

UNIVERSITY OF CAMBRIDGE INTERNATIONAL EXAMINATIONS  
International General Certificate of Secondary Education

**AGRICULTURE**

Paper 1 Multiple Choice (Core)

October

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

**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.

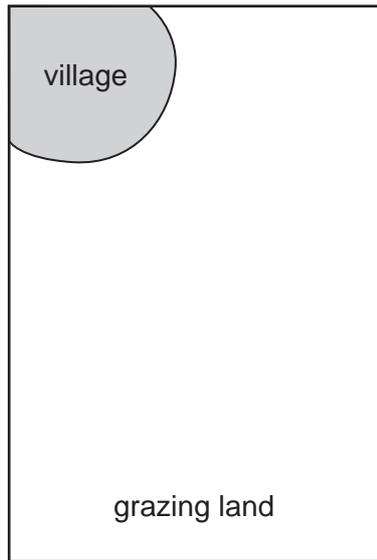
This document consists of **16** printed pages.



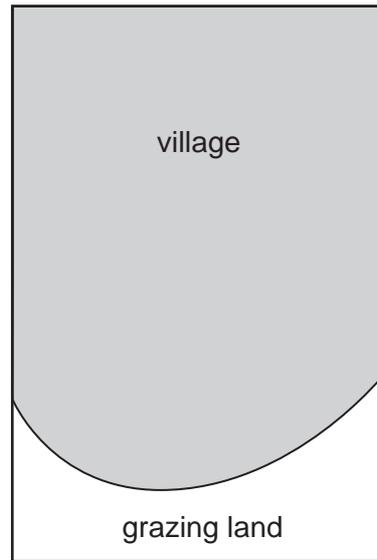
1 What does agriculture provide for the family?

- A clothing
- B cooking pots
- C electricity
- D farm tools

2 The diagram shows a plan of a village with its available grazing land



1992

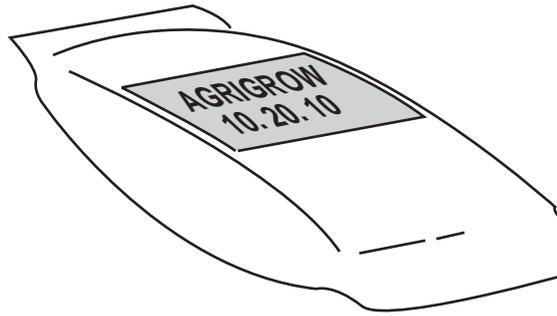


2002

Which grazing system would be the most efficient for the village to use in 2002?

- A extensive
- B paddock
- C rotational
- D zero

- 3 The diagram shows a bag of compound fertiliser.



Which nutrient element is supplied in the greatest amount by this fertiliser?

- A magnesium
  - B nitrogen
  - C phosphorus
  - D potassium
- 4 The diagram shows a handling test being carried out on a moist soil sample.



The soil feels crumbly and just holds its shape when rolled.

What is the soil type?

- A clay
- B compost
- C loam
- D sand

- 5 A farmer was able to plough most of his fields using one draught animal. Which soil type might need the use of two draught animals?
- A clay
  - B loam
  - C sand
  - D silt

- 6 The table shows a colour chart for use with a liquid pH indicator.

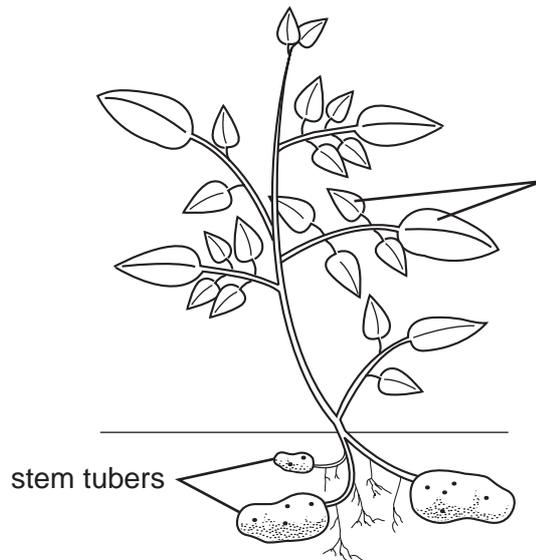
indicator colour	orange	yellow	bright green	dark green
pH value	5	6	7	8

A sample of soil is tested with the indicator.

