

THE SIPRO MID - TERM II EXAMINATIONS - 2024

PRIMARY SEVEN INTEGRATED SCIENCE

Time Allowed: 2 Hours 15 Minutes

Index No.	Random No.	Personal No.

Candidate's Name: _____

Candidate's Signature: _____

District: _____

READ THE FOLLOWING INSTRUCTIONS

CAREFULLY:

1. This paper has two sections: A and B.
2. Section A has 40 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 7		
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Page 9		
Total		

Please turn over

THE SIPRO EDUCATIONAL SERVICES LIMITED - KAMPALA

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SECTION A: 40 MARKS

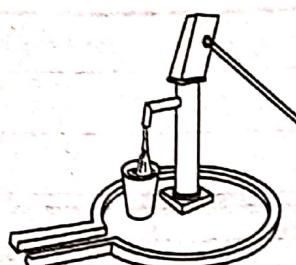
Questions 1 to 40 carry one mark each.

1. Name the class of food which repairs worn out body tissues.

2. State the way plants depend on animals during photosynthesis.

3. State any **one** way of keeping a VIP latrine clean after use.

The diagram below is of a common simple machine. Study and use it to answer questions 4 and 5.



4. Identify the group of simple machines to which the one shown in the diagram above belongs.

5. Use an arrow and letter R to label the part where the effort is applied on the simple machine above.

6. Mention any **one** disadvantage of prolonged use of artificial family planning methods.

7. Give any **one** example of a crop with nodules on its roots.

8. How is lack of vitamin D a danger to one's skeletal system?

9. State **one** way regular bathing improves the health of the skin.



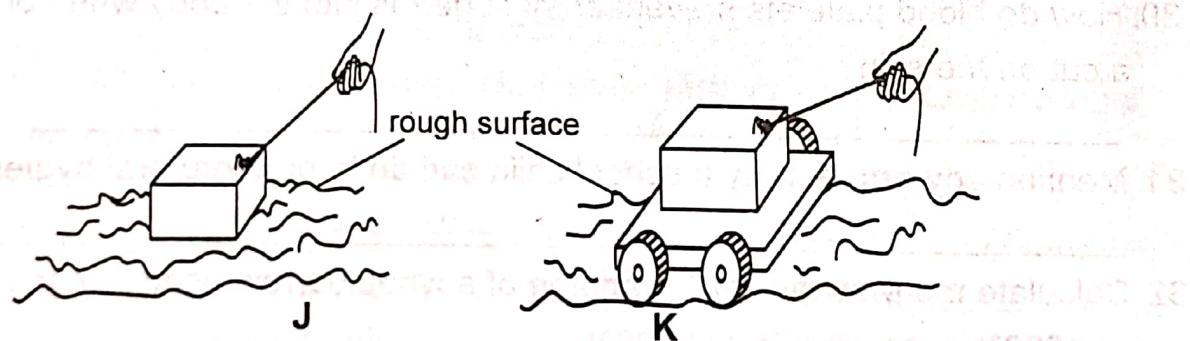
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P.7 INTEGRATED SCIENCE MID - TERM II EXAMINATION - 2024

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

10. Name the accident caused by shortage of oxygenated blood supply to the brain.
11. Mention any one example of a layer that makes up the soil profile.
12. How is the amount of water vapour in the atmosphere measured at a weather station?
13. State any one use of soap in the cleaning of clothes.
14. Name any one material used in the making of charcoal briquettes at home.
15. Mention any one sign that helps a goat farmer to know that her nanny goat is ready for mating.
16. State any one way lungs are suited for breathing in people.
17. Give one way of keeping one's beddings clean after use.
18. Mention any one way biological changes are important to living things.

The diagram below is of two bricks being pulled by two different people. Study and use it to answer questions 19 and 20.



19. Who of the two people above uses a lot of effort to pull the brick?
20. Give a reason to support your answer in number (19) above.



