

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, Name and Initials	

BIOLOGY

PAPER 1 3009/1

Friday **27 MAY 2022** 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, name 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 19 printed pages and 1 blank page.

PAPER 1

1. The diagram shows a running athlete.

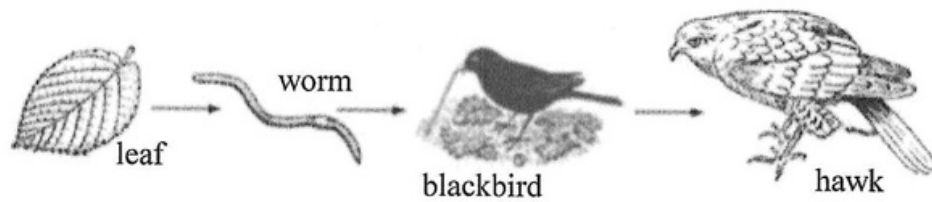


Which characteristic of living things is shown in the diagram of the running athlete?

- A excretion
 - B growth
 - C movement
 - D nutrition
2. Which term is used to refer to all the plants, animals, bacteria and other living things in a given area?
- A community
 - B consumer
 - C ecosystem
 - D population



3. The diagram shows a food chain.



Which three terms correctly describe the hawk?

		terms	
A	consumer	carnivore	predator
B	consumer	herbivore	prey
C	producer	omnivore	parasite
D	producer	carnivore	saprophyte

4. Which of the following could act as a biotic factor?

- A cactus
- B clouds
- C rocks
- D sun

5. The diagram shows a plant found in an ecosystem in The Bahamas and a close-up view of part of the plant.



What is the name of this plant?

- A black mangrove
- B buttonwood
- C red mangrove
- D white mangrove

6. The photograph shows a plant typically found in one zone of a sandy seashore.



In which zone of the sandy seashore would this plant be found?

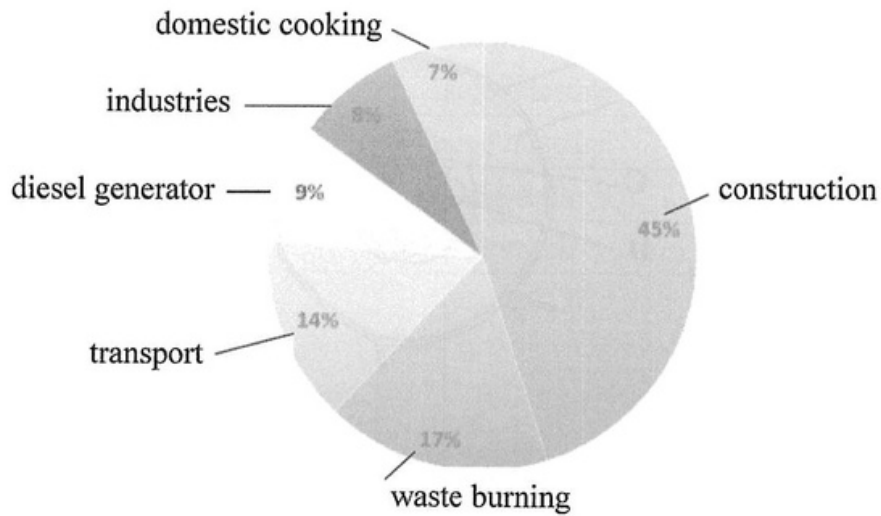
- A fixed dune
- B pioneer
- C sea grape
- D woodland
7. Mrs. Dorsett's class wanted to collect a sample of crawling insects and flying insects. Which equipment would be best at capturing the samples?

	crawling insects	flying insects
A	line transect	pit fall trap
B	pit fall trap	sweep net
C	quadrat	line transect
D	sweep net	quadrat

8. Which piece of equipment is used mainly in clearing large, commercial farms in The Bahamas?
- A cutlass
- B hoe
- C shovel
- D tractor



9. The pie chart shows sources of air pollutants.



Which sources are responsible for 25% of these air pollutants?

- A construction and industries
- B diesel generator and waste burning
- C domestic cooking, industries and diesel generator
- D industries and waste burning
10. What is present in a plant cell but absent in an animal cell?
- A chloroplast
- B cytoplasm
- C mitochondria
- D nucleus
11. Which type of cell is responsible for movement of a living organism?



