

# THE SIPRO PRE-MOCK EXAMINATIONS 2023

## INTEGRATED SCIENCE

Time Allowed: 2 /Hours 15 Minutes

Index No.

Random No.

Personal No.

Candidate's Name:

Candidate's Signature:

School Random No.

District ID:

READ THE FOLLOWING INSTRUCTIONS CAREFULLY:

For Examiner's Use Only:

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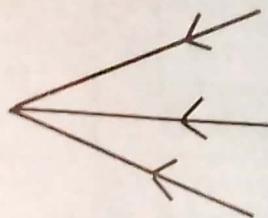
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- SECTION A: 40 MARKS**
1. Name the part of a flowering plant that stores seeds.
2. State any one factor to be considered when selecting a site for building a house.
3. How are carbohydrates important in the human body?
4. Give any one way conduction can be important at home.
5. Name the goat management practice carried out using a burdizzo.
6. State any one way in which cholera can be controlled among school children.
- The diagram below shows a beam of light. Study and use it to answer question 7.
7. Name the type of beam shown in the diagram above.
8. Give any one role of a School Health Committee in the promotion of Primary Health Care in a school.
9. Name the force of attraction that exists between molecules of different substances.
10. State one effect of scurvy to the oral health of a person.
11. Write any one danger of alcohol consumption to a family.



12. How does untreated Gonorrhoea cause barrenness in women?
13. What should be done by engineers constructing a railway line to manage the effects of expansion on hot days?
14. Why is coffee grouped under perennial crops?
15. State any one way preserving food promotes food security at home.
16. Name the vector which spreads bilharziasis to people.

The diagram below shows one of the management practices in poultry rearing. Use it to answer questions 17 and 18.



17. Name the management practice shown in the diagram above.
18. How is the above practice important to a poultry farmer?
19. Which type of weather is good for planting crops?
20. Give one way in which community members can reduce accidents on their roads.
21. Name the human body organ which regulates blood sugar levels.

22. Give any one way the light produced by a bulb in a simple electric circuit can be increased.
23. State any one way in which adolescents can avoid catching HIV/AIDS.
24. Give one importance of sorting clothes before washing them.
25. How does slashing of tall grass in the compound control the spread of malaria?
26. How are muscles connected to bones in the human skeleton?
- The diagram below is of a vertebrate. Study and use it to answer questions 27 and 28.
- 
27. To which class of vertebrates does the animal above belong?
28. How are the eggs of the animal above fertilised?
29. In which state of matter does sound travel fastest?
30. Give the reason why ventilators are put on a higher level than windows.
31. Mention any one way human eyes can be kept in a good working condition.
32. Give one way beans and conifers are similar in terms of reproduction.
33. State one way of keeping an ordinary pit latrine free from houseflies and cockroaches.



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34. Which characteristic of living things protects internal body organs from damage by poisonous waste materials?

35. Write **one** activity that a Primary Seven candidate can do to conserve the environment.

36. How does a fuse protect electric devices from being damaged by high voltage?

37. State **one** way oxygen is important during seed germination.

38. How does hookworm infestation lead to anaemia in human beings?

39. In which way does the keeping of drugs out of children's reach prevent child poisoning?

40. Name the natural shadow formed when the moon blocks sunlight reaching the earth.

#### SECTION B: 60 MARKS

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

41(a) Give an example of each of the following changes;

- (i) chemical change
  - (ii) physical change
  - (iii) biological change
- (b) Mention **one** characteristic of chemical changes.

42(a) Give the meaning of the term an energy resource.

(b) Name **one** energy resource that provides wastes for making biogas fuel.

(c) Name the equipment people use in the making of biogas

(d) State any one way people use biogas.

43(a) Mention any two examples of viral cattle diseases.