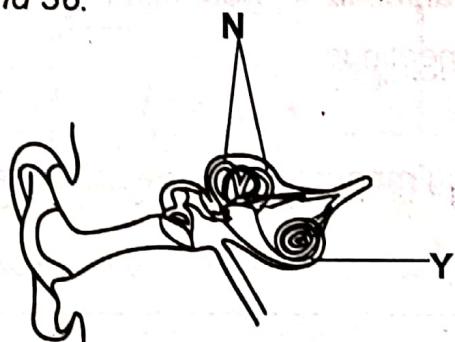
21. How is wringing an important step in the process of cleaning of clothes?
-
22. State the main reason why ready crops are harvested in dry seasons.
-
23. Mention any **one** way livestock farmers harm cattle on grazing fields.
-
24. Name the immunisable disease which affects the brain.
-
25. How is reproduction in mushrooms similar to that in ferns?
-
26. Give **one** way of controlling the dangers of alcoholism among school going children.
-
27. Name the method used to separate the different fuels in crude oil.
-
28. How are carrots different from cassava in the way they are propagated?
-
29. Apart from the use of hooks, give **one** other way plants with weak stems climb others.
-
30. How do blood platelets prevent entry of germs into the body when one gets a cut on the skin?
-
31. Mention any **one** activity a school child can do to promote oral hygiene.
-
32. Calculate the Mechanical Advantage of a wheelbarrow used to carry a load of **1200N** using an effort of **400N**.
-



33. State any one activity in the wet season done to reduce competition for soil nutrients among crops in a school garden.

34. Mention any one soil pollutant controlled through recycling wastes.

The diagram below is of part of the human ear. Study and use it to answer questions 35 and 36.



35. Name the part of the ear marked with letter Y.

36. How is part marked with letter N useful to a person walking along the road?

37. State the main reason why the handle of an iron box is usually made of wood.

38. Why do children in young farmer's club prefer rearing exotic rabbits to local breeds of rabbits?

39. Why are plants grouped under renewable resources?

40. State any one advantage of growing perennial crops.



SECTION B: 60 MARKS

Questions 41 to 55 carry four marks each.

41.a) Name the types of soil that have the following properties;

i) large and rough particles _____

ii) moderately sized particles and spaces _____

b) Mention the natural fertilizers obtained from house hold refuse like leftover food and peelings.

c) Apart from applying manure, give one other way of improving soil fertility.

42.a) Give any two ways dysentery spreads among people.

i) _____

ii) _____

b) How does untreated dysentery lead to dehydration in babies?

c) State any one way the spread of dysentery can be controlled in a home.

43.a) Mention any two examples of useful bacteria.

i) _____

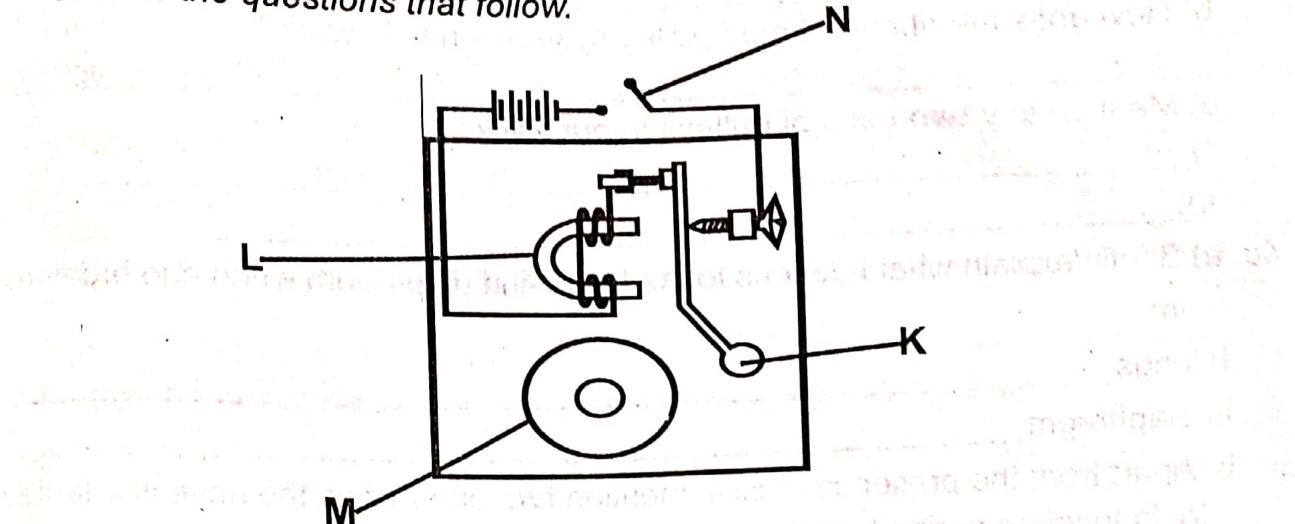
ii) _____

b) State any one danger of bacteria to crop farmers.

c) Give one way livestock farmers control the harmful effects of bacteria in their milk products.



