UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS
International General Certificate of Secondary Education

AGRICULTURE **0600/01**

Paper 1 Multiple Choice **October/November 2009**

45 minutes

Additional Materials: Multiple Choice Answer Sheet
Soft clean eraser
Soft pencil (type B or HB is recommended)

7368435378

READ THESE INSTRUCTIONS FIRST

Write in soft pencil.
Do not use staples, paper clips, highlighters, glue or correction fluid.
Write your name, Centre number and candidate number on the Answer Sheet in the spaces provided unless this has been done for you.

There are **forty** questions on this paper. Answer **all** questions. For each question there are four possible answers **A**, **B**, **C** and **D**.
Choose the **one** you consider correct and record your choice in **soft pencil** on the separate Answer Sheet.

Read the instructions on the Answer Sheet very carefully.

Each correct answer will score one mark. A mark will not be deducted for a wrong answer.
Any rough working should be done in this booklet.

This document consists of **14** printed pages and **2** blank pages.

1 Which animals provide **both** food and clothing materials?

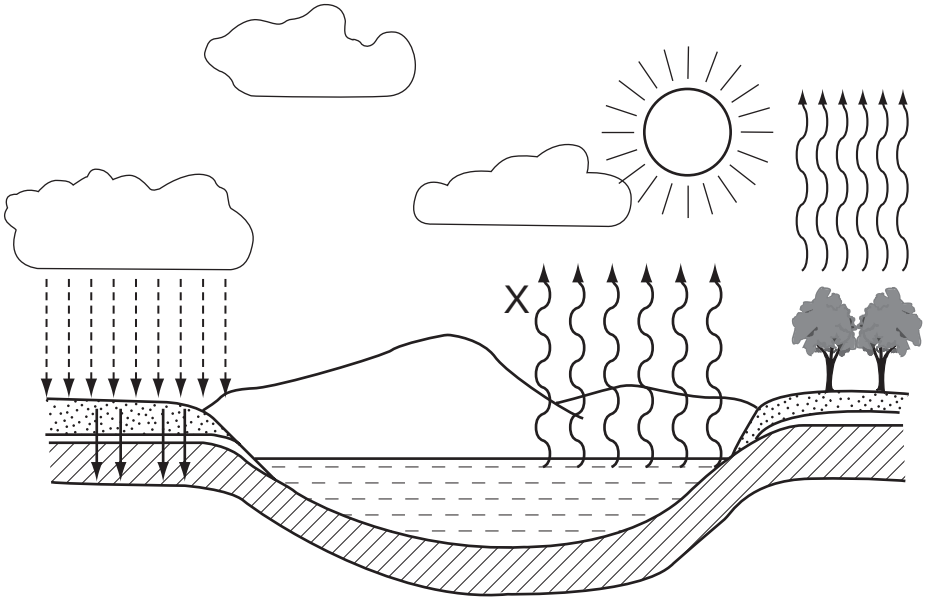
A chickens

B donkeys

C pigs

D sheep

2 The diagram shows the water cycle.



Which process is represented by the arrows at X?

A condensation

B evaporation

C respiration

D transpiration

3 Which process can cause chemical weathering of rocks?

A fast flowing rivers

B freezing of water in crevices

C rain on limestone

D wind blown sand

4 What is a characteristic of a soil containing a high proportion of sand particles?

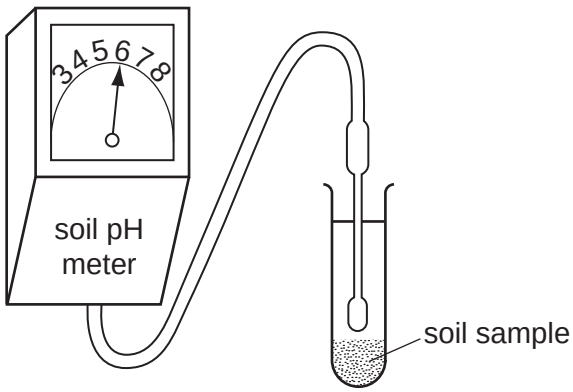
A difficult to cultivate

B easily leached

C easily waterlogged

D slow to warm up

5 The diagram shows the result of a soil test being carried out on a sample from a garden plot.



Lime is spread on the garden plot and a further sample taken for testing.