Which colour will the indicator be if the soil is alkaline?

- A bright green
- B dark green
- C orange
- D yellow

7 The diagram shows an Irish potato plant.

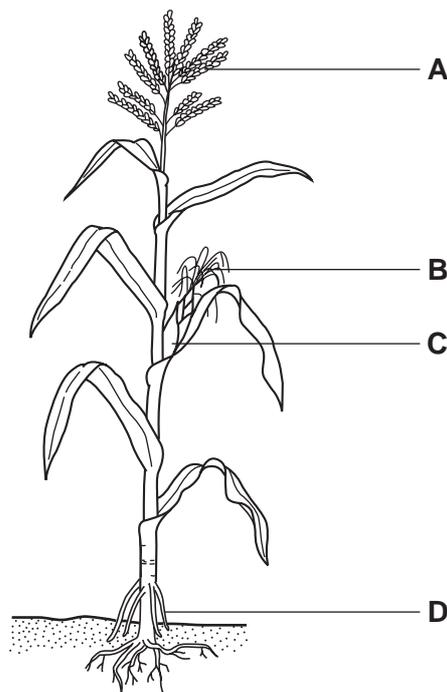


Which process transports sugar from the leaf to the tuber?

- A evaporation
- B respiration
- C translocation
- D transpiration

8 The diagram shows a maize plant.

Where are the styles?



9 Which tissue transports water through each part of a plant?

	part of the plant		
	root	stem	leaf
<b>A</b>	phloem	phloem	phloem
<b>B</b>	xylem	phloem	phloem
<b>C</b>	xylem	xylem	phloem
<b>D</b>	xylem	xylem	xylem

10 Which feature is found in wind-pollinated plants?

- A** brightly coloured petals
- B** large amounts of light pollen
- C** large amounts of nectar
- D** small, enclosed stigmas

11 Respiration can be represented as:



What are **X** and **Y**?

	<b>X</b>	<b>Y</b>
<b>A</b>	carbon dioxide	oxygen
<b>B</b>	carbon dioxide	nitrogen
<b>C</b>	nitrogen	oxygen
<b>D</b>	oxygen	carbon dioxide

12 Which set of features describes a cereal plant?

	life cycle	pollination	grain content
<b>A</b>	annual	insect	high oil
<b>B</b>	annual	wind	high carbohydrate
<b>C</b>	perennial	insect	high carbohydrate
<b>D</b>	perennial	wind	high oil

- 13 Which of the following causes cereal crops to grow rapidly and the
- A high pH
  - B poor drainage
  - C too little potash fertiliser
  - D too much nitrogen fertiliser

- 14 Which conditions are best for storage of a cereal crop?

	humidity	temperature	ventilation
<b>A</b>	high	cool	no air flow
<b>B</b>	high	warm	air flow
<b>C</b>	low	cool	air flow
<b>D</b>	low	warm	no air flow

- 15 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
- 16 Tristeza of citrus, tobacco mosaic and rosette of groundnut are all diseases caused by
- A bacteria.
  - B fungi.
  - C nematodes (eelworms).
  - D viruses.

- 17 The table shows the recommended rates of use for a herbicide which may be applied to the soil at the time of sowing or later when the seedlings have emerged.

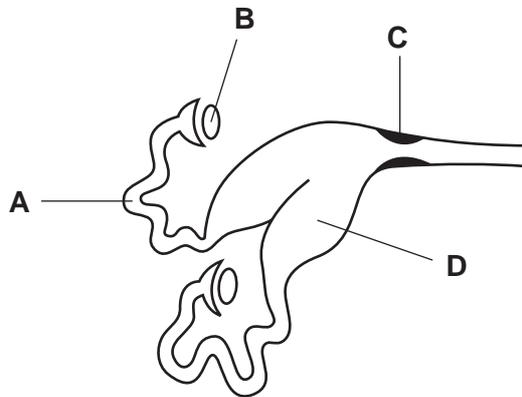
soil type	application rate when sowing / kg per hectare	application rate when seedlings have emerged / kg per hectare
clay, clay-loam	4.0	2.0
sand, sandy-loam	3.0	1.0

A farmer has a four hectare field. It has a heavy soil.

