

International General Certificate of Secondary Education
CAMBRIDGE INTERNATIONAL EXAMINATIONS

AGRICULTURE

0600/1

PAPER 1 Multiple Choice

OCTOBER/NOVEMBER SESSION 2002

45 minutes

Additional materials:

Multiple Choice answer sheet

Soft clean eraser

Soft pencil (type B or HB is recommended)

TIME 45 minutes

INSTRUCTIONS TO CANDIDATES

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

Write your name, Centre number and candidate number on the answer sheet in the spaces provided unless this has already been done for you.

There are **forty** questions in 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.

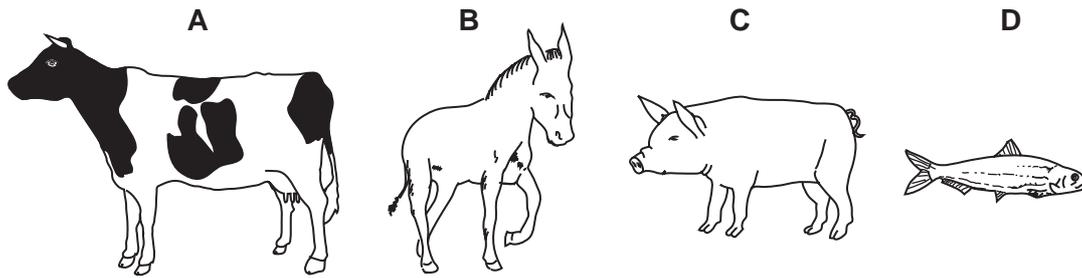
Read very carefully the instructions on the answer sheet.

INFORMATION FOR CANDIDATES

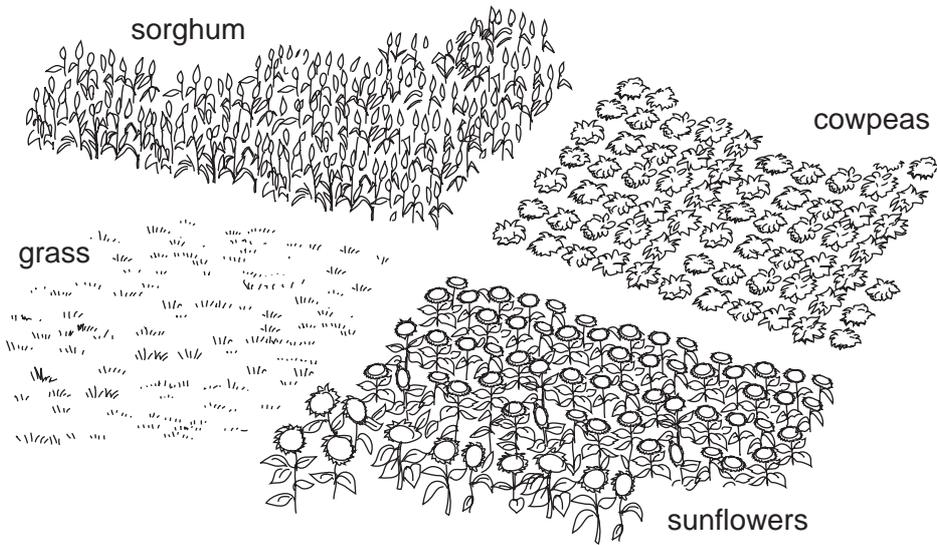
Each correct answer will score one mark. A mark will not be deducted for a wrong answer.

Any rough working should be done in this booklet.

1 Which animal can provide food without first being slaughtered?



2 The diagram shows four plots and the crops grown in 2002.

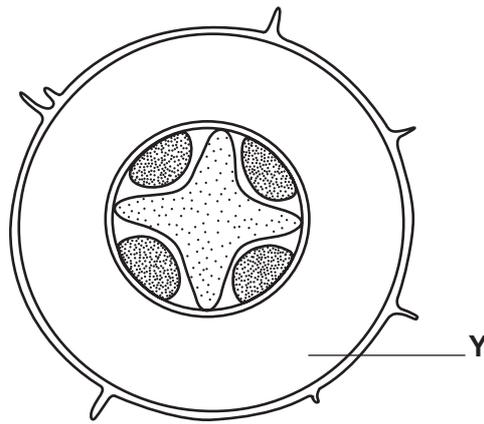


Which system of cropping is shown?

