



SURREKEY EXAMINATIONS BOARD
PRIMARY SEVEN TARGET SERIES EXAMINATION
2023
INTEGRATED SCIENCE

Time Allowed: 2 hours 15 minutes

Index No.	EMIS No.					Personal No.		

Pupil's Name:

Pupil's Signature:

School Name:

District Name:

Read the following instructions carefully:

1. Do not forget to write your **school** or **district name** on the paper.
2. This paper has two sections: **A** and **B**. Section **A** has **40** questions and section **B** has **15** questions. The paper has **15** printed pages.
3. Answer **all** questions. **All** working for both sections **A** and **B** must be shown in the spaces provided.
4. **All** answers **must** be written using a **blue** or **black** ball point pen or ink. Any work written in pencil will **not** be marked.
5. Unnecessary **changes** in your work and handwriting that cannot be read easily may lead to **loss of marks**.
6. Do not fill anything in the table indicated:
"For Examiners' use only" and boxes inside the question paper.

FOR EXAMINERS' USE ONLY		
Qn. No.	MARKS	EXR'S NO.
1 – 10		
11 – 20		
21 – 30		
31 – 40		
41 – 43		
44 – 46		
47 – 49		
50 – 52		
53 – 55		
TOTAL		

SECTION A: 40 MARKS

Questions **1** to **40** carry **one mark** each

1. Name the stage in the life cycle of a butterfly that destroys plants.

.....

2. How is a sprain different from a strain?

.....

.....

3. What happens to pollen grains when they land on the stigma?

.....

4. Which body organ is attacked by yellow fever?

.....

5. Give any **one** way in which honey is useful in industries.


.....

The diagram below shows a message in the signpost commonly displayed in school compounds. Study and use it to answer question **6**.

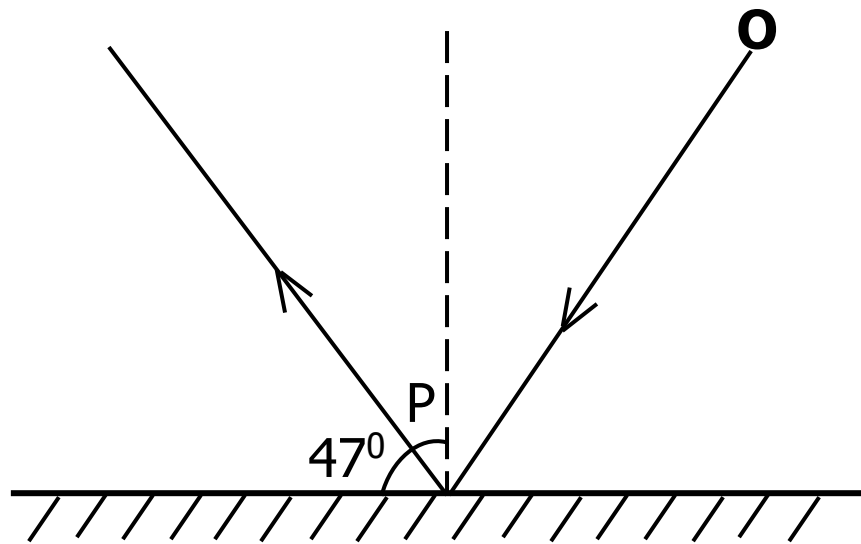


6. In which way is the message in the sign post above helpful to school children?

.....

7. Why is it not advisable to make a casualty who has taken jik to vomit?
.....
8. Apart from hormones, write down any **one** other substance transported by blood plasma in the body.
.....
9. Give any **one** feature used to classify birds.
.....
10. Mention any **one** group of people that receives Tetanus Toxoid (T.T) vaccine.
.....
11. Why does a pencil put in a transparent glass with water appear bent? 
.....
12. State any **one** way in which a spider benefits from its cobweb.
.....
13. Give any **one** feature on a bean plant that makes it a legume.
.....
14. State the danger of keeping flammable liquids like petrol in a residential house.
.....
15. Give the main reason why farmers harvest their crops during dry season.
.....
16. Name the communicable intestinal disease that makes a person to pass out blood stained stool.
.....