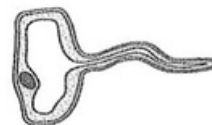
A



B



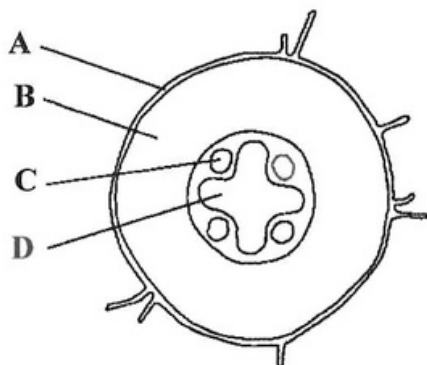
C



D



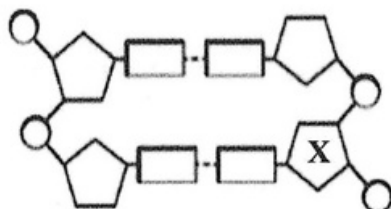
12. The diagram shows a cross-section of a root. Which line points to the xylem tissue?



13. Which row correctly matches the macromolecule with its basic unit?

	macromolecule	basic units
A	carbohydrate	amino acids
B	lipid	fatty acids and glycerol
C	nucleic acid	sugars
D	protein	nucleotides

14. The diagram below shows a portion of a DNA molecule.



What is the name of the part labelled X?

- A base
- B lipid
- C phosphate
- D sugar



15. Which enzyme is correctly matched with one of its sites of production?

	enzyme	site of production
A	protease	large intestine
B	lipase	large intestine
C	protease	stomach
D	lipase	stomach

16. Which is a property of enzymes?

- A** Enzymes are made from glucose molecules.
- B** Enzymes are substrate specific.
- C** Enzymes work well at any pH value.
- D** Enzymes are used up in one reaction.

17. The table shows the results of various food tests on a sample of food.

	test reagent		
	Benedict's solution	biuret reagent	potassium permanganate
colour after testing	orange	purple	purple

Which nutrients were present in the sample of food?

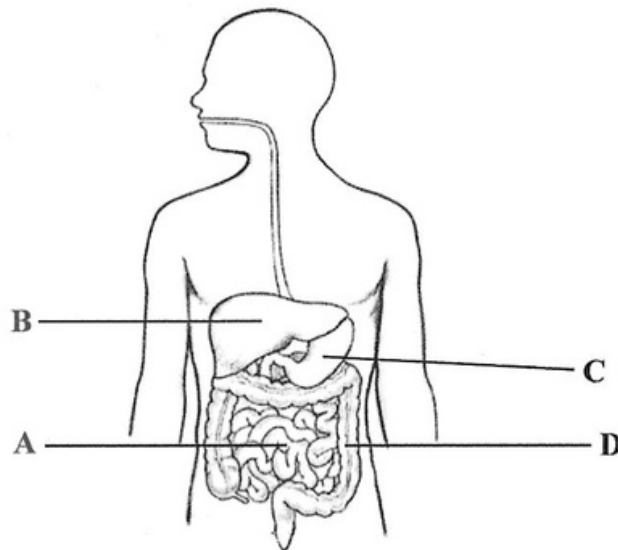
- A** protein and vitamin C
- B** sugar and protein
- C** sugar and vitamin C
- D** sugar, protein and vitamin C



18. Which structure connects the mouth to the stomach?

- A large intestine
- B oesophagus
- C pancreas
- D small intestine

19. In which organ is bile produced?

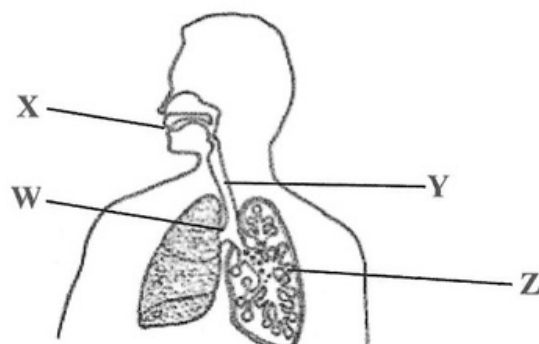


20. Which is **not** a function of a villus?

- A absorption of amino acids
- B absorption of fatty acids
- C absorption of starch
- D absorption of sugar



Use the diagram of the respiratory system to answer question 21. and 22.



