

AGRICULTURE GRADE 10 ( FORM 4)

Section A

1. Fig 1. shows part of the nitrogen cycle.

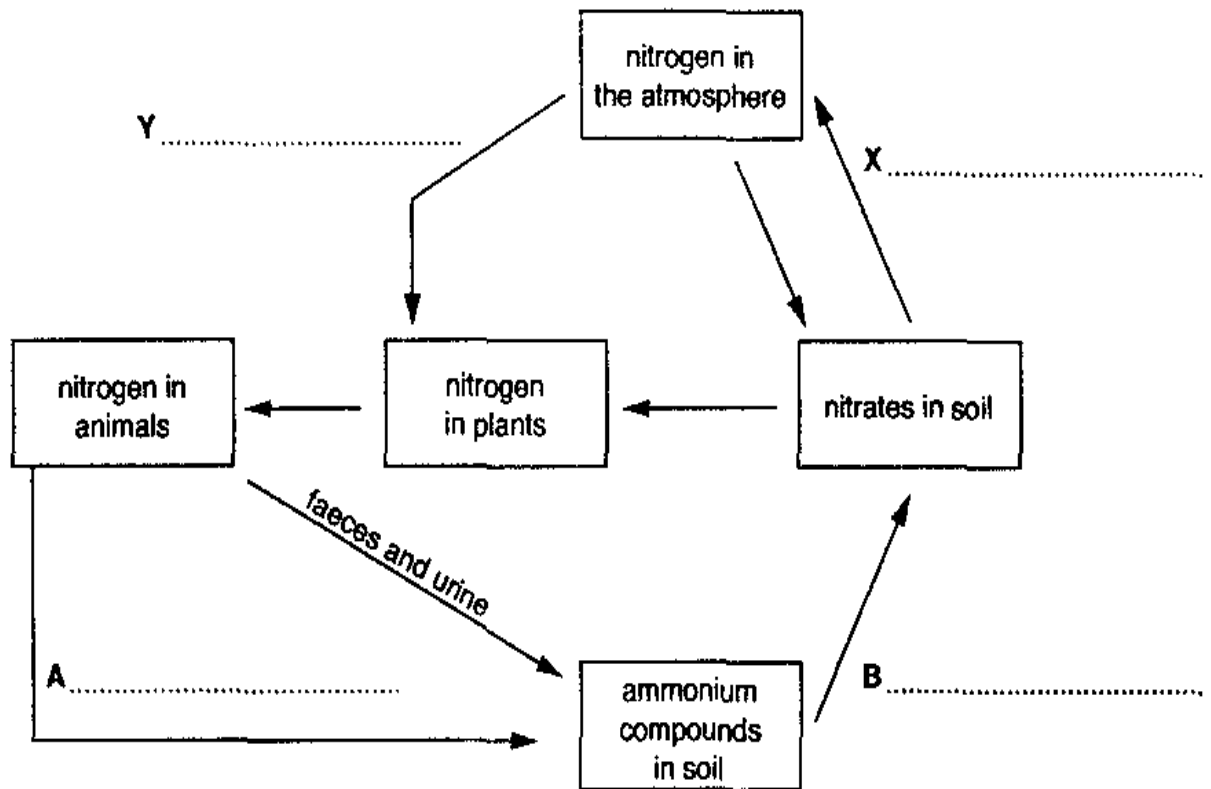
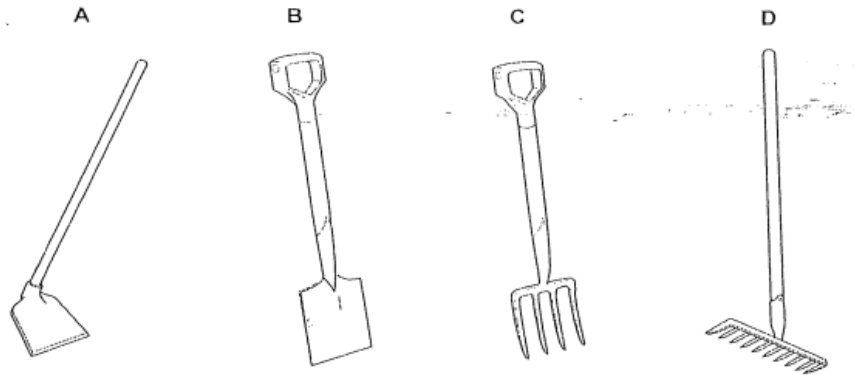


Fig 1.

