

Uganda Advanced Certificate of Education

PRINCIPLES AND PRACTICES OF AGRICULTURE

THEORY

Paper 1

LOCK DOWN REVISION QUESTIONS

SECTION A (30MARKS)

Write the letter corresponding to the correct answer in the box provided

1. Which one of the following is a characteristic of bos Taurus cattle?

- A. produces low quantities of milk
- B. has a small udder
- C. produces milk of low butterfat content
- D. resistance to tick born diseases

2. The practice of planting trees on the boundary of a garden is an example of

- A. supplementary products
- B. competitive products
- C. joint products
- D. complementary products

3. When growing mushrooms, the farmer expects the first harvest after.

- A. 8 days
- B. 14 days
- C. 28 days
- D. 21 days

4. A sheep consumed 640 g of a concentrate feed and 80g was lost through faeces. What is the digestibility of the feed?

- A. 80%
- B. 12.5%
- C. 51.2%
- D. 87.5%

5. Which one of the following explains why pig farming is a viable enterprise in peri –urban areas?

- A. There are limited gardens which can be damaged by pigs
- B. The high demand for pork in peri- urban areas
- C. Availability of household waste materials for feeding pigs
- D. It does not require presence of labour every time on the farm

6. The demand for land is derived demand because;

- A. it has a higher demand in urban areas
- B. its productivity declines with use
- C. it is required because of what food it can produce
- D. land can produce even if other factors of production are not available

7. The following results were obtained from selfing of F1, generation of pure breeding plants for round and wrinkled seeds.

- Recessive trait: wrinkled seeds
- Dominant trait: round seeds
- Number of F2 off springs 8,484

Which one of the following would be the actual number of F2 off springs with wrinkled seeds?

- A. 2121
- B. 6363
- C. 4242
- D. 4240

8. Which one of the following would be the effect on ploughing if the mould board on the Ox-plough is worn out?

- A. Poor cutting of furrow slices during ploughing
- B. Poor penetration of the plough into soil during ploughing
- C. Poor stability of the plough during ploughing
- D. Poor turning of furrow slices during ploughing

9. Which one of the following does not cause fish mortality in fish pond?

- A. Low water pH
- B. Application of lime in the pond
- C. Oxygen depletion
- D. Stressful condition during transportation of fingerlings

10. When the price of posho was 1500shs per Kilo, a family consumed 20kg per month. When the price rose to 2500shs, the family readjusted to 10kg per month. What is the elasticity of demand for posho for this family?
- A. 1.22
 - B. 0.75
 - C. 0.68
 - D. 0.50
11. Hybridization in crop breeding of refers to
- A. multiplying plants with desirable qualities
 - B. crossing a plant with unknown genotype with that of known genotype
 - C. crossing plants of a recessive trait with those of a dominant trait
 - D. crossing high yielding crop varieties with disease resistant varieties
12. Which one of the following various off flavours in milk are caused as result of milking a cow in its late pregnancy?
- A. Feed Odours
 - B. Oxidised Odours
 - C. High acid flavours
 - D. Salty odours
13. Which one of the following is the advantage of Langstroth beehive in beekeeping?
- A. A smoker is not required during harvesting.
 - B. It is difficult to still the hives and get the products
 - C. Increases bee population
 - D. bees are not affected by predators
14. Which of the following is not an intervention targeted for government action through plan for modernization of Agriculture (PMA)?
- A. Improving access to rural finance
 - B. Agricultural education
 - C. Providing computer knowledge to farmers to improve on research
 - D. Agro –processing and marketing information
15. Which one of the following promotes pesticides resistance in pest population?
- A. Using a broad range of pesticides
 - B. Using specific pesticides rather than broad spectrum
 - C. Pesticides rotation
 - D. Treating only limited areas in the field
16. Which one of the following is **not** an example of a gonadotrophic hormone in cattle?

- A. Luteinizing hormone
- B. Follicle stimulating hormone
- C. Progesterone
- D. Prolactin

17. The following are potential risks of using genetic engineering in agriculture except.

- A. Changes nutritional value of food
- B. Encourages mutations
- C. Causes environmental damage
- D. Causes stunted growth in certain plants

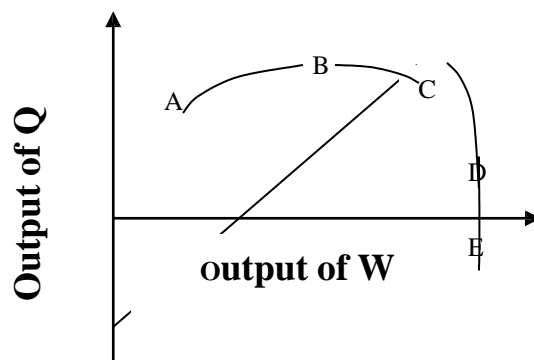
18. In the ecosystem, species diversity index refers to

- A. number of species in the pyramid of biomass
- B. number of species present and abundance of the species
- C. the quantitative relationship between organisms at each trophic level
- D. the collection of individuals belonging to the same species

19. Which one of the following uses the third class lever to accomplish a farm task?

- A. Fishing rod
- B. Paper cutter
- C. Bottle opener
- D. Nut Cracker

20. The graph below shows the product relationship. Study it and answer the questions that follow



A

Which one of the following represents the relationship between output of Q and W at point between A to B?

