

NAME:.....COMB:.....

P515/1
PRINCIPLES AND PRACTICES
OF AGRICULTURE
PAPER 1
JUNE 2016
2 ½ HOURS

DEPARTMENT OF AGRICULTURE
UGANDA ADVANCED CERTIFICATE OF EDUCATION
MOCK 1 EXAMINATIONS, JUNE 2016
PRINCIPLES AND PRACTICES OF AGRICULTURE
PAPER 1
TIME: 2 HOURS 30 MINUTES

INSTRUCTIONS

- This paper consists of Sections A and B.
- Answer **ALL** questions in both sections.
- For Section A, write answers in boxes provided in Capital letters.
- For Section B, write the answers in spaces provided and not elsewhere.

FOR EXAMINER'S USE ONLY		
QUESTIONS	MARKS	INITIALS
SECTION A		
SECTION B: 31		
32		
33		
34		

35		
36		
37		
TOTAL		

SECTION A (30 MARKS)

1. Why is it most convenient to rear fish in rectangular or square ponds? Fish.....
 - A. do not move in circles
 - B. only have a sense of those shapes.
 - C. can easily be caught
 - D. feeds best in such shapes

2. In a Bee Colony, Requeening is important to:
 - A. allow proper hatching of eggs
 - B. prevent honey from melting
 - C. make bees to swarm
 - D. to increase production of honey

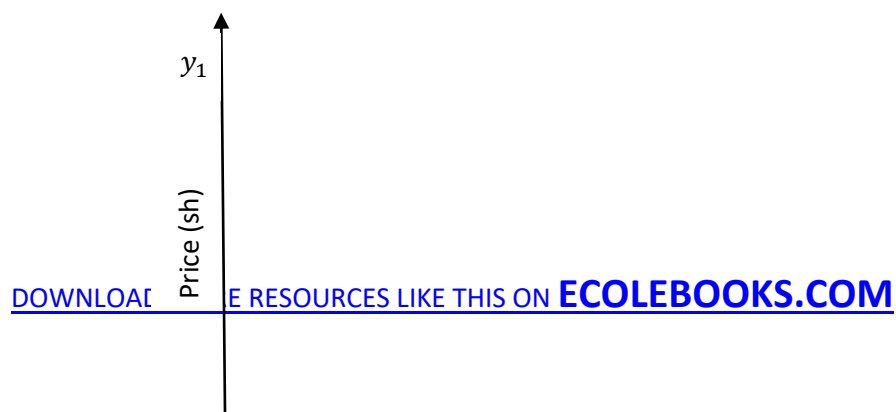
3. When constructing a dairy ban on a site, a machine requires 6250J of energy to lift a load of 500kg through a vertical distance of 10 metres. The efficiency of this machine can is.....
 - A. 80% B. 65% C. 100% D. 25%

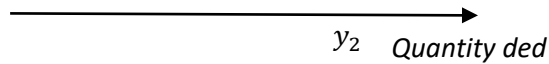
4. The best material for making an ox plough share is:
 - A. stainless steel C. soldered steel
 - B. wrought iron D. chilled cast iron

5. One of the following goat breeds is best for dual purpose. Which one is it?
 - A. East African goat C. Anglo – Nubian goat
 - B. Toggeburg goat D. Saanen goat

6. At what stage of milking process is a strip cup recommended to be used?
 - A. When cows are resting C. Before actual milking of cows

- B. After actual milking of cows D. During actual milking of cows
7. Diploid condition in cell division is expressed when:
- A. somatic cell divides into two daughter cells
 - B. a germ cell under goes reduction division.
 - C. four daughter cells are formed producing gametes.
 - D. somatic cell has its full number of chromosomes.
8. A garden pea plant with white flowers is dominant to one with purple flowers. When a pea plant with white flowers was crossed with those of purple flowers all the offspring in the F₁ generation were white flowered. Which one of the following would be the phenotype of offsprings if the F₁ generation is crossed with the parents having purple flowers?
- A. 2 white and 2 purple
 - B. 4 white and 1 purple
 - C. 1 purple and 5 white
 - D. 3 white and 3 purple
9. Which of the following factors encourages denitrification?
- A. poor drainage
 - B. low soil temperature
 - C. low pH
 - D. adequate aeration
10. Clay and organic matter are colloidal parts of a fertile soil because they:
- A. become deflocculated in alkaline soils.
 - B. can easily become flocculated in acidic soils.
 - C. have adhesion properties.
 - D. are small sized but with a large surface area.
11. The graph below represents two products substituting at:





