

**NAMIBIA SENIOR SECONDARY CERTIFICATE**

**AGRICULTURE ORDINARY LEVEL**

**4321/1**

PAPER 1 Multiple Choice

1 hour

Marks 40

**2018**

Additional Materials: Multiple choice answer sheet  
Soft clean eraser  
Soft pencil (type B or HB is recommended)

**INSTRUCTIONS AND INFORMATION TO CANDIDATES**

- Write in soft pencil.
- Make sure that you receive the multiple choice answer sheet with **your Candidate Number** on it.
- 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.
- If you want to change an answer, thoroughly erase the one you wish to delete.

**Read the instructions on the answer sheet carefully.**

- Each correct answer will score one mark.
- Any rough working should be done in this booklet.
- All questions in this paper carry equal marks.
- You may use a non-programmable calculator.

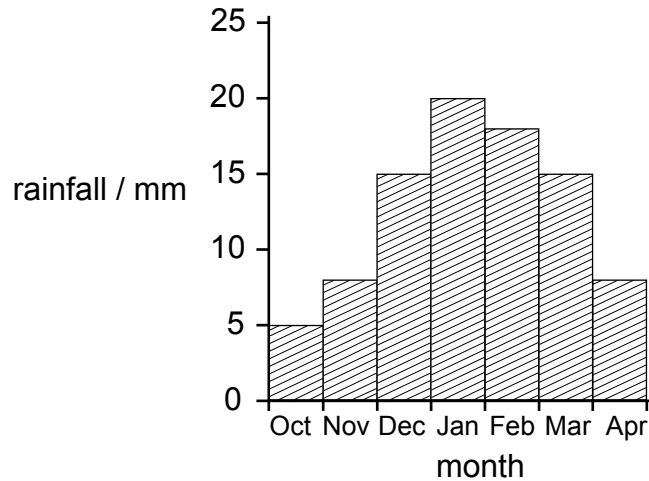
This document consists of **10** printed pages and **2** blank pages.



Republic of Namibia

**MINISTRY OF EDUCATION, ARTS AND CULTURE**

- 1 Which of the following animals kept by farmers can be used for both meat and internationally recognised sport?
- A chickens
  - B fish
  - C goats
  - D pigs
- 2 The graph shows rainfall records from October to April.



In which month was the lowest rainfall recorded?

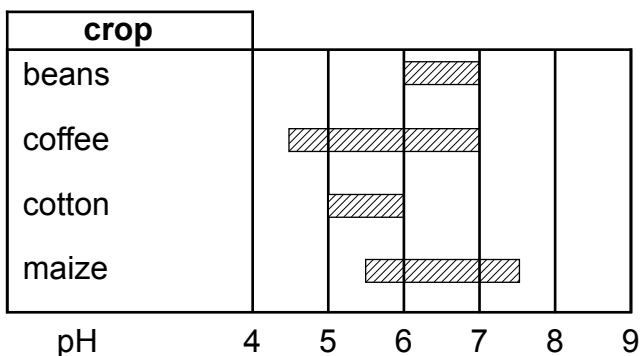
- A April
  - B December
  - C February
  - D October
- 3 Which temperature is most effective at promoting maximum plant growth?
- A average temperature
  - B maximum temperature
  - C minimum temperature
  - D optimum temperature
- 4 How can the demand for food production be in conflict with the long-term stability of the environment?
- A less food is needed
  - B less irrigation is needed
  - C more land is required
  - D more trees are cut down

- 5 Which type of organism causes AIDS?  
**A** bacteria  
**B** fungi  
**C** protozoa  
**D** virus
- 6 Which soil type has a crumb structure?  
**A** clay  
**B** loam  
**C** sand  
**D** silt
- 7 In which form is nitrogen taken up by plant roots?  
**A** nitrate  
**B** organic  
**C** protein  
**D** sulfate
- 8 **P**, **Q** and **R** are three types of soil.  
**P** holds maximum air  
**Q** holds average air  
**R** holds very little air

Which row describes these soil types correctly?

	<b>P</b>	<b>Q</b>	<b>R</b>
<b>A</b>	loam	sand	clay
<b>B</b>	silt	clay	loam
<b>C</b>	loam	clay	sand
<b>D</b>	sand	loam	silt

- 9 The diagram shows the different pH ranges required by certain crops for optional growth.



Which crop can grow in a neutral soil pH?