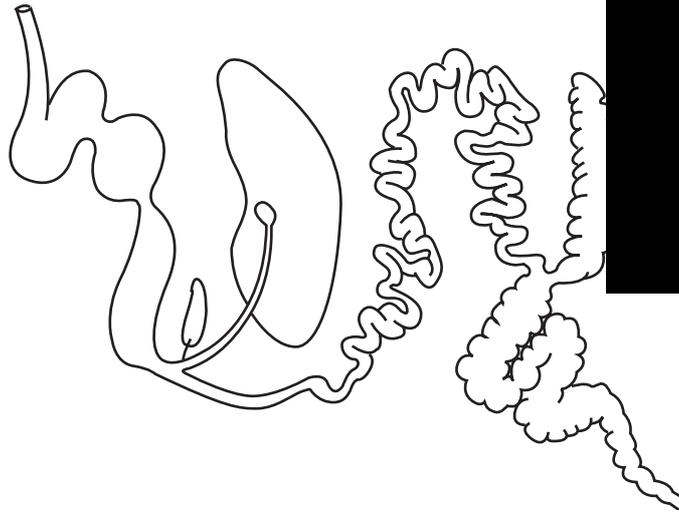
How much herbicide should he apply after the cereal crop has emerged?

- A** 12.0 kg      **B** 14.0 kg      **C** 16.0 kg      **D** 18.0 kg
- 18 Which structures absorb the products of digestion?
- A** ducts  
**B** glands  
**C** ureters  
**D** villi
- 19 The diagram shows the internal reproductive organs of a farm animal.

Where is the ovum fertilised by a sperm?

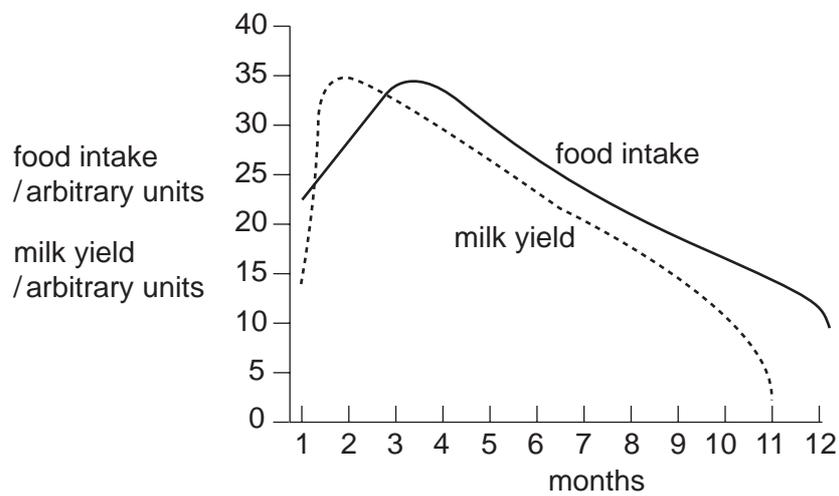


20 The diagram shows the digestive system of a goat which did not develop normally.



What would the animal be unable to do?

