

**SET TWO**

**INTEGRATED SCIENCE**

**Time: 2 Hours 15 Minutes**

**Candidate's Name:** \_\_\_\_\_

**Candidate's Signature:** \_\_\_\_\_

**School Name:** \_\_\_\_\_

**District Name:** \_\_\_\_\_

**Read the following instructions carefully:**

1. Do not write your **school** or **district name** anywhere on this 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 papers** altogether.
3. Answer **all** questions. **All** the answers for both sections **A** and **B** must be shown in the spaces provided.
4. **All** working must be done using a **blue** or **black** ball point pen or ink. Any work done in pencil will **NOT** be marked except drawings and diagrams.
5. Unnecessary **changes** in your work and handwriting that cannot easily be read may lead to loss of marks.
6. Do not fill anything in the table indicated: "**For examiners' use only**" and the boxes inside the question paper.

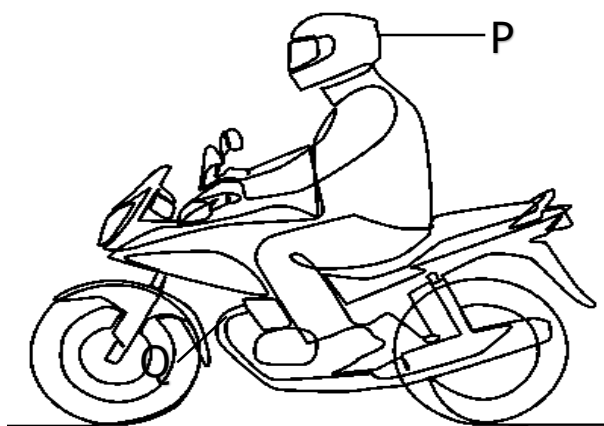
FOR EXAMINER'S USE ONLY		
Qn. No.	MARKS	EXR'S NO.
1 - 10		
11 - 20		
21 - 30		
31 - 40		
41 - 43		
44 - 46		
47 - 49		
50 - 52		
53 - 55		
<b>TOTAL</b>		

## SECTION A

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

1. At what age does a baby receive the last dose of polio vaccine?  
\_\_\_\_\_
2. State the main reason why livestock farmers rear Alpine goats.  
\_\_\_\_\_
3. Give any one process that increases carbon dioxide in the atmosphere.  
\_\_\_\_\_
4. Why is cassava not propagated using its root tubers?  
\_\_\_\_\_
5. Which process enables absorption of digested food in the ileum?  
\_\_\_\_\_
6. Give a reason why alveoli are numerous in the lungs.  
\_\_\_\_\_
7. Name the waterborne disease that affects the liver.  
\_\_\_\_\_
8. How does sudden shocking news lead to fainting?  
\_\_\_\_\_

Below is a diagram showing a rider. Use it to answer questions 9 and 10.



9. Name the personal protective equipment marked P.  
\_\_\_\_\_
10. How can the rider above monitor the current speed of his bike to maintain safe riding practice?  
\_\_\_\_\_
11. Name the type of soil used to make pavers.  
\_\_\_\_\_
12. Give any one importance of PIASCY messages in the school compound.  
\_\_\_\_\_

13.State the importance of dental brace in management of teeth disorders.

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14.State the importance of dental brace in management of teeth disorders.

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15.Name the vector that spreads Lyme disease.

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16.Which element of Primary Health Care (P.H.C) is promoted through making regular physical exercises and having enough sleep?

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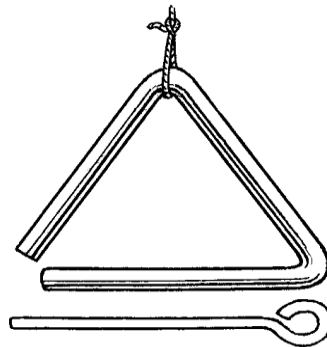
17.Give a reason why it is easier to carry a kilogram of sugar than a kilogram of feathers.

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18.How does a gecko benefit from its adhesive toepads?

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Below is a diagram showing a musical instrument. Use it to answer questions 19 and 20.



19.Name the musical instrument shown above.

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20.Give a reason why the musical instrument above is at one corner its sides do not join.

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21.Which body part of a female Anopheles mosquito enables it to detect people in the dark at night?

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22.Besides provision of manure, give one way cattle keeping promote crop growing in an area.

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23.Give a reason why worker bees are able to build honey combs in a short time.

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24. A teacher asked a learner whether he had understood the concept and responded by nodding the head. Which type of movable joint did the learner use?

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25. Why are some insects able to walk and stand on water surface?