- A** beans  
**B** coffee  
**C** cotton  
**D** maize

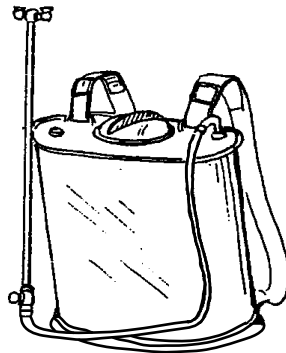
- 10** What do the fertilised ovules become in flowering plants?
- A** a flower
  - B** a fruit
  - C** a seed
  - D** a stem
- 11** Which one is a cultural method of weed control?
- A** hand weeding
  - B** hoeing
  - C** mulching
  - D** use of herbicides
- 12** Which process transports synthesised food through the plant to where it is needed?
- A** diffusion
  - B** osmosis
  - C** translocation
  - D** transpiration
- 13** The recommended seed rate for a cereal crop is 25 kg per hectare.  
Calculate the amount of seeds required for a seedbed measuring 12 000 m<sup>2</sup>.
- A** 30 kg
  - B** 40 kg
  - C** 50 kg
  - D** 60 kg
- 14** Which substance is an example of an organic fertiliser?
- A** ammonium nitrate
  - B** ammonium sulphate
  - C** compost
  - D** superphosphate
- 15** Which plant process is defined as a release of energy from food substances in living cells with the release of carbon dioxide?
- A** diffusion
  - B** osmosis
  - C** transpiration
  - D** respiration

16 The diagram shows the mouthparts of a pest.



To which group of pests does this pest belong?

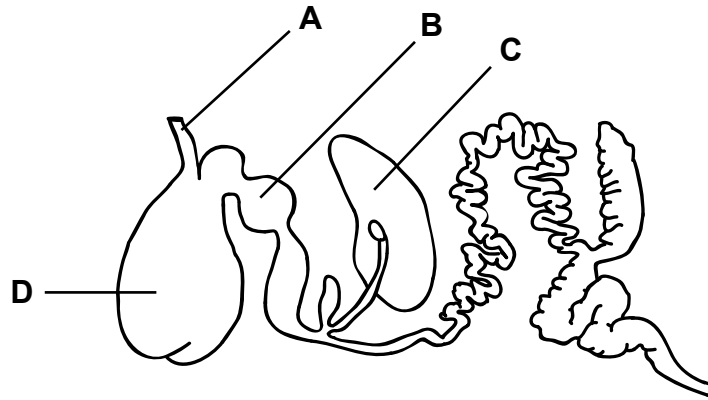
- A biting and cutting
  - B biting and chewing
  - C boring and cutting
  - D piercing and sucking
- 17 What property of soil can be determined by rubbing soil particles between the fingers?
- A soil profile
  - B soil structure
  - C soil texture
  - D soil water content
- 18 The diagram shows a farm implement.



What is this farm implement used for?

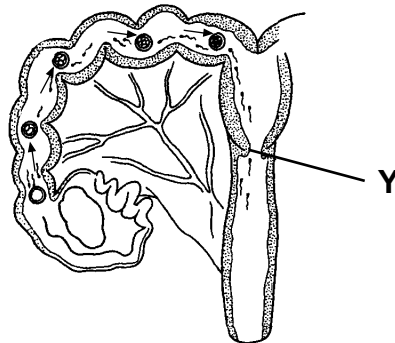
- A applying oil to tools
- B irrigating crops
- C spraying crops against pests
- D spraying animals against worms

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



In which of the labelled parts is bile produced?

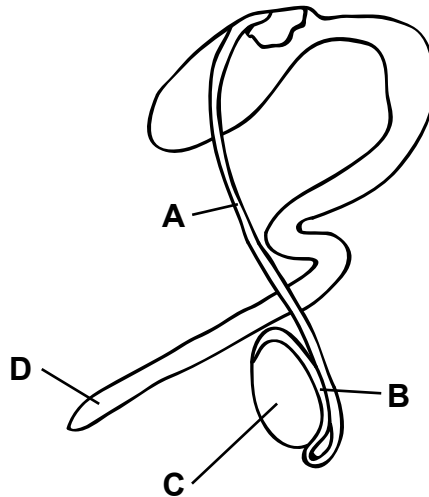
- 20 What are the finger-like projections inside the small intestine walls called?
- A ducts
  - B glands
  - C hormones
  - D villi
- 21 What is a government disease control measure which helps to prevent the spread of livestock diseases called?
- A camping
  - B isolation
  - C quaranting
  - D separation
- 22 The diagram shows part of a female reproductive system of a farm animal.



What is the part labelled Y called?

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

23 Where are sperm stored in the body of the male animal?



24 What is the period of milk production in a female farm mammal called?

- A gestation
- B insemination
- C lactation
- D propagation

25 Which type of animal disease must be reported to the nearest veterinary office?

- A contagious
- B infectious
- C notifiable
- D nutritional

26 Why do young calves need colostrum?

- A it comes from the mother
- B it contains antibodies
- C it is easy to swallow
- D it is warm

27 Which animal food contains a lot of fibre?

- A bone meal
- B fresh hay
- C mineral licks
- D protein licks

28 A farmer notices a sick farm animal.

What is the first thing that the farmer should do?

