



# MADISI ZONAL EXAMINATION BOARD

## 2019 PRIMARY SCHOOL LEAVING CERTIFICATE EXAMINATION

### PRIMARY SCIENCE

(100 marks)

Subject number:P052

Friday, 22<sup>nd</sup> March

Time allowed: 2 hours 15mins

8.00 – 10:15 am

Name of candidate: \_\_\_\_\_

(Surname first)

Name of school: \_\_\_\_\_

#### Instructions

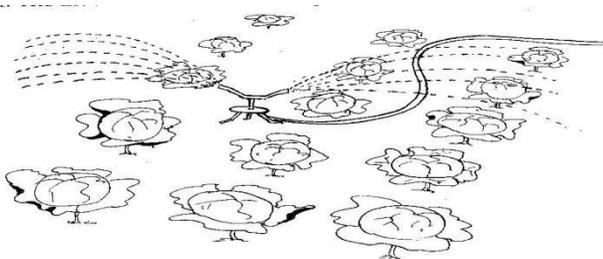
1. This paper contains 8 printed pages. Please check.
2. Write your examination number on each page of this paper.
3. This paper contains two sections **A and B**.
4. You are expected to answer all questions from section **A and B**.
5. In the table provided on the on this page, tick against the question number you have answered apart from question **1 to 40**
6. Follow instructions for each section carefully.
7. Make sure you have written your **name, school name** and **examination number** on the question paper in the spaces provided.
8. Please hand in your question paper to the invigilator at the end of the examination.

Question number	Tick 21 – 30 if answered	Do not write in these columns	
1 – 40			
41			
42			
43			
44			
45			
46			
47			
48			
49			
50			
51			
52			

# AGRICULTURE

1. Which of the following crops grows very well in clay soil?
  - A. Rice
  - B. Cassava
  - C. Ground nuts
  - D. Beans
2. The question what to produce is answered by the following principle
  - A. Demand and supply
  - B. Cooperative advantage
  - C. How to produce
  - D. Substitution of inputs
3. Which of the following are the two types of fertilizer
  - A. CAN and UREA
  - B. DAP and 23: 21:0+4S
  - C. Organic and inorganic
  - D. Humans and nitrate

Figure 1 is a diagram showing a method of irrigation. Use it to answer questions 4 and 5



**Figure 1**

4. Identify the method used above
  - A. Flooding irrigation
  - B. Drip irrigation
  - C. Sprinkler irrigation
  - D. Cabbage irrigation
5. What is the purpose of part labeled b.
  - A. Holes
  - B. To trickle out water
  - C. To move water
  - D. To beautify the pipes

6. What is the reason of having box ridges in a garden?
  - A. They control pests
  - B. They increase soil fertility
  - C. They control weeds
  - D. To hold water
7. What do you call the resources that affect the output of the farm business?
  - A. Factors of production
  - B. Farm records
  - C. Farm calendar
  - D. Resource management
8. What type of feed is given to a day old broiler?
  - A. Growers mash
  - B. Starter mash
  - C. Finisher mash
  - D. Layers mash
9. Which of the following is a deficiency sign of phosphorus in plants?
  - A. Immature fruit fall
  - B. Stunted growth
  - C. Yellow leaves
  - D. Poor root development

Figure 2 shows one of the effects of major elements of agricultural environment. Use it to answer questions 10 and 11.



10. Which element of agricultural environment is shown in figure above?

- A. Soil
  - B. Plants
  - C. Animals
  - D. Sunlight
11. The following is the harmful effect of the element of agricultural environment shown above
- A. Poor plant growth
  - B. Death of crops
  - C. Cause damage on crops
  - D. Destruction of farm buildings
12. Name the indigenous farm machinery and technology which is used for planting maize?
- A. Planting frame
  - B. Querns
  - C. Leaf bag
  - D. Tephrosia
13. Why is vegetative cover important in crop production?
- A. It provides timber
  - B. It reduces pests
  - C. It provides firewood
  - D. It conserves soil
14. Which of the following best describes the meaning of the term “salinity”
- A. Soil coarseness
  - B. Containing a lot of salts
  - C. A group of animals
  - D. Animals with backbone
15. Which of the following is not a way of conserving soil?
- A. Strip cropping
  - B. Applying manure
  - C. Cultivating along river banks
  - D. Making box ridges
16. The following is the importance of agriculture except
- A. Source of income
  - B. Source of food
  - C. Source of employment
  - D. Source of laziness
17. Which of the following is a characteristic of a good cock for breeding?
- A. Roomy body
  - B. Strong legs
  - C. Moist vent
  - D. Short beak
18. Which of the following is not a physical farm record?
- A. Sales records
  - B. Crop records
  - C. Labour records
  - D. Field operation records
19. A system of agroforestry in which trees are used as feed for livestock alternate with arable crops is called
- A. Folder banks
  - B. Live fence
  - C. Improved fallow
  - D. Alley cropping
20. Which farm implement is used for generating electricity?
- A. Motorized motor pump
  - B. Tredle pump
  - C. Farm cart
  - D. Wind mill

