turkey sandwich, chips and soda
16. What term collectively describes the following substances: thickeners, colourings, flavourings and dyes?
- A additives
 - B enrichers
 - C fortifiers
 - D preservatives



17. Microbes are used in the production of various items.



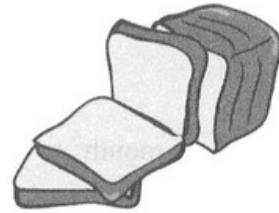
Cheese



Beer



Wine



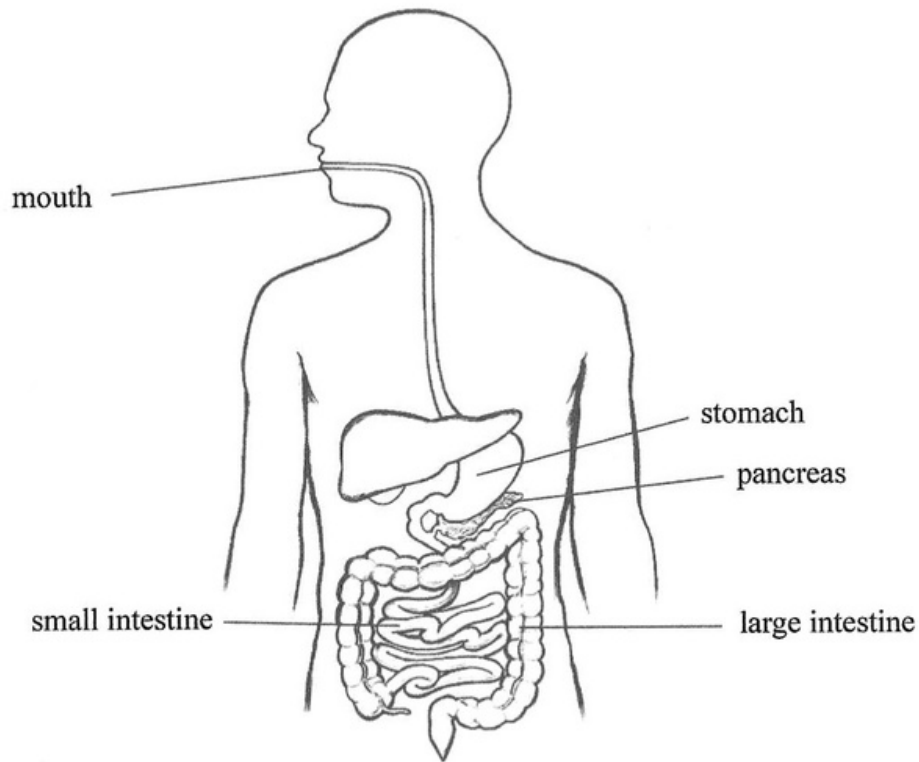
Bread

What percentage of the items listed above use yeast in their production?

- A 25%
- B 50%
- C 75%
- D 100%



Questions 18, 19 and 20 refer to the diagram of the human digestive system.



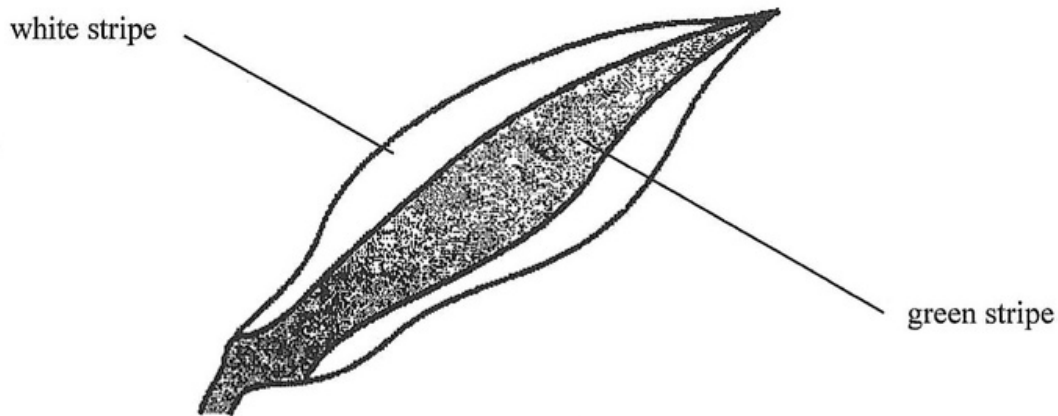
18. Which structure on the diagram is the main site for absorption?
- A mouth
 - B pancreas
 - C small intestine
 - D stomach
19. Which **two** structures labelled on the diagram produce amylase?
- A mouth and large intestine
 - B pancreas and mouth
 - C mouth and stomach
 - D stomach and pancreas



