

# THE SIPRO MID-TERM II EXAMINATIONS 2023

SUBJECT : INTEGRATED SCIENCE

CLASS : PRIMARY SIX

DURATION : 2 hours 15 minutes

Name: \_\_\_\_\_

School: \_\_\_\_\_

District: \_\_\_\_\_

## READ THE FOLLOWING INSTRUCTIONS CAREFULLY:

1. This paper has two sections: A and B.
2. Section A has 20 questions (40 Marks).
3. Section B has 15 questions (60 Marks).
4. Attempt all questions in both sections. All answers to both sections A and B. must be written in the spaces provided.
5. All answers must be written in blue or black ball point pens or *ink*. Only diagrams and graph work must be done in *pencil*.
6. Unnecessary *alteration* of work will lead to loss of marks.
7. Any *handwriting* that cannot be easily read may lead to loss of marks.
8. Do not fill anything in the boxes indicated:  
“FOR EXAMINER’S USE ONLY”

## For Examiner’s Use Only;

PAGES	MARKS	INITIALS
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Page 6		
Page 7		
Total		

Please turn over



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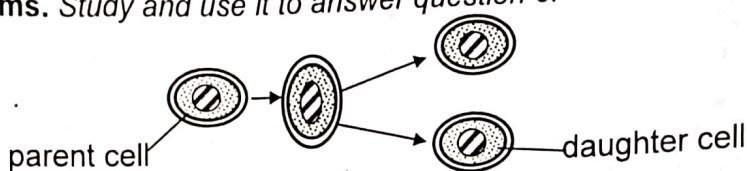
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### SECTION A: 40 MARKS

Questions 1 to 40 carry one mark each.

- Name any one people made source of heat in the environment.
- How are spores important to a mushroom?
- In which one way is the function of lungs in people similar to that of spiracles in grasshoppers?
- Which element of PHC is promoted by regular washing and ironing of clothes?
- Mention any one item at home which uses electricity to operate.

The diagram below shows a mode of reproduction in single celled organisms. Study and use it to answer question 6.



- 1. Identify the mode of reproduction shown in the above diagram.
- 2. State one structural difference between a worker bee and a queen bee.
- 3. What do we call the swollen structures found on the roots of leguminous crops?
- 4. Give any one way polio affects the body of a victim.
- 5. State one importance of condensation process to people.
- 6. A cockroach undergoes three stages of growth. Name the second stage in its metamorphosis.
- 7. Why do objects weigh less on the moon than on earth?
- 8. Mention one way of controlling food contamination at home.



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IGNITE CRITICAL THINKING AND EXPERIENCE ACTUAL LEARNING WITH THE ACTIVITY BOOKS, SEMAS, TEACHER'S GUIDES & PUPIL'S COMPANIONS.

14. Give **one** characteristic common to all flesh eating mammals.

The diagram below shows a component of a rain gauge. Study and use it to answer question 15.



15. How is the above drawn component useful in the rain gauge?

16. Give **one** way in which plants are of benefit to people.

17. State the mode of administration for rotavirus vaccine.

18. Name **one** sheep management practice done to reduce hiding places for ecto parasites on a sheep's body.

19. Apart from taking more than one year to mature, state **one** other characteristic of perennial crops.

20. State the reason why the elderly should be fed on foods rich in proteins.

21. State **one** danger of living in a dirty environment.

22. Mention **one** example of a stem tuber eaten as food.

23. In which **one** way can mulching be of a disadvantage to crops?

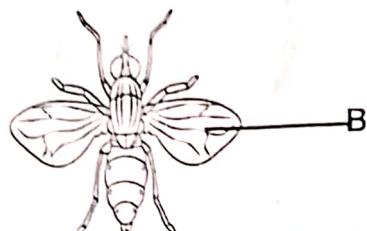
24. Which natural resource do people get from rainfall?

25. Why do people prefer putting on light white clothes on a hot day?

26. During the process of filtration, what item can be used to separate seeds from juice?



The diagram below shows an insect. Study and use it to answer question 27.



