

FARM POWER AND MACHINERY

1. 1995

(a) States four advantages of farm mechanization (2 marks)

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(b) Give the functions of each of the following parts of a mould board plough. (4 marks)

(i) Mould board
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(ii) Share
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(iii) Frog
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(iv) Landslide.
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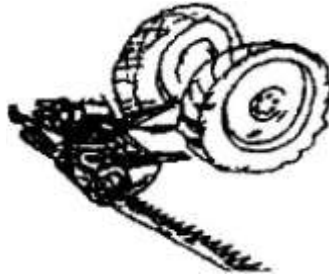
(c) Give two daily maintenance practices that should be carried out on a mould board plough. (2 marks)

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2. 1995

The diagram below is a tractor drawn implement hitched at the rear of the tractor.



(i) Identify the implement (1 mark)

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(ii) What is the method of power transmission for operating the implement? (1 mark)

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(iii) State three maintenance practices that should be carried out on the implement. (3 marks)

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3. 1996

a) Compare the use of an ox-drawn mould board plough with that of a tractor-drawn mould board plough. (9 marks)

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b) Describe the maintenance practices that should be carried out on an ox-drawn mould board plough (6 marks)

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c) What are the advantages and disadvantages of using tractor hire service farming instead of owning and using your own tractors. (5 marks)

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4. 1997

a) State two reasons of applying oil and grease on a rotary mower. (2 marks)

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b) State four maintenance practices required on a rotary mower besides oiling and greasing. (2 marks)

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c) State four factors that a farmer should consider before buying a tractor for use as the source of power on the farm. (2 marks)

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5. 1999

a) Give two uses of ox –drawn harrow (2 marks)

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b) Give two maintenance practices of a ox-drawn tine harrow. (2 marks)

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c) State two advantages of an ox- drawn harrow over tractor-drawn harrow. (2 marks)

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6. 2000
Outline four maintenance practices of a disc harrow. (2 marks)

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7. 2001
a) State one method of increasing ploughing depth when using a disc plough. (1 mark)

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b) State two reasons for maintaining a disc plough, (2 marks)

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c) State three advantages of farm mechanization. (3 marks)

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8. 2003
a) State two functions of a coulter in a mould board plough. (2 marks)

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b) Give three maintenance practices carried out on an ox-drawn trailer. (3 marks)

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9. 2004
a) State two problems associated with tractor hire service that farmers encounter. (1 mark)

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b) List four implements used to carry out secondary cultivation. (2 marks)

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10. 2005

a) State one condition under which a farmer would prefer to use an ox-cart instead of a tractor-drawn trailer.

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b) Give three maintenance practices carried out on an ox-plough., (3 marks)

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11. 2006 Q4 P2

State four functions of lubrication system in a tractor. (2 marks)

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12. 2006 Q5 P2

Give four maintenance practices carried out on the water cooling system of a tractor. (2 marks)

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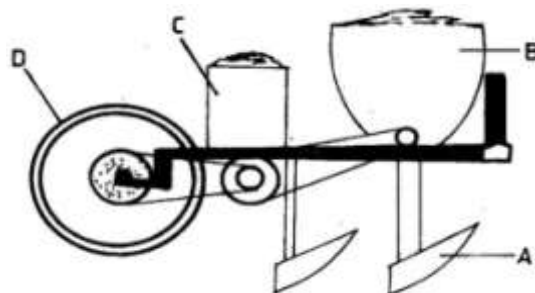
13. 2006 Q6 P2

State reasons why a farmer would choose to use a disc plough rather than a mould board plough. (2 marks)

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14. 2006 Q18a P2

(a) A diagram of a planter is shown below. Study it and answer the questions that follow.



