

International General Certificate of Secondary Education  
CAMBRIDGE INTERNATIONAL EXAMINATIONS

**AGRICULTURE**

PAPER 1 Multiple Choice

**0600/1**

**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**

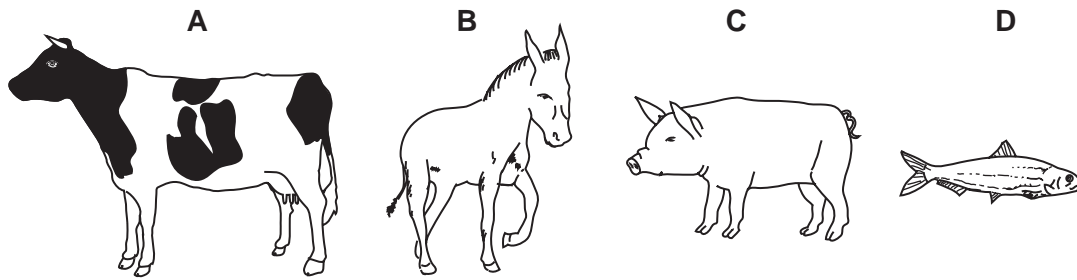
Each correct answer will score one mark. A mark will not be deducted for a wrong answer.

Any rough working should be done in this booklet.

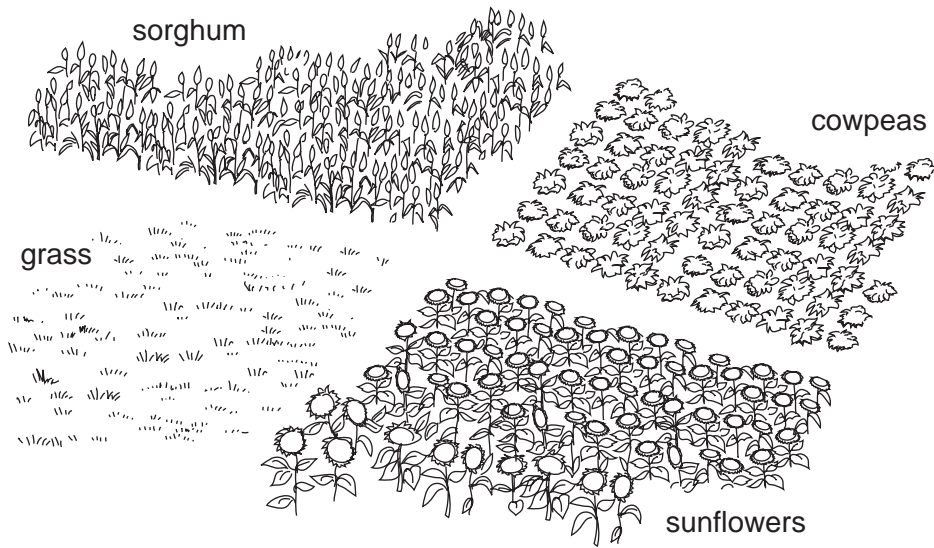
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**This question paper consists of 14 printed pages and 2 blank pages.**

1 Which animal can provide food without first being slaughtered?



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

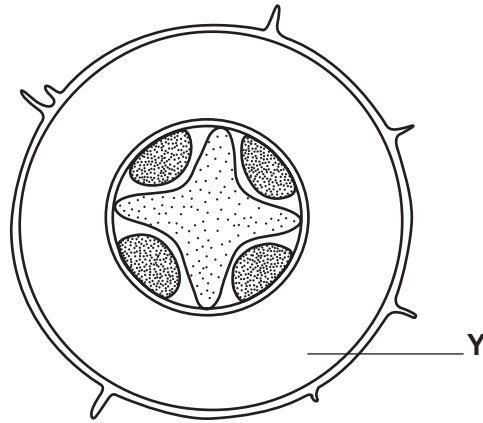


Which system of cropping is shown?