20. In which organ does chemical digestion of protein begin?

- A mouth
- B pancreas
- C small intestine
- D stomach

21. The diagram shows a striped leaf from a plant.



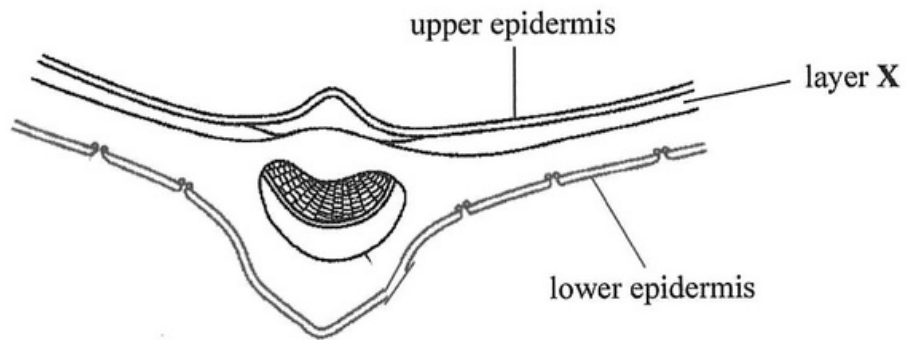
The plant was kept in bright light for six hours. A leaf was taken from the plant and the chlorophyll removed. The leaf was then tested for starch using iodine solution.

Which answer best describes the correct results of the test?

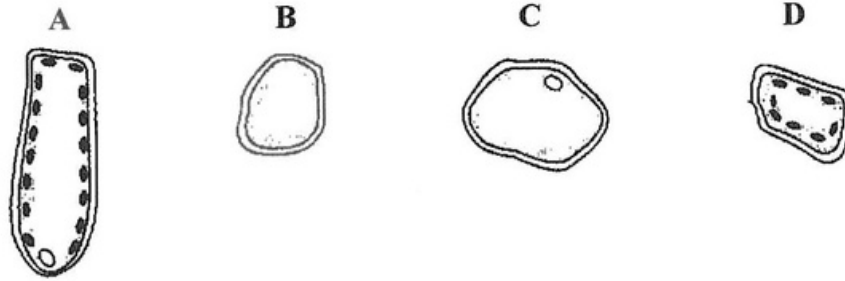
- A green stripe turns blue-black, white stripe turns yellow-brown
- B green stripe turns blue-black, white stripe turns blue-black
- C green stripe turns yellow-brown, white stripe turns blue-black
- D green stripe turns yellow-brown, white stripe turns yellow-brown



22. The diagram shows a cross-section of part of a leaf.



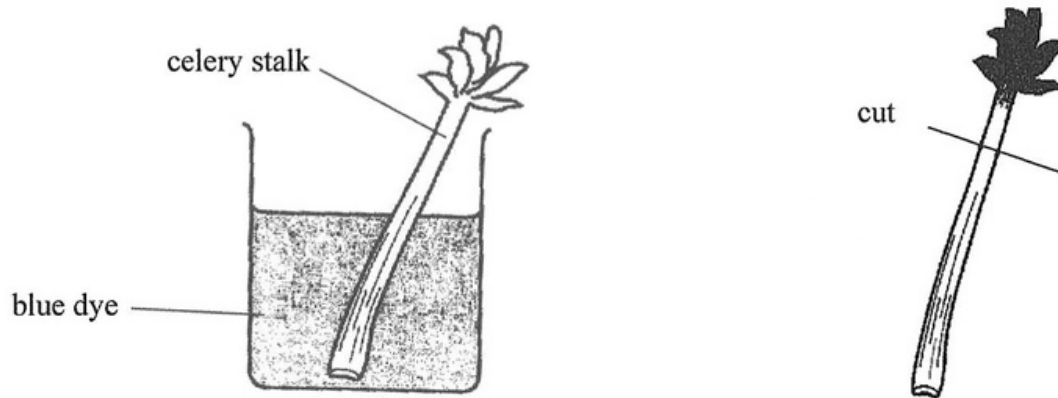
Which type of cell is found in layer X?



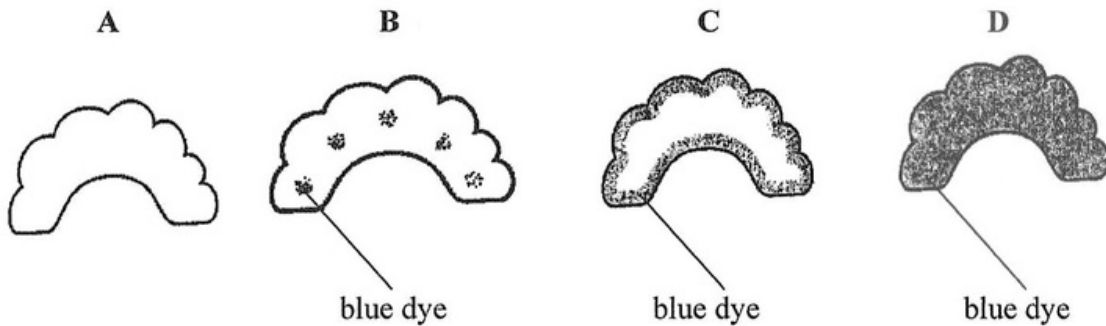
23. What is the first product of photosynthesis in a leaf?

