STUDENT'S NAME: ……...

SCHOOL NAME: …… RANDOM NUMBER: ……..

P515/1
PRINCIPLES AND PRACTICES OF AGRICULTURE
PAPER 1
JULY/AUG 2024
2:30 Hours

ASK INTEGRATED TEACHERS MOCK EXAMINATIONS BURREAU

AITEL JOINT MOCK EXAMINATIONS.

Uganda Advanced Certificate of Education

PRINCIPLES AND PRACTICES OF AGRICULTURE.

PAPER 1 (THEORY)

2 Hours & 30 Minutes

INSTRUCTIONS TO CANDIDATES:

*This paper consists of two sections **A** and **B.***
Answers all questions in both sections.
*Write answers in section **A** in the boxes provided.*
*Write answers to section **B** in the provided spaces.*

FOR EXAMINERS US ONLY		
Section	**Marks**	**Examiner's comment**
A		
B		
Total		

SECTION A: (30 marks)

1. Why do tropical cattle have a large dew lap?

   A. To absorb excess heat from animal's body.

   B. To increase surface area for heat loss.

   C. To fan the animal as it moves from one place to another.

   D. To release heat when the animal sweats.

2. Which one of the following is the reason for feeding livestock on bulky feeds?

   A. They contain a lot of energy. B. They are largely digestible.

   C. They are largely consumed. D. Contain a lot of proteins.

3. What is the major advantage of asexual reproduction in crop breeding?

   A. Increase in hybrid vigour. B Increase in heterozygosis.

   C. Maintenance of constant gene number. D. Production of high yielding plants.

4. Which pair of the following hormones is produced by pituitary gland?

   A. Oxygen and estrogen.

   B. Luteinizing hormone and progesterone.

   C. Estrogen and progesterone.

   D. Oxytocin and follicle stimulating hormone.

5. Which one of the following is an uncertainty in farming?

   A. Change in taxation.

   B. Pest outbreak.

   C. Theft of produce.

   D. Change in weather.

6. The objective of inoculation in legumes is to

   A. encourage nutrient uptake by legumes.

   B. encourage rooting.

   C. increase disease resistance.

D. put suitable rhizobia bacteria near plant roots.

7. Which one of the following best explains instability in prices of agricultural products?

A. Over production by farmers.

B. Imperfect knowledge by farmers.

C. Difference between decision making and actual output.

D. outbreak of pests and diseases.

8. The demand for land is derived demand. This means that

A. land is needed for a short time.

B. land has limited demand.

C. land is important for what it can produce.

D. land has no demand.

9. Frequency of dipping farm animals is influenced by

A. number of animals on the farm.

B. type of animals to be dipped.

C. presence of ticks.

D. season of the year.

10. Square shaped ponds are preferred to rectangular ones because squared ponds;

A. hold more fish.

B. allow uniform distribution of oxygen.

C. are cheap to construct.

D. avoids silting of the pond.

11. What do you understand by the term “algal bloom” as used in fish farming?

A. Production of carbon dioxide by algae.

B. Use of oxygen by algae.

C. Removal of algae from ponds.

D. Rapid growth of algae in ponds.

12. The following are characteristics of commercial agricultural sector except;

A. import oriented.

B. diversification.

C. suitable resource utilization.

D. guaranteed food security.

13. Which one of the following is not an objective of Plan for Modernization of Agriculture (PMA) in Uganda?

A. To ensure the dissemination and ephetic research results.

B. To promote sustainable and manageable use of natural resources.

C. To increase incomes and improve quality of life of subsistence farmers.

D. To create employment through secondary benefits.

14. In processing of honey, combs and wax are not heated directly on fire because;

A. combs and wax develop a dark colour.

B. combs and wax can melt and mix with honey.

C. it is difficult to separate them after.

D. it leads to loss of valuable wax that would be sold separately.

15. Which one of the following plant elements will show purple, orange or red patches in crops when deficient in the soil?