27. On which part are structures labelled B attached?

28. Why do farmers always plant their seeds in a wet season?

29. How is a pouch useful to a kangaroo?

30. Write one condition in which an adult person can be considered vulnerable.

31. Write down one example of a PIASCY message that can be displayed in the school compound.

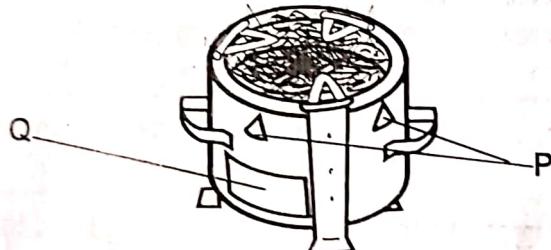
32. Mention the substance removed by kidneys from blood.

33. State one way of preventing eggs from breaking when rearing poultry using a deep litter system.

34. How is feeding in mushrooms similar to that in puffballs?

35. Give one reason why animals move from one place to another.

The diagram below shows a charcoal stove. Study and use it to answer question 36.



36. How is the function of holes marked with letter P different from that marked with letter Q?

37. In which one way can people prevent the spread of bilharziasis?

38. Why are beehives raised above the ground in a bee farm?

39. How do bedbugs protect themselves from enemies?

40. How is the feeding of a hookworm different from that of a tapeworm?

#### SECTION B: 60 MARKS

Questions 41 to 55 carry four marks each

41.a) Name the garden tool used by farmers to transplant seedlings.

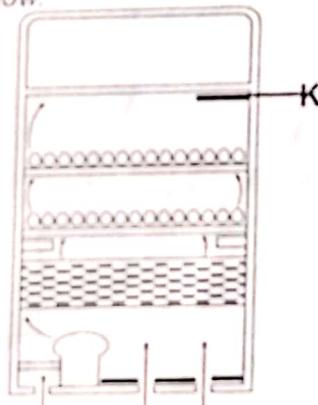
b) In which season is transplanting done?

c) Mention any two ways of caring for garden tools after use.

i)

ii)

42. The diagram below shows an equipment used in poultry keeping. Use it to answer the questions that follow.



a) Name the equipment drawn above.

d) Name the part marked K.

c) In what type of incubation is the above drawn equipment used?

d) Give a reason why this equipment is not commonly used in rural areas.



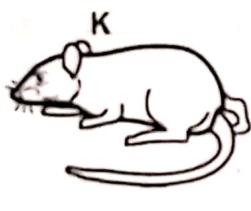
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43. a) Give any **two** importance of food to the body.  
i) \_\_\_\_\_  
ii) \_\_\_\_\_
- b) Mention any **two** examples of body building foods.  
i) \_\_\_\_\_ (ii) \_\_\_\_\_
44. a) State any **two** differences between mass and weight.  
i) \_\_\_\_\_  
ii) \_\_\_\_\_
- b) Give any **two** examples of objects whose volume is got by the displacement method.  
i) \_\_\_\_\_ (ii) \_\_\_\_\_
45. a) Mention any **two** examples of animals that make use of echoes.  
i) \_\_\_\_\_ (ii) \_\_\_\_\_
- b) Write any **two** ways echoes are useful to the above animals.  
i) \_\_\_\_\_  
ii) \_\_\_\_\_

46. The diagrams below show different organisms. Use them to answer the questions that follow.



- a) To which group of mammals does animal K belong?  
\_\_\_\_\_
- b) State **one** similarity between animals K and M, in terms of reproduction.  
\_\_\_\_\_
- c) How is the body structure of organism marked L different from that of organisms K and M?  
\_\_\_\_\_
- d) Give **one** way in which organism marked with letter L is a threat to human health.  
\_\_\_\_\_