- A cellulose
- B glucose
- C protein
- D starch

24. A celery stalk is placed in a beaker of blue dye. Once the dye reaches the leaves, the stalk is taken out and cut as shown in the diagram.



Which diagram shows the appearance of the cut end of the stalk?



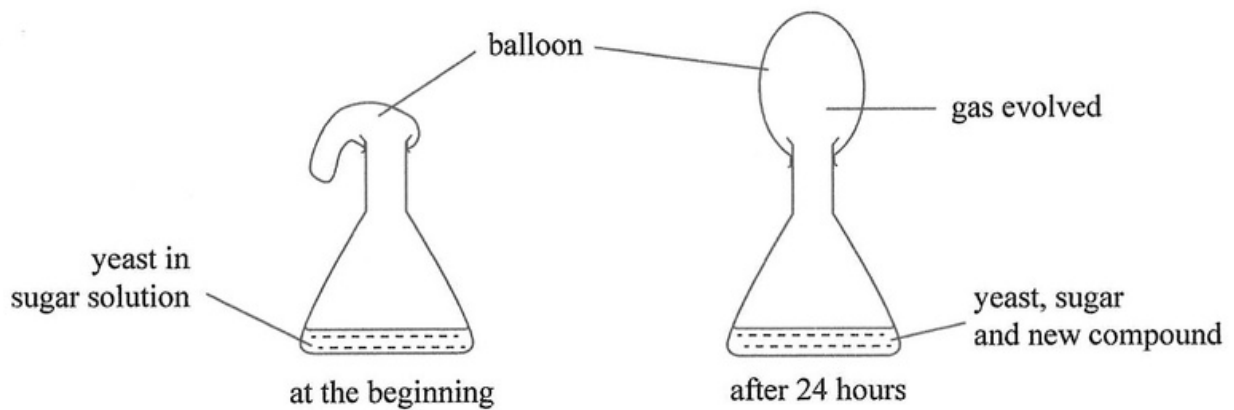
25. Which two substances are transported in the phloem?

- A amino acids and fats
- B amino acids and sucrose
- C protein and starch
- D starch and sucrose

26. Which statements about plant transpiration are correct?

	plants transpire most when	plants transpire least when
A	air is dry	temperature is high
B	light intensity is high	air is humid
C	light intensity is low	temperature is low
D	temperature is cold	light intensity is high

27. The diagram shows an experiment to investigate respiration in yeast cells.



Which gas is produced and which new compound is present after 24 hours?

	gas produced	new compound
A	carbon dioxide	ethanol (alcohol)
B	carbon dioxide	lactic acid
C	oxygen	ethanol (alcohol)
D	oxygen	lactic acid

