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P515/1

PRINCIPLES AND PRACTICES

OF AGRICULTURE

(Theory)

Paper 1

Jul/Aug 2019

2 Hours



MUKONO EXAMINATION COUNCIL

Uganda Advanced Certificate of Education

PRINCIPLES AND PRACTICES OF AGRICULTURE

(Theory)

Paper 1

2 Hours

INSTRUCTIONS TO CANDIDATES

*This paper consists of **two** sections **A** and **B**.*

*Attempt **all** questions in section **A** and **B***

*Answers to section **A** should be put in the boxes on the right hand side of each question.*

*Answers to section **B** should be written in the spaces provided.*

No additional writing paper should be attached.

FOR EXAMINER'S USE ONLY		
SECTION	MARKS	EXAMINER'S SIGN AND NO.
SECTION A		
NO. 31		
NO. 32		
NO. 33		
NO. 34		
NO. 35		
NO. 36		
NO. 37		
TOTAL		

SECTION A (30MARKS)

1. Which one of the following types of saw is used for cutting metal?

- A. Hand saw
- B. Rip saw
- C. Bow saw
- D. Hack saw

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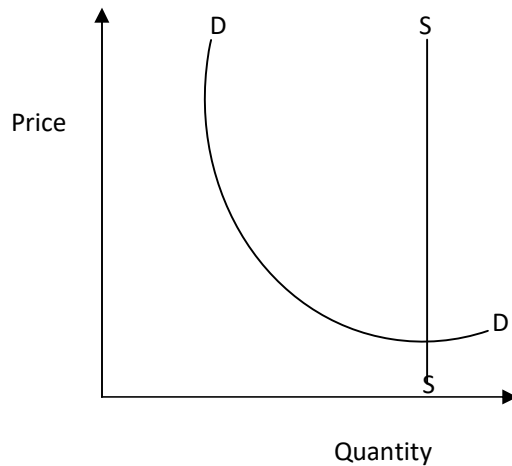
2. Which of the following is characterized by drainage and thick organic matter?

- A. Ferasols
- B. Vertisols
- C. Histols
- D. Nitosols.

☐

3. The gap below shows the relationship between supply, demand and price of a commodity.

4.



Which of the following describes the situation shown in the graph?

- A. Perfectly elastic demand
- B. Inelastic supply
- C. Inelastic demand
- D. Perfectly inelastic supply

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5. The integration of trees with silkworms and bees is referred to as

- A. Endo – forestry
- B. Agri – silviculture
- C. Agrosilvopastoral
- D. Silvopastoral.

☐

6. Ship tendon in chicks is a deficiency symptom of

- A. Manganese
- B. Magnesium

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- C. Calcium
D. Phosphorus
7. Which one of the following does not affect gene frequency in a population?
A. Mutation
B. Migration
C. Genetic drift
D. Epitasis'
8. The following bacteria may be of importance in maintaining soil nitrogen balance except.
A. Nitrobacter
B. Thiobacillus
C. Azotobacter
D. Nitrosomionus
9. The growing of pastures alternating with food crops is referred to as?
A. Alley farming
B. Strip farming
C. Ley farming
D. Bush fallowing
10. The occurrence of a genetic defect among individuals of an isolated population in a percentage higher than expected is likely to be a result of.
A. Genetic drift
B. Natural selection
C. Adaption
D. Speciation
11. The following are activities involved in decision making in farm management.
(i) Collection of information.
(ii) Problem recognition
(iii) Analysis of alternative
(iv) Taking action
(v) Making decision
A. (ii), (i), (iii), (v) and (iv)
B. (iv), (ii), (i), (iii) and (v)
C. (ii), (i), (v), (iii), and (iv)
D. (iv), (iii), (i), (iii) and (v)
12. Why is the efficiency of a machine always practically less than 100%?
A. The load is practically heavier.
B. The distance moved by the machine is short.

- C. The distance moved by load is high.
- D. Work is wasted in overcoming resistant forces.

13. Basin irrigation is affected by the following except?

- A. Total area under crop enterprise.
- B. Amount of water available.
- C. Topography.
- D. Type of crop grown.

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14. Which one of the following water pumps on a farm use centrifugal force to pump water.

- A. Hydram pumps
- B. Reciprocating pumps
- C. Roradynamic pumps
- D. Solar pumps.

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15. Which of the following is the correct order of the life cycle of fish?

- A. Egg → larva → pupa → Adult
- B. Egg → fry → fingerling → brood fish
- C. Egg → fingerling → fry → brood fish
- D. Egg → Nymph → Adult

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16. Which one of the following body conformations best described beef breeds cattle?