The diagram below shows rays of light striking a plane mirror. Use it to answer questions **17** and **18**.



17. Name the ray of light marked **O**.

.....

18. What is the size of angle marked **P** on the diagram above?

19. State any **one** habit that an individual can do to promote oral health.

.....

20. Give any **one** way in which trees help to control soil erosion.

.....



21. How is the function of the endosperm different from that of the cotyledon in a maize grain?

.....

.....

22. Give any **one** organism that reproduces by binary fission.

.....

23. State any **one** way in which vectors spread germs to people.

.....

24. How is wax important in the human ear?

.....

.....

The diagram below shows an equipment commonly found in schools.
Use it to answer questions **25** and **26**.



25. Identify the equipment shown above.

.....

26. Why should the equipment above be kept outside the school buildings?

.....

.....

27. How is the energy resource got from animals helpful during land preparation?

.....

.....

28. State any **one** way in which humus is important in the soil.

.....

29. Which body system is affected by choking?

.....

30. Why are ventilators put at a higher level than windows?

.....



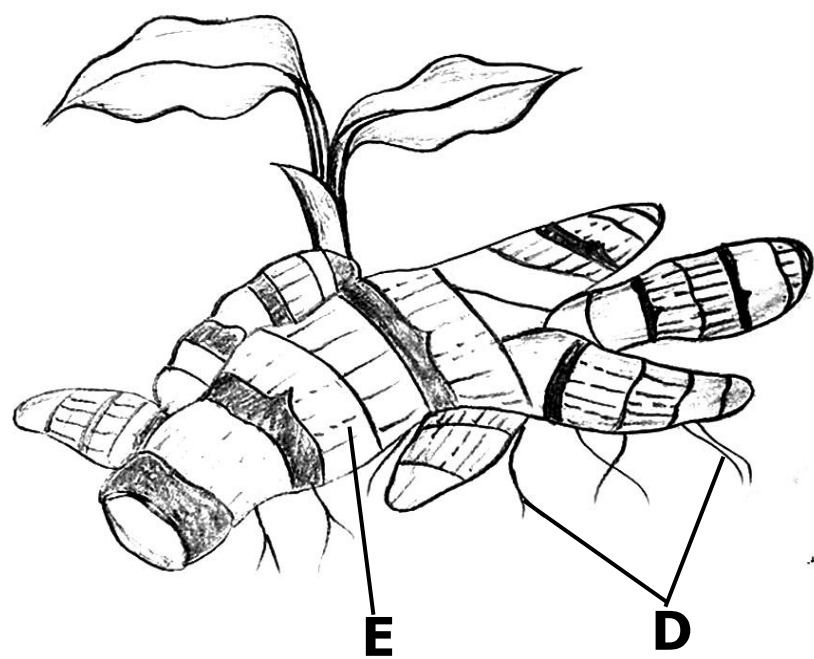
31. State **one** way of promoting food security at home.

.....

32. Give any **one** cause of short circuit at home.

.....

The diagram below shows a rhizome. Use it to answer questions **33** and **34**.



33. Name the part marked **D**.

.....

34. State the function of part marked **E** to the rhizome.

.....

35. State any **one** factor that leads to alcoholism.
-
36. Mention any **one** factor one should consider before starting a livestock farm.
-
37. Why are logs of wood for making charcoal burnt under the limited supply of oxygen?
-
38. Give any **one** example of a health concern in the community.
-
39. In which way is the use of a sickle different from that of a garden trowel in crop farming?
-
-
40. Write down any **one** example of a water impurity.
-



SECTION B: 60 MARKS

Questions **41** to **55** carry four marks each.

41.

(a)

Give any **two** causes of cannibalism in domestic birds.