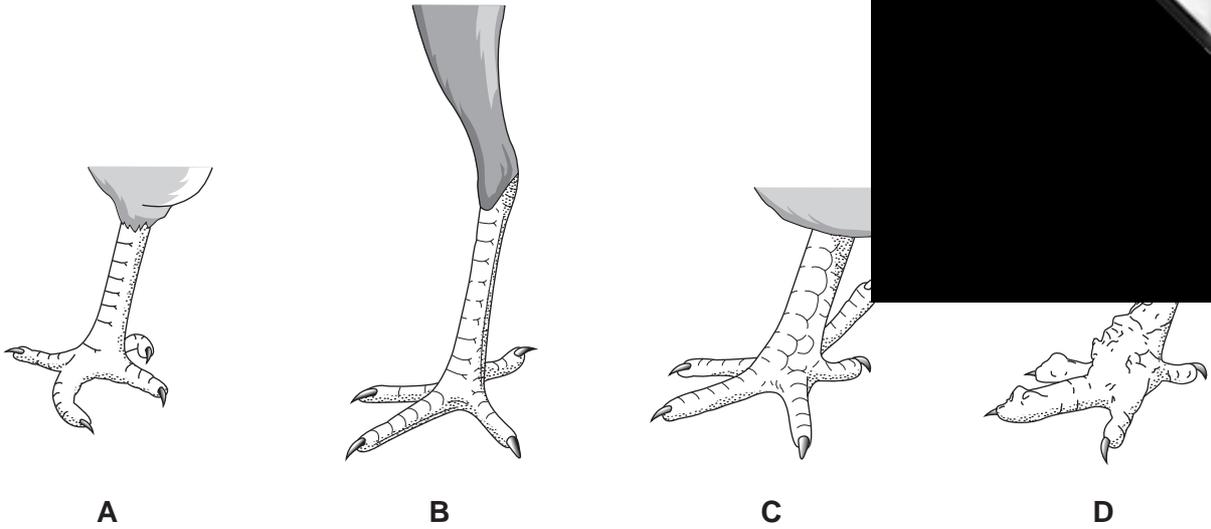
- A absorb water
  - B break down fibre
  - C digest food
  - D produce bile
- 21 The graph compares the amount of food eaten and the milk yield of a dairy cow after calving.



What would happen to the body weight of the cow between months 1 and 3?

- A decrease
- B increase then decrease
- C increase
- D stay the same

22 Which poultry leg shows signs of ill health?

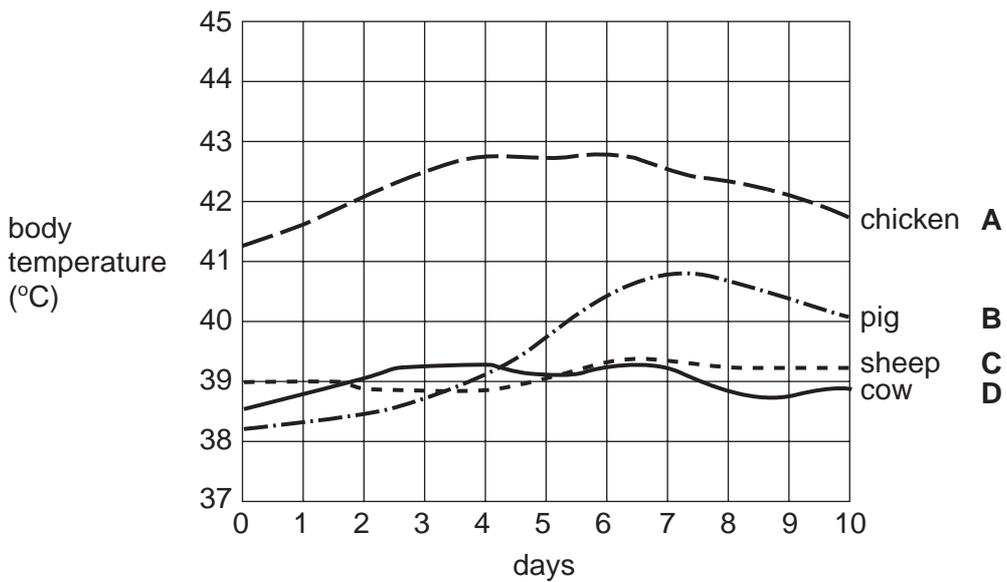


23 The table shows the normal body temperatures of four types of livestock.

	temperature / °C
chicken	40.5 – 43.0
cow	38.5 – 39.5
pig	38.0 – 39.5
sheep	38.5 – 40.5

The graph shows variations in body temperature over several days.

Which animal has shown signs of ill health?