47. a) Name any one germ that causes diarrhoea.
- b) State any two conditions that can lead to the easy spread of diarrhoea.
- i) \_\_\_\_\_
- ii) \_\_\_\_\_
- c) Mention one effect of untreated diarrhoea to the body.
48. a) Give any two exotic sheep breeds kept for wool.
- i) \_\_\_\_\_ (ii) \_\_\_\_\_
- b) State two reasons for docking female sheep.
- i) \_\_\_\_\_
- ii) \_\_\_\_\_
49. a) Besides yeast, give one other example of a useful fungus.
- b) How is yeast different from other fungi?
- \_\_\_\_\_
- c) Give any two uses of fungi to people.
- i) \_\_\_\_\_
- ii) \_\_\_\_\_
50. a) State the percentage of oxygen in air.
- \_\_\_\_\_
- b) Write down any two uses of oxygen in our daily life.
- i) \_\_\_\_\_
- ii) \_\_\_\_\_
- c) Why isn't oxygen used in fire extinguishers?
- \_\_\_\_\_
51. a) Name any two parts of the alimentary canal that help in food absorption.
- i) \_\_\_\_\_ (ii) \_\_\_\_\_
- b) Mention any two adaptations of the ileum for food absorption.
- i) \_\_\_\_\_
- ii) \_\_\_\_\_



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52. The diagrams below show people suffering from deficiency diseases. Use them to answer the questions that follow.



a) Identify the deficiency disease each person in diagram S and diagram T is suffering from.

- i) S \_\_\_\_\_  
ii) T \_\_\_\_\_

b) Which mineral salt is lacked in the body of the person in diagram T?

c) What advice can you give to the parent of child in diagram S?

53. a) Match the types of changes in list C to their examples in list D.

List C

biological changes  
physical changes  
chemical changes

List D

melting of candle wax  
burning of wood into ash  
flowering in plants

- i) biological changes \_\_\_\_\_  
ii) physical changes \_\_\_\_\_  
iii) chemical changes \_\_\_\_\_

b) Mention one importance of chemical changes to people.

54. a) Name any two non-living components of soil.

- i) \_\_\_\_\_  
ii) \_\_\_\_\_

b) In which two ways are soil organisms important to soil?

- i) \_\_\_\_\_  
ii) \_\_\_\_\_

55. a) Mention any two possible causes of poisoning at home.

- i) \_\_\_\_\_  
ii) \_\_\_\_\_

b) State any two measures that can be taken to control poisoning at home.

- i) \_\_\_\_\_  
ii) \_\_\_\_\_



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NO.	LEVEL	CORRECT RESPONSE	WRONG ANSWER	MARKING PO
1	P.5	Burning charcoal/ firewood/ paraffin/ petrol/ diesel/Electric bulb/oven/cooker	The sun, moon	Artificial sour
2	P.6	Spores help a mushroom to reproduce.	Spores help a mushroom to grow.	Spores as gam
3	P.4	Both are used for breathing. / Both are breathing organs.	Both are used for respiration	Lungs and spi breathing org
4	P.5	Personal hygiene.	Water and sanitation.	Washing cloth clothes are ac promote pers
5	P.3	woofer/ radio/TV/ irons/ phones/DVD player	Chairs/ electric poles.	The question devices whic to operate.
6	P.6	Cell division/ binary fission.	Asexual reproduction	Mode of rep than type
7	P.5	A worker bee lacks an ovipositor while a queen bee has an ovipositor. /A worker bee is smaller than a queen bee.	A worker bee cleans the hive while a queen bee lays eggs.	Emphasis s physical ap differences
8	P.4	Root nodules. /Nodules	Root caps. / Root hair	Characteris
9	P.2	It causes lameness. /Causes paralysis of limbs. / Causes weakness of limbs.	High fever. / Leads to sickness. /Leads to death.	Emphasis the effects individual
10	P.5	It helps in distillation of alcohol. / Distillation of water. / Rain formation.	For boiling water	Uses of pl
11	P.2	Nymph	Nif	Correct sp
12	P.5	There is less force of gravity on the moon while there is stronger gravity on the earth. /Due to less gravity on the moon than on earth.	The moon is very far from the earth.	Weight ch measured / Accept

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Corm.

