



MLONDA ZONE EXAMINATIONS BOARD
2021 PRIMARY SCHOOL LEAVING CERTIFICATE EXAMINATION
PRIMARY SCIENCE

(100 marks)

Subject Number: P163

Time allowed: 2 hours

8:00 – 10:00 am

Friday, 16 July

Name of Candidate: _____

(Surname First)

Name of School: _____

Instructions

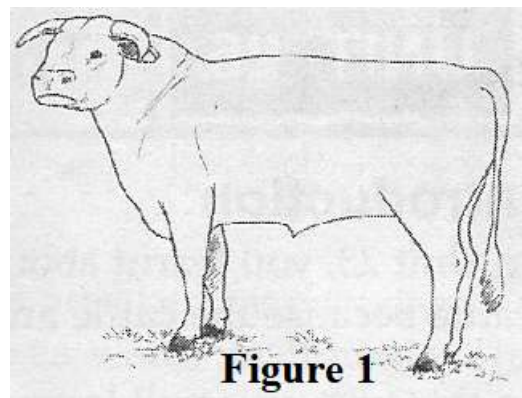
- This paper contains 9 printed pages. Please check.
- This paper has two sections A and B.
Section A consists of 40 multiple choice questions carrying 1 mark each. Encircle a letter of your choice representing the right answer to each question. Section B has 10 structured questions. Write your answer to this section on the question paper in the spaces provided. The maximum number of marks for each answer is indicated against the question.
- Answer all questions.
- In the table provided on this page, tick against the question number you have answered.
- IMPORTANT**
 - Please make sure you have written your name, school name and Examination number on the question paper in the spaces provided.
 - Hand in your question paper to the invigilator when the time is called to stop writing.

| Question number | Tick questions 41-50 if answered | Do not write in these columns | |
|-----------------|----------------------------------|-------------------------------|--|
| 1-40 | | | |
| 41 | | | |
| 42 | | | |
| 43 | | | |
| 44 | | | |
| 45 | | | |
| 46 | | | |
| 47 | | | |
| 48 | | | |
| 49 | | | |
| 50 | | | |
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SECTION A: MULTIPLE CHOICES (40 MARKS)
AGRICULTURE

1. The following are composition of soil except ____.
A. Clay
B. Silt
C. Sand
D. Loam
2. Which of the following marketing functions helps farmers to know what they want to buy?
A. Selling
B. Grading
C. Processing
D. Advertising
3. Why is sun drying of fish important to a farmer?
A. To sell the fish quickly
B. To cook the fish easily
C. To share the fish easily
D. To improve the quality of fish
4. A farmer bought two bags of fertilizers K20 000.00 each, 3 packets of maize seed at K1500.00 each and paid K10 000.00 to labourers. How much money did he spend altogether?
A. K34 500
B. K24 500
C. K64 500
D. K54 500
5. Which of the following is a way of managing strong wind in the garden?
A. Mulching
B. Weeding
C. Making box ridges
D. Planting trees
6. Which of the following is a step in the procedure for grafting?
A. Joining the shoot to the root stock.
B. Plant both the shoot and the root stock
C. Plant a cutting which has nodes
D. Make a T-shape on the stem.
7. Which of the following is a deficiency sign of phosphorus in plants?
A. Yellow leaves
B. Poor root development
C. Immature fruit fall
D. Stunted growth
8. One reason for early land preparation is that it helps farmers to
A. Plant with good rains
B. Plant with first rains
C. Plant fruit trees
D. Harvest more crops
9. Treating of sick animals through the mouth is called ____.
A. Drenching
B. De-worming
C. Culling
D. Tape worms
10. Which of the following is one of the uses of a sprayer in animal production?
A. Spraying to control parasites
B. Spraying chemicals to crops
C. For irrigating crops
D. Transporting farm equipment

Figure 1 is the diagram showing one of the breeds of cattle. Use it to answer questions 11 and 12.