44. The diagram below is of a simple electric bell. Study and use it to answer the questions that follow.



a) Name the parts labelled with letters **N** and **M**.

(i) **N** _____

(ii) **M** _____

b) How is part labelled with letter **K** useful in the functioning of the bell?

c) Briefly explain what happens to part **L** when part **N** is pressed.

45. a) Give the method of obtaining coal from the ground.

b) State any two ways coal can be used as an energy resource.

(i) _____

(ii) _____

c) Apart from coal, name one other example of a fossil fuel.

46. a) Name the two main layers of the skin.
i) _____
ii) _____

b) Give one way the skin regulates body temperature on a cold day.

c) Name the skin disease which causes loss of hair and red round patches on the skin.



47. a) Name the type of pulley system which gives a mechanical advantage of one.

b) How does the above named pulley system simplify work?

c) Mention any two uses of pulleys in our daily life.

i) _____

ii) _____

48. a) Briefly explain what happens to the lungs and diaphragm when one breathes in;

i) lungs _____

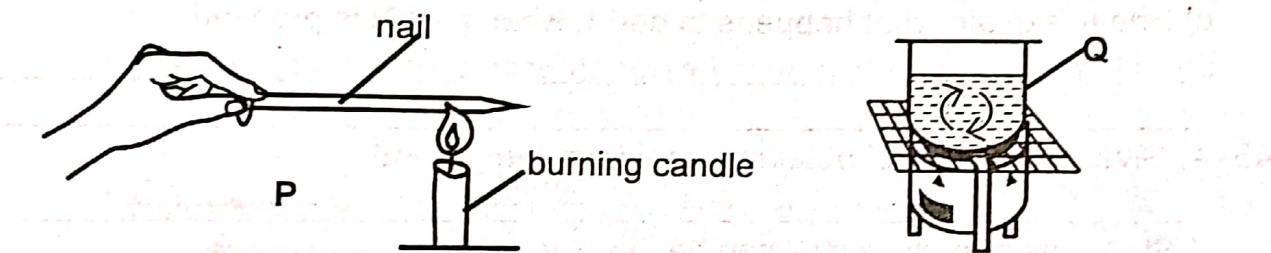
ii) diaphragm _____

b) Apart from the presence of cilia, mention two other ways the nose is adapted to its function during breathing.

i) _____

ii) _____

49. The diagrams below are of methods of heat transfer. Study and use them to answer the questions that follow.



a) Identify the methods of heat transfer labelled with letters Q and P.

(i) Q _____

(ii) P _____

b) Name the hygienic activity that requires the use of the method of heat transfer marked with letter P.

c) Why does the method of heat transfer marked Q occur in liquids and gases?



50. a) How is the lifecycle of a mosquito different from that of a cockroach?

b) State the way a mosquito and a cockroach spread diseases;

i) a mosquito _____

ii) a cockroach _____

c) How does the use of insecticides control insect vectors in a home?

51. a) Name two examples of vaccines administered against Tetanus.

i) _____

ii) _____

b) Mention the body sites where the following vaccines are administered in babies;

i) BCG vaccine _____

ii) Hepatitis B _____

52. In the table below, part M shows the terms used in the study of measurements and part N shows their meaning in a wrong order.

M: terms	N: their meaning
mass	mass per unit volume
weight	amount of space occupied by an object
volume	gravitational force exerted on an object
density	amount of matter a body contains

Select from the table the correct meaning of terms and write it in the space provided below;

i) mass _____

ii) weight _____

iii) volume _____

iv) density _____



53. a) State the role of each of the following parts on a caged hutch;

i) wiremesh _____

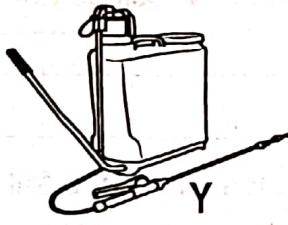
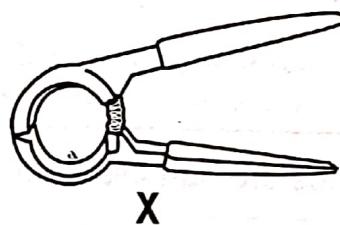
ii) a roof _____

b) Mention any two exotic breeds of rabbits commonly kept in Uganda.

i) _____

ii) _____

54. The diagrams below are of equipment used on a livestock farm. Study and use them to answer the questions that follow.



a) Name the above equipment used on a livestock farm:

i) X _____

ii) Y _____

b) Write any one cattle disease controlled with the help of the equipment marked with letter Y.

c) How does the use of the equipment X control inbreeding on a livestock farm?