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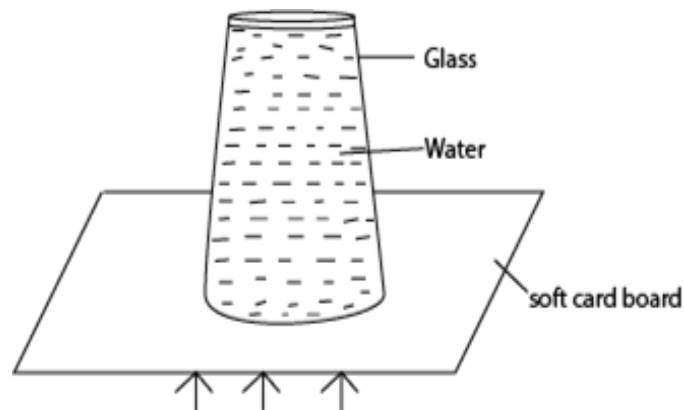
26. Write down any one injury which requires use of a tourniquet.

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27. Give one application of convection in our daily life.

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Below is a diagram showing a property of air. Use it to answer questions 28 and 29.



28. Which property of air is shown above?

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29. Why does the cardboard stick to glass for some time without falling?

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30. State the use of digestate in crop growing.

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31. In which way are stomata similar to lenticels in terms of function?

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32. Name the non-metal that conducts electricity.

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33. How is ginger propagated?

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34. Besides bees, name one insect that have a stinger.

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35. Why do tobacco smokers find a difficulty in quitting their habit?

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36. Name the latrine that uses no water in its operation and human waste is used as manure.

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37. How does planting of flowers together with vegetables in a kitchen garden increase yields?

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38. Give any one way of controlling Heartwater disease in goats.

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39. Why are school children advised to bathe regularly?

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40. How does a newt differ from a chameleon in terms of their sexual reproduction?

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## **SECTION B (60 MARKS)**

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

41.a) What do we call the period when a person is sexually mature?

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b) Mention any one indicator of sexual maturity in adolescent boys.

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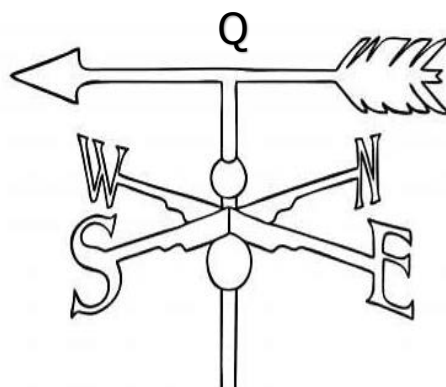
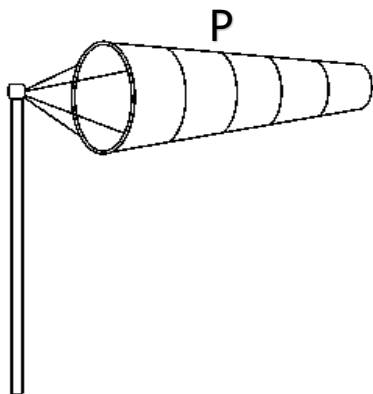
c) Suggest any one way adolescents can manage changes in their bodies.

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d) Why should adolescent girls abstain from sex?

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42. The diagrams below show weather instruments. Use them to answer questions that follow.



a) Name the weather instrument marked Q.

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b) State the use of the weather instrument marked P at a weather station.

c) Besides strength and direction, give any one other aspect of wind measured at the weather station.

d) Why are the instruments shown above not kept in a Stevenson screen?

43.a) State any two factors that can lead to absconding in bees.

i) \_\_\_\_\_

ii) \_\_\_\_\_

b) Give any one way how bee keepers can encourage honey bees to occupy a new hive.

c) Name any one method of extracting honey.

44.a) Write down any one how way people acquire natural immunity.

b) How are the following vaccines administered into the human body;

i) BCG vaccine? \_\_\_\_\_

ii) Rotavirus vaccine? \_\_\_\_\_

c) How do vaccines boost one's immunity?

45. Match the following correctly.

**LIST A**

Ayrshire

Oxen

Red poll

Galloway

i) Ayrshire \_\_\_\_\_

ii) Oxen \_\_\_\_\_

iii) Red poll \_\_\_\_\_

iv) Galloway \_\_\_\_\_

**LIST B**

Draught cattle

Beef cattle

Dual purpose cattle

Dairy cattle

46.a) Why are fish regarded as vertebrates?

b) How are fish similar to amphibians in terms of fertilization?

c) Give any two factors considered when classifying living things.

i) \_\_\_\_\_

ii) \_\_\_\_\_

47.a) Which type of current electricity flows in one direction only?

b) Write down any one source of the above named type of current electricity.

c) How is fast flowing water important during the production of hydroelectricity?

d) Why should electric wires be insulated properly?