(i)

.....

(ii)

.....

(b)

Apart from cannibalism, give any **one** other bad habit practiced by domestic birds.

.....

(c)

State any **one** way in which a poultry farmer can control the outbreak of cannibalism in domestic birds

.....
42.

(a)

Write down any **two** examples of anti-social behaviour.

(i)

.....

(ii)

.....

(b)

State any **two** causes of anti-social behaviour.

(i)

.....

(ii)

.....
43.

(a)

Give any **two** examples of biological changes that take place in both plants and animals.

(i)

.....

(ii)

.....

(b)

State any **two** characteristics of physical changes.

(i)

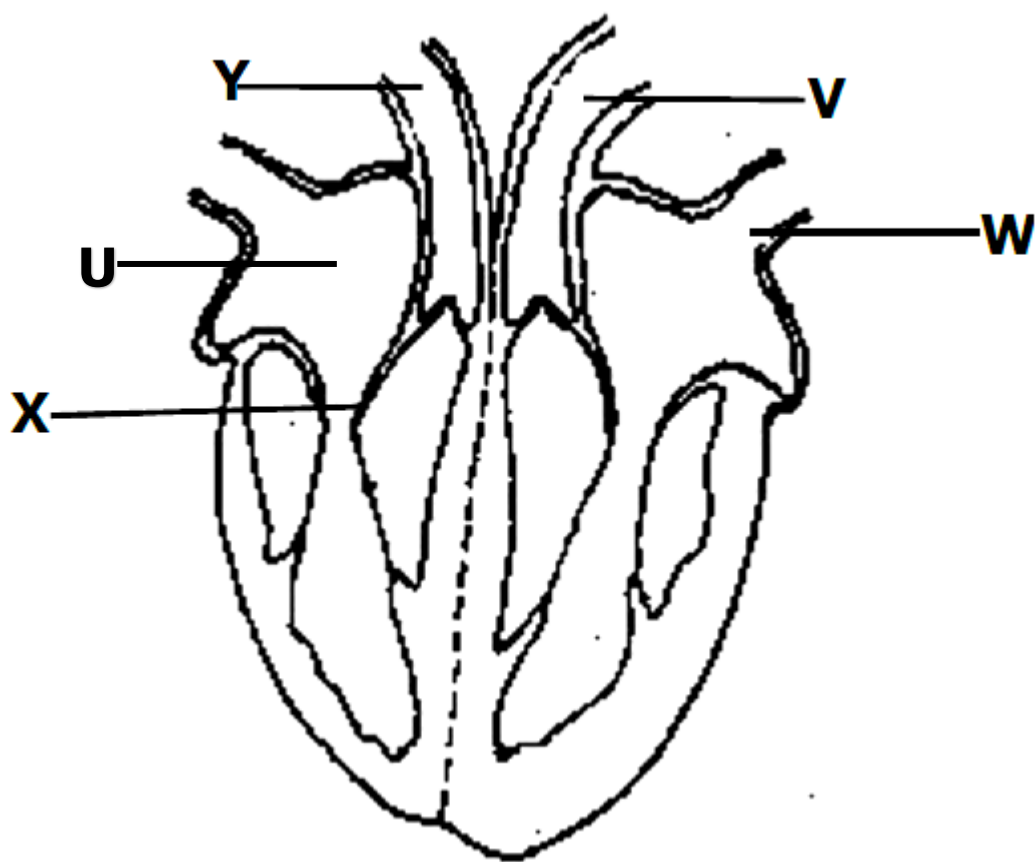
.....

(ii)

.....