- A continuous cropping
 - B intercropping
 - C mixed cropping
 - D monoculture cropping
- 3 Which of the following provides the soil with nitrate?
- A chemical weathering
 - B lime
 - C organic matter
 - D physical weathering

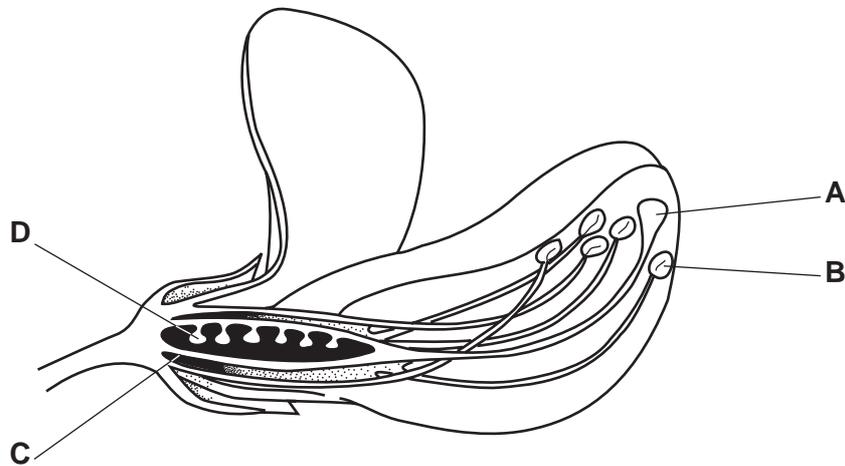
- 4 Which process improves the air content of soil?
- A compaction
 - B drainage
 - C irrigation
 - D mulching
- 5 What is the main use of phosphorus by plants?
- A for developing roots
 - B for forming flowers
 - C for the growth of leaves
 - D for the production of chlorophyll
- 6 What is the pH of a neutral soil?
- A pH 1.5
 - B pH 5.0
 - C pH 7.0
 - D pH 8.5
- 7 How do plant roots absorb mineral salts into their xylem?
- A by active transport
 - B by osmosis
 - C by suction
 - D by translocation

- 8 The diagram shows the cross-section of a root.



What is tissue Y?

- A cortex
 - B phloem
 - C pith
 - D xylem
- 9 Which part of the bean flower produces male gametes?



- 10 A young tree is planted in a hot, dry climate.

What will reduce transpiration?

- A adding fertiliser to the soil
- B making a hollow for watering
- C placing organic matter around the tree
- D removing some of the leafy shoots

11 Respiration can be represented as:



What are X and Y?

	X	Y
A	carbon dioxide	oxygen
B	carbon monoxide	nitrogen
C	nitrogen	carbon monoxide
D	oxygen	carbon dioxide

12 A cereal crop shows stunted growth and produces small grains.

What is the most likely cause?

- A bird damage
- B early sowing
- C poor seedbed
- D too much fertiliser

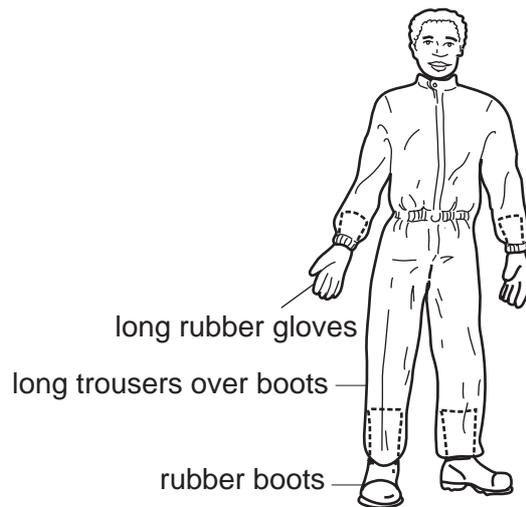
13 What is meant by *seed rate*?