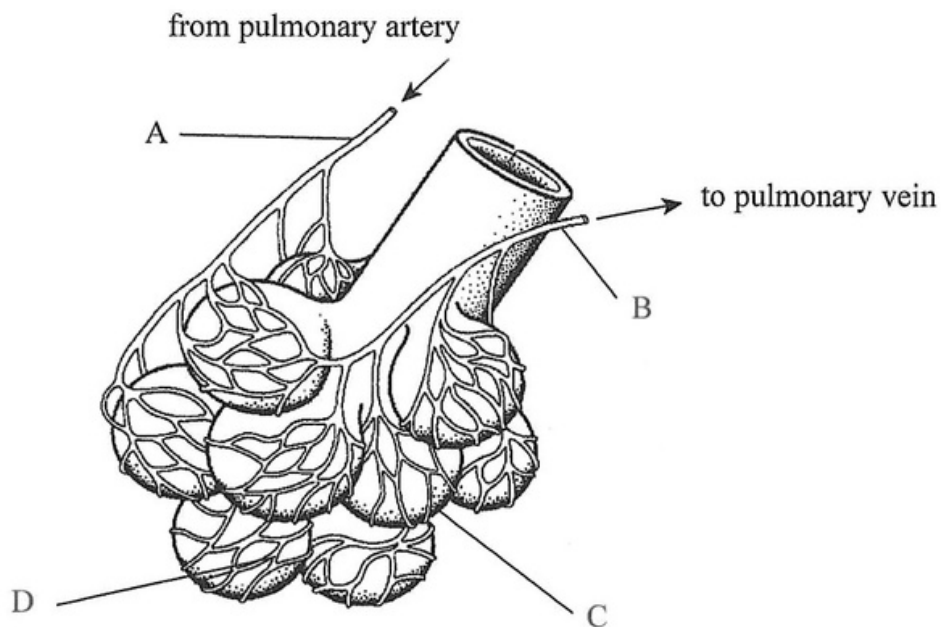


28. How are aerobic respiration and anaerobic respiration similar?

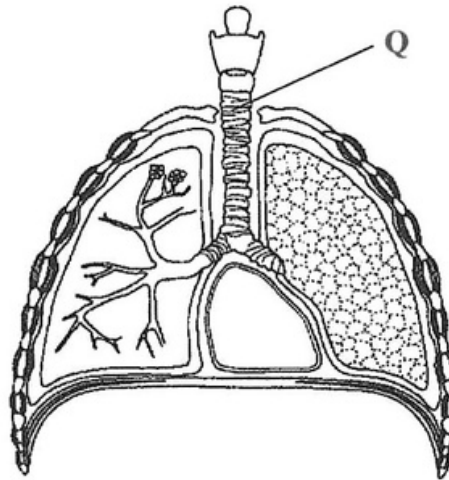
- A Both involve breaking down glucose.
- B Both need a low concentration of oxygen.
- C Both produce carbon dioxide in the muscle.
- D Both produce alcohol in yeast.

29. The diagram shows some of the structures in a human lung.

Where is the carbon dioxide concentration highest? Circle the correct letter.



30. The diagram shows some structures in the human neck and thorax.



The lining of tube Q has cilia.

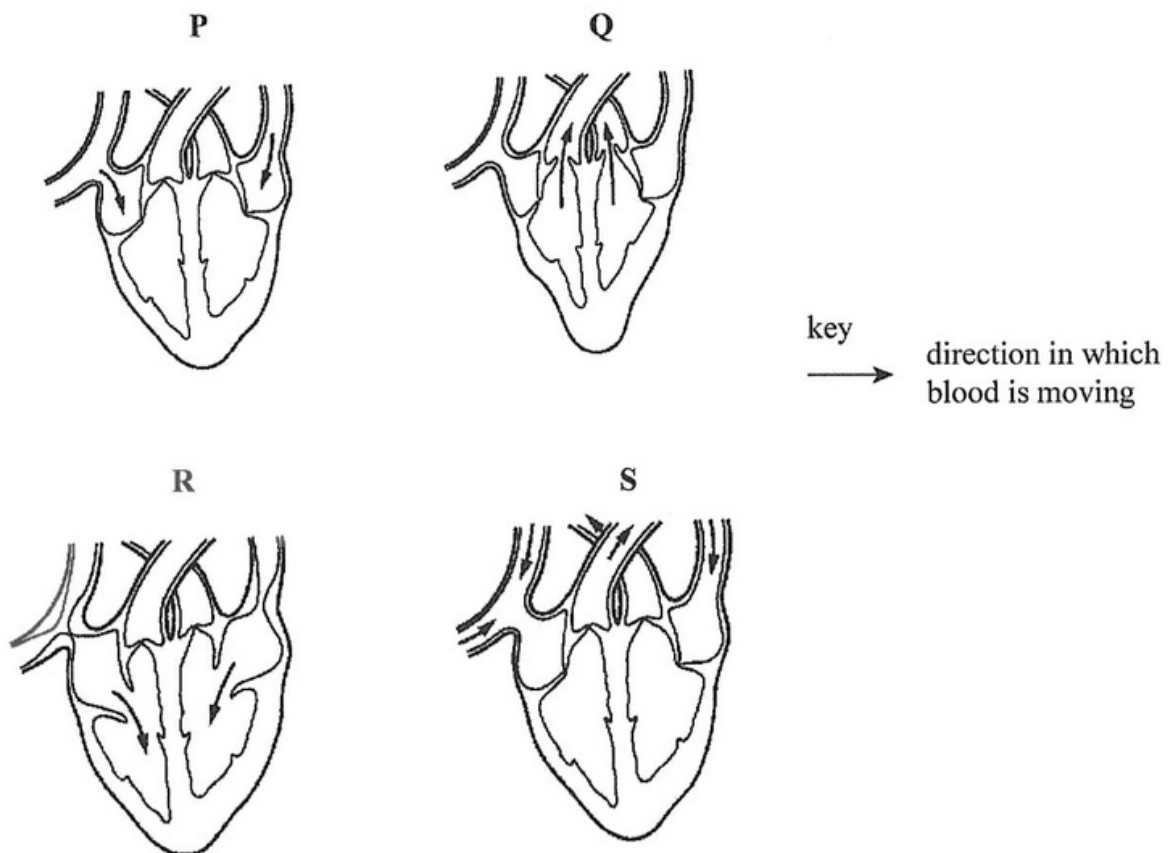
What is an important function of the cilia?