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(b) Apart from death of the animal, state two other effects of cattle diseases on a

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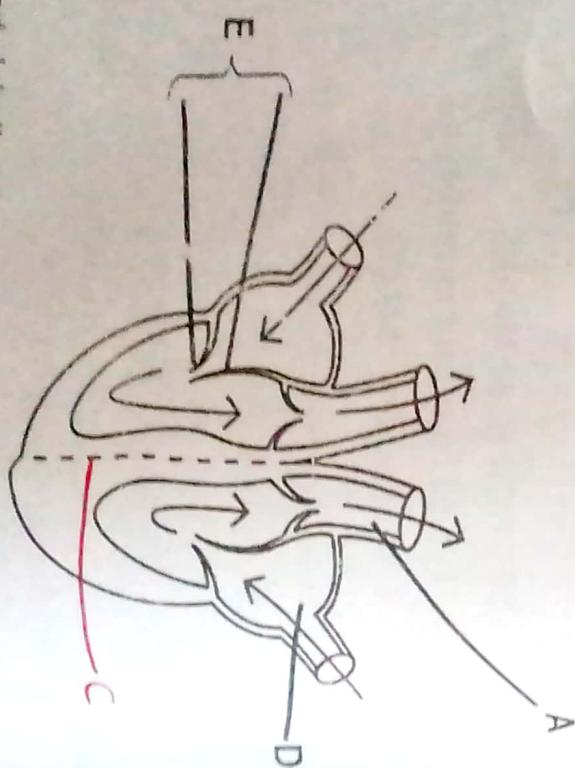
44(a) How are fungi similar to bacteria in the way they feed?

(b) Name any two examples of useful fungi.

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(c) Give any one way in which bacteria are useful to people

45. The diagram below is of a human heart. Use it to answer the questions that follow.



(a) Name parts labelled E and C

m

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(b) How is blood carried in blood vessel A similar to the blood carried by blood vessel D?

(c) Why is the left ventricular wall of the heart thicker than that of the right ventricular one?

6(a) Give any two advantages of using electricity for doing work.

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

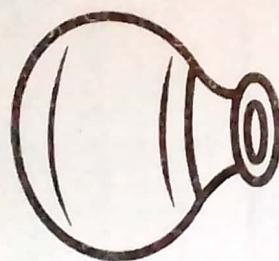
(ii) \_\_\_\_\_

(b) State two ways the use of hydroelectricity can be dangerous to people.

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

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

7. The diagram below shows an item made from soil. Use it to answer the questions that follow.



(a) Identify the type of soil used to make the item shown in the diagram above.

(b) Name the characteristic of the type of soil you have named in (a) above which makes it suitable for making such items.

(c) Apart from covering, give one other way of preventing contamination of water kept in the item above.

(d) State any one way people care for the above drawn item.



48(a) Mention any two examples of drugs of dependency.

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

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

(b) State any two effects of drugs of dependency to the human body.

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

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

49. The table below shows terms used in human reproduction in X and their meaning in Y. Match them correctly.

X	Y
ovulation	union of male and female gametes.
fertilisation	release of mature ova from the ovaries.
implantation	successful fertilisation
conception	attachment of the zygote on the walls of the uterus.

(i) ovulation \_\_\_\_\_

(ii) fertilisation \_\_\_\_\_

(iii) implantation \_\_\_\_\_

(iv) conception \_\_\_\_\_

50(a) Give any two ways plants benefit from the process of seed dispersal.

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

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

(b) How is a blackjack fruit adapted to animal dispersal?

(c) State the type of weather which enables explosive mechanism to occur in a bean pod.



The diagrams below are of two weather instruments. Study and use them to answer the questions that follow.



- (a) Identify the weather instruments labelled with letters X and Y.

(i) X \_\_\_\_\_

(ii) Y \_\_\_\_\_

(b) State the role of instrument X at a weather station.

\_\_\_\_\_

(c) How does one care for instrument Y after use at a weather station?

\_\_\_\_\_

a) Write any two ways friction is a nuisance force.

\_\_\_\_\_

\_\_\_\_\_

b) State two steps taken to reduce friction in moving parts of a machine.

\_\_\_\_\_

\_\_\_\_\_

c) Name the crop growing practice where a farmer grows different types of crops on the same piece of land in the same season.

