

Name : Sign

P515/1

PRINCIPLES AND PRACTICES OF AGRICULTURE

Paper 1

July/August 2019

2 ½ HOURS

INTERNAL MOCK EXAMINATIONS 2019
UGANDA ADVANCED CERTIFICATE OF EDUCATION
PRINCIPLES AND PRACTICES OF AGRICULTURE

Instructions to candidates

- This paper consists of sections A and B
- Attempt **all** questions in this paper
- For section A, write answers for the best alternatives in the box provided in capital letters.
- For section B write answers in the spaces provided.
- No additional sheet(s) of paper should be attached.

For examiners use only		
SECTION	Mark	Initials of examiner
A		
SECTION B		
No. 31		
No. 32		
No. 33		
No. 34		
No. 35		
No. 36		
No. 37		
Total		

SECTION A (30MARKS)

1. The of a closed season is not an effective method of controlling American boll worm in cotton because the boll worm ;

- A. Undergoes dormancy and can survive during the closed season
- B. Is well adapted to survive in adverse conditions
- C. Has a large number of alternative hosts
- D. Produce many eggs which enable it to survive

☐

2. Brass is used in moving parts of machines because it....

- A. Does not wear easily
- B. Is a good conductor of heat
- C. Is a good conductor of electricity
- D. Is resistant to corrosion

☐

3. Land reform refers to measures aimed at

- A. Changing land ownership
- B. Improving land management and use
- C. Ensuring that everybody owns land
- D. Controlling of land use by government

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4. The figure below illustrates the phenomenon of limiting factors. In this case, what is the limiting factor for photosynthesis?

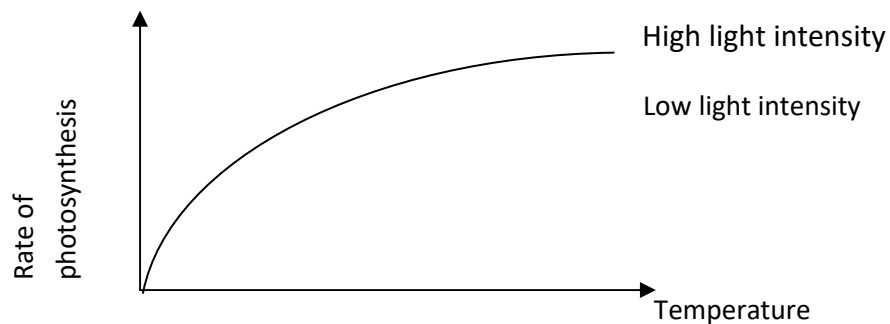


Fig 1.

- A. Rate of photosynthesis
- B. Temperature
- C. Light intensity
- D. Carbon dioxide

☐

5. Which one of the following would be the result of crossing over in plant breeding?

- A. Increased variability among species
- B. Weakening if the dominant genes
- C. Elimination of some recessive genes

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- D. Increased number of gene mutations among offspring
6. A hive product made by bees from resinous substances picked from plants is referred to as
- | | | |
|----------------|-------------|--------------------------|
| A. Royal jelly | C. Nectar | <input type="checkbox"/> |
| B. Wax | D. Propolis | |
7. The following activities are done before restocking an old fish pond except.....
- | | |
|--|--------------------------|
| A. Building a crib at the inlet corner of the pond | <input type="checkbox"/> |
| B. Measuring and marking the pond area | |
| C. Identifying and repairing of leakages | |
| D. Removing mud from the pond. | |
8. Gender refers to.....
- | | |
|--|--------------------------|
| A. The biological state of being a male or female | <input type="checkbox"/> |
| B. Visible differences between genital organs | |
| C. The way someone feels about being a male or female | |
| D. The different social roles of men and women as observed and held by a given group of people | |
9. One condition that may lead to anemia in piglets is.....
- | | |
|--|--------------------------|
| A. Lack of iron in the sow's feed | <input type="checkbox"/> |
| B. Low level of iron in the sow's feed | |
| C. Feeding the sow on pasture plant only | |
| D. Feeding the sow on concentrates only | |
10. Which of the following processes occur when rocks disintegrate by hydrolysis?
- | | |
|---|--------------------------|
| A. Hydroxyl ions in rocks are replaced by metallic cations. | <input type="checkbox"/> |
| B. Metallic cations in rocks are replaced by hydroxyl ions | |
| C. Metallic cations in rocks are replaced by hydrogen ions | |
| D. Hydrogen ions in rocks are replaced by metallic cations | |
11. The fungus that causes browning in cotton lint is transmitted by
- | | |
|------------------|---------------------|
| A. Taybergus sp | C. Empoasca sp |
| B. Dysdercus spp | D. Cryptophlebia sp |
12. The change in allele frequencies in a population as a result of random events is referred to as
- | | | |
|------------------|------------------------|--------------------------|
| A. Genetic drift | C. Deletion | <input type="checkbox"/> |
| B. Mutation | D. Chromosome mutation | |

13. Which of the following are utilizable byproducts resulting from microbial fermentation in the rumen?

- A. Glucose
- B. Alcohol

- C. Carbon dioxide
- D. Acetic acid

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14. Which of the following is secondary tillage implements?

