



SURREKEY EXAMINATIONS BOARD
PRIMARY SEVEN PLE PREPARATION SET III
2023

INTEGRATED SCIENCE

Time Allowed: 2 hours 15 minutes

Index 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 **16** 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.

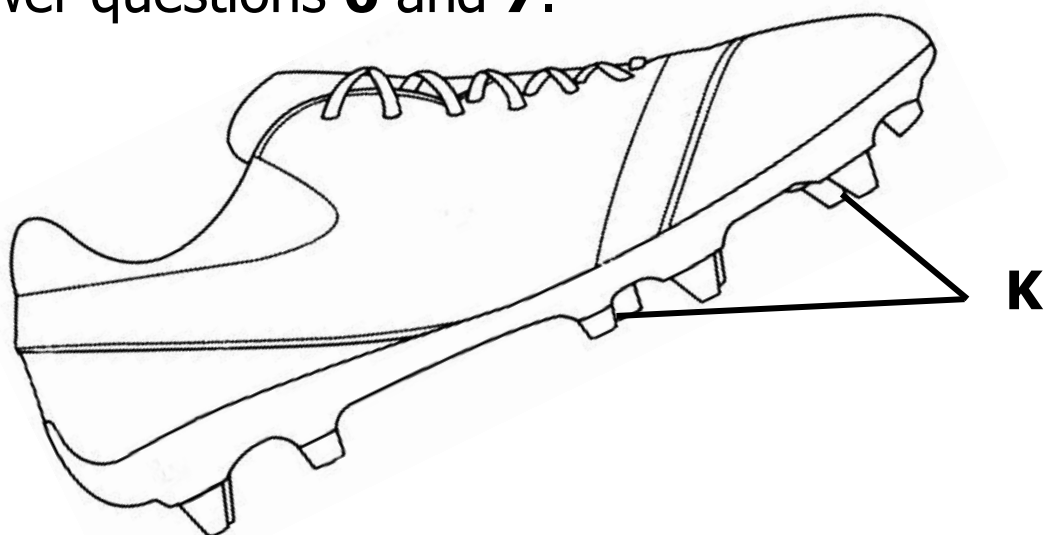
FOR EXAMINERS' USE ONLY		
Qn. No.	MARKS	EXR'S NO.
1 – 10		
11 – 20		
21 – 30		
31 – 40		
41 – 43		
44 – 46		
47 – 49		
50 – 52		
53 – 55		
TOTAL		

SECTION A: 40 MARKS

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

1. Name the component of the environment that provides heat in the water cycle.
.....
2. Which digestive disorder is caused by lack of dietary fibre in the body?
.....
3. State any **one** characteristics of images formed by plane mirrors.
.....
4. Name the component of blood that controls bleeding at the cut.
.....
5. Give any **one** way in which a cactus plant is able to reduce the rate of transpiration.
.....

The diagram below shows a shoe with some structures put on its sole. Use it to answer questions **6** and **7**.



6. Name the structures marked **K** on the diagram above.
.....
7. State the importance of the structures mentioned in number 6 above on the shoe.
.....

8. Give any **one** advantage of rearing rabbits over sheep.
.....
.....
9. Which characteristic of a flower enables a moth to pollinate it at night?
.....
10. State any **one** danger of using fossil fuels to the environment.
.....
11. State the difference between the feeding of a marabou stork and that of an eagle.
.....
.....
12. Why is distilled water used for mixing drugs in hospitals?
.....
13. State the body sense for detecting sound waves.
.....
14. In which way is a magnet useful to a meteorologist?
.....
15. State any **one** way in which the spread of trachoma can be controlled.
.....
16. State what happens to the density of an object when its volume increases.
.....



17. Mention any **one** non cost method of birth control among married couples.

.....

18. State any **one** way in which fungi are useful to human health.

.....

19. Apart from hooks, which other structures does a tapeworm use to attach itself onto the intestinal walls?

.....

20. Give any **one** way in which photosynthesis helps to purify air in the atmosphere.

.....



The diagram below shows part of the human skeleton. Use it to answer questions **21** and **22**.



21. Name the part of the human skeleton shown above.

.....

22. Which part of the human body is protected by the part of the human skeleton above?

.....

23. How do dry banana leaves help to conserve moisture when covered on soil?

.....
.....

24. State any **one** role played by school children in promoting Primary Health Care (PHC) at school.

.....

The diagram below shows a method of planting crops in the garden. Use it to answer questions **25** and **26**.



25. Identify the method of planting shown above.

.....

26. State any **one** advantage of using the method of planting shown above.

.....