\_\_\_\_\_

\_\_\_\_\_

d) Give any two advantages of the practice mentioned in (a) above.

\_\_\_\_\_

\_\_\_\_\_

e) Write any one problem that affects crop growing in the garden.

\_\_\_\_\_

\_\_\_\_\_

54(a) Give the meaning of the term an echo.

- (b) Mention any two groups of people that use echoes during their work.  
(i) \_\_\_\_\_  
(ii) \_\_\_\_\_
- (c) How does putting of soft porous boards in cinemas help to control echoes?

55(a) You are provided with;

Water, a glass cup and a paper.

Arrange them in a diagram to show that air exerts pressure. (Indicate the air pressure on your diagram) - 2 marks.

(b) Mention two activities done using the property of air illustrated above.

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



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PRE-MOCK INTEGRATED SCIENCE EXAMINATIONS 2023

CBSE CLASS 10 SCIENCE & EXP/2023 NCERT BASED LEARNING WITH THE SUPPORT OF PRACTICAL EXPERIMENTS

# THE SIPRO PRIMARY SEVEN INTEGRATED SCIENCE PRE-MOCK MARKING GUIDE-2023

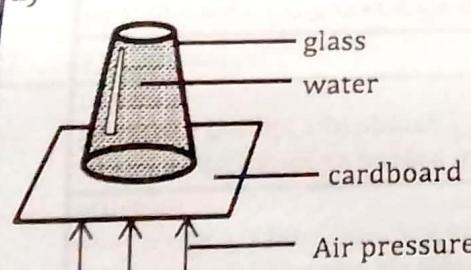
NO	CLASS LEVEL	CORRECT RESPONSE	WRONG RESPONSE	MARKING POINT	TECHNICAL ADVICE
1	P.6	Fruit	The shoot system	Should be a part not a system.	Guide learners through parts of a plant and their functions.
2	P.4	Distance from the main road/Distance from a water source/Distance from a school/Distance from a market.	Capital market	Should be distance from social and medical facilities.	Guide them through factors that affect or determine a site for a living house.
3	P.4	Provide people with energy / Prevent marasmus.	Provide people with food.	Importance of carbohydrates.	Guide them through uses of different food values /classes of food.
4	P.5	It enables people at home to cook food / iron clothes.	It enables people at home to dry their harvested crops.	Should be use of heat transfer through solids.	Guide them through uses of heat transfer through the different states of matter.
5	P.5	Castration / Closed castration	Removing testes	Should be castration.	Guide them through the types of castration and the equipment used.
6	P.4	By boiling water for drinking/ By washing hands before eating food / By washing hands after visiting a toilet or latrine.	By drinking water	Should be doing things that can kill or remove germs in water.	Take them through ways of preventing entry of Cholera germs in the body.
7	P.7	Converging beam / Convergent beam	Diverging beam / Divergent beam	Should be a beam of light rays coming together.	Give them a clear difference between converging and diverging beams of light.
8	P.5	Sensitising learners about the dangers of not washing hands before eating food / The advantage of boiling water for drinking / Encouraging learners to pick rubbish / Encouraging learners to burn rubbish.	By promoting Primary Health Care	Should be performing activities that can promote health in a school.	Guide them through ways of promoting PHC and which activities to be done.
9	P.5	Adhesion force / Adhesion	Adhesion force/Adhesion	Be mindful of the spellings.	Guide them through the different spellings.
10	P.4	Scurvy causes bleeding gums / The gum starts bleeding.	Painful teeth	Should be the bleeding gum.	Guide them through the parts affected by the different deficiency diseases.
11	P.6	It leads to family neglect / It leads to spouse abuse / It leads to child abuse/ It leads to poverty / It leads to separation of spouses / Domestic violence	It leads to personal neglect.	Should be an effect to the family not an individual.	Guide them through effects of alcohol to individuals, family and community.
12	P.6	Damages the female reproductive system.	Abstaining from sex	Should be an element of PHC not activity.	Take them through the different elements of PHC and their importance.