13	P.1	Covering left over foods. / Keeping food in clean containers. / Serving food in clean places. / Serving food with clean hands.	By smoking, sun drying, etc.	The c prev bad.
14	P.6	They have soft pads in their feet. / Strong eye sight to spot their prey. / Talons for gripping their prey. / Strong canines for tearing flesh.	They feed on fresh flesh	Carn anin hun prey
15	P.4	For directing rain water into the measuring cylinder.	To measure the amount of rain collected	Spec imp rain
16	P.3	Plants are a source of food. / Herbal medicine. / Wood fuels. / Building materials. / Provide oxygen to people.	People care for plants.	Em the
17	P.5	Oral method. / Orally	Injection method	Rot thr
18	P.5	Shearing. / Docking	Spraying using chemicals	Em tha pla ticl
19	P.4	They produce multiple harvests. / They are harvested more than once. / They are harvested year after year.	They take long to mature	Ch cre
20	P.5	To help their bodies repair worn out tissues. / Replace dead cells.	To build the body. / Promote body growth.	Ele gr
21	P.1	It leads to the easy spread of diarrhoeal diseases. / Breeding of some disease vectors. / Bad smell in the environment.	It makes environment dirty.	Da
22	P.5	Irish potato. / Coco-yam. <i>White yam</i>	Cassava. / Sweet potatoes. / White yam. <i>coco yam</i>	E re
23	P.4	Mulches can be a hiding place for pests. / Mulches can be fire hazards. / Some mulches may regerminate into weeds.	Mulches pierce the feet.	D
24	P.6	water	Growing crops	C

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25	P.3	White clothes reflect sun's heat.	To absorb heat.
26	P.5	Filter/ sieve/ clean cloth.	Saucepans.
27	P.2	Thorax	Head. / Legs. / Wings
28	P.4	There is enough rain water to support germination. / Growth. / Soil is soft and easy to plough.	Plants can grow well.
29	P.6	For carrying its young ones. / Has mammary glands for breastfeeding the young ones.	For carrying food
30	P.5	Sickness. / Becoming an elderly. / Becoming pregnant. / Recovering from illness.	When weak.
31	P.3	AIDS kills. / Say no to sex. / Avoid moving alone in dark places. / Refuse gifts from strangers. / Virginity is healthy. / Abstain from sex till marriage. / AIDS has no cure.	COVID is real
32	P.4	Urine	Excess water/mineral salts
33	P.5	Putting litter in a deep litter house. / Providing laying boxes to birds. / Adding calcium and phosphorus to their mash. / Timely collection of eggs.	Debeaking
34	P.6	Both feed on dead decaying matter (saprophytically)	By absorbing water and salts.
35	P.2	To look for food. / To look for their young ones. / To look for mates. / To run away from enemies. / To look for shelter.	By flying/ swimming.
36	P.5	Holes marked P take out warm air while Q allows in cool and fresh air into the charcoal stove.	They promote proper air circulation
37	P.3	Boiling water for drinking. / Proper use of a latrine. / Avoid playing in contaminated water. / Avoid defaecating in water sources. / Spray all water snails using molluscicides. / Avoid urinating in water sources.	Covering water for drinking

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38	P.5	To prevent some bee enemies (crawling bee enemies) from entering the hive / Flowing water from entering the hive.	To control thieves.
39	P.1	By producing a bad smell / By hiding in dark corners/cracks.	By biting enemies.
40	P.4	A tapeworm feeds on digested food while a hookworm feeds on blood.	A hookworm feeds on blood.
<b>SECTION B</b>			
41	P.4	(a) Trowel  (b) Wet season  (c) Keeping them in clean dry places. / Painting them. / Washing. / Cleaning them after use. / Oiling the garden tools.	Wheelbarrow  Rainy season  Caring for them
42	P.5	(a) Incubator  (b) Thermometer  (c) Artificial incubation  (d) It is expensive. / Some rural areas lack electricity. / It needs a lot of skills to use.	Artificial incubator  Trough  Natural incubation.  It is cheap.
43	P. 4	(a) Food builds the body / Food provides energy to the body / Food boosts the body's immunity / keeps the body healthy  (b) Eggs/ meat/ beans/ ground nuts/ cow pear/ soya beans/ French beans.	For decoration.  Cassava.
44	P.4	(a) Mass is the amount of matter in an object while weight is the force of gravity acting upon matter / The standard unit for mass is kilograms while the standard unit for weight is Newtons. / Mass does not change while weight changes when measured in different places.  (b) Stones/ keys/ shoes/ fruits/ broken glass.	The standard unit for mass is grammes  Irregular objects
45	P.5	(a) Bats/ sharks/ dolphins/ humans/people  (b) Bats use echoes to locate food/	Dogs  For eating