- A to help in the exchange of gases
 - B to increase the internal surface area of tube Q
 - C to moisten the air entering and leaving the lungs
 - D to remove dust and micro-organisms
31. Which substance is lost from the body by the kidneys, lungs and skin?
- A carbon dioxide
 - B excess ions
 - C urea
 - D water



32. Which is a function of the human blood system?
- A transport eggs from the ovary to the uterus
 - B transport glucose from the gut to the liver
 - C transport partly digested food from the mouth to the stomach
 - D transport urine from the kidney to the bladder

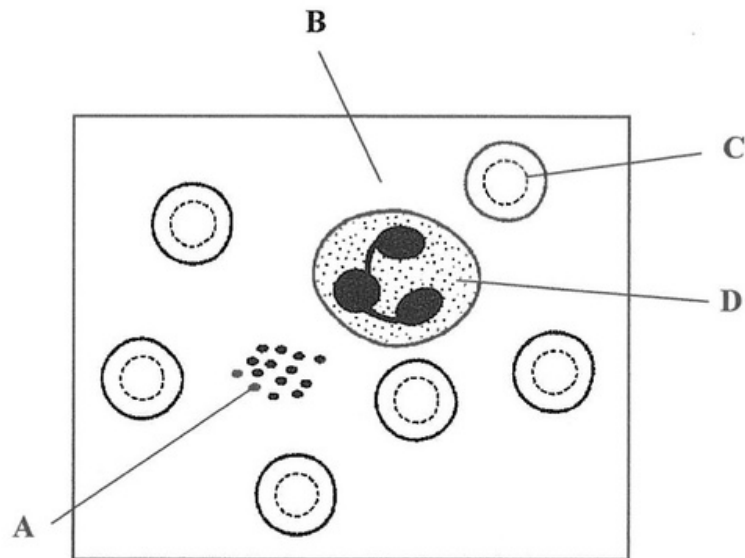
33. The diagrams show four different stages in **one** heart beat.



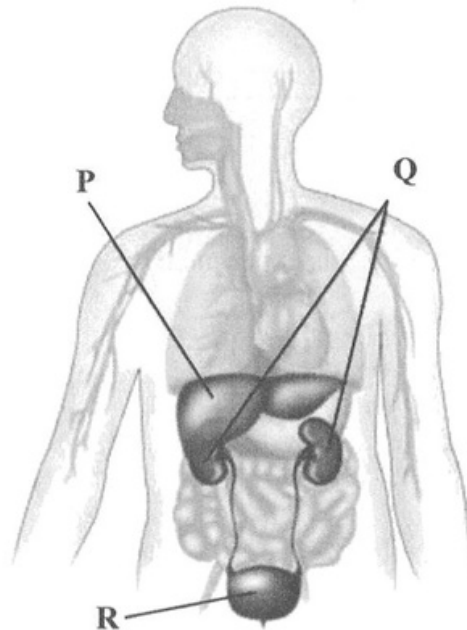
What is the correct order for the stages after stage **P**?

- A **Q → R → S**
- B **R → Q → S**
- C **R → S → Q**
- D **S → R → Q**

34. The diagram shows human blood as seen through a light microscope. If a person's blood is unable to clot, which component of blood is **not** functioning properly? Circle the correct letter.



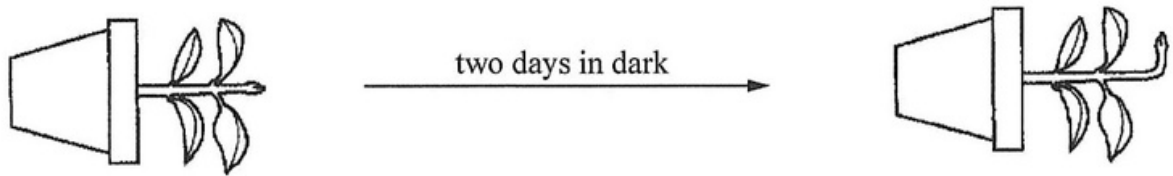
35. The diagram shows organs in which urea is found.