13	P.5	Leaving gaps between rails / Spacing the rails.	Using metallic bars	Managing effects of expansion in a railway line.	Guide them through gaps left between rails and fixing electric wires on poles loosely.
14	P.4	Coffee takes more than a year to mature / Can be harvested more than once.	Coffee grows into big trees.	Should be taking more than a year to mature.	Guide them through annual and perennial crops.
15	P.4	Keeps food longer without going bad.	Food is safe.	Should be about food security.	Guide them through the different methods of food preservation.
16	P.4	Fresh water snail / slug	Slung	Correct spelling	Guide them through the different vectors and the diseases they spread.
17	P.5	Debeaking	Egg eating	Should be a practice not a poultry vice.	Take them through practices and vices on a poultry farm.
18	P.5	It controls poultry vices/ It controls egg eating.	It makes the beak blunt.	Should be importance of the practice to a poultry farmer.	Guide them through importance of poultry practices to poultry farmers.
19	P.4	Rainy weather	Wet season	Should be a type of weather which is characterized by water.	Take them through the different weather types and activities carried out.
20	P.2	By filling potholes in their community roads / By putting humps on their community roads / By sensitizing their children how to use the roads safely/ By sensitizing their children about the dangers of playing on the community roads.	By not walking on their community roads.	Should be safe ways of using community roads.	Guide them through safe ways of using community roads.
21	P.7	Liver / The liver	Stomach / The stomach	Should be liver	Take them through the functions of the different body organs.
22	P.7	By increasing voltage/By adding more dry cells.	By using it sparingly.	Should be increasing voltage.	Guide them through ways of increasing the intensity of light in a simple electric circuit.
23	P.3/P.6	By abstaining from sex / Avoid sharing sharp piercing objects.	Being faithful to one sexual partner.	Should be abstaining from sex.	Guide them through the ABC method of controlling HIV/AIDS.
24.	P.6	It prevents staining plain clothes with dyes/ It helps to separate extremely dirty clothes from somehow dirty clothes / It helps to separate hard clothes from soft ones / Prevents easy dirtying of water.	It is good to sort clothes.	Should be an advantage of sorting clothes.	Guide them through the advantages of the different steps followed when cleaning clothes.
25	P.3	Removes hiding places for adult mosquitoes / Removes habitats for adult mosquitoes	Prevents breeding of mosquitoes	Destruction of hiding places for mosquitoes.	Guide them through ways of controlling the spread of malaria.

26	P.7	By the help of tendons.	By ligaments	Should be a way muscles are connected to bones	Guide them through parts of a soft and their functions.
27	P.6	Reptiles	chameleon	Class of vertebrates for a chameleon.	Take them through the different groups of vertebrates and examples of such animals.
28	P.6	Internally	Externally	Should be internal fertilisation	Guide them through the different types of fertilization and the animals that undergo each of them.
29	P.6	Solid state / Solid	Solids	Speed of sound in solids.	Guide them through speed of sound and heat in states of matter.
30	P.5	To let out less dense stale air.	To let out warm air.	Density of stale air.	Guide them through ventilation and ventilators.
31	P.4	Feeding on a balanced diet / Reading only when light is enough / Coming for medical check up. / Regular washing	Keeping the human body in a good working condition.	Should be activities done to promote health of the eyes.	Guide them through proper keeping of the human body, and the specific body organs with clean water.
32	P.6	Both beans and conifers are propagated by means of seeds / Both beans and conifers reproduce by seeds.	Both beans and conifers are flowering plants.	Should be using seeds in propagation.	Take them through the different groups of groups of plants and their similarities.
33	P.6	Scrubbing them / Proper use of the latrines.	Keeping latrines in a good condition.	Should be an activity done to keep the pit latrine clean.	Guide them through activities that promote a good condition of pit latrines.
34	P.7	Excretion / Living things excrete	Living things breathe.	Should be one that involves removal of body wastes.	Take them through excretion, and significance of different characteristics in organisms.
35	P.3/ P.6/P.7	Planting trees / Proper disposal of wastes / Carrying out a woodlot project.	Conserving the environment	Should be an activity that helps to conserve the environment.	Guide them through activities that conserve the environment done by P.7 cardidates.
36	P.7	The fuse wire melts when the voltage is high.	Breaks the circuit.	Should be a way the fuse protects the circuit.	Take them through parts of a circuit and their uses.
37	P.3	Oxygen burns food to produce energy / Oxygen oxidises food to release energy	Oxygen is used in breathing by the seed.	Should be burning food during respiration.	Guide them through uses of the different conditions needed for a seed to germinate.
38	P.3	Hookworms feed on blood in human beings / Hookworms suck blood	Should be feeding on blood leading to its reduction in human body.	Should be prevention of intestinal worms in the human body.	Guide them through effects of different hookworms from humans.
39	P.6	It prevents children from accessing the drugs and taking overdose.	It keeps drugs safe.	Should be prevention of access of children, accessibility of drugs by children, poisons.	Guide them through ways of preventing child poisoning.