- 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

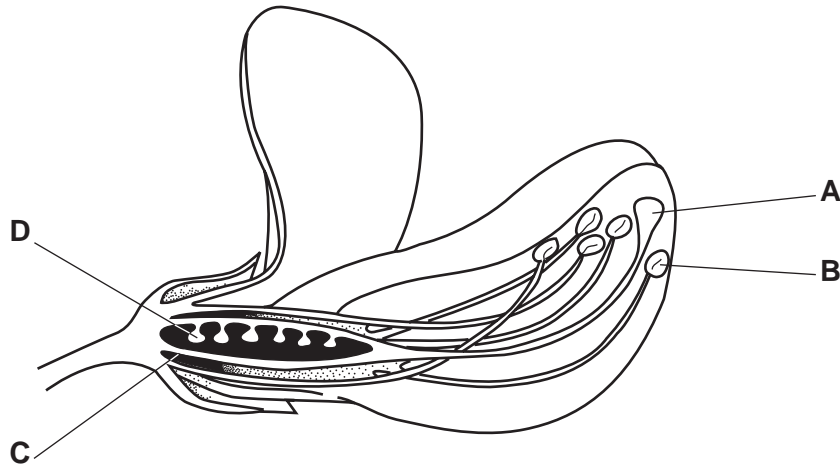
- 4 Which process improves the air content of soil?
- A compaction
  - B drainage
  - C irrigation
  - D mulching
- 5 What is the main use of phosphorus by plants?
- A for developing roots
  - B for forming flowers
  - C for the growth of leaves
  - D for the production of chlorophyll
- 6 What is the 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?

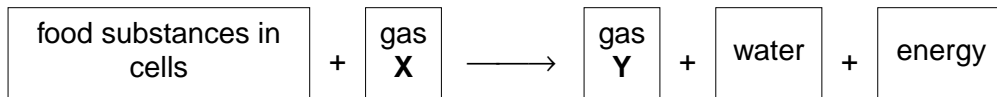


- 10 A young tree is planted in a hot, dry climate.

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

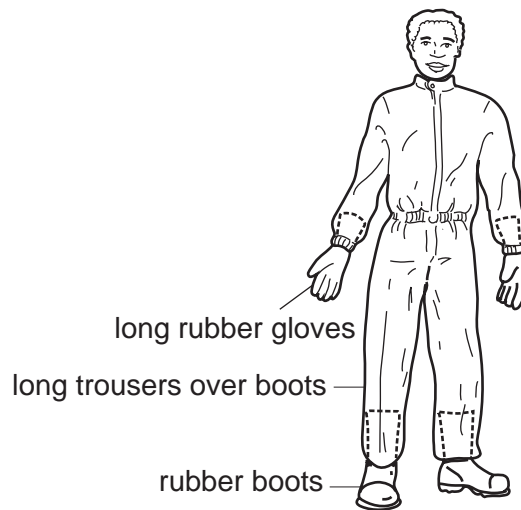
13 What is meant by *seed rate*?

- 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

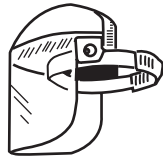
14 Which of the following is applied after the emergence of a cereal crop?

- 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

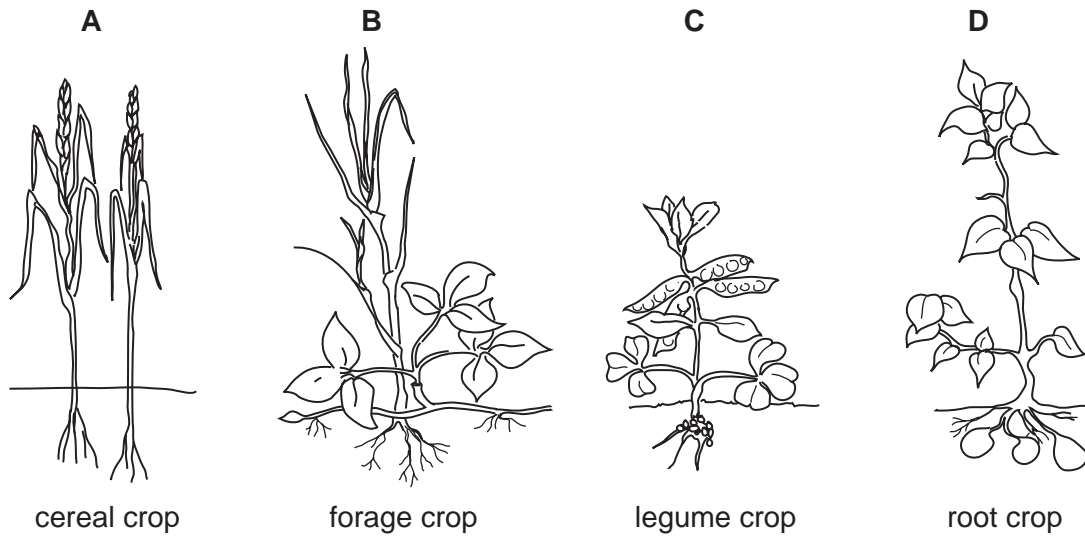
16 Plant leaves can be damaged by a sticky substance called honeydew.