- (a) On the diagram,
  - (i) complete label **A**,
  - (ii) complete label **B**.
- (b) On the diagram,
  - (i) write the name of the type of bacteria at **X**,
  - (ii) write the name of the type of bacteria at **Y**.
- (c) State the type of plant associated with bacteria **Y**.

2. Fig. 2 shows four hand tools that can be used when preparing a seed bed.



**Fig 2.**

Choose **one** of the tools shown in Fig. 2.

- (a) State which tool, A, B, C or D, you have chosen.

Explain the purpose of this tool in preparing a seed bed.

- (b)(i) Describe how rust could be prevented on the metal part of the tool.

(ii) State one way in which the wooden part of the tool might deteriorate over time.

(iii) Describe action that could be taken to prevent this damage.

3. Fertilisers may be inorganic chemicals or organic material such as farmyard (kraal) manure.

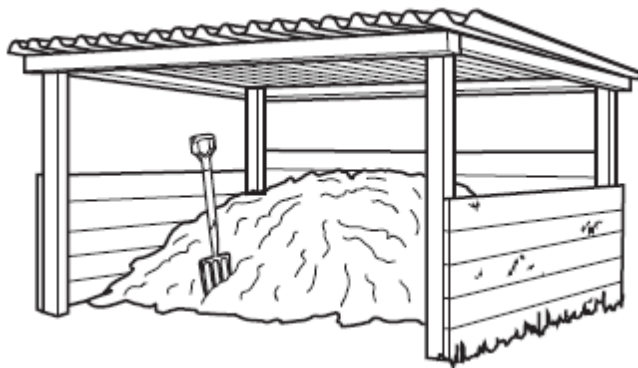
(a) Listed below are three inorganic compound fertilisers.

fertiliser X	fertiliser Y	fertiliser Z
N : P : K	N : P : K	N : P : K
(10 : 20 : 10)	(22 : 11 : 11)	(13 : 13 : 20)

Complete the table by choosing the fertiliser that would be most suitable for each crop and give a reason for each choice.

type of crop	fertiliser	reason
leaf e.g. cabbage, lettuce		
root e.g. yam, cassava		
Fruit e.g. tomato		

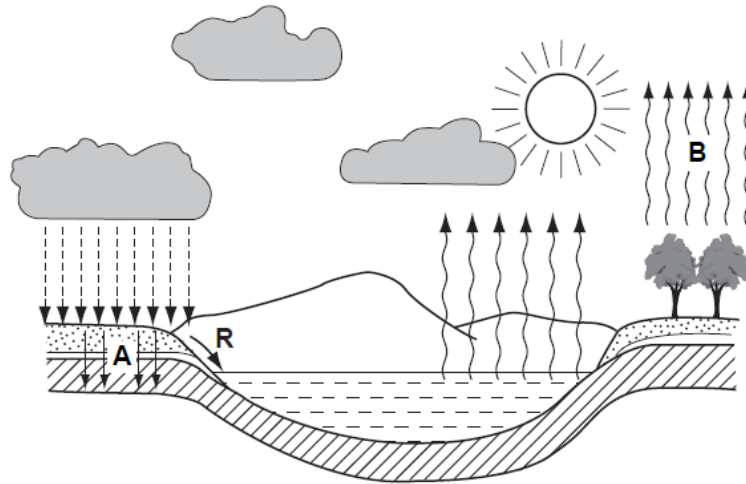
(b) Fig. 3 shows farmyard manure that is being stored in an open shed with a roof.



**Fig 3.**

Suggest why it would be an advantage to keep the manure under a roof.

4. Fig 4. shows the water cycle.



(a) Give the names of the processes at A and B.

(b) (i) Process R is run-off.

State one reason why run-off is a problem for farmers.

(ii) Describe one method by which run-off can be prevented.

## Section B

5. a. Define crop rotation
- b. Describe a 3 course rotation using the following crops:  
bean, cabbage, carrot.
- c. State 3 advantages of crop rotation.
6. a. What is weathering?
- b. Give one example of
- (i) biological,
  - (ii) physical,
  - (iii) chemical
- weathering agents and describe how each one affect weathering.
7. a. Write short notes on each of the followings:
- (i) monoculture
  - (ii) mixed farming
  - (iii) interline cropping
- b. State two advantages and two disadvantages of mixed farming.
- c. How does monoculture affect soil fertility.