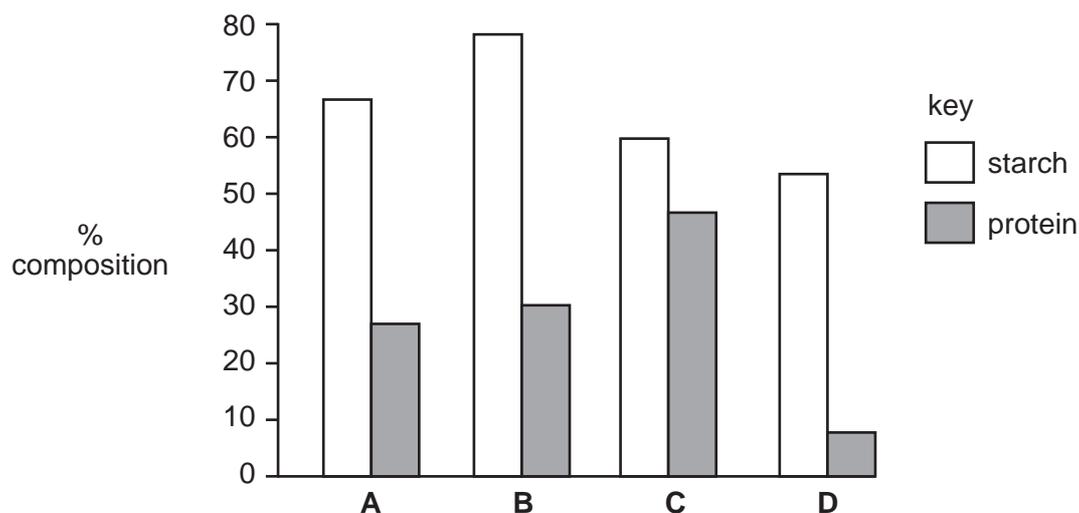


24 Which food is a bulk ration?

- A fish meal
- B bean meal
- C hay
- D wheat

25 The diagram shows the composition of four concentrated feedstuffs.

Which feedstuff is best for a lactating cow?



26 The table lists four types of food given to livestock.

Which group provides food with the highest protein content?

<b>A</b>	cassava pumpkins swede roots
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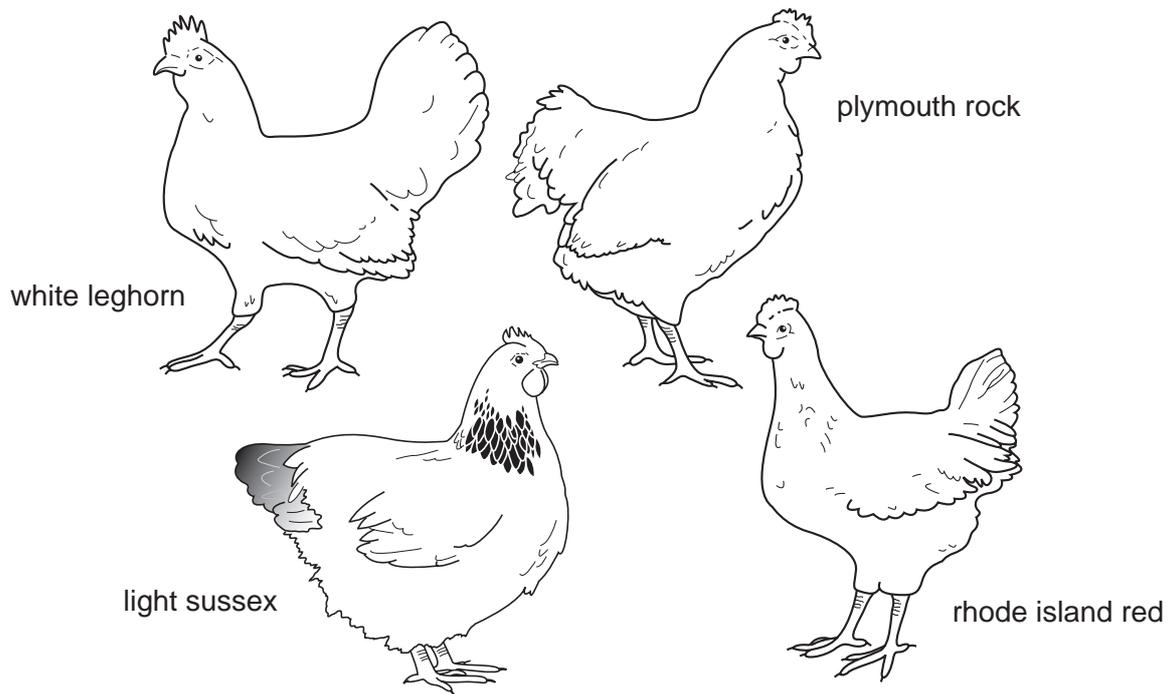
<b>B</b>	fish meal groundnut cake soya bean meal
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<b>C</b>	haulms hay straw
----------	------------------------