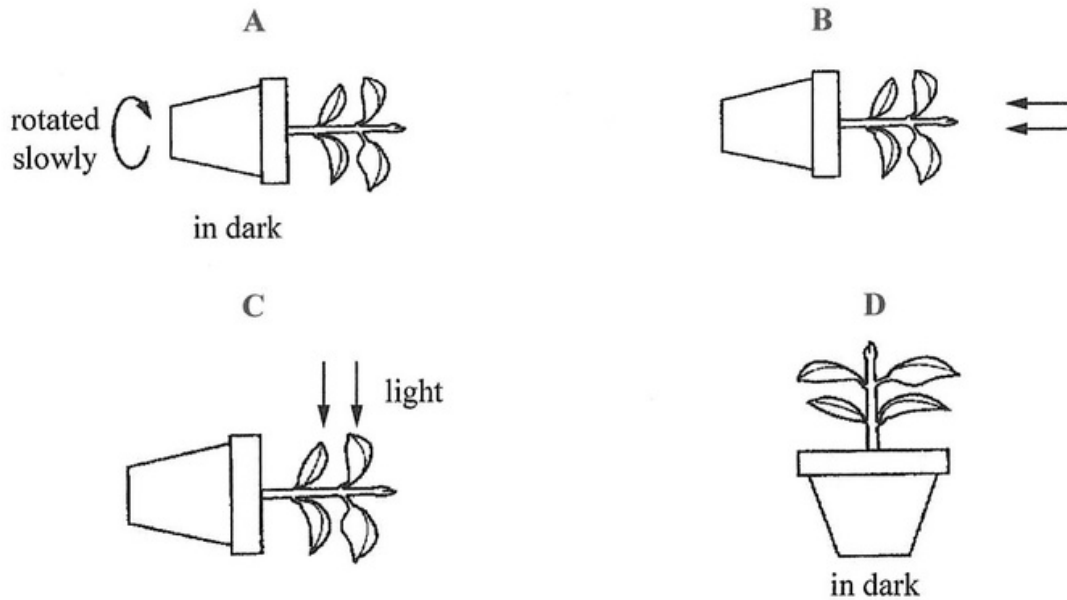
Which organ makes urea, and which organ removes it from the blood?

	makes urea	removes urea from blood
A	P	Q
B	Q	Q
C	Q	R
D	P	R

36. The diagram shows an experiment to investigate the response of a plant stem to gravity.



Which diagram shows a suitable control for this experiment?



37. A boy accidentally touches a very hot object and immediately takes his hand away.

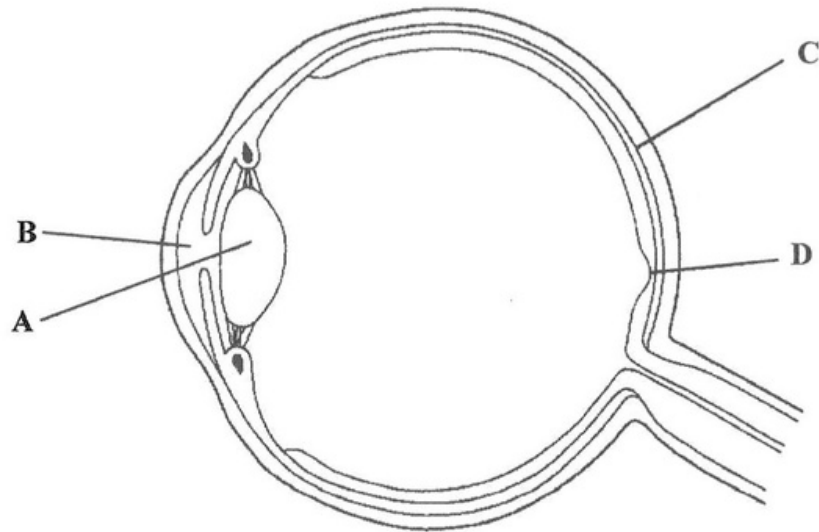
In this reflex action, what is the effector?

- A a heat receptor in his hand
- B a motor neurone
- C a muscle in his arm
- D the spinal cord



38. The diagram shows a section through the human eye.

Which labelled part prevents the internal reflection of light in the eye?

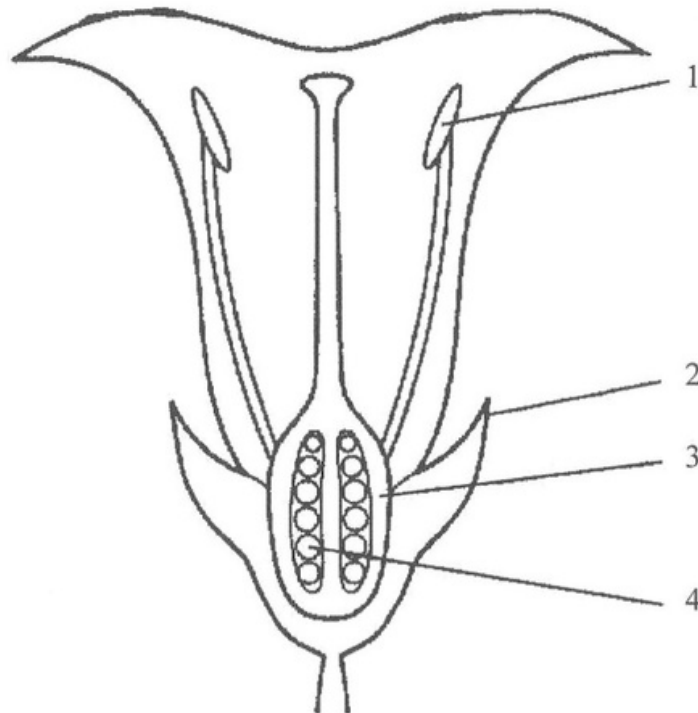


39. What would be the effects of vasodilation and sweating on the body temperature and on the amount of moisture on the skin surface?