44. The diagram below shows the human heart. Study and use it to answer the questions that follow.



- (a) Name the parts marked **U** and **V**.
- (i) **U**
- (ii) **V**
- (b) State the function of part marked **X** in the human heart.
-
-
- (c) How is blood carried by blood vessel marked **Y** different from blood carried by blood vessel marked **W**?
-
-

45. (a) State any **one** cause of convulsions in children.
.....
- (b) Write down any **two** signs of convulsions in children.
(i)
(ii)
- (c) Why is it advisable to put a hard object in the mouth of a convulsing child?
.....
46. (a) Apart from decomposition, which other process helps in the formation of biogas.
.....
- (b) Write down any **two** organic materials used in the production of biogas.
(i)
(ii)
- (c) State any **one** advantage of using biogas over natural gas.
.....
.....
47. (a) Give any **two** examples of rodents.
(i)
(ii)
- (b) What type of teeth are well developed in rodents?
.....

(c) How are rodents dangerous to crop farmers?

.....

48. The table below shows groups of musical instruments. Study and use it to answer the questions that follow.

Group A	Group B	Group C
Bell	Guitar	Horn
Xylophone	Bow harp	Flute
Drum	Violin	Trumpet
Shakers	Lyre	Panpipes

(a) Name the group of musical instruments to which devices in group **B** belongs.

.....

(b) State the difference between a bell in group **A** and a horn in group **C** in the way they produce sound.

.....

.....

(c) How can the pitch of a guitar in group **B** of the table above be varied?

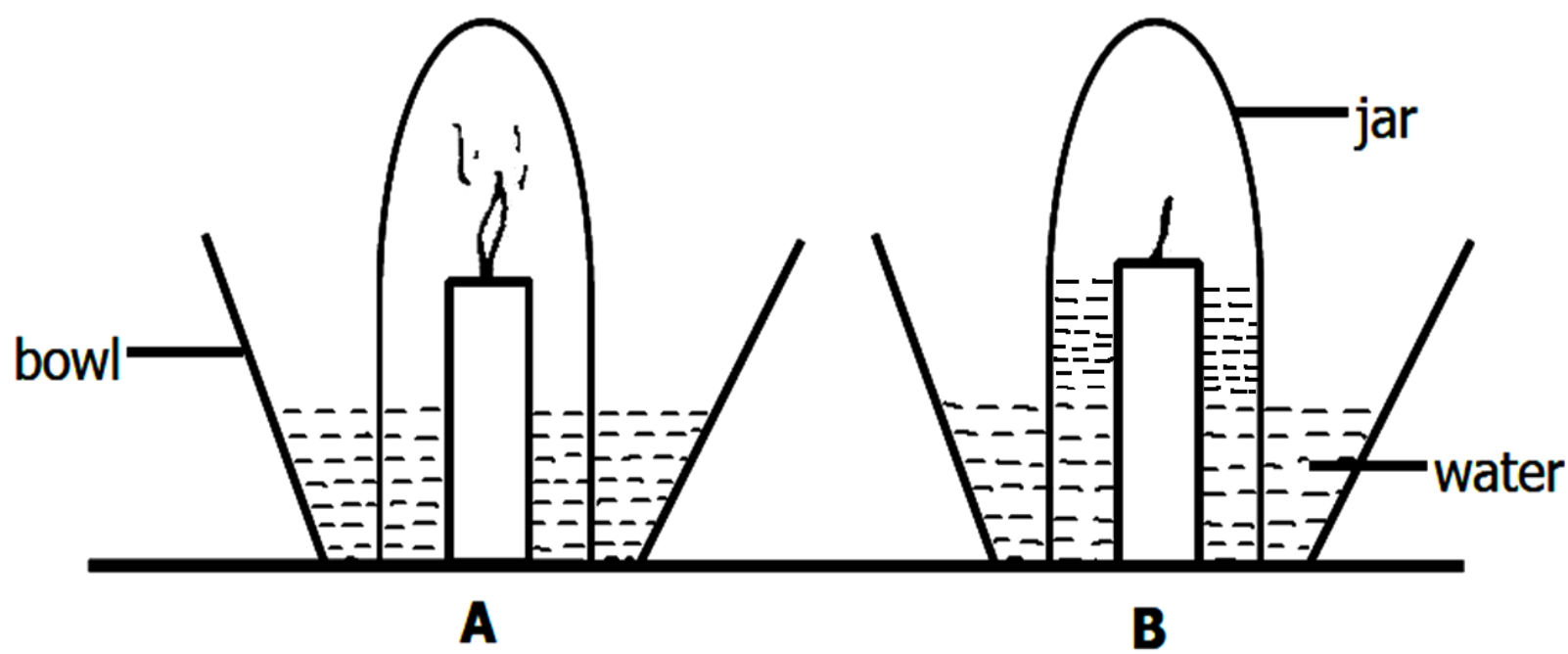
.....