55. a) State any two structural differences between arteries and veins.

i) _____

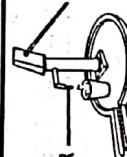
ii) _____

b) Apart from blood vessels, write the two other main components of the circulatory system.

i) _____

ii) _____

THE SIPRO PRIMARY SEVEN INTEGRATED SCIENCE MID-TERM II MARKING GUIDE - 2024

NO	CLASS LEVEL	CORRECT RESPONSE	WRONG RESPONSE	MARKING POINT	TECHNICAL ADVICE
1	P.4	Proteins / Grow foods	Meat	Class of food that repairs body tissues.	Go through other roles of proteins.
2	P.3	Plants get carbon dioxide used for photosynthesis.	Plants get manure.	Importance of animals in photosynthesis.	Discuss the uses of each raw material for photosynthesis.
3	P.6	By sweeping it / Mopping it / Scrubbing it.	Flushing it after use / Smoking it	Care for a VIP latrine.	Go through types of latrines and discuss why it isn't necessary to smoke a VIP latrine.
4	P.7	Levers	Pulleys	Correct identification.	Discuss the groups of simple machines in detail.
5	P.7			Correct label on the handle.	Discuss the use of different simple machines.
6	P.5	They are expensive/ They cause body complications/ May lead to reproductive complications.	They kill people.	Disadvantages of artificial family planning methods.	Go through natural and artificial family planning methods.
7	P.6	Beans / Groundnuts / Complex / Peas / Bambara nuts / Soyabean	Maize / Wheat	Examples of legumes.	Go through importance of legumes.
8	P.4	Lack of vitamin D leads to rickets / Causes weakness of limbs/ Causes bow-shaped legs / Leads to weak bones.	It leads to bone cancer.	Lack of vitamin D deficiencies.	Revise through care for bones in details.
9	P.2	It removes germs / It removes sweat/ It removes dirt / It removes bad body smell / Kills germs on the body.	It is good.	Importance of regular bathing.	Help the candidates realise dangers of poor personal hygiene.
10	P.6	Fainting	Near drowning	Main cause of fainting.	Discuss the first aid for fainting.
11	P.3	Top soil / Sub soil / Gravel / Parent rock layer	Gully layer	Layers of soil profile.	Go through the components of soil and their importance.
12	P.4	By the use of a hygrometer.	By use of hydrometer	Measurement of humidity.	Revise weather instruments in detail.
13	P.6	Kills germs / Removes bad smell / Removes stains / Softens dirt in clothes.	Makes clothes clean.	Uses of soap	Go through steps involved in washing clothes.
14	P.7	Charcoal dust / Clay soil / Water	Grass	Materials used to make charcoal briquettes.	Revise conservation of renewable resources.

				Go through the insemination service
15	P.5	A goat becomes restless / A goat loses appetite for pasture / Mounts other goats / Vulva turns reddish / Mucus discharge from the vulva / Allows other goats to mount it.	A goat becomes pregnant.	Signs of heat in goats.
16	P.6	Lungs have millions of air sacs for gaseous exchange / Lungs are spongy / Lungs are surrounded by a dense network of blood capillaries which transport the diffused oxygen.	Lungs are thin / Lungs are coiled	Revise through the behaviour of respiratory parts, inhalation and exhalation.
17	P.1	By washing them / By ironing them / By spreading them in sunshine to dry once wet.	Adaptation of lungs to breathing.	Revise dangers of sleeping in wet beddings.
18	P.5	Help in growth / Enable living things multiply in number / Enable living things reproduce / Enable them increase in size.	Cleaning of one's beddings.	Discuss the importance of physical, biological and chemical changes.
19	P.7	The person at 1.	By soaking them in water.	Revise dangers of sleeping in wet beddings.
20	P.7	The brick is affected by much friction/ There is increased friction between the brick and the surface.	They help to occur in living things.	Discuss the importance of physical, biological and chemical changes.
21	P.6	Wringing reduces the amount of water in the clothes for easy drying.	Importance of dry season in management of harvests.	Revise activities done in dry and wet seasons.
22	P.4	There is enough sunshine to dry harvests. / To preserve them easily / To prevent rotting.	Reducing water in the clothes.	Practically discuss the steps involved in cleaning clothes.
23	P.4	By beating cattle / Ear tattooing / Ear tagging / Castration / Dehorning / Tail bobbing / Stoning cattle	Activities that harm cattle.	Discuss the cattle management activities.
24	P.5	Meningitis / Rabbies	Polio / Hepatitis	Revise through vaccines and their immunization sites.
25	P.6	Both reproduce by means of spores.	Immunisable diseases of the brain.	Discuss reproduction in non flowering plants.
26	P.6	By encouraging children to join good social groups / By teaching children about the dangers of alcoholism / By providing lifeskills of avoiding alcoholism / By providing regular counselling and guidance.	Reproduction in ferns and mushrooms.	Revise dangers of alcoholism to an individual, community and family.
27	P.7	Fractional distillation	Control of alcoholism in schools.	Revise methods of separating mixtures.
28	P.4	Carrots are propagated by planting seeds while cassava is propagated by planting cassava stem cuttings.	Filtration	Separating liquids of different boiling points.
			Both use seeds.	Propagation in carrots and cassava.