- A the amount of seed that germinates
- B the depth at which seed is sown
- C the quantity of seed sown over a given area
- D the time taken for the seed to germinate

14 Which of the following is applied after the emergence of a cereal crop?

- A animal manure
- B inorganic nitrogen fertiliser
- C inorganic phosphate fertiliser
- D organic phosphate fertiliser

15 The diagram shows the protective clothes worn when using pesticides.



What else should be worn when mixing very toxic fluids?



face shield



waterproof hat



goggles



respirator

- A face shield and respirator
- B face shield and waterproof hat
- C goggles and respirator
- D goggles and waterproof hat

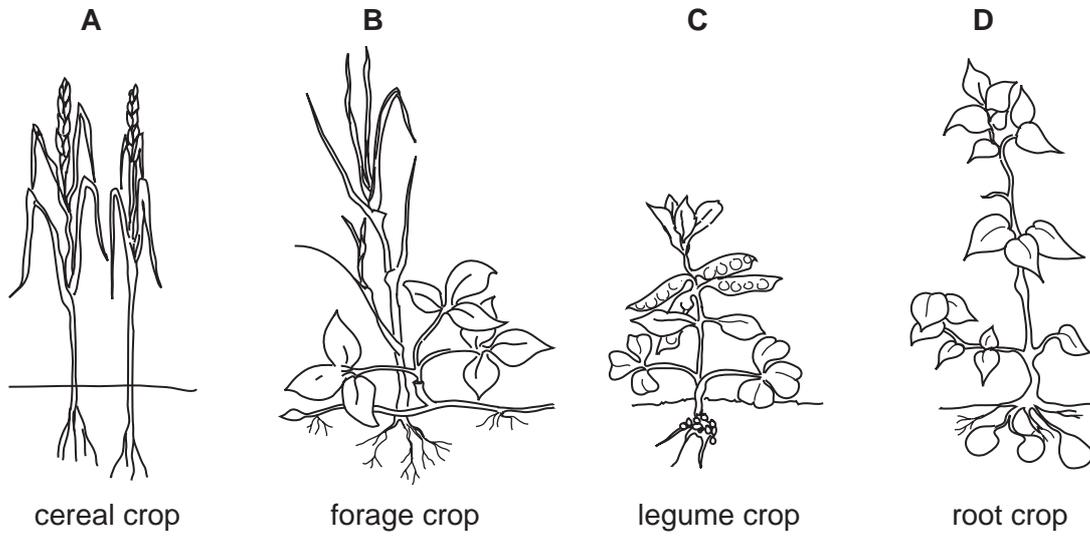
16 Plant leaves can be damaged by a sticky substance called honeydew.

Which pest type commonly produces honeydew?

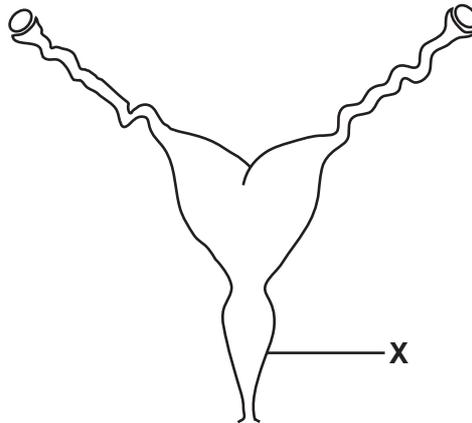
- A biting and chewing
- B boring
- C nematode (eelworm)
- D piercing and sucking

17 *Assigan 6* is a selective herbicide that kills broad-leaved weeds.

On which crop can it be used safely?



18 The diagram shows the reproductive system of a female farm animal.

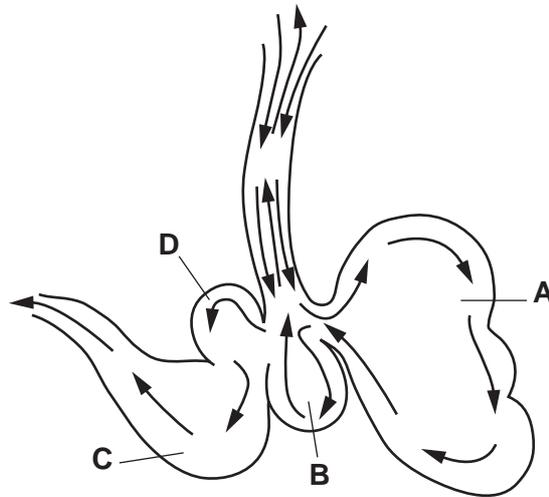


What is structure **X**?