	body temperature	moisture on the skin surface
A	decreased	decreased
B	decreased	increased
C	increased	decreased
D	increased	increased



40. The diagram shows a section through a flower.

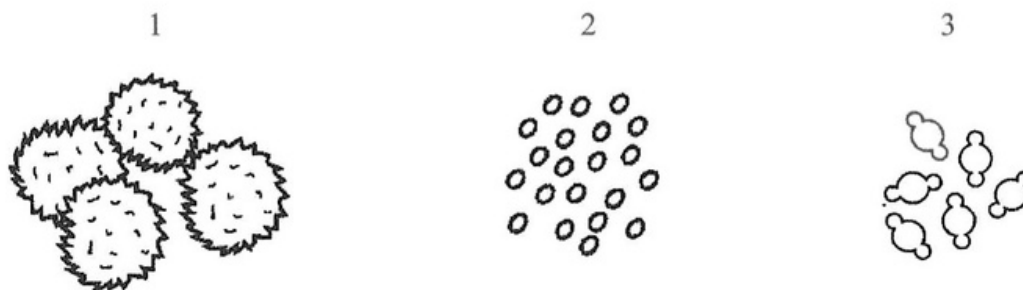


After the flower is fertilised, which parts will develop into the fruit and seed?

	fruit	seed
A	1	2
B	1	4
C	2	3
D	3	4

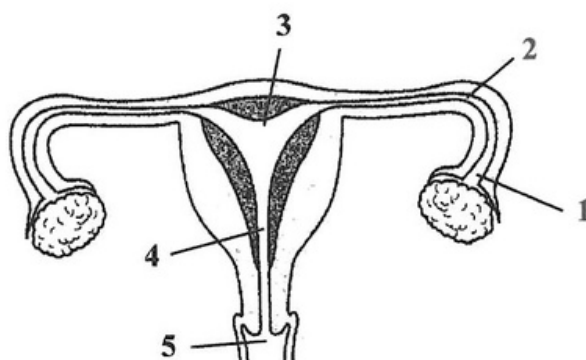


41. The diagrams show pollen grains from three different species of plant as they appear under the microscope. The diagrams are all drawn to the same scale.



Which pollen grains are involved in insect-pollination?

- A 1 and 2
B 1 only
C 2 and 3
D 3 only
42. The diagram shows the female reproductive system.



At which labelled points are sperms and ova released?

	sperms	ova
A	3	2
B	4	2
C	5	1
D	5	3

43. How will the composition of a pregnant woman's blood change as it passes through the placenta?

	concentration of dissolved nutrients	concentration of urea
A	decreases	decreases
B	decreases	increases
C	increases	decreases
D	increases	increases

44. When a baby is born the following processes occur.

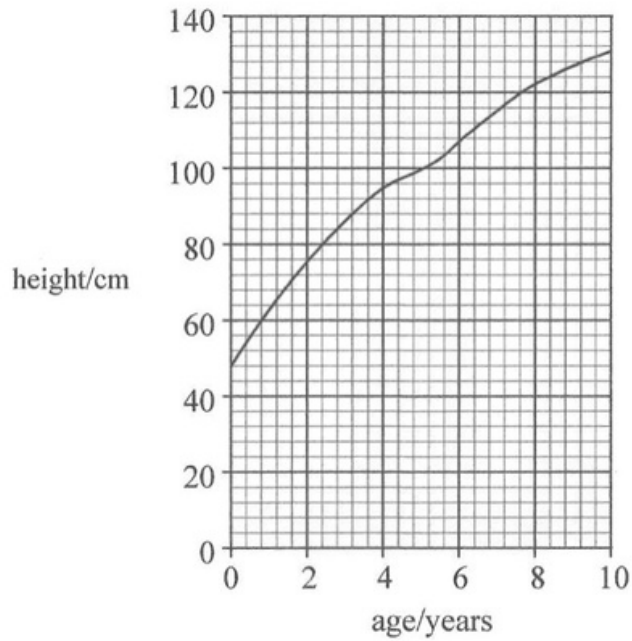
- 1 breaking of the amniotic sac
- 2 contractions of muscles in the uterus wall
- 3 cutting of the umbilical cord

In which order do these processes usually occur?