<b>D</b>	maize mahangu (millet) meal sorghum meal
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- 27 In sheep the allele for long wool is dominant to the allele for short wool. Which of these matings would result in a ratio of three long wool lambs to one short wool lamb?
- A The ewes were heterozygous and the ram was homozygous for long wool.
  - B The ewes were homozygous and the ram was heterozygous for long wool.
  - C The parents were heterozygous for wool length.
  - D The parents were homozygous for long wool.

- 28 The diagram shows four breeds of chicken.



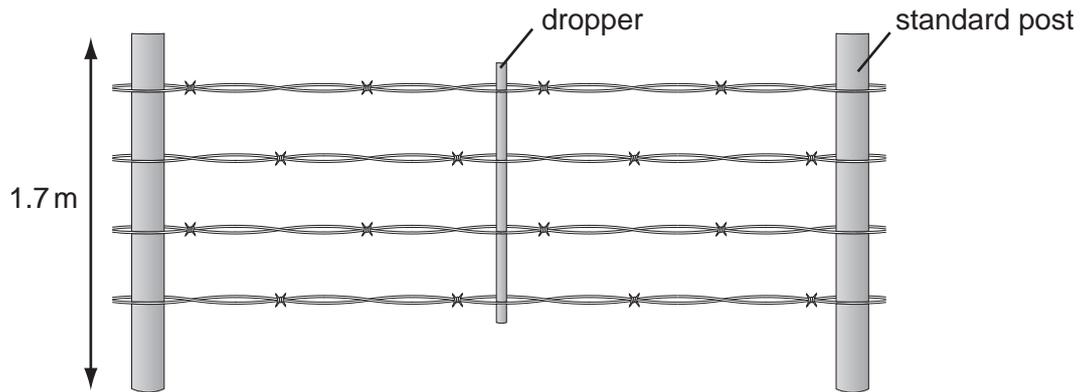
What causes the differences in their shape?

- A climate
  - B diet
  - C gametes
  - D genes
- 29 What could best improve the stock carrying capacity of pasture land?
- A extensive grazing
  - B high stocking rate
  - C removal of fences
  - D rotational grazing

30 What is most likely to occur on overstocked grassland?

- A increased grass growth
- B increased milk yields
- C increased soil drainage
- D increased soil erosion

31 The diagram shows a stock fence.



What is the function of the dropper?

- A to allow movement in the fence
- B to keep small animals within the fence
- C to keep the wire tight
- D to use less wire

32 What is mixed with water and cement to make concrete blocks?

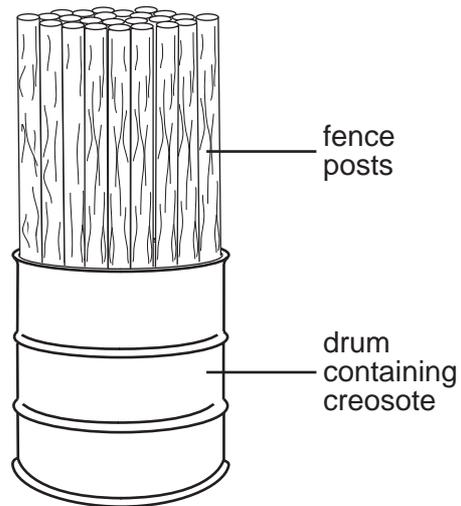
- A sand and clay
- B sand and lime
- C small stones and clay
- D small stones and sand

33 A floor for a livestock building is made using concrete, hardcore (large stones) and sand.

Starting at the bottom, in what order are these materials laid?