- A cervix
- B uterus
- C vagina
- D vulva

19 The diagram shows part of the digestive system of a ruminant.

Which chamber is the omasum?



20 Which part of the digestive system of a non-ruminant would be very acidic?

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

21 What best describes lactation?

- A starting to feed on milk
- B the end of milk production
- C the secreting of colostrum
- D the whole of milk production

22 What is the normal body temperature of healthy, adult poultry?

- A 37.5 °C
- B 39.0 °C
- C 41.5 °C
- D 44.0 °C

23 Which of the following indicates good health in a ruminant?

	the chewing of cud	coat condition
A	no	dull
B	no	shiny
C	yes	dull
D	yes	shiny

24 Which of these is bulk feed for a ruminant?

- A groundnut cake
- B maize meal
- C milk
- D silage

25 Which animal requires a maintenance ration?

- A a female, when not breeding
- B a female, when pregnant
- C a female, when suckling young
- D a male, when used for breeding

26 Which mineral is needed in large amounts by a lactating, female farm animal?

- A calcium
- B copper
- C iron
- D zinc

27 What is the first stage in developing a herd of commercial goats from a wild population?

- A breeding with imported animals
- B cross-breeding with local animals
- C culling of inferior animals
- D selection of breeding animals

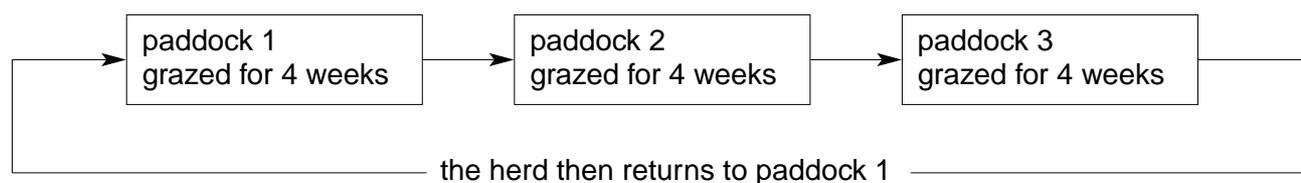
- 28 The allele (B) that gives a black coat in cattle is dominant over the allele (b) that gives red cattle. Several matings of a black bull with red cows gave this result.

parents	black bull	x	red cows
offspring ratio	black calves 1	:	red calves 1

What were the genotypes 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 Which type of grazing system is shown below?

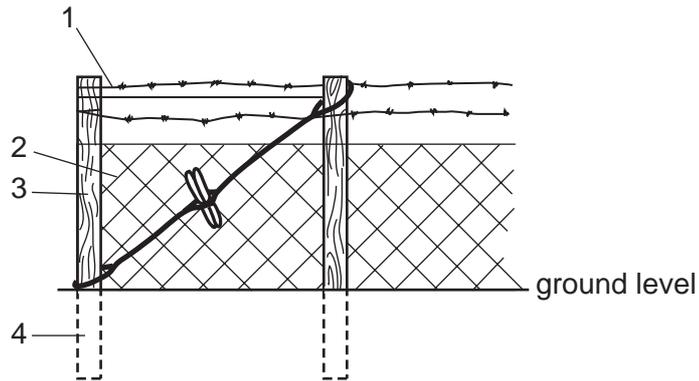


- A** continuous grazing
B extensive grazing
C mixed grazing
D rotational grazing
- 30 A pasture, divided into four paddocks, has a carrying capacity of one sheep per two hectares. Which paddock is overstocked?

paddock	area of paddock (hectares)	number of sheep
A	125	65
B	150	75
C	175	85
D	200	95

- 31 What is the main **disadvantage** of concrete fence posts compared to those made of wood?
- A high cost
 - B rotting
 - C rusting
 - D termite attack