Which reading will the meter be expected to show?

A 3 **B** 5 **C** 6 **D** 8

6 Which inorganic fertiliser provides the soil with nitrogen?

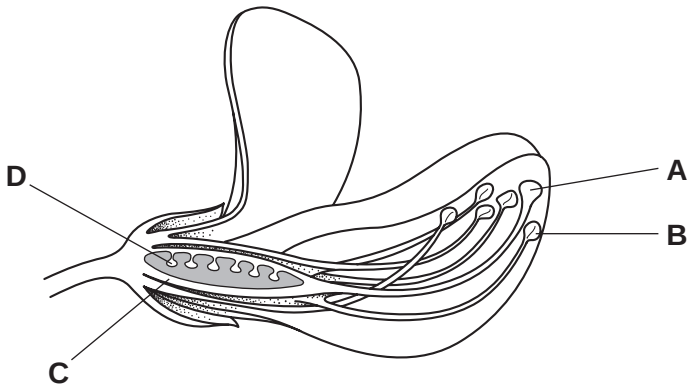
A ammonium sulfate

B muriate of potash

C potassium sulfate

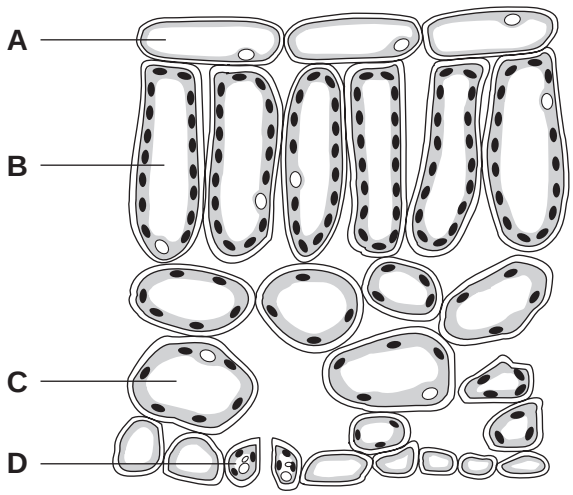
D superphosphate

7 Which part of the bean flower produces male gametes?

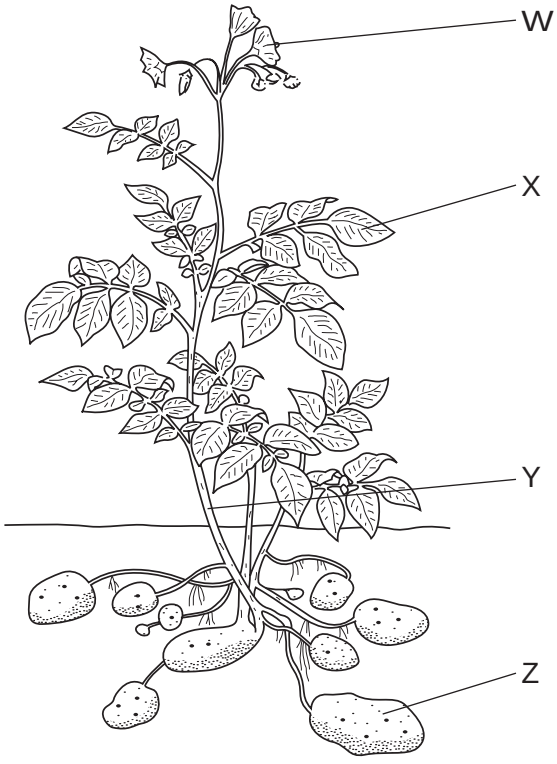


8 The diagram shows a section through a leaf.

Which cell does **not** contain chlorophyll?



9 The diagram shows an Irish potato plant.

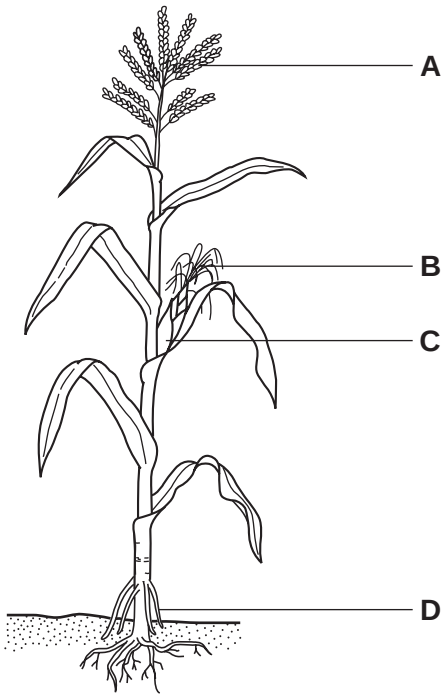


Where do these processes occur in this plant?