11. Identify the cattle breed shown above.
- Jersey
 - Stabro
 - Afrikander
 - Hereford
12. What is the use of cattle breed identified in question 11 above?
- Pulling farm cart
 - For beef production
 - For milk production
 - Mohair supply
13. What name is given to everything surrounding both crops and livestock?
- Agriculture
 - Environment
 - Agricultural environment
 - Commercial farming
14. Why is hardening-off done to seedlings in nursery beds?
- To control pest and disease attack
 - To harvest bumper yields
 - To prepare seedlings to hard field condition
 - To prevent dumping off.
15. Which of the following is an agroforestry plot management?
- Weeding
 - Parasite control
 - Planting
 - Silvo-arable
16. Which of the following fruits are grown along the lakeshore?
- Orange and grape
 - Mangoes and banana
 - Strawberries and apples
 - Pineapples and guava

17. Which of the following fish species has its own breeding season?
- Mlamba
 - Chambo
 - Makakana
 - Mphende
18. What type of fish a suitable for stocking the pond?
- Chambo and Mlamba
 - Fingerlings and fries
 - Kampango and Mlamba
 - Tilapia and Kampango
19. One advantage of tethering of goats is to ____
- Improve milk production
 - Control grazing
 - Encourage mating
 - Hasten recovery
20. Which of the following is characteristic of indigenous trees?
- Big in size
 - Have soft wood
 - Grow fast
 - Withstand drought

SCIENCE AND TECHNOLOGY

21. Which of the following is a way in which seeds are dispersed?
- Pollination
 - Explanation
 - Explosive mechanism
 - Fertilization

Figure 2 is a diagram of an electric circuit. Use it to answer question 22.

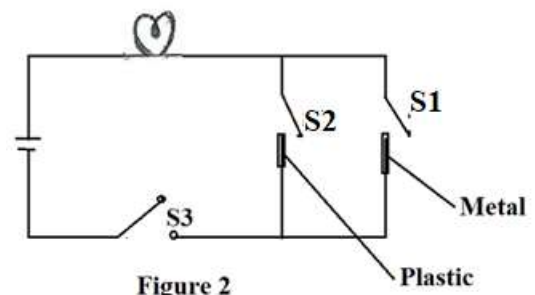
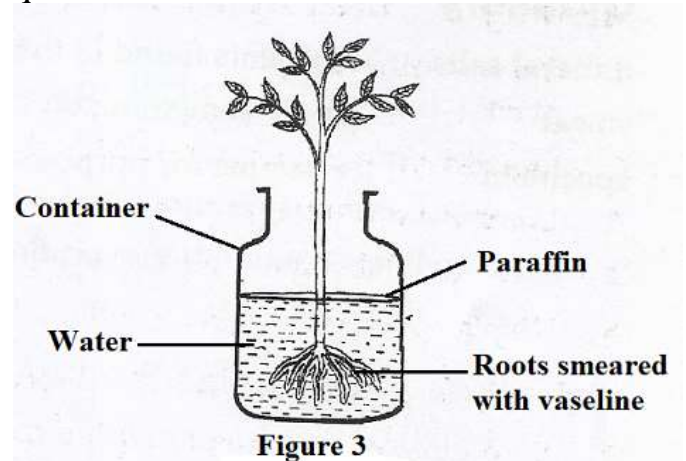


Figure 2

22. Which switch(es) should be closed for the bulb to light?
 A. S1 and S2
 B. S1 and S3
 C. S2 and S3
 D. S3 only.
23. Which of the following is an example of omnivores?
 A. Man
 B. Lion
 C. Goat
 D. Hyena
24. Which of the following is an indirect source of light?
 A. Star
 B. Moon
 C. Fire
 D. Bulb
25. In dim light the iris makes the pupil bigger in order to allow;
 A. More light to get in
 B. Less light to get in
 C. A person to see small objects
 D. A person to see objects at distance
26. Which of the following is an input device of a computer?
 A. Central Processing Unit
 B. Monitor
 C. Mouse
 D. Printer
27. Animals with jointed legs are known as
 A. Molluscs
 B. Annelid
 C. Nematodes
 D. Arthropods
28. Caustic soda is a chemical used when making ____
 A. Crayons
 B. Cleaning powder
 C. Floor polish
 D. Soap

29. Which of the following is a function of a jack?
 A. Lifting heavy loads
 B. Transferring heavy loads
 C. Unscrewing bolts
 D. Weighing objects

Figure 3 below shows plants dipped into a container filled with water. Use it to answer questions 30 and 31.