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|----|--------------------|----|------------------|--------------------------|
| A. | an increasing rate | C. | an equal rate | <input type="checkbox"/> |
| B. | a decreasing rate | D. | diminishing rate | |

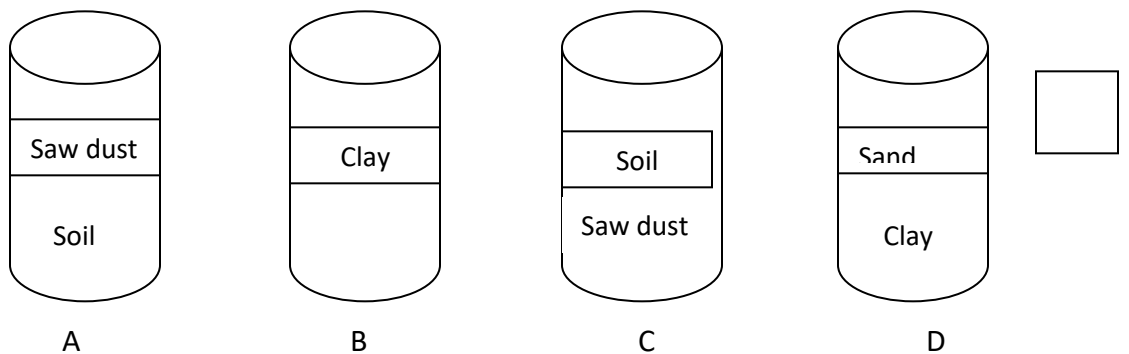
12. Which one of the following methods is being employed by NAADS programme to ensure gender mainstreaming in agriculture production?

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|----|--|--------------------------|
| A. | Targeting peasants to uplift them from poverty. | <input type="checkbox"/> |
| B. | Having 1/3 of farmer representatives being women. | |
| C. | Facilitating gradual change from Subsistence to commercial production. | |
| D. | Dealing with only women at parish level. | |

13. When harvesting honey, it is important to leave some honey in the hive because:

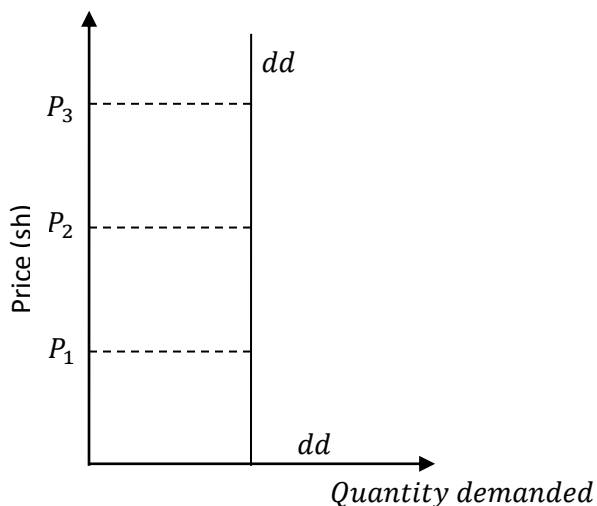
- | | | |
|----|--|--------------------------|
| A. | It prevents bees from starving | <input type="checkbox"/> |
| B. | Bees might attack all other animals on the farm. | |
| C. | It allows bee eggs to hatch well. | |
| D. | It stimulates bees to make more honey. | |

14. Which one of the following is a proper potting medium for coffee cuttings?



15. Farmers should be encouraged to grow upland rice other than paddy rice because it:

- A. has low labour requirement
 - B. is only damaged by birds before maturity.
 - C. does well below flood line
 - D. does not increase weed species in wetlands.
16. Why is it vital for an inseminator to use hand gloves when inseminating cows?
- A. In order not to damage the internal parts.
 - B. To prevent transmission of zoonotic diseases.
 - C. For easy entry of the arm as gloves are slippery.
 - D. So as not to contaminate the reproductive system.
17. Which one of the following does not affect hatchability of fertilized eggs?
- A. turning of eggs
 - B. size of the egg
 - C. ventilation
 - D. humidity
18. Land reforms refer to measures aimed at.....
- A. changing land ownership
 - B. improving land management and use
 - C. ensuring that everybody owns land
 - D. government's intentions to transfer people
19. Study graph below that shows the demand curve of eggs on the farm.