- A buy new stock
- B change the feed
- C disinfect the building
- D isolate the sick animal

**29** The table shows livestock diseases that have been matched to disease causing organisms.

Which one is the correct match?

	disease	causal organism
<b>A</b>	anthrax	bacteria
<b>B</b>	coccidiosis	fungi
<b>C</b>	foot and mouth	ticks
<b>D</b>	tuberculosis	virus

**30** The photograph shows a farm animal.

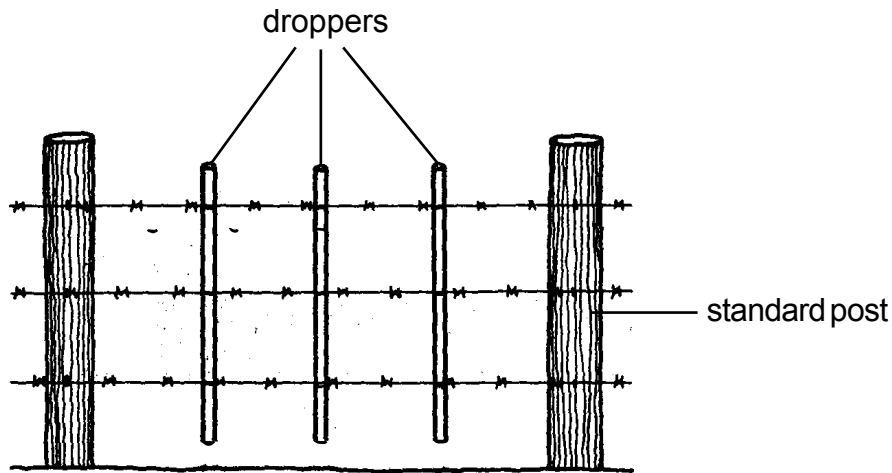


Which is the main hormone controlling the animal's body shape?

- A** luteinising
  - B** oestrogen
  - C** progesterone
  - D** testosterone
- 31** Which grazing system is described by the system when animals graze from one camp to the next?
- A** continuous grazing
  - B** rotational grazing
  - C** strip grazing
  - D** zero grazing
- 32** What is an advantage of good pasture management?
- A** increased bush encroachment
  - B** increased overgrazing
  - C** maximum stocking rate
  - D** reduced carrying capacity



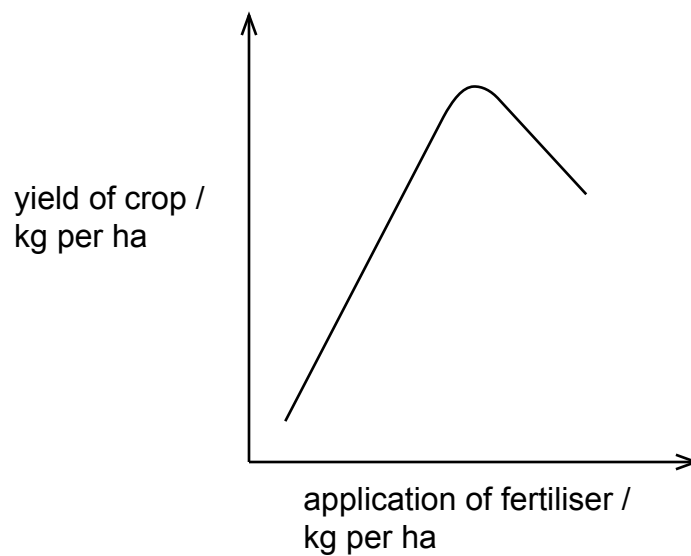
- 33 The diagram shows a fence with droppers between the fence posts.



What may happen if the fence is constructed without the droppers?

- A The animals may get stuck.
  - B The fence posts may fall.
  - C The fence will slacken.
  - D The wires would not be tight.
- 34 Which floor type is preferred when trying to keep animal houses clean and pest-free?
- A concrete
  - B gravel
  - C soil
  - D wood
- 35 A water tank supplies a small village with water. As the village grows, water has to be supplied further away from the tank.
- What should be done in order for water to be supplied further away from the tank?
- A install a smaller tank
  - B install a wider tank
  - C lower the tank
  - D raise the tank
- 36 What is a benefit of a corrugated iron roof compared to a grass thatch?
- A it is easy to replace
  - B it keeps out heat
  - C it keeps out pests
  - D it is strong and durable
- 37 Which farm tool is used to tie wire during fencing?
- A claw hammer
  - B hacksaw
  - C pliers
  - D screw driver

- 38 Which of the following pairs are variable costs?
- A fertilisers and machinery
  - B fertilisers and seeds
  - C machinery and herbicides
  - D permanent labour and pesticides
- 39 Which maintenance practice is most suitable to use on moving parts of mechanical devices?
- A greasing
  - B painting
  - C spraying
  - D washing
- 40 The graph shows a principle in agricultural economics.



Which principle is shown?

- A law of diminishing returns
- B law of increased quality
- C principle of demand
- D principle of supply