21. In which labelled structure does gas exchange take place?

A W

B X

C Y

D Z

22. Which **two** structures contain cartilage rings?

A W and X

B W and Y

C X and Y

D Y and Z

23. What is the percentage of oxygen in inspired air?

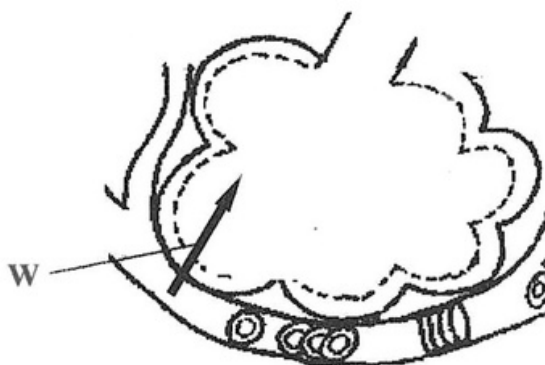
A 4

B 10

C 16

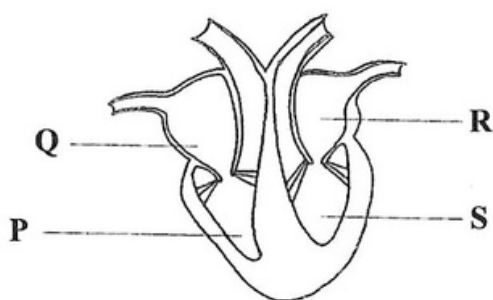
D 21

24. The diagram represents an alveolus and its blood supply.



What process is represented by arrow W?

- A diffusion of carbon dioxide from an area of low concentration to an area of high concentration
 - B diffusion of oxygen from an area of low concentration to an area of high concentration
 - C diffusion of carbon dioxide from an area of high concentration to an area of low concentration
 - D diffusion of oxygen from an area of high concentration to an area of low concentration
25. The diagram shows a section through a mammalian heart.

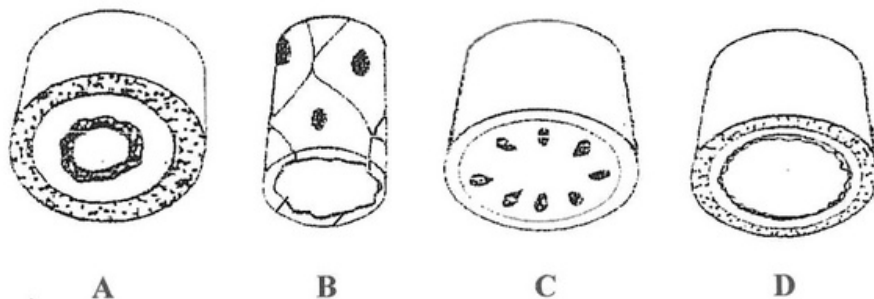


In which labelled chambers will the blood be deoxygenated?

- A P and Q
- B P and S
- C Q and R
- D R and S



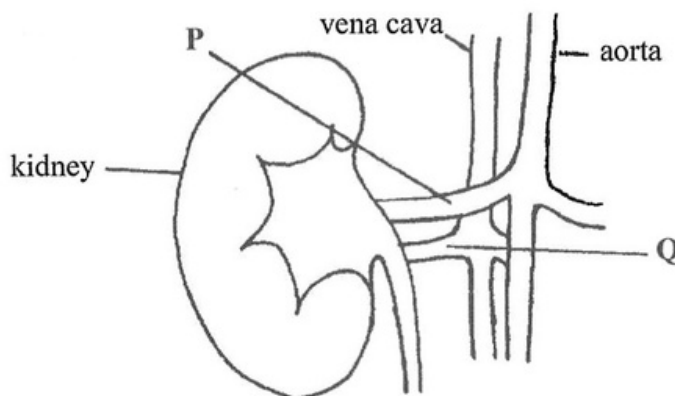
26. Which diagram shows the structure of an artery?



27. What is an example of a waste product that is carried in the blood?

- A amino acids
- B sweat
- C urea
- D urine

28. The diagram shows a section through a human kidney and the related blood vessels.



How is the composition of blood in P likely to vary from the composition of blood in Q?

	carbon dioxide	oxygen	urea
A	less concentrated	more concentrated	more concentrated
B	less concentrated	more concentrated	less concentrated
C	less concentrated	less concentrated	less concentrated
D	more concentrated	less concentrated	more concentrated

29. 1 g of carbohydrate provides 16 kJ of energy in the body.
1 g of protein provides 17 kJ of energy in the body.
1 g of fat provides 37 kJ of energy in the body.

200 g of macaroni and cheese contains 50 g of carbohydrate, 10 g of protein and 5 g of fat.

How much energy is provided by 200 g of macaroni and cheese?