.....

(d) Identify the group from the table above to which vuvuzela belongs.

.....

49. The diagram below shows a candle flame placed in a jar in a bowl containing water. Study and use it to answer the questions that follow.



- (a) Which gas is found in the jar in diagram **A**?
.....
- (b) Why does the candle flame go off in the jar as shown in the diagram **B**?
.....
- (c) Give a reason why the level of water rises as shown in the diagram **B**.
.....
- (d) What is the main purpose of carrying out the experiment above?
.....

50. (a) Name the germ that causes syphilis.



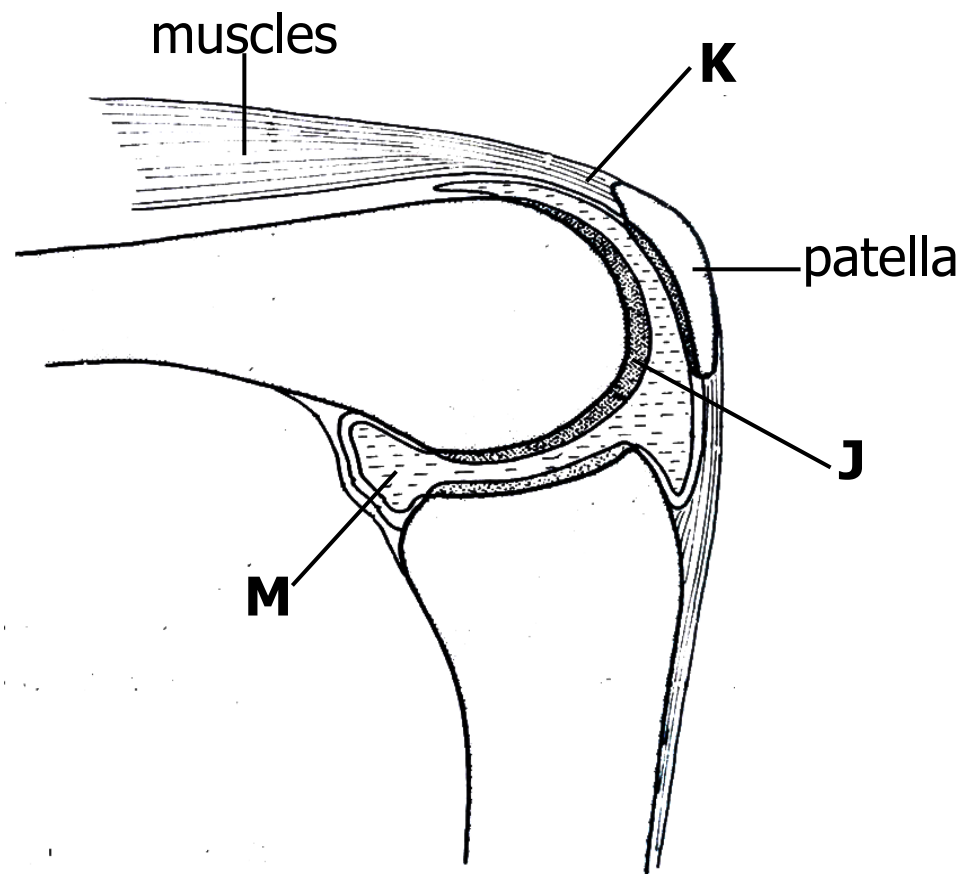
- (b) State any **two** signs and symptoms of syphilis.
 - (i)
 - (ii)

- (c) Why is it important for both married couples to go for treatment together in case they are infected with syphilis?