Which pest type commonly produces honeydew?

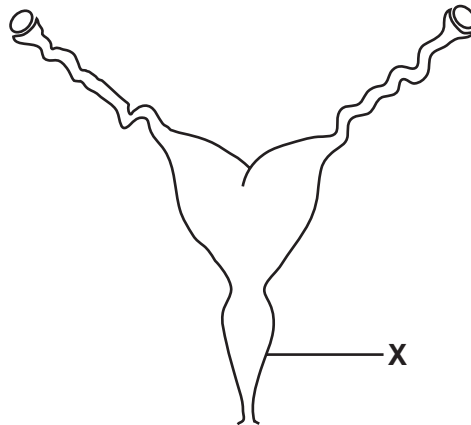
- A biting and chewing
- B boring
- C nematode (eelworm)
- D piercing and sucking

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.

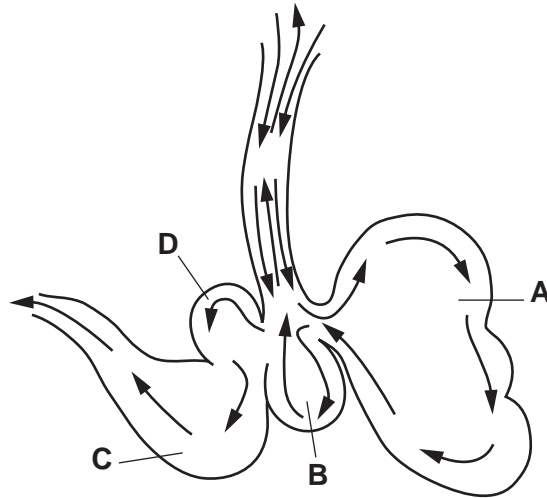


What is structure **X**?

- 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
<b>A</b>	no	dull
<b>B</b>	no	shiny
<b>C</b>	yes	dull
<b>D</b>	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

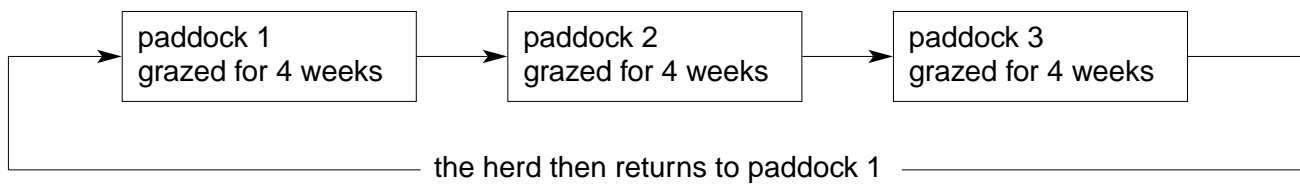
- 28 The allele (B) that gives a black coat in cattle is dominant over the allele (b) that gives a red coat in cattle. Several matings of a black bull with red cows gave this result.

<b>parents</b>	black bull	x	red cows
<b>offspring ratio</b>	black calves 1	:	red calves 1

What were the genotypes of the black bull and the black calves?

	black bull	black calves
<b>A</b>	BB	BB
<b>B</b>	BB	Bb
<b>C</b>	Bb	BB
<b>D</b>	Bb	Bb

- 29 Which type of grazing system is shown below?