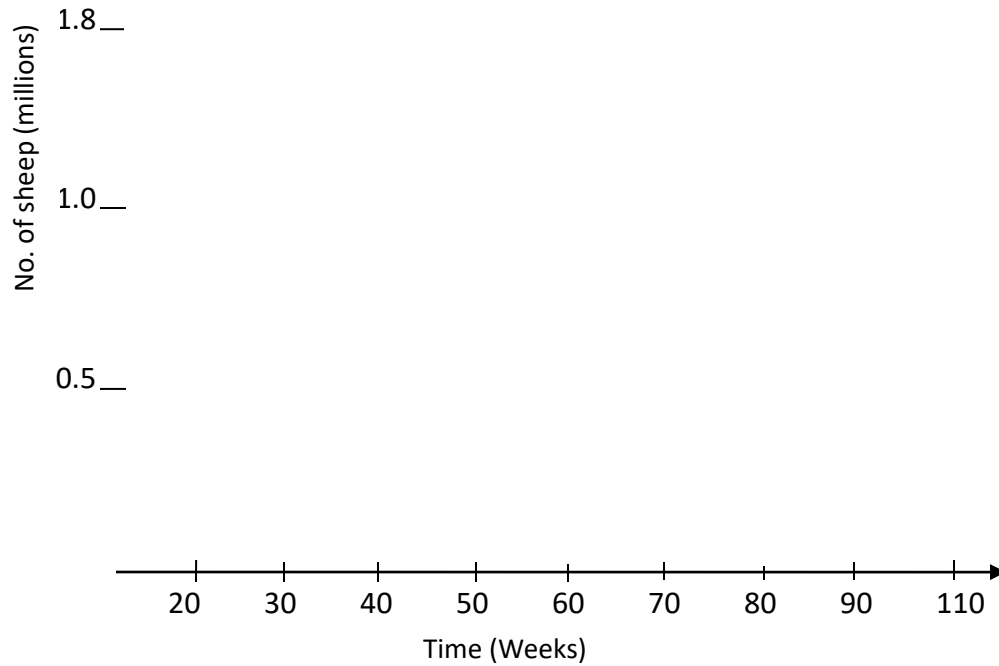
26. How do enzymes increase the speed of a reaction? They.....
- A. increase the concentration of products.
 - B. change endergonic to exergonic reaction
 - C. lower activation energy requirements
 - D. add activation energy requirements.
27. The percentage of population of animals at a risk of becoming sick with a disease in an outbreak is.....
- A. mobility rate
 - B. epizootic rate
 - C. mortality rate
 - D. population mortality rate
28. Marling is majorly done within the soil in order:
- A. improve drainage
 - B. decrease acidity
 - C. improve texture
 - D. make it fertile
29. Njeru stock farm has an average daily temperature of 98.6°F. Evaluate its temperatures in centigrade.
- A. 26.72°C
 - B. 37.9°C
 - C. 37°C
 - D. 92.5°C
30. Black polythene mulch improves growth of pineapples by:
- A. stopping leaching of nitrogen
 - B. raising the temperature of the soil.
 - C. providing inorganic nutrients
 - D. controlling growth of weeds.

SECTION B (70 MARKS)

Write answers in spaces provided.

31. The graph below shows changes of carrying capacity in wild sheep on an island during 10 years following their introduction on a large piece of land in Buikwe. Study it and answer the questions below.





(a) Describe the nature of the curve from the graph above. (02mks)

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(b) (i) What do you understand by carrying capacity? (01mk)

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(ii) From the graph, estimate the carrying capacity of sheep. (01mk)

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(c) Comment on the trend of sheep up to week 80 from the graph. (02mks)

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(d) Identify any four (4) density dependant factors that affected the population of sheep from the study. (04mks)

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32. (a) Define the term Damping off. (02mks)

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(b) Outline any 4 environmental factors that may predispose seedlings to dumping off. (04mks)

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(c) State any 4 signs of diseases in crops caused by viruses. (4mks)

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(c) During the experiment, when plants from F1 were crossed with each other, the following results were obtained:

- 918 linear – leaved tall plants.
- 297 ovate – leaved tall plants
- 301 linear – leaved dwarf plants
- 102 ovate leaved dwarf plants.

State one conclusion from these results. Explain your answer. (02mks)

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35. (a) State and explain the factors to consider when selecting wood for constructing farm structures. (04mks)

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(b) Give advantages and disadvantages of using wood compared to metals. (06mks)

Advantages

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Disadvantages

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36. (a) Distinguish between soil reaction and cation exchange capacity. (02mks)

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(b) Explain the effects of applying compost manure which is not properly rotten to soil. (04mks)

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(c) Explain the effect of low and high pH on phosphorous availability in the soil. (04mks)

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END