- A. Joint relationship
- B. Competitive relationship
- C. Supplementary relationship
- D. Complementary relationship

21. A hydraulic machine has 120 teeth, in the driven gears and 40 teeth in the driving gear. If this machine has an efficiency of 80%, which one of the following is the mechanical advantage of this machine?
- A. 3.0
 - B. 2.4
 - C. 1.11
 - D. 4.0
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22. Which one of the following is **not** true about Oyster mushroom production?
- A. They require a small space and thus can grow in Urban and peri-urban areas
 - B. They grow and mature very fast
 - C. They have a low germination percentage
 - D. They do not require a lot of labour to manage
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23. In which one of the following meiotic phase does crossing over occur?
- A. Telophase
 - B. prophase
 - C. Metaphase
 - D. Anaphase
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24. A farmer would like to mix a ration containing 18% crude protein using maize bran containing 8% cp and cotton seed cake containing 40% crude protein. What would be the quantity of cotton seed cake if the ingredient needed to make a ration of 500 kg?
- A. 283 kg
 - B. 217 kg
 - C. 345 kg
 - D. 155 kg
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25. Diploid condition in cell division is expressed when?
- A. Four daughter cells are formed producing gametes
 - B. A germ cell under goes reduction division
 - C. A somatic cell divides into two daughter cells
 - D. A somatic cell has its full number of chromosomes
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26. In the ecosystem, death of producers and consumers is important in farming because;
- A. the remains of dead producers and consumers are recycled
 - B. some living organisms survive on dead matter
 - C. the energy that remains in dead matter is utilized by decomposers to release nutrients
 - D. some tertiary consumers utilize the energy from the remains
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27. Which one of the following is the importance of grasses in grass -legume pasture mixture?
- A. Provide a good soil cover hence control soil erosion
 - B. Improve the soil structure and organic matter content
 - C. Increase total herbage production
 - D. Provide a lot of proteins to the grazing animals
28. Which one of the following ticks transmits anaplasmosis disease in cattle?
- A. Brown ear tick
 - B. Red –legged tick
 - C. Bont tick
 - D. Blue tick
29. The process by which leached colloidal material are re-deposited in horizon B of the soil profile is referred to as
- A. Immobilization
 - B. Mineralisation
 - C. Illuvation
 - D. Eluviation
30. Which one of the following is a characteristic of a high ductile material?
- A. Has ability to spread into thin sheet when compressed
 - B. Has ability to bend without breaking
 - C. Has ability to be drawn into fine wires when stretched.
 - D. Has ability to resist compression forces without loss of shape

SECTION B (70MARKS)

31. a) What is meant by the term **embryo transfer** as used in animal breeding? (2 marks)

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b) State four benefits of embryo transfer in animal production. (4 marks)

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c) How is the knowledge of breeding efficiency important to a livestock farmer? (4 marks)

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32. a) Distinguish between continuous and discontinuous variation of organisms (2 marks)

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b) In which ways do plants continue to vary in nature? (3 marks)

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c) Suggest three reasons why plants vary from one another. (3 marks)

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d) How can genetic variation in plants be reduced? (2 marks)

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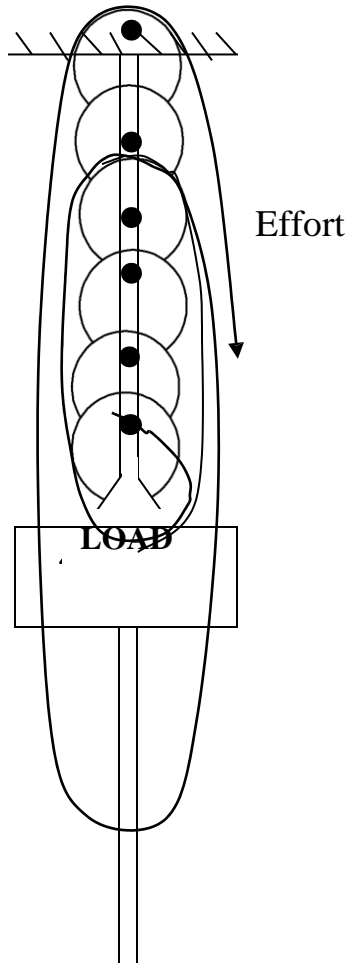
33.a)i. What is meant by first class lever? (1mark)

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ii. Mention three examples of equipments on the farm which use the first class lever to accomplish farm tasks. (3 marks)

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b) Figure 1 below shows a pulley system. Study it and answer the questions that follow.



i. Name the pulley system in figure 1 above. (1mark)

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ii. Calculate the efficiency of the pulley system in Figure 1 above if an effort of 800N is required to raise a load of 4000N. (2 marks)

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iii. Give three uses of pulleys on the farm. (3 marks)

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34.a) State three advantages of using each of the following in bee keeping. (3 marks)

i. Langstroth hive

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ii. Top bar hive (3 marks)

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b) Explain four roles of a piary in rural transformation (4 marks)

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35.a) Give three reasons why rearing of fish in cages gaining popularity in Uganda. (3 marks)

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b) State three advantages of applying lime in a fish pond. (3 marks)

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c) Suggest four practical measures that can be employed to control fish predators in fish ponds (4 marks)

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36.a) What is meant by **gender analysis**? (2 marks)

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b) State four roles of men in Agricultural development. (4 marks)

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c) Give four reasons why female farmers have less access to agricultural credit than men. (4 marks)

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37.a) What is meant by **Organic farming**? (1 marks)

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b) State four benefits of organic farming. (4 marks)

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c) Outline four farming practices that promote organic farming. (2 marks)

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d) What are the benefits of urban agriculture to farmers and neighbourhood residents? (3 marks)

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