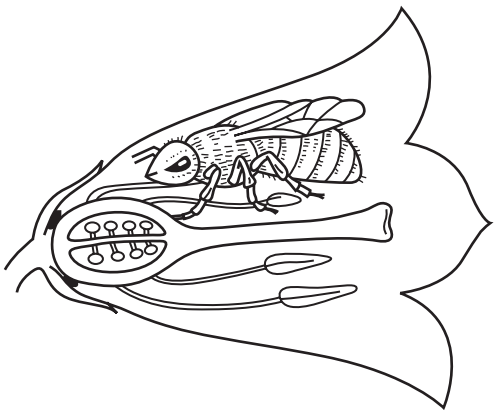
	photosynthesis	translocation	sexual reproduction
A	W	Z	Y
B	X	Y	W
C	Y	X	Z
D	Z	W	X

10 The diagram shows a maize plant.

Where are the styles?



11 The diagram shows a bee in a flower.



What does the bee transfer from flower to flower?

A anthers

B nectar

C ovules

D pollen

12 In the cultivation of a cereal crop, at which stage should organic manure be applied?

A as seedlings emerge

B before sowing

C just before flowering

D when plants are 10–20 cm tall

13 Stumping, clearing and ploughing are all stages in

A fencing.

B harvesting.

C irrigation.

D land reclamation.

14 What is the most suitable cultivation depth for cereal seed bed preparation?

A 3 cm **B** 7 cm **C** 15 cm **D** 35 cm

15 Which conditions are best for the spread of fungal spores?

A damp and cold

B damp and warm

C dry and cold

D dry and warm

16 The diagram shows part of a label from a can of insecticide.

Rates of Use

fruit crops	1.0 litre in 500 litres of water
ground crops	3.0 litres in 400 litres of water per hectare

What is the correct dilution rate for 0.5 hectares of potatoes?

A 1.0 litre in 500 litres of water

B 1.0 litre in 200 litres of water

C 1.5 litres in 500 litres of water

D 1.5 litres in 200 litres of water

17 A crop shows poor growth and powdery leaves.

What is the likely cause?

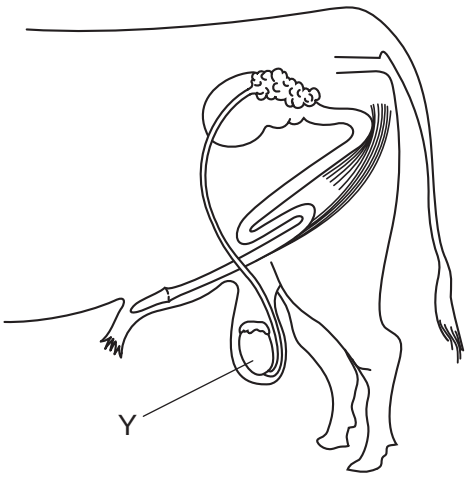
A a bacterial disease

B a deficiency disease

C a fungal disease

D a viral disease

18 The diagram shows the reproductive system of a male ruminant.



What is produced by Y?

A ova

B semen

C sperm

D urine

19 In which chamber of a ruminant digestive system is gastric juice produced?

A abomasum

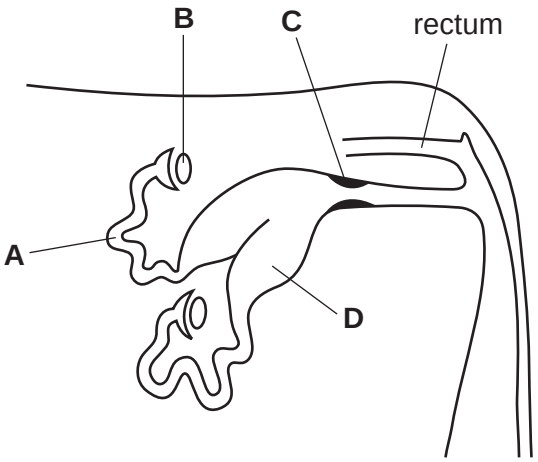
B omasum

C reticulum

D rumen

20 The diagram shows the reproductive system of a female mammal.

Where does fertilisation take place?