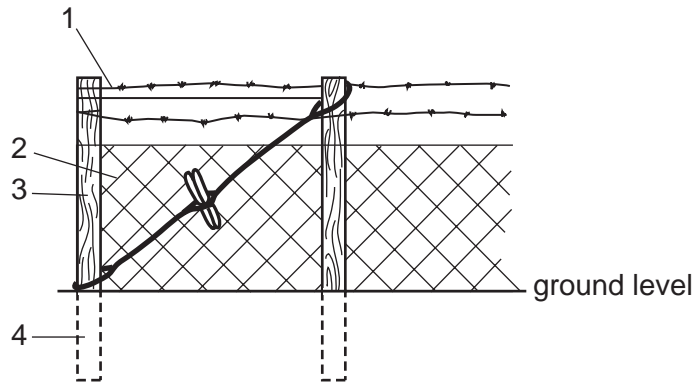


- A** continuous grazing  
**B** extensive grazing  
**C** mixed grazing  
**D** rotational grazing
- 30 A pasture, divided into four paddocks, has a carrying capacity of one sheep per two hectares.

Which paddock is overstocked?

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

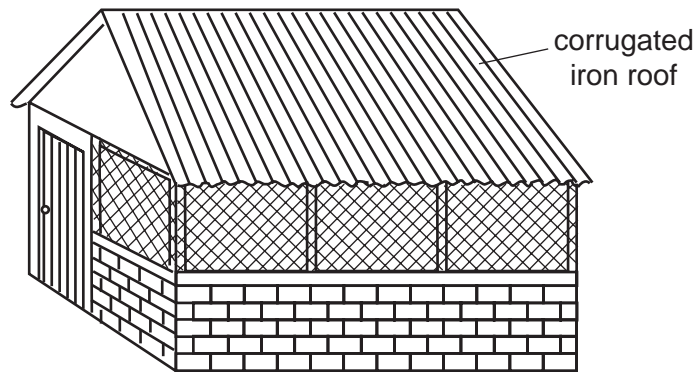
- 31 What is the main **disadvantage** of concrete fence posts compared to those made of iron or wood?
- A high cost
  - B rotting
  - C rusting
  - D termite attack
- 32 The diagram shows part of a stock-proof fence made from wood, wire mesh and barbed wire.



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?

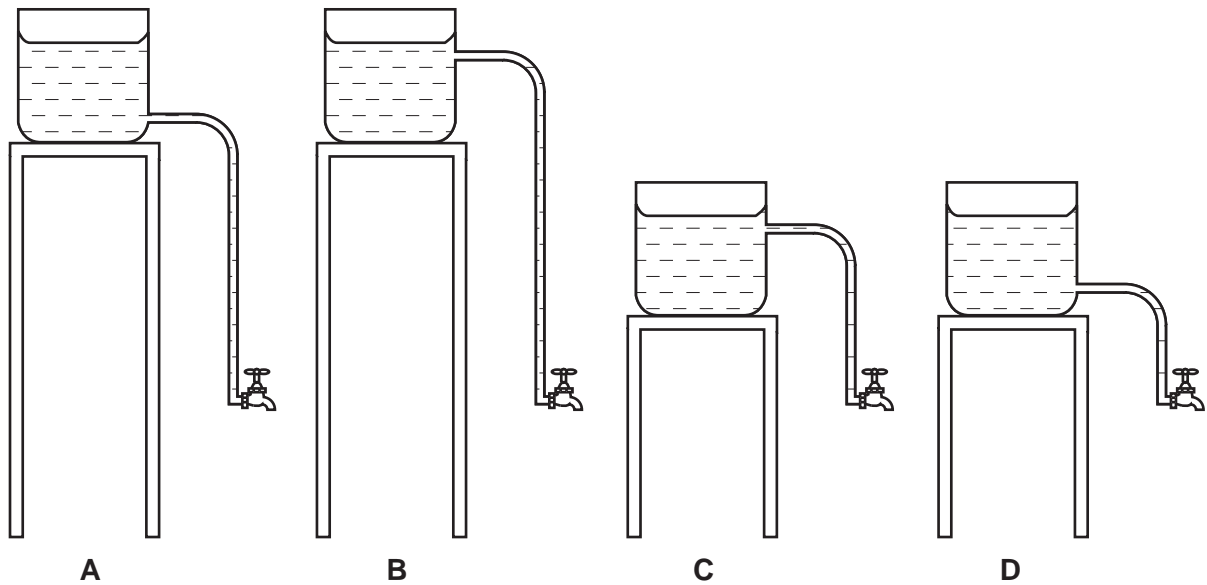
- A control of pests
- B insulation
- C light penetration
- D ventilation

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?