A. Magnesium. B. Potassium.

C. Calcium. D. Sulphur.

16. Which type of bee is well adapted to local weather conditions?

A. European bee. B. Queen bee.

C. African wild bee. D. Honey bee.

17. Which one of the following is **not** a preventive measure in the control of livestock diseases on the farm?

A. Treating sick animals. B. Vaccination.

C. Quarantine. D. proper hygiene.

18. Which one of the following group of stages of spermatogenesis is a correct square?

A. Premodal germ cell, Secondary spermatocyte, Spermatids

B. Primary spermatocyte, Premodal germ cell, Spermatids

C. Premodal germ cell, Secondary spermatocyte, Spermatids

D. Premodal germ cell, Spermatids, Primary spermatocyte,

19. What causes increased branching in plants when the terminal bud is removed?

A. Exposure of lower part to sunlight.

B. Increased rate of photosynthesis.

C. Increased levels of auxins.

D. Increased effects of gibberellins.

20. Which one of the following is not a determinant of elasticity of demand?

A. Price of the commodity.

B. Time taken to produce a commodity.

C. Uses to which the commodity is put.

D. Necessity of the commodity.

21. The factor that is least considered when deciding on fertilizer to use on a crop is

A. Rainfall intensity. B. Type of soil.

C. Type of crop. D. Stage of crop growth.

22. In budgeting, the break-even point indicates the minimum value that would give;

A. a loss. B. maximum profit.

C. minimum profit. D. no profit.

23. When applying urea fertilizer to the soil, it is worked out to:

A. quickly modifying pH of soil.

B. stimulate germination of seeds.

C. prevent volatilization of ammonia.

D. bring nitrogen closer to plant roots.

24. Crumb and granular soil structures are characteristic of surface soils that are

A. well drained. B. frequently cultivated.

C. high in organic matter D. not cultivated.

25. When too much water is supplied to crops during sprinkler irrigation;

A. soil and nutrients may be leached.

B. reduce leaching of soil nutrients.

C. improve resistance of crops to draught.

D. increase organic material of the soil.

26 Which one of the following expenses would best be appropriately financial by medium term credit?

A. Cost of labour. B. Cost of buying irrigation pump.

C. Constructing farm building. D. Establishing a tree crop.

27. Which one of the following types of alloy steel can be used in the making of springs, shafts and gears?

A. Chrome – vanadium steel. B. Tungsten steel.

C. Nickel steel. D. Boron steel

28. A wire that can stretch greatly is said to be of

A. low tensile. B. low strength.

C. high tensile. D. extender strength.

29. Which one of the following pairs of tools is an odd man out?

A. Axe and dibber.

B. Dibber and peg.

C. Watering can and dibber.

D. Wheel barrow and hand trowel.

30. Which one of the ox – plough parts is a chain from yoke connected to for pulling purpose?

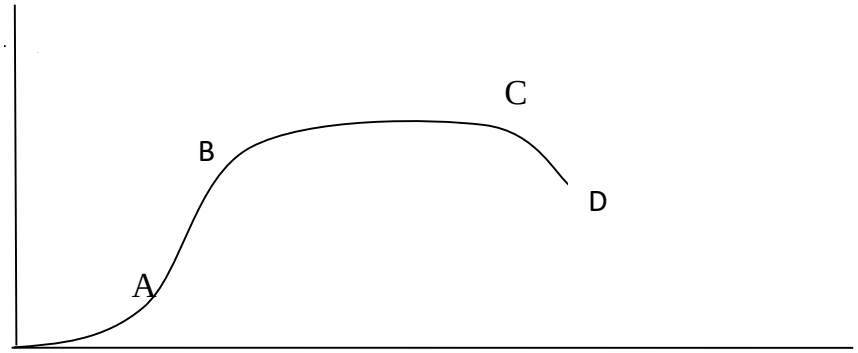
A. Link. B. Draft rod.

C. Hake. D. Frog.

SECTION B (70 MARKS)

Write your answers in the spaces provided.

31. Figure 1 shows variation in the number of organisms in a population with time. Study the Figure and answer questions that follow



(a) Name each of the phases labelled A, B, C and D. (02 marks)

A. .....
B. .....
C. .....
D. .....

(b) Explain what is taking place in the phases A to D. (06marks)

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(c) Mention four examples of environmental resistance that may limit growth of the population of organisms shown in figure 1.

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32. (a) Explain the following terms used as used in simple machines:

I. Mechanical advantage

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II. Velocity ratio

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III. Efficiency

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(b) A machine lifts a load of 200N through a distance of 1m when an effort of 50N is applied to it. If the distance moved by the effort of 6m, determine the,

i. Mechanical advantage of the machine.

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ii. Efficiency of a machine

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(c) Explain four factors that may affect the efficiency of a machine. (04 marks)

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33. (a) State four functions of nitrogen in the growth and development of plants. (04 marks)

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(b) Give three ways in which nitrogen can be added to the soil. (03 marks)

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(c) Outline three effects of excessive nitrogen application. (03 marks)

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34. (a) Briefly explain the following market conditions: (04 marks)

(i) Perfect market

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(ii) Imperfect market

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(iii) Monopoly

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(iv). Oligopoly

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(b) Give six reasons to explain why the supply of an Agricultural commodity may be low even when demand for it is high. (06 marks)

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35. (a) Explain the following methods used in animal selection: (06 marks)

(I) Individual selection

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(ii) Pedigree selection

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(iii) Tandem selection

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(b) State three situations in which progeny testing is used to select animals. (03 marks)

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(c) Give two limitations of using progeny testing to select animals. (01marks)

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36. (a) Give five desirable characteristics of a pesticide. (05 marks)

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(b) State five factors that limit the use of pesticides by farmers. (05 marks)

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37. (a) Define the following terms in agro forestry. (10 Marks)

I. Agrosilvocultural

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II. Silvopastoral

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III. Entomoforestry

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IV. Pollarding

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V. Coppicing

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VI. Lopping

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VII. Home gardening

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(c) Outline six advantages and disadvantage of coppicing in agroforestry (03 marks)

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END