## SCIENCE AND TECHNOLOGY

21. Which of the following foods provide the body with energy?
- Fish
  - Beans
  - Honey
  - Pumpkin leaves
22. What name is given to the animals that eat other animals?
- Omnivores
  - Carnivores
  - Herbivores
  - Invertebrates
23. Which of the following is a method of cooking food?
- Frying
  - Cooking nsima
  - Dissolving
  - Distillation

Figure 3 shows technologies that can be made locally at home. Use it to answer questions 24 and 25.



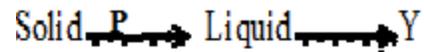
**Figure 3**

24. Which of the following is the use of the figure above?
- Cooking food
  - Drawing water
  - Washing clothes
  - Pounding cereals
25. Give **one** negative effect of the technology above
- It serves environment
  - It beautifies the area

- It helps people to grind their grains
- It encourages deforestation

26. Which of the following organs regulate the amount of food transported by blood
- Lungs
  - Heart
  - Liver
  - Kidney
27. Which of the following is a way through which a fish moves?
- Swimming
  - Walking
  - Bending
  - Moving

Figure 4 is a diagram showing changes of state of matter. Use it to answer questions 28 and 29.



**Figure 4**

28. What process is represented by letter **P**
- Freezing
  - Melting
  - Condensation
  - Evaporation
29. How could the change of state of matter labeled **Y** used to human beings?
- Forming rain
  - Drying clothes
  - Preserving food
  - Brewing beer
30. A substance in which other substance dissolves is called
- Solute
  - Solution
  - Suspension

D. Solvent

31. Which of the following parts of a computer is used to enter information into the processor?

- A. Cursor
- B. Monitor
- C. Mouse
- D. Keyboard

32. Why should blood be screened before transfusion?

- A. To kill parasites
- B. To cool it
- C. To supply correct blood
- D. To prevent anaemia

33. Which muscle is responsible for causing the arm to bend?

- A. Biceps
- B. Ligaments
- C. Tendons
- D. Triceps

34. The following are the properties of light except

- A. Travels in a straight line
- B. Can be absorbed
- C. Can be refracted
- D. Spread in all directions

35. What could be the problem of fishing nets as a technology used in communities?

- A. Requires animals e.g. cattle
- B. It is too slow for processing
- C. Can be too expensive
- D. Has limited capacity

36. Why should starch be added to cotton garments in laundering?

- A. To maintain shape
- B. To improve stiffness
- C. To maintain size
- D. To improve colour

37. Which of the following statements are true about insect pollinated flowers?

- i. Flowers are usually small
- ii. Anthers are held firmly
- iii. Have bright coloured petals
- iv. Produce large amounts of pollen

- A. ii and iii
- B. i and iv
- C. ii and iv
- D. i and iii

38. How does the unborn baby get food substances from mother's blood in the placenta?

- A. By means of diffusion
- B. By blood securation
- C. By digestive system
- D. By fertilization

39. The following is an example of arthropods except

- A. Crabs
- B. Spiders
- C. Millipedes
- D. Amoeba

40. Which of the following are examples of parts of human breathing system?

- A. Aorta and veins
- B. Trachea and wind pipe
- C. Alveoli and trachea
- D. Alveoli and arteries

**Section B (60 marks)**

**Agriculture**

41.

a) List any **two** common pest of cassava

---



---

(2 marks)

b) State the importance of fermentation during cassava processing.

---



---

(2 marks)

42.

a) State any **two** methods of harvesting the fish?

---



---

(2 marks)

b) List **two** signs of over feeding the fish in a pond.

i. \_\_\_\_\_

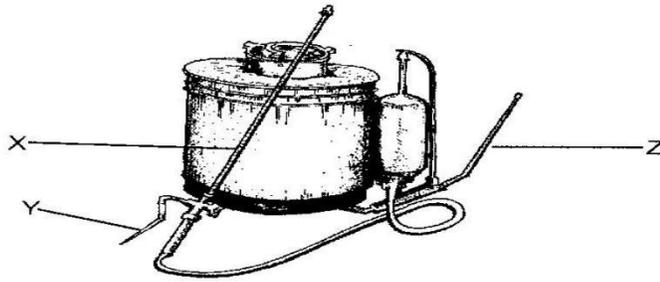
ii. \_\_\_\_\_

(2 marks)

43. The table below shows a financial record of poultry production. Complete the blank spaces. (6marks)

Sales and receipts (Income )				Purchases and Expenses (expenditure)		
Date	Detail	K	T	Date	Detail	K T
20/11/ 18	Sold eggs @ K20 each	1, 800.	00	10/04/ 18	Bought 3 feeds @ K700 each	_____
07/12/ 18	Sold 15 birds @ K600 each	_____		06/06/ 18	Bought 1 bag of feed @ K3 800 each	3, 800 . 00
06/01/ 19	Sold 2 cocks @ K1000 each	2, 000.	00	28/10/ 18	Bought medicine	1, 000. 00
				01/11/ 18	Labour charge	3, 000. 00
	Total sales	12, 800.00			Total expenses	_____

The figure 5 below shows farm machinery. Use it to answer the following questions.