- Figure 3**
30. Which of the following shows the aim of the experiment in figure above?
 A. To know function of a stem
 B. To find out if roots absorb mineral salts and water
 C. To decorate the container
 D. To make plants be alive
31. Give a reason why paraffin was used in the experiment?
 A. To control evaporation of water from the container
 B. To reduce the speed of water absorbed by the roots
 C. For lighting the plants
 D. To kill pests of the plants
32. Blood should be screened before transfusion in order to ;
 A. Kill parasites
 B. Cool it
 C. Prevent anaemia
 D. Supply correct blood.

33. Why should starch be added to cotton garments in laundering?
- To improve stiffness
 - Maintain size
 - Improve colour
 - To maintain shape
34. What is the disadvantage of television?
- Increase in moral decay
 - Provision of employment
 - Source of entertainment
 - Educating people
35. Why is an Irish potato a stem?
- The presence of shooting buds
 - It has leaves
 - It has a tuberous root type
 - The presence of nodes
36. Why beverages should be included when planning meals for the invalids?
- To improve appetite and recover lost water from the body
 - To maximize supply of proteins
 - To improve food hygiene
 - To increase an easy digestion of food
37. Which of the following is an activity of the under-five clinics?
- Immunizing children against some diseases
 - Monitoring growth of the foetus in pregnant woman
 - HIV testing
 - Providing food to the young children.
38. Where are the alveoli found in the human body?
- Heart
 - Muscles
 - Digestive system
 - Lungs
39. The following best describes why a parallel circuit is better than a series circuit
- All components use the total voltage from the source
 - Each component can be controlled separately
 - Each component uses the total voltage from the source
 - The component has more than one conducting path.
40. Why garlic and onions are important food in the human body?
- They strengthen immunity
 - They are energy sources
 - They repair damaged tissues and cells
 - They fasten the digestion of food.

SECTION B: (60 MARKS)

AGRICULTURE

Answer all questions in the spaces provided.

41.A. Give any **two** characteristics of soil suitable for crop production.

(2 marks)

B. Explain **one** reason for growing arable crops in a farm business.

(2 marks)

C. State **two** disadvantages of free range system of keeping poultry.

(2 marks)

42.A. i. State any **two** reasons why makumba and mphende are suitable for fish farming.

(2 marks)

ii. Give any **two** aims of agriculture as a business.

(2 marks)

B. State any **two** effects of water pollution in agricultural production.

(2 marks)

A farmer has a large piece of land not suitable for arable cropping due to too much water.

43.A. What should a farmer do in order to continue farming the land without draining water away? Give any **two** ways.

(2 marks)

B. Mention **two** risks that are associated with weather changes in a farm business.

(2 marks)

C. List down any **two** examples of farm enterprises a farmer can carry out.

(2 marks)

44.A. State **one** way in which each of the following agricultural practices can help to increase agricultural production.

i. Enterprise diversification

(2 marks)

ii. Crop rotation

(2 marks)

B. Why farmers are encouraged to construct medium fish ponds?

(1 mark)

Figure 4 below is a diagram showing one of the marketing functions. Use it to answer questions **45A** and **45B**.

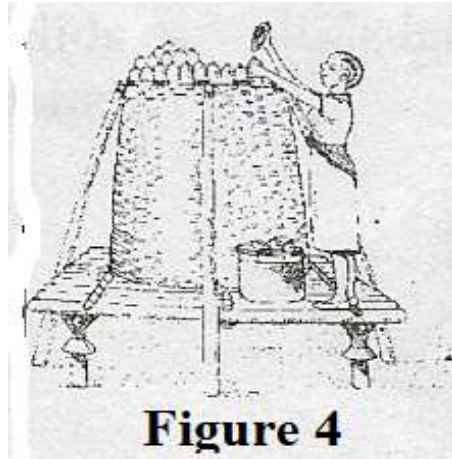


Figure 4

45.A. Name the marketing function shown above.