21 What is the order in which food passes through the digestive system of a non-ruminant?

A duodenum → oesophagus → ileum → stomach

B ileum → stomach → oesophagus → duodenum

C oesophagus → stomach → duodenum → ileum

D stomach → duodenum → oesophagus → ileum

22 One bird in a flock of chickens appears to be sick.

What should the farmer do first?

A change the litter in the chicken house

B clean the feeders and drinkers

C isolate the sick bird

D notify the authorities

23 In farm livestock, what encourages the spread of disease but does not cause disease?

A bacteria

B iron deficiency

C overcrowding

D viruses

24 A dairy cow is given a production ration of 1 kg of feed per 5 litres of milk produced.

How much production ration will the cow yielding 15 litres of milk be given?

A 3 kg **B** 5 kg **C** 12 kg **D** 15 kg

25 Which animal is a non-ruminant and has a digestive system adapted for bulky foods such as grass?

A donkey

B goat

C pig

D sheep

26 The table shows four poultry diets.

Which one is suitable for laying hens?

	maize %	groundnut cake %	calcium supplement %
A	52	40	8
B	54	44	2
C	60	38	2
D	64	35	1

27 When homozygous tall pea plants were cross-pollinated with dwarf plants, all of the plants of the next generation were tall.

A heterozygous tall plant is cross-pollinated with a dwarf plant.

What is the expected ratio of the next generation?

	tall	dwarf
A	1	3
B	1	1
C	3	1
D	4	0

28 In cattle the allele (B) that gives a black coat is dominant over the allele (b) that gives

Several matings of a black bull with red cows gave this result.

	black bull	×	red cows
offspring	black calves		red calves
ratio	1	:	1

What was the genetic make up of the black bull and the black calves?

	black bull	black calves
A	BB	BB
B	BB	Bb
C	Bb	BB
D	Bb	Bb

29 What describes extensive grazing?

A Cattle are kept in paddocks.

B Cattle are moved each day with electric fencing.

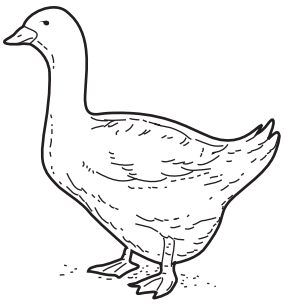
C Cattle graze freely over a large area.

D Cattle have green food given to them.

30 The diagrams show four farm animals.

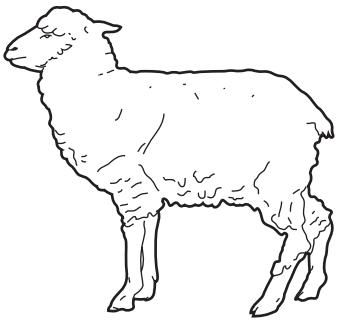
Which animal feeds by browsing?