40	P.7	Solar eclipse	eclipse	Should be name of the eclipse.	Take them through shadows/ Eclipses and how they are formed.
<b>SECTION B</b>					
41	P.5	a) (i) Rusting/Decomposition / Digestion / Burning/ Respiration	camouflaging	Should be a change which is irreversible.	<ul style="list-style-type: none"> <li>-Guide them through changes in the environment.</li> <li>-More guidance through changes in the environment.</li> <li>-Take them through changes in the environment.</li> <li>-More guidance about the changes and their characteristics.</li> </ul>
		ii) Freezing / Condensation /Evaporation/ Sublimation / Deposition	Burning	Should be a change which is reversible.	
		iii) Moulting / Growth/ Camouflaging / Fruiting / Fertilisation/ Ovulation	Evaporation / Freezing / Condensation	Should be a change that occurs in living things and influence change in the living things.	
		b) They are irreversible / They form new substances.	They are reversible / They don't form new substances	Should be irreversible / form new substances.	
42	P.7	a) An energy resource is any thing that provides people with useful energy.	Is anything people use to satisfy their needs.	Meaning of energy resource.	<ul style="list-style-type: none"> <li>-Guide the candidates through plants and animals as energy resources and conservation of the environment.</li> </ul>
		b) Plants / Animals	Cow dung / Peelings	Should be sources of materials used to make biogas.	
		c) Biogas digester	Machines	Equipment for making biogas.	
		d) For cooking / For lighting / For providing warmth	For sale	Uses of biogas	
43	P.6	a) Rinder pest / Foot and Mouth disease	Anthrax	Should be viral cattle diseases	<ul style="list-style-type: none"> <li>-Guide them through methods of rearing cattle and poultry.</li> <li>-Take them through viral and bacterial cattle diseases.</li> </ul>
		b) Cattle diseases lead to reduced meat / Reduced milk production / Low market	Death of the animals.	Other effects of cattle diseases.	
44	P.5	a) Both feed saprophytically / Obtain food from decaying matter,	Both feed	Feeding in bacteria and fungi.	<ul style="list-style-type: none"> <li>Discuss the useful fungi / Bacteria and harmful fungi/bacteria.</li> <li>-Go through the activities done by the help of bacteria / fungi.</li> </ul>
		b) Yeast / Penicillia / Mushroom	Penicillium	Correct spelling	
		c) Bacteria help in decomposing organic matter / Help in making medicine / Help in reducing the volume of faeces in latrines / Help in making milk products.	Bacteria are eaten.	Importance of useful bacteria.	