(1 mark)

B. Mention any one activity involved in the marketing function named in question 45A above.

(1 mark)

46.A. Explain why rabbits should not be given too much feed at once.

(2 marks)

B. Give any reason for taking a rabbit doe to the bucks' hutch during mating.

(2 marks)

SCIENCE

47.A. i. Mention any **two** types of force.

(2 marks)

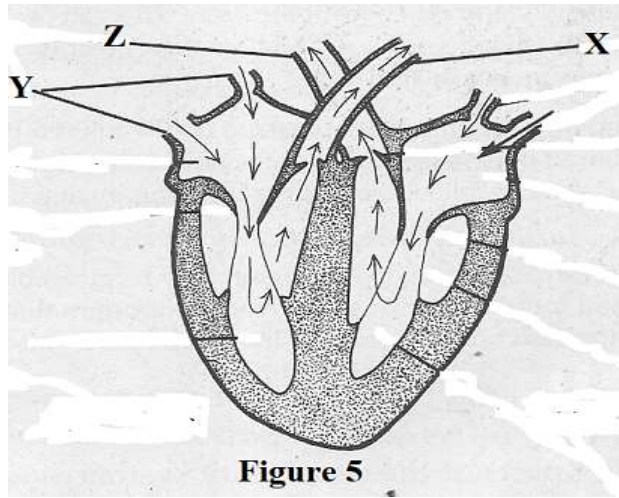
ii. State **one** technology that uses the principles of force

(1 mark)

B. Explain **one** disadvantage of information and communication technologies.

(2 marks)

Figure 5 below is a diagram showing a longitudinal section of human heart. Use it to answer questions **48 A** and **48B**.



48.A. Name the part labeled **X**.

_____ (1 mark)

B. State the function of the part labeled **Z**.

_____ (1 mark)

49.A. i. Define the term ‘sublimation’.

_____ (2 marks)

ii. State any **one** property of heat.

_____ (1 mark)

B. i. Match each of the following deficiency diseases with its preventive measure in the table below.

| Deficiency disease | Preventive measure |
|--------------------|------------------------------------|
| Anaemia | Addition of proteins in the diet |
| Rickets | Provision of iron in the diet |
| Kwashiorkor | Provision of calcium in the diet |
| Scurvy | Provision of vitamin C in the diet |

_____ (4 marks)

ii. Give **one** guide line to follow when planning meals for the convalescent.

(1 mark)

50. A. Describe how you can prepare a peanut butter.

(3 marks)

B. Give **one** disadvantage of food processing.

(1 mark)

51. A. Give any **two** functions of blood in the human body.

(2 marks)

Figure 6 below shows a set of an experimental activity used in a scientific investigation.

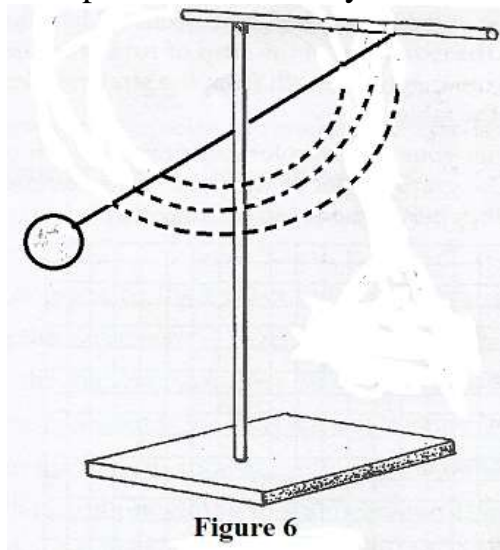


Figure 6

B. i. Name the set up illustrated above.

(1 mark)

ii. Identify the **two** materials that can be used to set up the figure above.

(2 marks)

52. List down any **two** types of needs of a pregnant woman.

(2 marks)

End of Question Paper

NB: This paper contains 9 printed pages. Please check.