

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

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

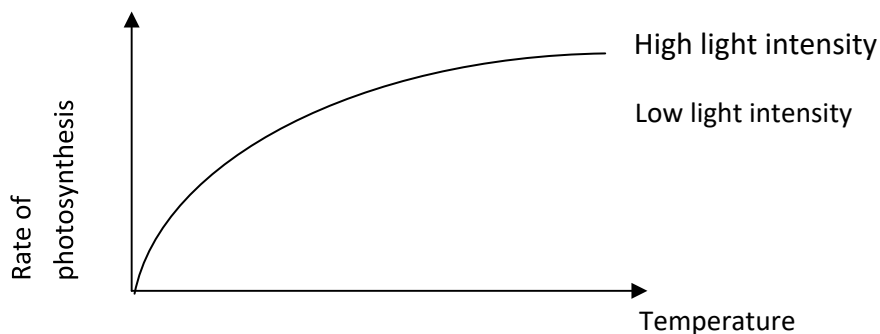


Fig 1.

- A. Rate of photosynthesis C. Light intensity ☐
 B. Temperature 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 of the dominant genes C. Elimination of some recessive genes
 D. Increased number of gene mutations among offsprings
6. A hive product made by bees from resinous substances picked from plants is referred to as
 A. Royal jelly C. Nectar ☐ 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
 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 ☐
 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 ☐
 B. Low level of iron in the sows feed
 C. Feeding the sow on pasture plant only
 D. Feeding the sow on concentrates only

10. Which of the following process occur when rocks disintegrate by hydrolysis? A. Hydroxyl ions in rocks are replace by metallic cations. ☐ 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 cause 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 ☐
B. Mutation D. Chromosome mutation
13. Which of the following are utilizable byproducts resulting from microbial fermentation in the rumen?
A. Glucose C. Carbon dioxide
B. Alcohol D. Acetic acid ☐
14. Which of the following is secondary tillage implements?
A. Disc plough C. Ox-plough
B. Disc harrows D. Mould board plough ☐
15. The following are functions of marketing boards except:
A. Apportioning dividends C. Bulking storage
B. Offering credit D. Causes faster growth
16. The main advantage of using an ultra low volume sprayer is that it.....
A. Is cheap C. Is easy to maintain
B. Sprays a large area at a time 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 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 | C. Anaphase II |
| B. Prophase 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

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

- A. Food and mouth diseases
- C. Brucellosis
- B. Anthrax
- D. Heart water disease

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
- C. 0.67
- B. 0.4
- 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.
23. Which of the following sets of vitamins is not necessarily included in the formation of feeds for ruminants? ☐
- A. A, B, and E C. K, E and D
B. C, B and K D. A, E and D
24. The funds loaned out to farmers under the poverty alleviation programme in Uganda can be classified as; ☐
- A. Short term credit C. Medium credit
B. Long term credit D. Agriculture credit
25. Paddy rice is able to grow in water logged soil conditions because the plants have ☐
- A. Lenticels C. Breathing roots
B. Parenchyma tissue D. A dense mass of root hairs
26. Intramuscular injection in cattle is best administered in the ☐
- A. Hump C. Rump
B. Neck D. Shoulder
27. Good drainage and ploughing of soil reduces the process of ☐
- A. Nitrification C. Denitrification B. Decomposition D. Nitrogen fixation
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 ☐

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. Neutralises acidity of the soil

☐

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