27. State any **one** way in which water is important in the soil.

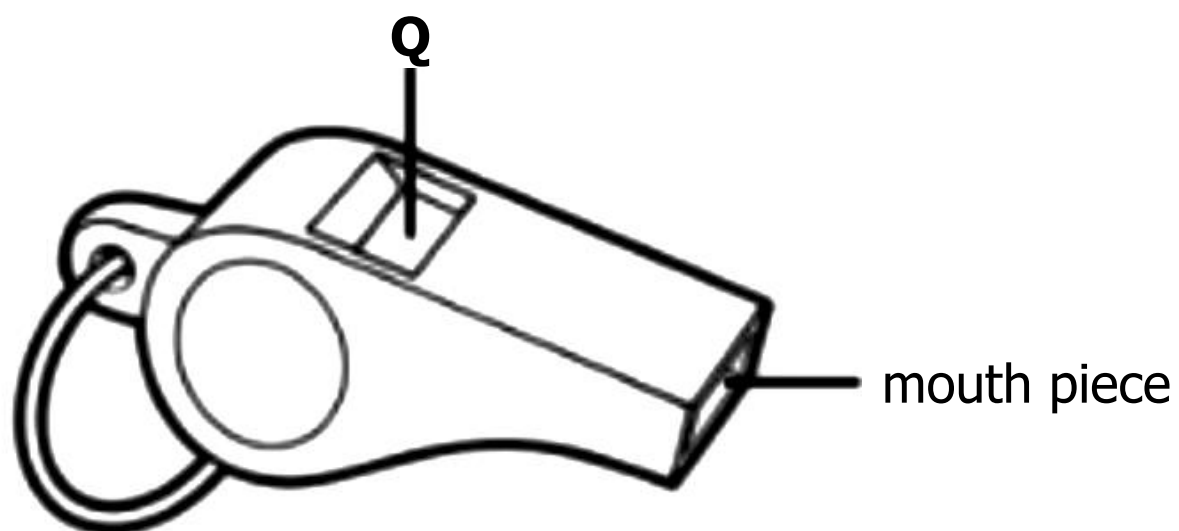
.....

28. State any property of soda which makes it to be called matter.
.....
29. Why is tepid sponging important when giving first aid to a casualty who has fever?
.....
30. Name the part of the kidney that reabsorbs useful substances during excretion.
.....
31. Give any **one** way in which an Ecosan toilet promotes crop farming in an area.
.....
32. In which way does the production of biogas help to improve the quality of soil?
.....
33. State **one** advantage of docking ewes on a farm.
.....
34. Apart from malaria, mention any **one** other example of a water habitat vector disease.
.....
35. Why does a cockroach die when it passes through flour?
.....
36. Apart from ringworm, mention any **one** other disease that affects the sensory organ for touch for humans.
.....

37. Which pest spreads mosaic disease to cassava crops?

.....

The diagram below shows a musical device. Use it to answer questions **38** and **39**.



38. To which group of musical instruments does the musical device shown above belong?

.....

39. State the importance of part marked **Q** on the musical device above.

.....

40. State any **one** factor that affects the production of hydroelectricity.

.....



SECTION B: 60 MARKS

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

41. (a) Name the condition necessary for a seed to germinate that;
- (i) Enables the embryo to respire.
- (ii) Activates enzyme activity in the seed.
- (b) Apart from the conditions named above, mention **one** other condition that a seed needs to germinate.

.....

- (c) How is germination in plants similar to moulting in ticks?
-

42. The diagram below shows a disease vector. Study and use it to answer the questions that follow.



- (a) Name any **one** disease spread by the vector shown above.
-
- (b) How does the vector spread the disease named in a) above?
-
- (c) What type of life cycle does the vector above undergo?
-
- (d) State any **one** way of controlling the vector above at home.

.....

43. (a) Mention any **one** viral disease that affects cattle.
-
- (b) State any **two** ways in which the spread of the viral disease above can be controlled in cattle.
- (i)
- (ii)
- (c) Apart from diseases, give any **one** other condition that affects the health of cattle on a farm.
-



44. (a) Mention any **two** services provided to expectant mothers during ante-natal care.
- (i)
- (ii)
- (b) Apart from ante-natal care, give any **two** other requirements of a pregnant mother.
- (i)
- (ii)

45 (a) Write down any **two** materials that a crop farmer can use to make compost manure.

(i)

(ii)

(b) Give any one method that a crop farmer can use to make compost manure.

.....

(c) In which way can a crop farmer increase the rate of decomposition when making compost manure?

.....

46. The table below shows simple machines and their mechanical advantages (M.A). Study and use it to answer the questions that follow.

Machine	X	Y	Z	Q
M.A	4	1	1/2	2

(a) Which machine from the table above would one use to lift a load of 400N?

.....

(b) Give a reason for your answer in a) above.

.....

(c) What is the relationship between the effort and the load when using machine **Y**?

.....