- A 65 kJ
B 70 kJ
C 800 kJ
D 1155 kJ

30. Which part of a leaf is correctly matched to its function?

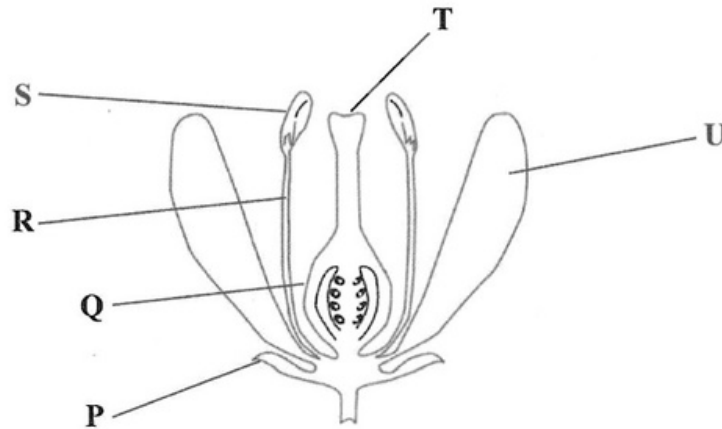
	part of leaf	function
A	palisade mesophyll	contains numerous chloroplasts for photosynthesis
B	phloem tube	tightly packed to absorb carbon dioxide
C	stomatal pore	transports water and minerals
D	xylem vessel	reduces water loss from the upper surface of leaf

31. Which two tissues are transport tissues in plants?

- A epidermis and palisade mesophyll
B phloem and palisade mesophyll
C xylem and epidermis
D xylem and phloem



The diagram represents a section of a flower. Use the diagram to answer questions 32. and 33.



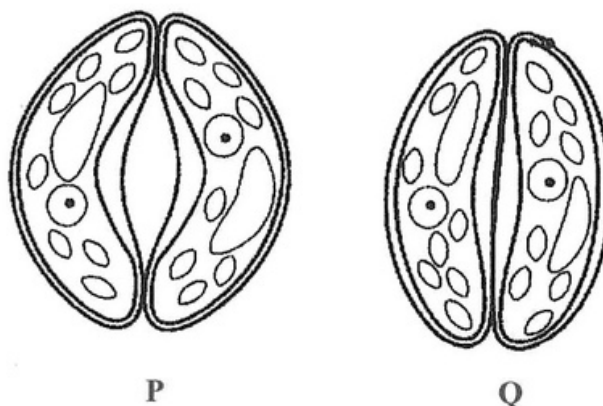
32. Which part of the flower is responsible for protecting the flower in the bud?

- A P
- B Q
- C S
- D U

33. Which structures make up the stamen?

- A Q and T
- B R and Q
- C R and S
- D T and S

34. The diagrams show the stomata in a leaf during different conditions.

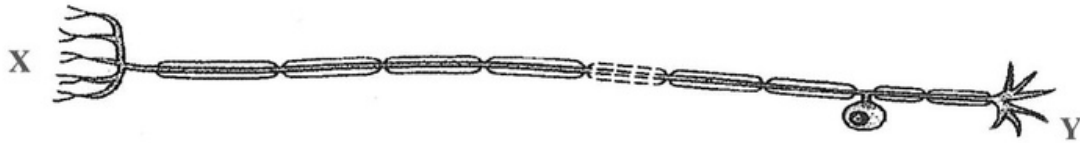


Which change in conditions could cause the change from diagram P to diagram Q?

- A decreased concentration of oxygen
 - B decreased water supply
 - C increased concentration of carbon dioxide
 - D increased water supply
35. Which is the correct path taken by a male gamete from a pollen grain that results in fertilisation?
- A ovary → ovule → stigma → style
 - B ovule → stigma → style → ovary
 - C stigma → style → ovary → ovule
 - D style → ovary → ovule → stigma
36. Which is the correct definition of germination?
- A the growth of a bud from a stem
 - B the growth of an embryo into a seedling
 - C the growth of an embryo into a fruit
 - D the growth of a fruit from an ovary



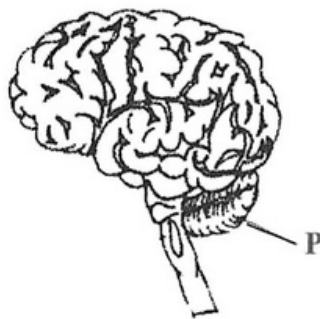
37. The diagram shows a neuron.



Which structures could be found at X and Y?