48.a) How are the following components important in an electric circuit?

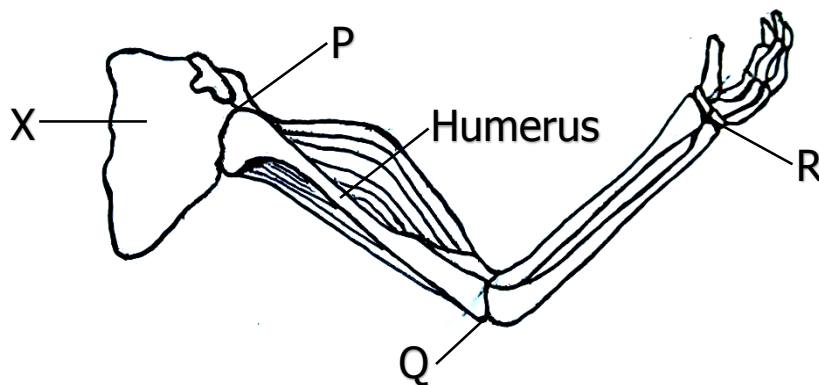
i) Switch \_\_\_\_\_

ii) Dry cells \_\_\_\_\_

b) What energy change occurs in a working electric bulb?

c) Give a difference between electric current and voltage in terms of units.

49. The diagram below shows the human arm. Use it to answer questions that follow.



a) Name the bone marked with letter X.

b) What type of movable joint is found at point R?

c) How is the joint at point P different from that at point Q?

d) Use a line segment and letter M to show the biceps muscle on the diagram above.

50.a) How is sound energy produced?

b) Name any one natural source of sound.

c) How is a flash drive important to musicians?

d) Which property of sound leads to formation of echoes?

51. a) Give any one energy resource got from each of the following resources;

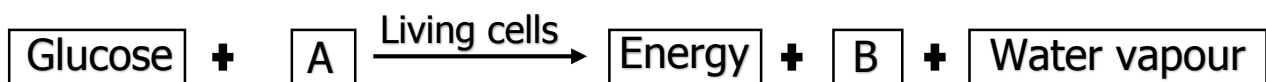
i) Plants

ii) Animals

b) In which one way can water be used as a source of energy resources?

c) Mention any one way of conserving non-renewable resources in the environment.

52. Below is a body process. Use it to answer the following questions.



a) Name the body process illustrated above.

b) Which letter represents oxygen in the process above?

c) How do animals benefit from the process above?

d) Name any one process in nature that makes use of gas marked C.

53.a) Which property of magnets helps in the following;

i) Resetting a Six's thermometer?

ii) Finding direction using a magnetic compass?

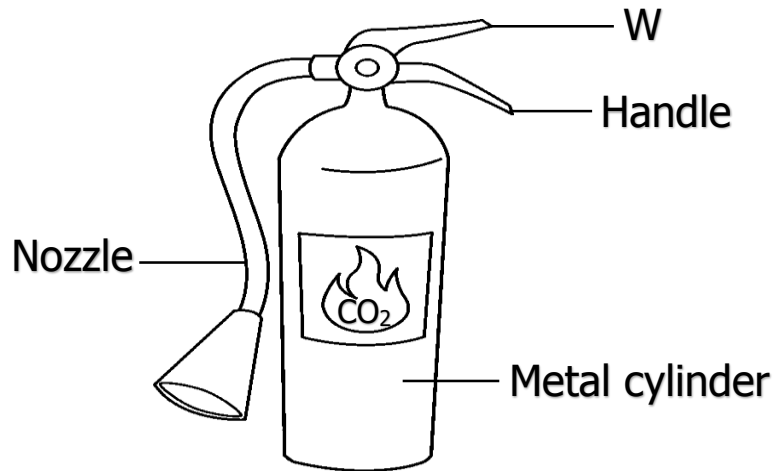
b) Give a reason why like poles of magnets repel.



c) How are magnets useful to watch repairers?

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54. The diagram below shows a fire extinguisher. Use it to answer questions that follow.



a) Name the part marked W.

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b) Why is the device above always painted with bright colours?

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c) Identify the first step taken when using the device above.

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d) Why is oxygen not filled in the metal cylinder of a fire extinguisher?

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55.a) Why are weaning babies said to be vulnerable people?

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b) Besides babies, give any other group of vulnerable people.

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c) Why should the diet of convalescents contain more proteins?

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d) Name the group of people with special needs who use of braille.

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**END**