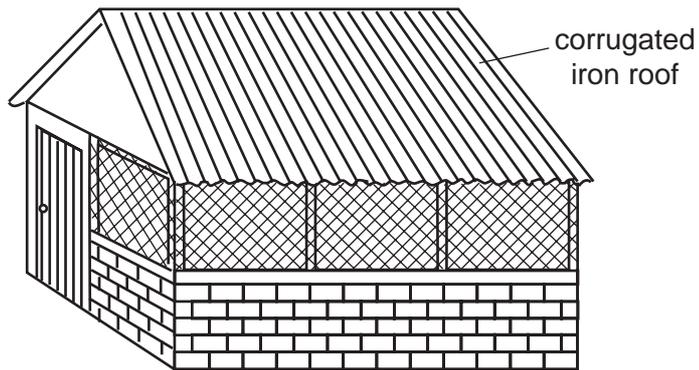
- 32 The diagram shows part of a stock-proof fence made from wood, wire mesh and barbed wire.



Which parts of the fence would need to be treated to prevent rotting?

- A 1 and 2 only
- B 1 and 3 only
- C 2 and 4 only
- D 3 and 4 only

33 The diagram shows a livestock house.

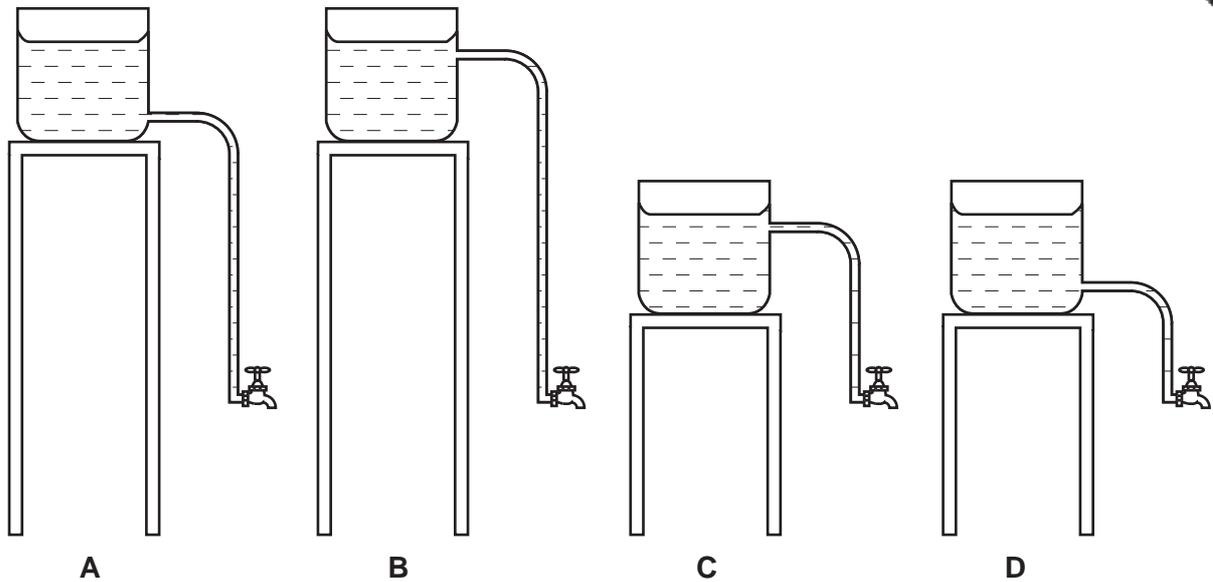


What will be improved by replacing the corrugated iron roof with thatch?

- A control of pests
 - B insulation
 - C light penetration
 - D ventilation
- 34 A strong roof truss must have
- A a triangular construction.
 - B a wooden frame.
 - C height greater than width.
 - D width greater than height.

35 The diagram shows four water storage tanks.

Which tank delivers the cleanest water at the highest pressure?