- A. Disc plough
- B. Disc harrows

- C. Ox-plough
- D. Mould board plough

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15. The following are functions of marketing boards except:

- A. Apportioning dividends
- B. Offering credit

- C. Bulking storage
- D. Causes faster growth

16. The main advantage of using an ultra low volume sprayer is that it.....

- A. Is cheap
- B. Sprays a large area at a time

- C. Is easy to maintain
- D. Is safe to use

☐

17. The following are causes of post harvest losses in mushrooms production except;

- A. Microbial spoilage
- B. Bruise-induced discolouration
- C. Lack of dryers
- D. Continued maturation and senescence of the mushroom

☐

18. Which of the following stages in cell division is represented in figures.

Fig 2

- A. Telophase I
- B. Prophase II

- C. Anaphase II
- D. Metaphase I

☐

19. The following factors influence power output from animals except;.....

- A. Yoke used for hitching
- B. Animal handling by the operator
- C. Sex of the animal
- D. Weather conditions

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20. Which of the following diseases is controlled from spreading by burning the carcass?

- A. Food and mouth diseases
- B. Anthrax

- C. Brucellosis
- D. Heart water disease

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21. When the price of meat was 1,500/= per kilo, a family consumed 20kg per month. When the price rose to 2,500/= the family consumed 10kg per month. What is the elasticity of demand for the meat?

- A. 1.33
- B. 0.4

- C. 0.67
- D. 0.75

☐

22. Which of the following correctly describes the green house effect?

- A. Increasing atmospheric carbon dioxide prevents heat loss from the earth's surface.
- B. Depletion of the ozone layer increases the atmospheric temperature
- C. The earth gives out carbon dioxide which prevents light rays from the sun reaching the earth surface.
- D. The action of the CFCs on ozone layer produces heat that increases atmospheric temperature.

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23. Which of the following sets of vitamins is not necessarily included in the formation of feeds for ruminants?

- A. A, B, and E
- B. C, B and K

- C. K, E and D
- D. A, E and D

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24. The funds loaned out to farmers under the poverty alleviation programme in Uganda can be classified as;

- A. Short term credit
- B. Long term credit

- C. Medium credit
- D. Agriculture credit

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25. Paddy rice is able to grow in water logged soil conditions because the plants have

- A. Lenticels
- B. Parenchyma tissue

- C. Breathing roots
- D. A dense mass of root hairs

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26. Intramuscular injection in cattle is best administered in the

- A. Hump
- B. Neck

- C. Rump
- D. Shoulder

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27. Good drainage and ploughing of soil reduces the process of

- A. Nitrification
- B. Decomposition

- C. Denitrification
- D. Nitrogen fixation

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28. A cow which lacked milk in its udder at the calving of its calf was diagnosed to have a brain damage , which one of the following parts of the brain is most likely to have been affected?

- A. Pineal body
- B. Cerebrum
- C. Posterior lobe of the pituitary gland
- D. Anterior lobe of the pituitary gland

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29. Which one of the following is not a necessary condition for the proper functioning of a planter?

- | | |
|-----------------------------------|-------------------------------------|
| A. The seed bed should be fine | C. Regulates soil temperature |
| B. The planter should be serviced | D. Neautralises acidity of the soil |

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30. Moderate moisture levels in the soil is important because it;

- A. Dissolves organic matter
- B. Source of water to living organisms
- C. Regulates soil temperatures
- D. Neutralizes acidity if the soil

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SECTION B (70MARKS)

31.a) Explain three damages caused by nematodes on crops. (4 ½ mks)

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b) State three ways of controlling nematodes in crop plants (3mks)

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- c) Describe how root nodule are formed on the roots of leguminous plants (2½mks)

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- 32.a) (i) Define the term efficiency standards as used in agriculture production (2mks)

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- (ii) Explain two types of efficiency standards used in agriculture production (2mks)

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- b) Table 1 shows the profits per hectare and costs of production of a farmer for the year 2018

Table 1

Crop product	Beans	Maize	Cotton	Simsim	Total
Profit /ha (Ugx)	70,000	90,000	120,000	80,000	360,000
Capital used/ha	45,000	50,000	72,000	33,000	200,000

Using the information in the table above. Calculate the farmers' overall efficiency.

(4mks)

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c) Outline four objectives of using efficiency standards on the farm (2mks)

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33.a) Differentiate between a simple machine and a compound machines. (2mks)

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b) Outline three uses of simple machines on a modern farm. (3mks)

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c) (i) Define the term force (2mks)

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(ii) Give three ways of applying force on an object. (3mks)

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34.a) Define the following terms

(3mks)

(i) Continuous variation

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(ii) Discontinuous variation

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(iii) Genetic equilibrium

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b) Give four sources of variability in both plants and animals

(4mks)

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c) State three ways of reducing genetic variation in a population

(3mks)

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35.a) Explain five factors that affect fish stocking rate in a pond (5mks)

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b) How would you improve on the productivity of a fish pond (5mks)

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36.a) What is gender analysis? (2mks)

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b) State four reasons for gender analysis? (4mks)

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c) Give four reasons why women have less access to agricultural credit than men (4mks)

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37.a) Explain four factors that influence the germination efficiency of crops seeds. (4mks)

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b) Describe how you would carry out a viability test for a seed lot using tetrazolium salt solution

(4mks)

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c) Outline two importances of seed dormancy in crop production

(2mks)

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END