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		Bats use echoes to dodge obstacles during flight/sharks use echoes to dodge obstacles in water.	
46	P.6	(a) Gnawing mammals. (b) Both undergo internal fertilization. /Both undergo sexual reproduction. (c) L is an invertebrate while K and M are vertebrates. / L uses spiracles for breathing while K and M use lungs for breathing. /K and M have the backbone while L lacks a backbone/K and M have an endoskeleton while L has an exoskeleton. (d) L spreads germs for some diseases. / L contaminates people's food.	Lagomorphs. Both lay eggs L is an invertebrate while K, M are not. It is dangerous to people.
47	P.4	(a) Rotavirus/ bacteria/ norovirus (b) Poor use of latrines. / Failure to wash hands before eating food. / Failure to wash hands after visiting a latrine. / Eating leftover foods. / Eating unwashed fruit and vegetables. / Drinking unboiled water. (c) It leads to dehydration/ death / body weakness.	Eating contaminated food. Improper chewing of food. It leads to passing out of waste stool.
48	P.5	(a) Merino sheep. / Romney Marsh sheep. /Dorset/ dorper (b) Docking eases mating. / Keeping a sheep clean. / Allows uniform distribution of fats.	Doper sheep. It improves feeding.
49	P.5	(a) Mushrooms/ penicillium mould (b) Yeast reproduces by budding while other fungi reproduce by means of spores. / Yeast is unicellular while other fungi are multicellular. (c) Some fungi are eaten. / Some fungi help in the decomposition of organic matter. / Some fungi are used to make medicines. / Some fungi are used for baking bread, cakes, doughnuts etc.	Yeast Yeast is used in baking but other fungi are not. Fungi are good to people
50	P. 3	(a) 21% (b) It is used for respiration. / It supports burning.	78% For breathing.

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		(c) Oxygen supports burning.	It does not support burning
51	P.5	(a) Stomach/ileum/ colon /liver.  (b) Ileum is long./ has villi. / Surrounded by blood capillaries.	Mouth, gullet  Ileum helps in completing digestion and absorption
52	P. 5	(a) S- rickets T- goitre  (b) Iodine  (c) Feeding the child on foods rich in vitamin D, calcium, phosphorus	Pneumonia, Diphteria. /picio  Magnesium  Taking the child for treatment
	P.5	(a) i) biological changes- flowering in plants ii) physical changes- melting of candle wax iii) chemical changes-burning of wood into ash  (b) Some are used to promote sanitation. / Some are used to produce heat and light energy. / Used in food preparation. / Warming places. / To make ash used in pest control. / Help in soil formation. / Alcohol formation. / Living things generate energy.	Other alternatives in matching  Help in multiplication of cells and growth.
54	P.3	(a) Air / water/rock particles/ dissolved mineral salts/ humus.  (b) They aerate soil. / They improve soil fertility. / They improve soil drainage. / Aid decomposition.	Earthworms  They help plants to grow well
55	P. 2/4	(a) Eating contaminated food. / Eating expired foods. / Eating poisonous plants and fungi. / Taking expired drugs. / Taking overdose of drugs.  (b) Covering leftover foods. / Reheating cold foods. / Reading expiry dates of packed foods. / Asking parents and elders about uncommon plants and fungi. / Keeping poisons far away from children's reach. / Labelling all poisons in a home.	Leaving food uncovered.  Drinking milk to dilute poison