A

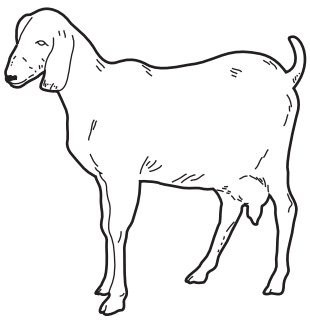


B

C



D



31 What is the main reason for treating wooden fence posts with creosote?

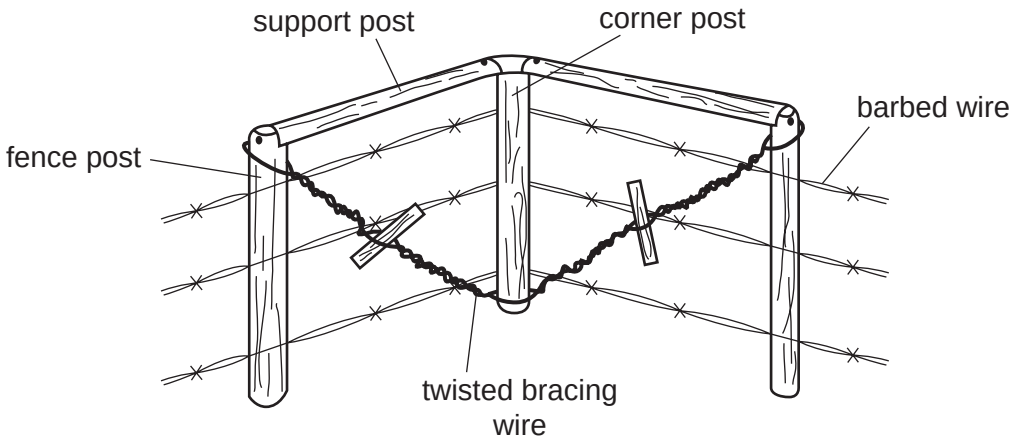
A to avoid shrinkage in dry weather

B to improve appearance

C to prevent rotting

D to reduce damage by livestock

32 The diagram shows a corner of a fence.



What does the twisted bracing wire help to support?

A the barbed wire

B the corner post

C the fence post

D the support post

33 Which floor can be most easily kept clean?

A concrete

B earth

C stones

D wood

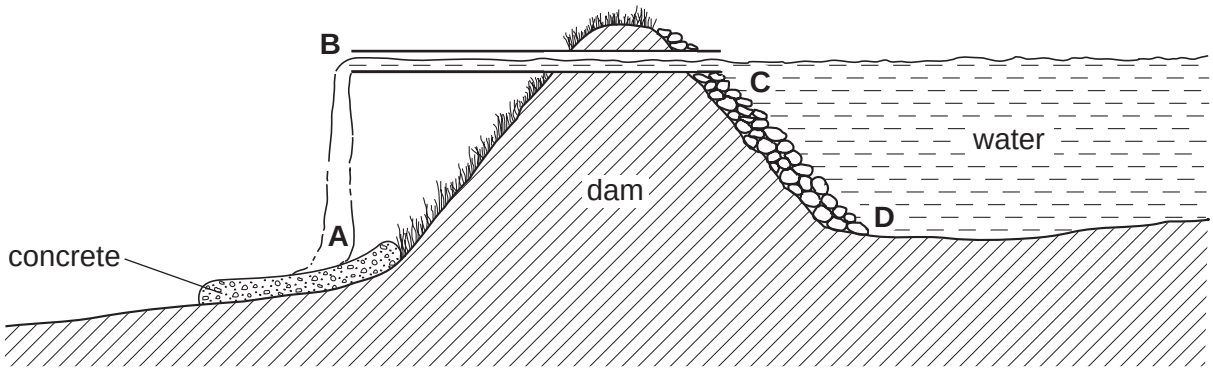
34 Thatch is used as a roofing material.

Which advantage and disadvantage are correct?

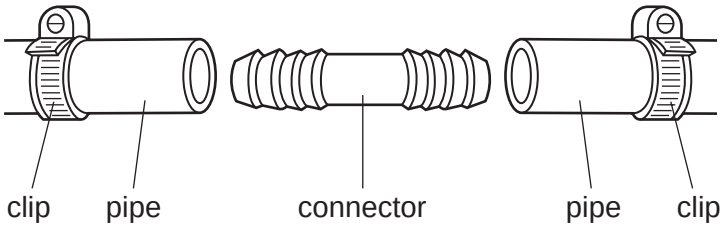
	advantage	disadvantage
A	burns easily	not readily available
B	good insulator	home for pests
C	long lasting	blown by the wind
D	reflects heat	eaten by cattle

35 The diagram shows a farm dam.

Where is the water pressure greatest?



36 The diagram shows how two soft plastic water pipes can be joined.



What could be done to make the task easier?

A Heat the connector piece in a flame.

B Place the pipe ends in hot water.