- A. They have a triangular shape.
- B. They have a blocky shape.
- C. They are lean with prominent bows and ridge.
- D. They have a prominent hump.

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17. Which one of the following does not influence the effectiveness of a non – selective herbicide?

- A. Age of the weed.
- B. Degree of wetting of leaves.
- C. Type of crop growth.
- D. Concentration of the herbicides.

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18. Which one of the following is the role of mitochondria in a cell.

- A. Synthesis of ATP
- B. Increasing surface area for ATP formation.
- C. Storing chemicals for ATP production.
- D. Breaking down ATP to release energy.

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19. Which one of the following is the best method of controlling ticks on a farm.

- A. Vaccination of animals
- B. Fencing

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- C. Rotation grazing.
- D. Drenching animals orally.
20. Which one of the following groups of pests consists only piercing and sucking mouth parts?
- A. Aphids, Cotton white fly and Maize leaf hopper.
- B. Maize stalk boner, Aphids and cut worm.
- C. Aphids, Boll worm and weevils
- D. Boll worm, maize stalk boner and Maize leaf hopper.
21. A cow is said to be dry when?
- A. Its lactation period has come to an end.
- B. It lacks good pasture and therefore becomes bony.
- C. It ceases to reproduce following its age
- D. It does not show signs of heat.
22. During curdling, lactic acid bacteria is added to fresh milk to,
- A. Make milk acidic.
- B. Coagulate milk protein.
- C. Increase the flavor of milk.
- D. Increase the nutrient content of milk.
23. In pineapple growing, farmers prefer crowns to suckers during planting because.
- A. They produce bigger fruits.
- B. They grow faster than crowns.
- C. They are less resistant to pest and diseases.
- D. They provide a uniform growth.
24. Which one of the following parts of the bee hold pollen grains when the bee is flying.
- A. Pollen comb.
- B. Pollen press.
- C. Wax glands.
- D. Pollen baskets.
25. Standardization in agricultural marketing refers to
- A. Putting products of the same kind together.
- B. Grading of products.
- C. Processing of agricultural products.
- D. Making quality specifications used in grading.
26. Which one of the following enzymes is produced as an inactive precursor?
- A. Lipase
- B. Peptidase

- C. Pepsin
- D. Amylase.

27. Which of the following is the most effective way of controlling maize streak disease?

- A. Early planting and growing of resistant varieties.
- B. Chemical spray against maize streak.
- C. Close spacing to control leaf hoppers.
- D. Mulching the garden.

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28. Which of the following is NOT a main product of milk?

- A. Cream
- B. Butter
- C. Cheese
- D. Yoghurt.

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29. Which of the following factors does NOT influence the supply of labour in agriculture?

- A. Wage levels
- B. Population structure
- C. Population growth.
- D. organization

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30. In the nitrogen cycle, nitrogen is released from organic compounds by

- A. Volatilisation
- B. Immobilization
- C. Mineralization
- D. Denitrification.

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31. In flowering plants, the final stage of development of the ovule is the

- A. Seed coat
- B. Plumule
- C. Seed
- D. Fruit

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SECTION B (70 MARKS)

32. (a) Explain four factors that a farmer considers before choosing the type of fish to rear.

(4 marks)

(b) Outline six advantages of rearing fish.

(6 marks)

33. (a) Outline five ways how a farmer in Uganda can acquire land for farming. **(5 marks)**

(b) Explain the advantages of lease hold system of land ownership.

(5 marks)

34. (a) Explain the procedure of preparing liquid manure from animals waste. **(4 marks)**

(b) Suggest factors which affect the quality of farm yard manure.

(6 marks)

35. (a) Define the following terms. **(6 marks)**

(i) Mechanical advantage. _____

(ii) Velocity ratio. _____

(iii) Efficiency. _____

(b) Suggest how lubrication can improve the efficiency of machines. **(4 marks)**

36. (a) Give five reasons for carrying out mulching. **(5 marks)**

(b) Outline the disadvantages of using plant materials during mulching. **(5 marks)**

37. (a) Explain the advantages of processing produce before marketing. **(4 marks)**

(b) Give reasons why marketing agriculture produce is difficult. **(6 marks)**

38. (a) Define the following terms as used in poultry. **(6 marks)**

(i) Dubbing _____

(ii) Debeaking _____

(iii) Pasting _____

(b) State four ways of increasing the quality of eggs on a farm. **(4 marks)**

End -