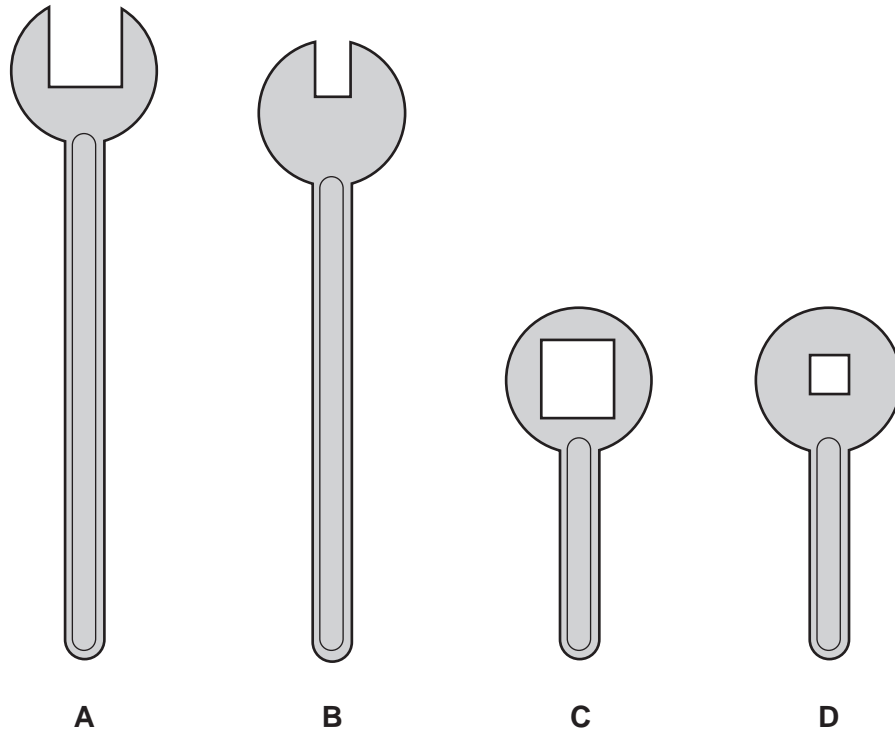
- A brass
- B rubber
- C steel
- D wood

37 Why should hand tools be oiled after use?

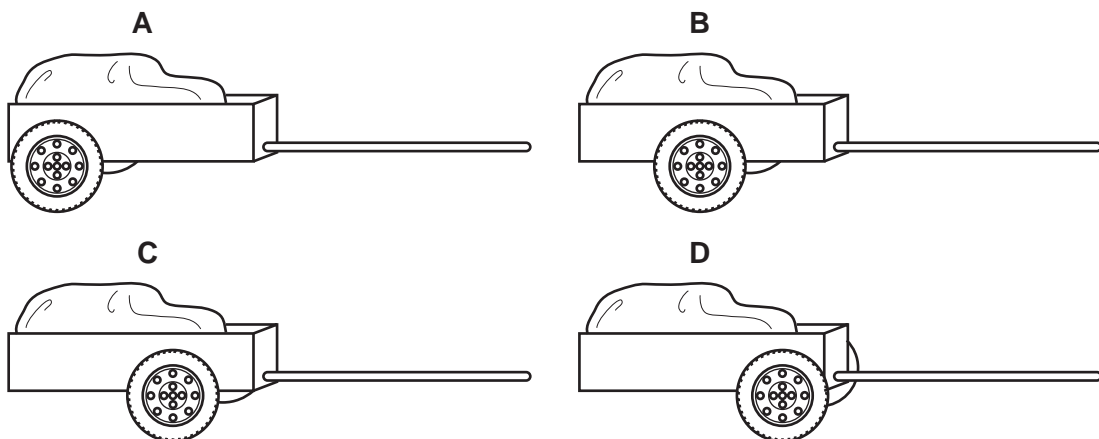
- A to make cleaning unnecessary
- B to make rusting less likely
- C to make them easier to use
- D to make them sharper

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