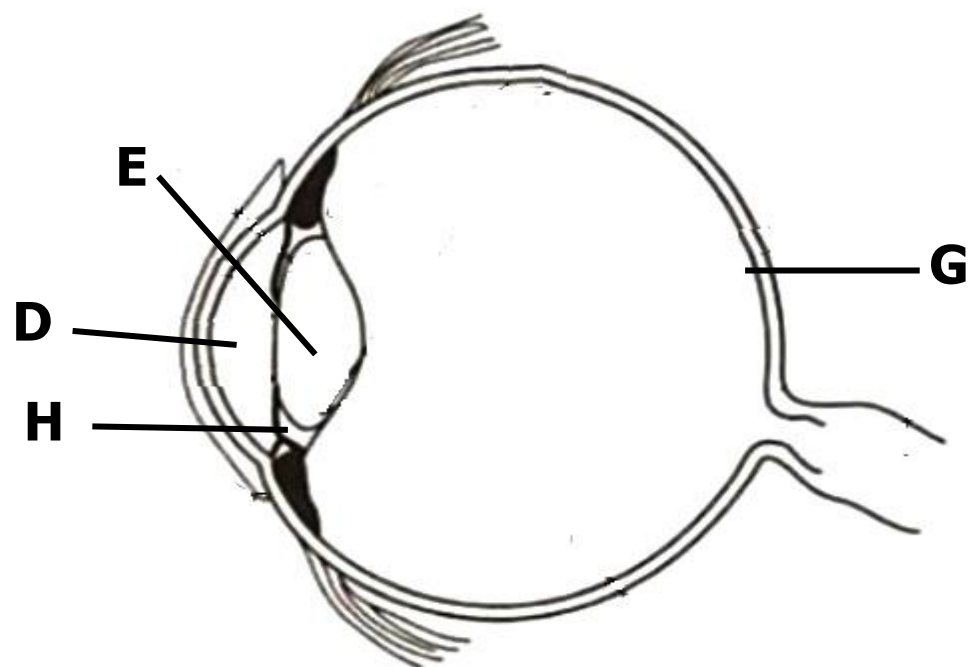
(d) Find the effort needed to lift the load of 400N on the machine **Q**.



47. (a) Which group of annual crops add nitrates to the soil?

- (b) Write down any **two** examples of such crops.
- (i)
- (ii)
- (c) State any **one** characteristic of the crops you have written in (a) above.

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



- (a) Name the parts of the eye marked **E** and **G**.
- (i) **E**
- (ii) **G**
- (b) State the function of part marked **H** to the human eye.

- (c) How is part marked **D** similar to the aperture in a lens camera in their function?

49. The list below shows energy resources in the environment. Study and use it to answer the questions that follow.

Coal, Steam, Uranium, Charcoal

(a) Name any **one** energy resources from the list above that cannot be replaced after use.

.....

(b) Identify the energy resource from the list above that is used to produce;

(i) Atomic energy

(ii) Thermal energy

(c) How is the production of charcoal different from that of steam on the list above?

.....

.....



50. (a) Which type of alcohol affects the human eyes?

.....

(b) How does the type of alcohol mentioned above affect the human eyes?

.....

.....

(c) State any **one** way in which the type of alcohol mentioned in (a) above is useful to people.

.....

- (d) Apart from the type of alcohol mentioned in a) above, name **one** other type of alcohol in the society.

.....

51. (a) Write down any **two** causes of silting in water bodies.

(i)

(ii)

- (b) State any **one** way in which silting affects aquatic animals.

.....

- (c) Give any **one** way of controlling silting in water bodies.

.....

52. (a) State the main role of the thermos flask at home.

.....

- (b) Name the part on the thermos flask that prevents heat loss or gain by;

(i) Radiation.....

(ii) Conduction.....

- (c) Why is it important to fill the hot liquid in the vacuum flask up to the part named in **b (ii)** above?

.....



53. The diagram below shows a boy flying a kite. Study and use it to answer the questions that follow.



- (a) What is the importance of using a light papyrus frame when making the kite above?
-
- (b) State what would happen to the kite above if the paper had many holes on it.
-
- (c) Give a reason for your answer in b) above.
-
- (d) State any **one** property air demonstrated by the kite flying as shown above.
-

54. (a) State the mode of reproduction in molluscs.
-
- (b) In which **one** way are molluscs similar to roundworms in terms of body structure?
-
-
- (c) Give any **two** ways in which molluscs are important to people.
- (i)
- (ii)
55. (a) State the importance of each of the following sanitary items at home:
- (i) Plate stand
-
- (ii) Rubbish pit
-
- (b) Why should a plate stand be raised at least one metre above the ground?
-
- (c) Give any **one** disease that can break out when the rubbish pit is not properly managed.
-