36 What is a tap washer made from?

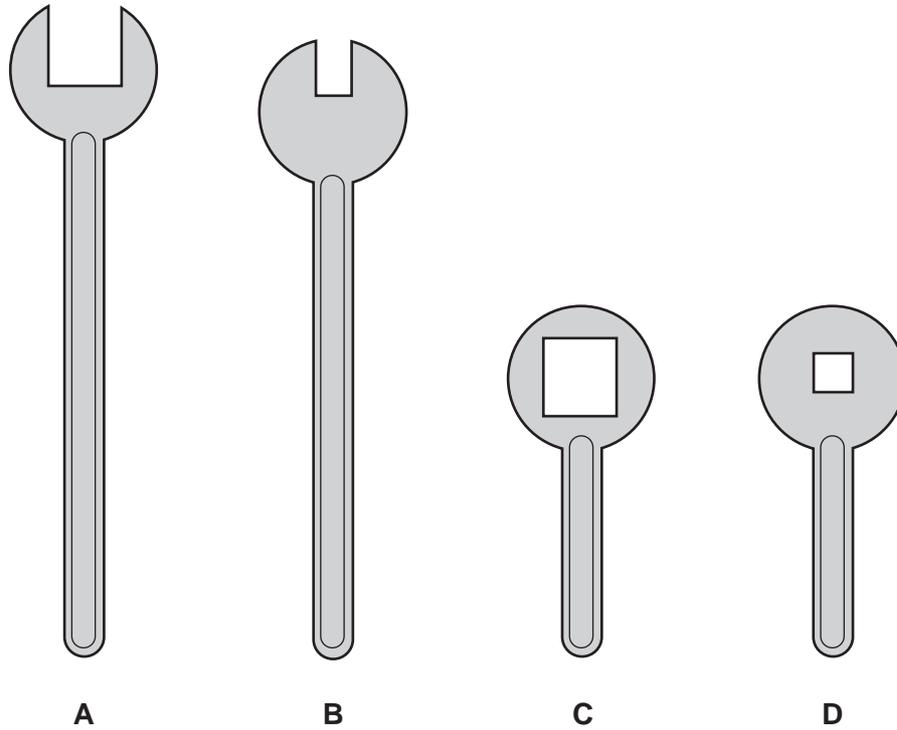
- A brass
- B rubber
- C steel
- D wood

37 Why should hand tools be oiled after use?

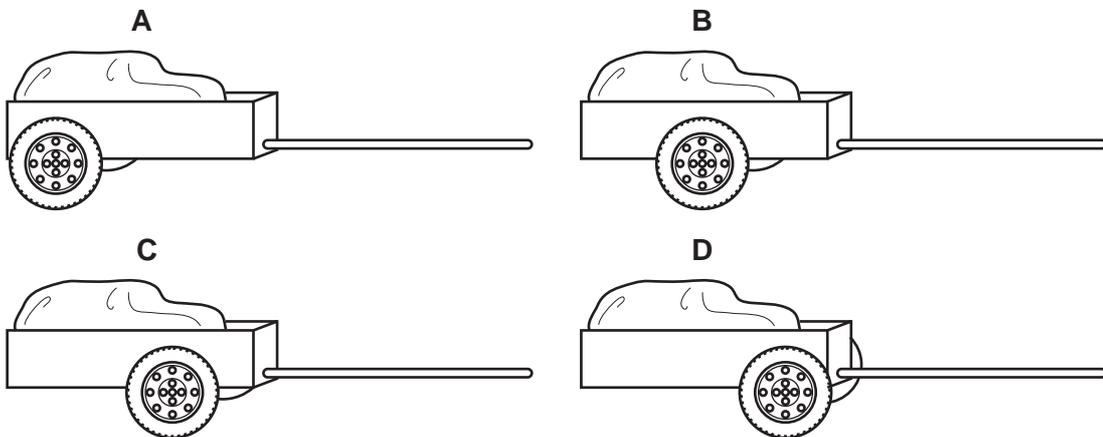
- A to make cleaning unnecessary
- B to make rusting less likely
- C to make them easier to use
- D to make them sharper

38 The diagram shows four spanners.

Which spanner, when used to tighten a nut and bolt, is most likely to damage the threads?



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



40 What will increase the demand for a food product?

- A an increase in population
- B an increase in price
- C an increase in supply
- D an increase in unemployment