44.

a) Name the parts labeled X, Y, Z

X. \_\_\_\_\_

Y. \_\_\_\_\_

Z. \_\_\_\_\_

(3 marks)

b) Explain the use of the part labeled Y

\_\_\_\_\_

\_\_\_\_\_

(2 marks)

c) Define farm calendar

\_\_\_\_\_

\_\_\_\_\_

(1 mark)

d) Why is a farming calendar an important tool to farmers?

\_\_\_\_\_

\_\_\_\_\_

(2 marks)

45.

a) List any **two** activities involved when preparing land for growing fruits.

i. \_\_\_\_\_

ii. \_\_\_\_\_

(2 marks)

b) Give a reason why watering of seedlings before transplanting is important.

\_\_\_\_\_

(2 mark)

c) Mention any **one** class of vegetables.

\_\_\_\_\_

(1 mark)

## SCIENCE AND TECHNOLOGY

46.

a) What do you understand by the term scientific investigation?

\_\_\_\_\_

\_\_\_\_\_

(2 marks)

b) Learners observed that bees were flying around the flowers. Their teacher asked them to carry out a scientific investigation to find out why bees visit flowers?

i. Name the problem to be investigated.

\_\_\_\_\_ (2 marks)

ii. State the second and third steps the learners would use when conducting the investigation.

Second step:

\_\_\_\_\_ (1 mark)

Third step:

\_\_\_\_\_ (1 mark)

47.

a) How can one separate the following mixture

i. Water and paraffin

\_\_\_\_\_ (1 mark)

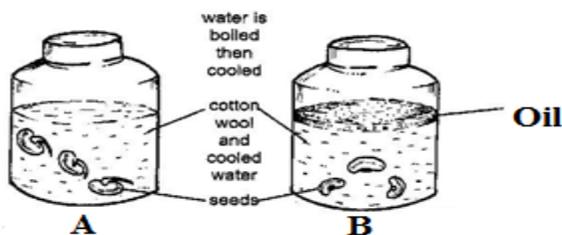
ii. Salt and water

\_\_\_\_\_ (1 mark)

iii. Sand and metal objects

\_\_\_\_\_ (1 mark)

b) Figure 6 shows a setup of an experiment to find out one of the necessary conditions for seed germination. Use it to answer questions that follow



**Figure 6**

i. What condition for seed germination is being investigated?

\_\_\_\_\_ (2 marks)

ii. Why was boiled water used?

\_\_\_\_\_ (2 marks)

iii. Why was oil added in bottle B?

\_\_\_\_\_ (2 marks)

48. Classify the following plants into “flowering” and “non – flowering” plants.

**Beans, mangoes, fungi, tomatoes, and ferns.**

Flowering plants      non – flowering plants

_____	_____
_____	_____
_____	_____

(5marks)

49.

c) State any two advantages of a parallel circuit.

\_\_\_\_\_ (2 mark)

d) Explain any **one** danger of light energy to people.

\_\_\_\_\_ (1 mark)

50.

a) Explain the difference between “erect” and “underground stem”

\_\_\_\_\_ (2marks)

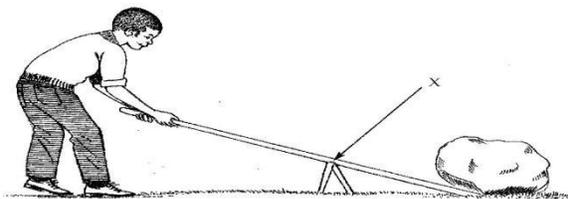
b) Give **two** examples of leaf arrangement.

- i. \_\_\_\_\_
- ii. \_\_\_\_\_ (2marks)

51. Give any **two** cultural practices that can lead to the spread of HIV and AIDS.

- i. \_\_\_\_\_
- ii. \_\_\_\_\_ (2marks)

Figure 7 shows a lever machine. Use it to answer the question 52.



52.

a) Name the machine above

\_\_\_\_\_ (1 mark)

b) What name is given to point X

\_\_\_\_\_ (1mark)

c) Why is the machine important?

\_\_\_\_\_ (1 mark)

**END OF QUESTION PAPER**