(i) Identify the parts labelled A, B, C, and D, (2 marks)

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(ii) State two maintenance practices carried out on the planter. (2 marks)

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15. 2006 Q24 P2

a) What are the advantages of farm mechanization? (6 marks)

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b) Explain the differences between a two stroke and a four stroke cycle engine. (6 marks)

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c) Outline the daily maintenance practices that should be carried out on a farm tractor (8 marks)

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16. 2007 Q12 P2

State three adjustments that should be carried out on a tractor – mounted mouldboard plough in preparation for ploughing. (1 ½ marks)

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17. 2007 Q15 P2

List four sources of farm power which are environmental friendly. (2 marks)

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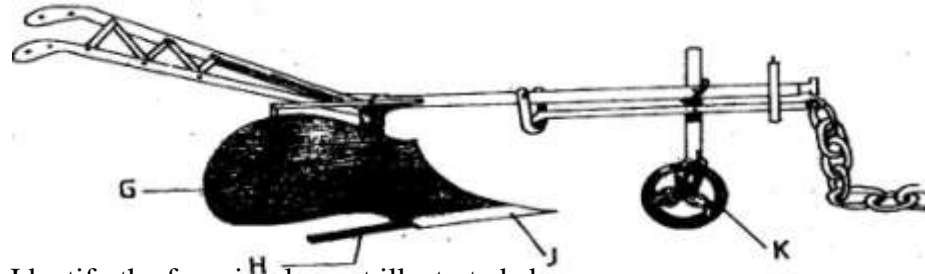
18. 2007 Q17 P2

Name four systems of a tractor engine. (2 marks)

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19. 2007 Q23 P2

The diagram below shows a farm implement. Study it and answer the questions that follow.



a) Identify the farm implement illustrated above. (1 mark)

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b) Name the parts labelled G, H, J and K.

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c) State four functions of the farm implement illustrated above. (2 marks)

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20. 2007 Q25 P2

a) Name the strokes in a four stroke engine and describe how each operates. (12 marks)

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b) Describe the functions of the gear box in a tractor. (8 marks)

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21. **2008 Q10 P2**
 What is the function of the draw bar of a tractor? (½ mark)

22. **2008 Q11 P2**
 Name two types of air cleaners used in tractors. (1 mark)

23. **2008 Q18 P2**
 Give three uses of biogas in a farm. (1½ marks)

24. **2008 Q31 P2**
 a) Describe how the following tractor components are used to attach implements to the tractor:
 i) Three(3) point linkage/hitch (6 marks)

 ii) Power Take Off shaft (P.T.O) (4 marks)

25. **2009 Q9 P2**
 State four limitations of using hydroelectric power on the farm (2 marks)

26. **2009 Q24a,b P2**
 (a) Outline five benefits of using biogas as a source of power on the farm (5 marks)

 (b) Give five advantages of using a subsoiler in seedbed preparation (5 marks)

27. **2010 Q11 P2**
 Give **three** reasons for carrying out maintenance practices on a mower (1½ marks)

28. **2010 Q12 P2**
Give **three** limitations of using solar power on the farm. (1/2 mark)
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29. **2010 Q13 P2**
Why is it important to have a thermostat on a cooling system of a tractor engine? (1 mark)
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30. **2010 Q14 P2**
Give two advantages of using a disc plough over a mouldboard plough in primary cultivation. (1 mark)
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31. **2010 Q27b P2**
(b) Explain how the power transmitted from a tractor engine is made available for use on the farm under the following subheadings:

(i) propeller shaft; (2 marks)
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(ii) power take off (P.T.O) shaft; (2 marks)
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(iii) hydraulic system. (2 marks)
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32. **2011 Q7 P1**
Give three factors that should be considered when choosing the type of labour to use on the farm. (1 1/2 marks)
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33. **2011 Q1 P2**
State four maintenance practices for a disc plough. (2 marks)
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- 34. 2011 Q3 P2**
 State four advantages of using animals instead of tractors as a source of power on the farm. (2 marks)

- 35. 2011 Q7 P2**
 State three maintenance practices for a tractor battery. (1½ marks)

- 36. 2011 Q16 P2**
 Name the strokes in a four stroke cycle engine. (2 marks)

- 37. 2011 Q26c P2**
 c) State the differences between a diesel engine and a petrol engine. (5 marks)

- 38. 2012 Q16 P2**
 State three functions of a lubrication system on a tractor (1½ marks)

- 39. 2012 Q24b P2**
 (b) Explain the importance of each of the functional differences between a disc plough and a mouldboard plough in land preparation. (10 marks)