- A** 2 → 1 → 3
- B** 2 → 3 → 1
- C** 3 → 1 → 2
- D** 3 → 2 → 1



45. The graph shows the height of a child, from birth to the age of 10.

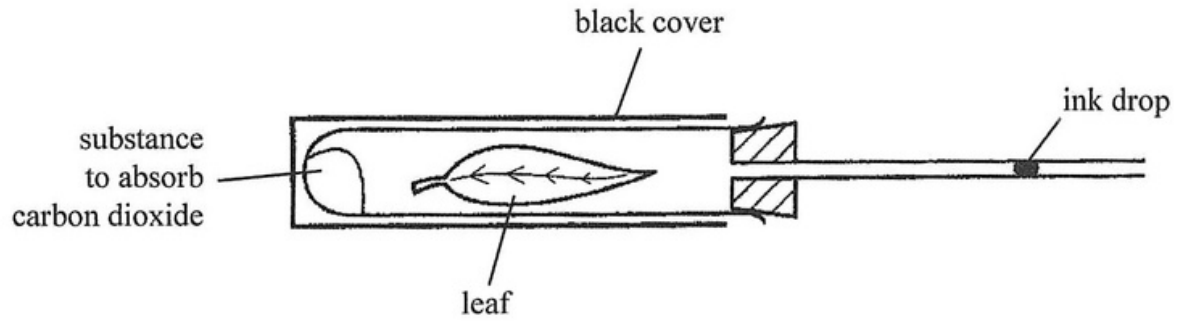


What was the approximate height of the child at 7 years of age?

- A 106 cm
- B 116 cm
- C 120 cm
- D 130 cm



46. The diagram shows an experiment to investigate gas exchange in a leaf.



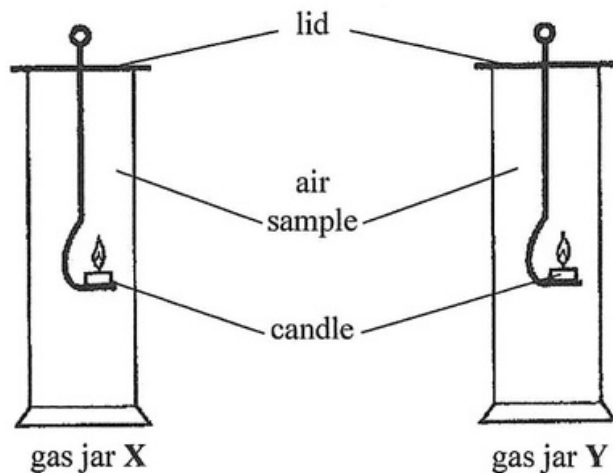
In which direction does the ink drop move and for what reason?

	direction	reason
A	to the left	photosynthesis
B	to the left	respiration
C	to the right	photosynthesis
D	to the right	respiration



47. A sample of expired air is collected in a gas jar. Another gas jar contains normal atmospheric air.

A lighted candle is placed inside each gas jar as shown. The time taken for each flame to go out is measured. As the candles burn they use up the oxygen available in the jar.



The table shows the results of this experiment.

gas jar	time taken for candle flame to go out /s
X	15
Y	9

What is an explanation of the difference between the results in jar X and jar Y?

- A Jar X contains atmospheric air which has more carbon dioxide.
- B Jar X contains expired air which has more carbon dioxide.
- C Jar Y contains atmospheric air which has less oxygen.
- D Jar Y contains expired air which has less oxygen.



48. The diagram represents chromosomes in a cell of a fruit fly.



How many chromosomes would there be after meiosis?

- A 2
 - B 4
 - C 8
 - D 16
49. In pigeon peas, the gene which determines the texture of the seed coat has two alleles. The allele for smooth seed coat is dominant to the allele for wrinkled seed coat. As a result of crosses between heterozygous plants, 108 of the new plants produced pigeon peas with smooth seed coats.

How many new plants would be expected to produce pigeon peas with wrinkled seed coats?

- A 36
- B 72
- C 108
- D 144



50. The table shows the amount of water and salt lost from the kidneys and skin on a hot day and on a cold day. Food and drink intake are the same on both days.

	water lost from kidneys/dm³	water lost from skin/dm³	salt lost from kidneys/g	salt lost from skin/g
cold day	18	0.0	20.2	0.0
hot day	0.4	2.3	14.4	5.8

What do these results show?

- A** Less water is lost from the kidneys on a cold day than on a hot day.
- B** More salt is lost from the kidneys on a hot day than on a cold day.
- C** The total amount of salt lost each day is the same.
- D** Water is not lost from the kidneys on hot days.

BLANK PAGE