	X	Y
A	brain	intestine
B	eye	hand
C	skin	spinal cord
D	spinal cord	leg

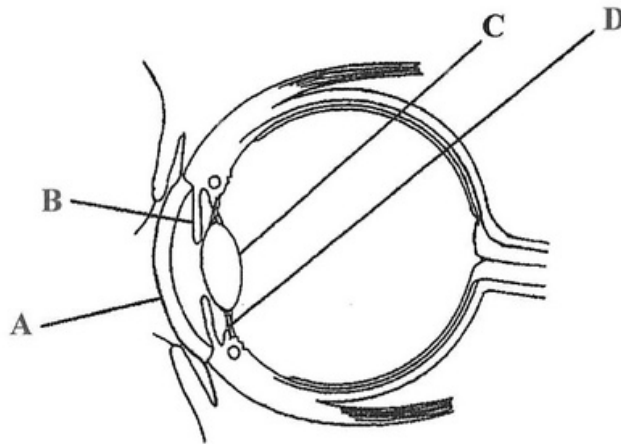
38. The diagram represents the parts of the human brain.



What would be the effect on the individual if the part labelled P is damaged?

- A blindness
- B imbalance
- C irregular breathing
- D loss of memory

39. The diagram shows a section through the human eye. Which structure controls the size of the pupil?



40. When sound waves enter the ear, which structure do the sound waves strike first, causing the structure to vibrate?

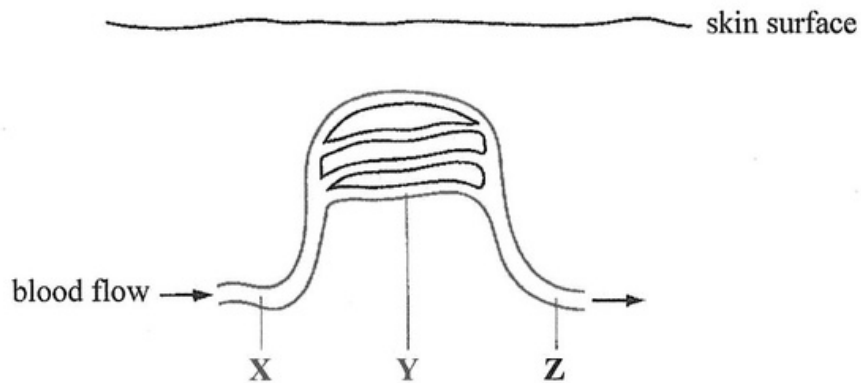
- A cochlea
- B oval window
- C tympanic membrane
- D stapes

41. Which statement best describes homeostasis?

- A maintenance of constant conditions in the body
- B rate of chemical reactions in the body
- C release of hormones into the blood
- D removal of toxic wastes from the body



42. The diagram shows some blood vessels near the surface of the skin.



If vasodilation occurs at **X**, what happens to the blood flow at **Y** and **Z**?

	Y	Z
A	decreases	decreases
B	decreases	stays constant
C	increases	increases
D	increases	stays constant

43. What is the name of the fluid that is found at a moveable joint, such as the knee joint?

- A** lymph
- B** plasma
- C** synovial fluid
- D** tissue fluid

44. Which shows the correct order through which sperm cells pass from the testes to the penis?

1 epididymis 2 urethra 3 sperm duct

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



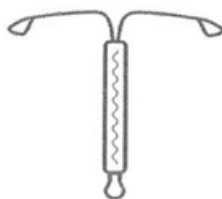
45. The following events take place during the menstrual cycle.

P development of the Graafian follicle **Q** menstruation
R development of the corpus luteum **S** ovulation

Which shows the correct order in which these events occur?

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

46. The diagram represents a birth-control device.



In which part of the female reproductive system is this device placed to work effectively?

- A** cervix
B fallopian tube
C uterus
D vagina

47. What is the result of cell division by mitosis?

- A** one diploid cell produces two diploid cells
B one haploid cell produces two diploid cells
C one diploid cell produces four haploid cells
D one haploid cell produces four haploid cells



48. Which row in the table shows the sex chromosomes in a male, and the sex chromosome in his sperm cell that will result in a female offspring?

	male	sperm cell
A	XX	X
B	XX	Y
C	XY	X
D	XY	Y

49. In a monohybrid cross between two heterozygous individuals, what percentage of the offspring is expected to possess one or more recessive alleles?

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

50. The occurrence of which disease is determined only by genes and not by the environment?

- A coronary heart disease
- B diabetes
- C lung cancer
- D sickle cell anaemia



BLANK PAGE