- A hardcore concrete sand
- B hardcore sand concrete
- C sand concrete hardcore
- D sand hardcore concrete

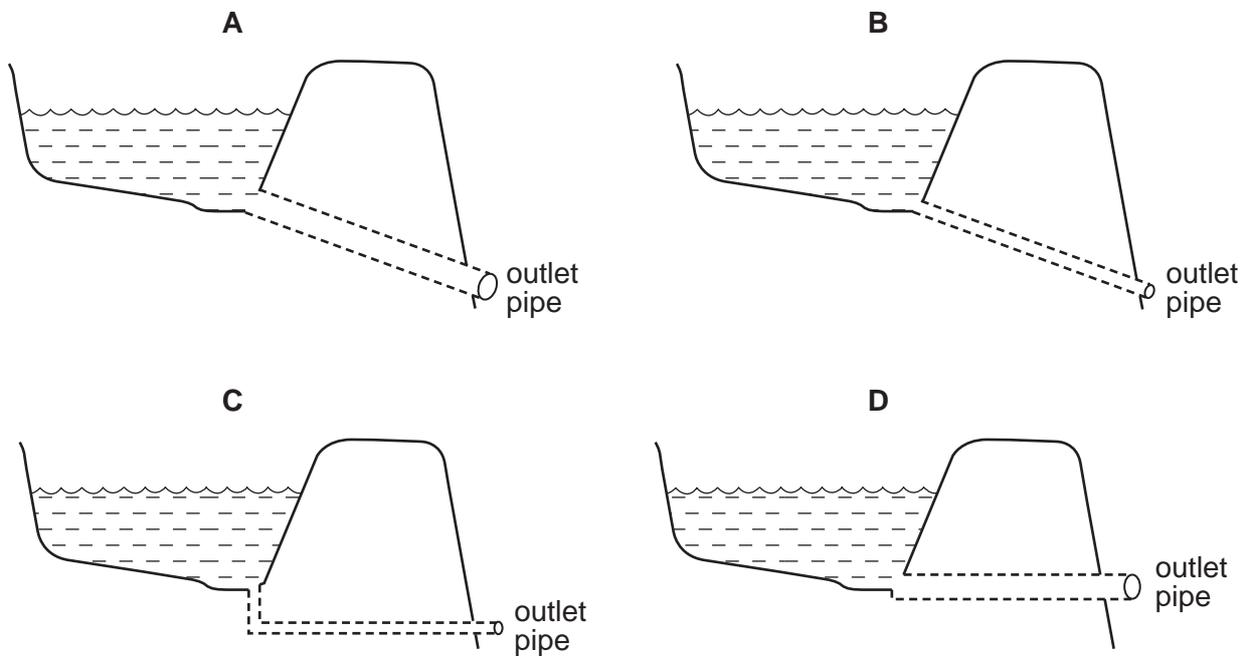
34 The diagram shows a method for treating wooden fence posts.



Why is this treatment done?

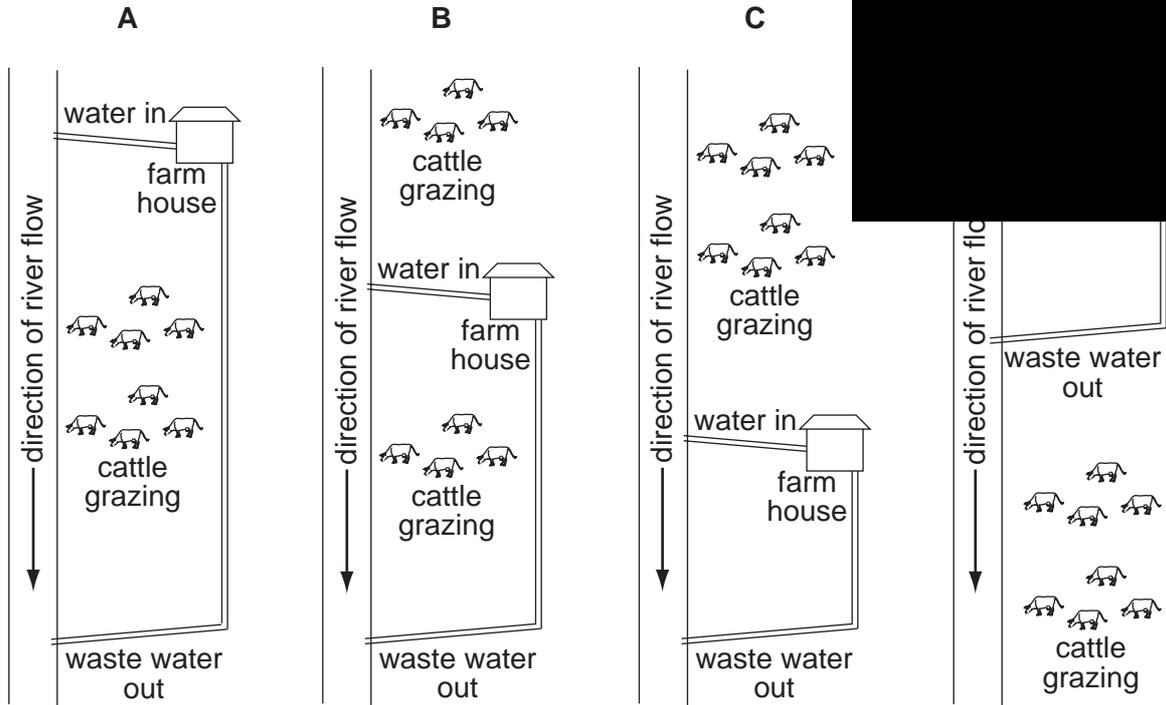
- A to improve the appearance of the posts
- B to keep the posts straight
- C to make the posts increase in size
- D to prevent the posts rotting