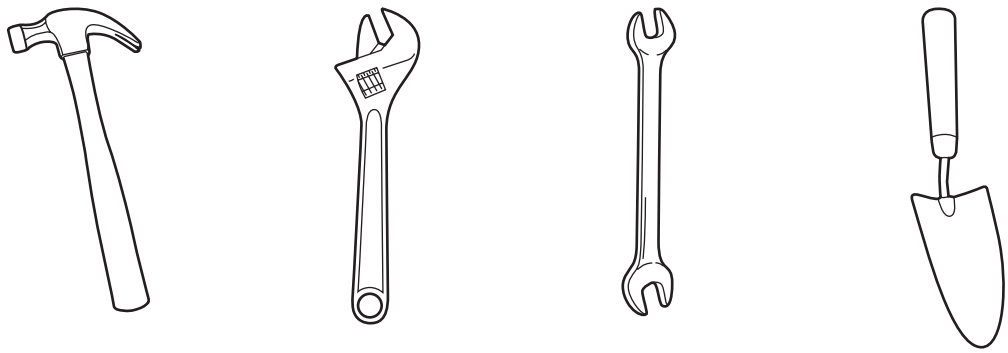
C Soak the connector piece in petrol.

D Split the pipe ends with a knife.

37 The diagram shows four hand tools that are often used on farms.

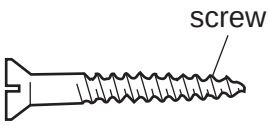
Which tool needs regular oiling to prevent rusting?

A **B** **C** **D**



(tools not to scale)

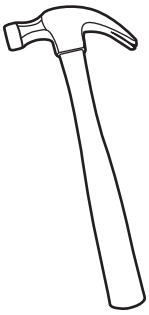
38 The diagram shows a screw used in making wooden equipment such as nest boxes for small animals.



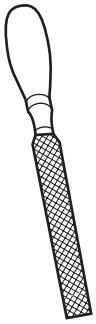
Which tool is used to fix the screw?

A

B



C

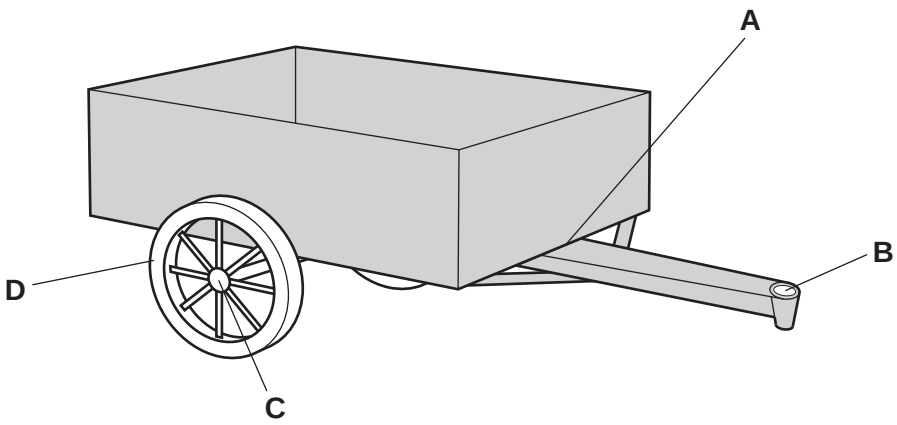


D

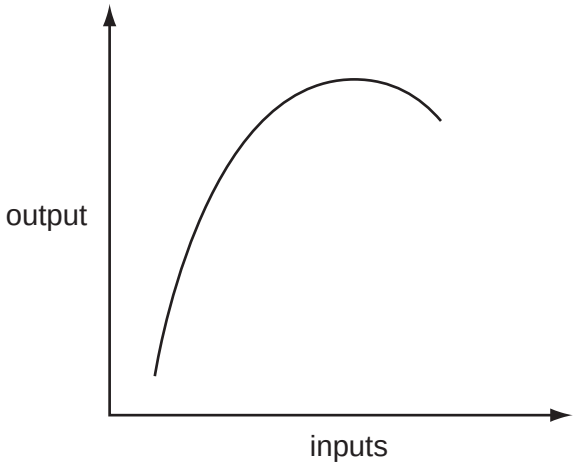
(tools not to scale)

39 The diagram shows a metal trailer.

At which point should oil be applied for lubrication?



40 The graph shows a principle of agricultural economics.



Which economic principle is shown?

A depreciation of value

B diminishing returns

C risk and uncertainty

D supply and demand

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