.....

.....

51. The diagram below shows a movable joint. Study and use it to answer the questions that follow.



- (a) Name the parts marked **J** and **M**.

(i) **J**

(ii) **M**

- (b) State the function of part marked **K** at the joint.

.....

- (c) Identify the movable joint shown above.

.....

52. (a) State any **two** signs shown by a cow on heat.
- (i)
- (ii)
- (b) Give any **one** advantage of artificial insemination in cattle management.
-
- (c) Name the farm practice carried out by cattle farmers to reduce injuries among cattle.
-

53. The tables below shows crop farming practices. Study and use them to answer the questions that follow.

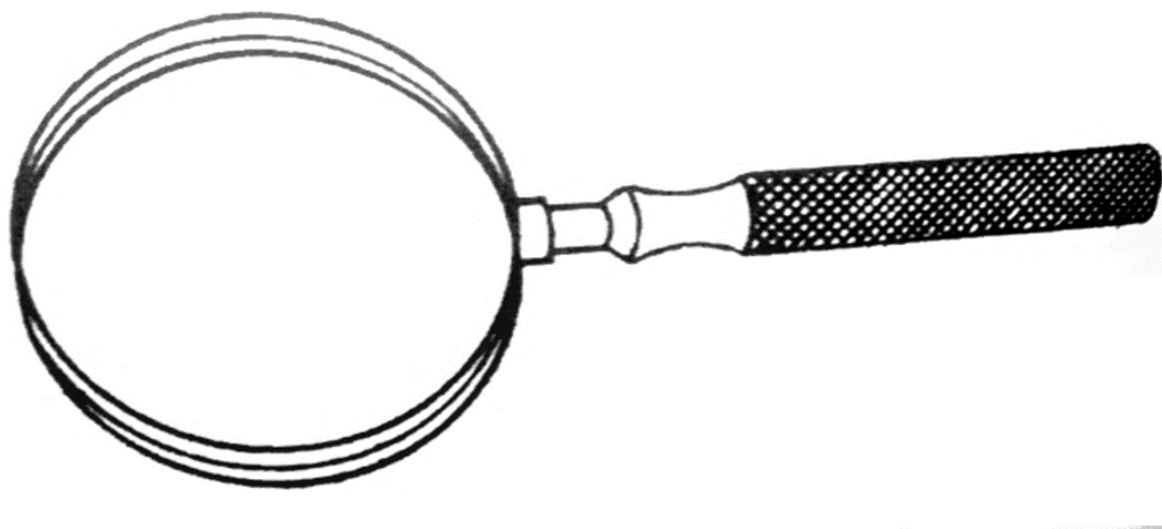
R	Seasons	1	2	3
	Crops grown	maize	Millet	Sorghum

T	Seasons	1	2	3
	Crops grown	sorghum	Ground nuts	Cassava

- (a) Name the crop farming practices marked **R** and **T**.
- (i) **R**
- (ii) **T**
- (b) Why are ground nuts included in the crop farming practice marked **T**?
-
- (c) State any **one** in which the crop farming practice marked **R** affects the soil.
-

54. (a) Name the digestive juice produced by;
- (i) The stomach
- (ii) The pancreas
- (b) State any **one** thing that happens to food in the mouth.
-
- (c) Give any **one** role of the tongue during digestion of food.
-

55. The diagram below shows an optical device. Study and use it to answer the questions that follow.



- (a) Name the optical device shown above.
-
- (b) How is the optical device above useful to people?
-
- (c) Which type of lens is used in the optical device above?
-
- (d) State any **one** characteristic of images formed by the optical device above.
-