45	P.6	a) (i) Pulmonary vein (ii) Septum  b) Both blood vessels A and E carry oxygenated blood / Blood carried by A and E is oxygenated.  c) Blood capillaries / Capillaries	Pulmonary artery valve  Both blood vessels A and E carry oxygenated blood.	Should be pulmonary vein should be septum  Interchanged concept  Should be capillaries	-Guide them through parts of the heart. -Guide them not to interchange concepts. -Take them through the different blood vessels.
46	P.7	(a) Electricity speeds up work / Does neat work / Saves time / Makes work efficient.  b) Electricity shocks people to death / Destroys people's property / Leads to fires	It used for cooking	Advantages of using electricity.	Train the candidates on proper question approach and appropriate question interpretation.
47	P.3	a) Clay soil  b) It is sticky / It has closely packed soil particles / Low drainage / High capillarity  c) By using clean cups to draw / get water from the item above.  d) By smoking it / By washing it regularly / Handling it with care.	Sand soil  It is course.	Should be clay soil.  Should be sticky.  Keeping pot water safe and clean.  Care for a pot.	-Guide them through uses of the different types of soil. -Take them through the different characteristics of different types of soil. -Discuss ways of proper handling of delicate items at home.
48	P.6	a) Mirra / Cocaine / Tobacco / Alcohol / Marijuana / Khat / Cannabis  b) It leads to personal neglect / It leads to bad breath / It leads to respiratory diseases like lung cancer / Brain damage	Tar / Nicotine  It leads to child abuse.	Shouldn't be dangerous substances found in tobacco.  Should be to a person's body.	-Guide them through drugs of dependency. -Take them through effects of drug abuse to individuals, families and communities.
49	P.6	i) release of mature ova from ovaries ii) union of male and female gametes. iii) attachment of the zygote on the walls of the uterus. iv) Successful fertilisation	Successful fertilisation / Release of mature ova/ Union of female and male gametes attachment of the zygote on the walls of the uterus.	Interchanged concepts	Go through the processes involved in sexual reproduction and the order of their occurrence.
50	P.6	a) Plants multiply in number / Increases chances of plant survival / Prevents crowding of crops.  b) A blackjack fruit has hooks for attachment to the animal's body.  c) Sunny weather	Plants get dispersed.  A blackjack fruit is brightly coloured.  heat	Significance of seed dispersal to plants.  Hooks on a blackjack fruit.  Type of weather	-Guide them through the different types of fruits. -Guide them through the scars of a fruit.

51	P.4	a) (i) Anemometer (ii) Six's thermometer / Maximum and minimum thermometer  b) To measure the speed of wind.  c) By keeping it in a Stevenson screen / Through proper handling.	(i) Windsock (ii) Thermometer  To show the strength of wind.  By cleaning	Correct names  Importance of the anemometer.  Storage of delicate weather instruments	-Take the candidates to a nearby weather station and elaborate the uses of different weather instruments.  -Discuss the delicate weather instruments and ways of caring for them.
52	P.7	a) Friction causes wear and tear in machines / Makes unnecessary noise / Unnecessary heat / Reduces efficiency in machines.  b) By greasing / Oiling / Lubricating moving parts / By putting ball bearings in moving parts.	Increases work  By putting rollers.	Disadvantages of friction.  Response should be in moving parts.	-Teach friction practically and all about it. Give chance to the candidates to have practical learning.
53	P.4	a) Intercropping  b) Improves soil fertility / Controls soil erosion / Enables plants with weak stems get extra support.  c) Soil erosion / Pests and diseases / Floods / Soil fertility/ Drought	Mixed farming  Controls pests  Poor farming tools	Should be intercropping  Should be advantage of inter-cropping.  Garden challenges during crop growing.	-Guide them through the different crop growing practices.  -Guide them through types of crop grown.  -Take them through advantages of the different crop practices.
54	P.6	a) An echo is reflected sound.  b) Pilots / Sailors / The blind  c) Soft porous boards absorb sound waves.	Is repeated sound  Bats / Whales  Make it easy to hear	Meaning of an echo  People that use echoes  A way soft boards reduce echoes.	Have a detailed discussion on the different properties of sound.
55	P.3	a)   b) Drinking juice with a straw/ Spraying acaricides		Should be well labelled with air pressure.	-Guide them to always label diagrams / Train learners to draw diagrams so as to improve on the competence of diagram drawing.  -Remind the candidates about properties of practically.