35 Which outlet pipe would drain the reservoir most quickly?



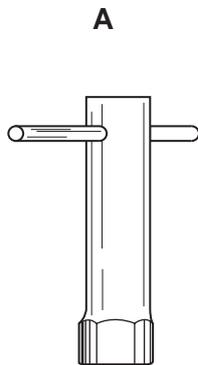
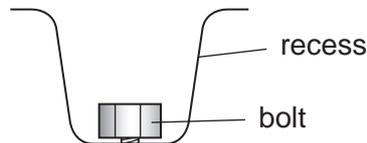
36 A farm house and grazing cattle obtain their water from a river.

Which arrangement of land use provides clean water for both?

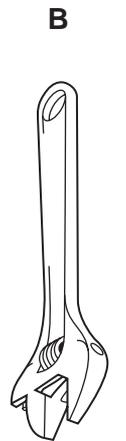


37 The diagrams show four types of spanner (not drawn to scale).

Which spanner should be used to tighten a bolt in a recess?



box spanner



adjustable spanner



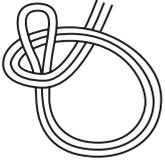
open-ended spanner



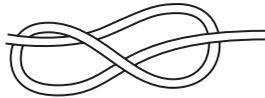
ring spanner

38 Which knot is used to shorten a rope when securing a load?

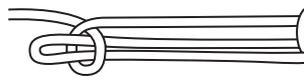
A



B

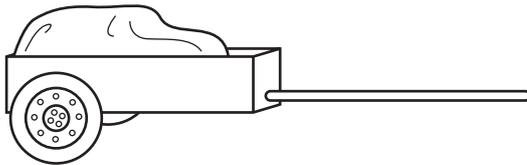


C

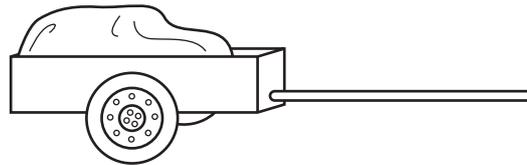


39 Which wheel arrangement best balances the cart for drawing by an ox?

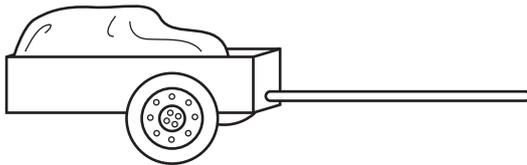
A



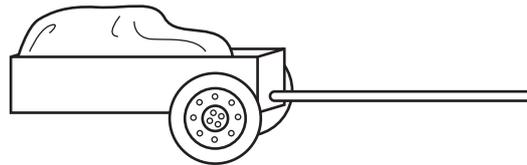
B



C



D



40 When are agricultural prices highest?

- A when demand is greater than supply
- B when demand is low and quality is high
- C when quality is low and supply is high
- D when supply is greater than demand

Copyright Acknowledgements:

Question 37

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