29	P.4	By use of tendrils / Twining / Clasping.	By use of hooks.	Methods of climbing in plants.	Help the learners understand the methods of climbing practically.
30	P.6	By making blood clots on a cut / By clotting blood / By forming a tough coat (fibre) on a cut/ By covering a cut with a cloth.	By fighting germs.	Importance of blood platelets.	Go through the components of blood and their uses.
31	P.4	Brushing teeth regularly / Rinsing the mouth/ Dental flossing	Bathing	Activities that clean the teeth/mouth.	Discuss the activities which promote oral hygiene.
32	P.7	Mechanical Advantage = $\frac{\text{Load}}{\text{Effort}}$ $= \frac{3}{1400\text{N}}$ $\text{MA} = 3$	$\text{MA} = \frac{E}{L} = \frac{400\text{N}}{1200\text{N}}$ $\text{M/A} = \frac{1}{3}$	Calculating Mechanical Advantage / Correct steps	Guide candidates through calculations on velocity ratio, MA and efficiency.
33	P.4	Pruning / Thinning / Weeding / Pricking out	Watering / Spraying	Activities done in wet seasons.	
34	P.5	Plastic bottles / Plastics / Polythene bags / Metals / Broken glasses	Engine oil / Left over food	Recyclable soil pollutants	Help the candidates learn to practice the crop growing practices in the school garden.
35	P.6	Cochlea	Auditory nerve	Parts of the ear and their uses.	Revise through effects of soil pollutants.
36	P.6	Helps in body balancing.	Helps in transporting sound waves.	Parts of the ear and their uses.	Emphasise the spellings of each part of the ear.
37	P.5	To control burns since wood is an insulator / To prevent burning of the user's hands.	For easy carrying.	Parts of the ear and their uses.	Discuss the entire structure of the human ear.
38	P.4	Exotic rabbits mature fast while local ones take long to mature / Exotic breeds produce much meat while local breeds of rabbits produce little meat / Exotic rabbits produce a lot of fur while local ones produce little fur.	Exotic rabbits produce a lot of meat but local rabbits don't.	Importance of insulation on cooking pans.	Revise importance of insulators and conductors.
39	P.6	Plants can be naturally replaced once used up/ Plants are inexhaustible resources.	Plants can't be replaced.	Complete meaningful comparison between local and exotic rabbits.	-Go through the diseases of rabbits and their control. -Train learners to give related comparisons.
40	P.5	Perennial crops provide more harvests / Provide multiple harvests.	They grow quickly.	Characteristics of renewable resources.	Revise through conservation of resources.
41	P.3/P.5	a) (i) sand (ii) loam b) Compost manure	(i) clay soil (ii) sand soil Farm: Yard Manure	Advantages of growing perennial crops.	Use the school garden to plant annual and perennial crops for clarity.
SECTION: B					
				Characteristics of each type of soil.	Revise through fertilisers and methods of soil formation i.e., weathering and decomposition.
				Correct name of fertilizer.	

		c) By adding artificial fertilisers / Crop rotation / Bush fallowing/ By mulching / Mixed cropping / Inter-cropping	By adding manure / Manuring	Ways of improving soil fertility.
42	P.4	a)(i) Through eating contaminated food / Drinking contaminated water / By houseflies / Through eating food with contaminated fingers / Through poor disposal of faeces. b) Untreated dysentery leads to dehydration hence death. c) Through boiling drinking water / Proper disposal of faeces / Proper disposal of rubbish / Covering left over food / Washing hands before eating food.	Through sharing clothes. It leads to death. Through drinking enough water.	Ways dysentery spreads among people. Dehydration as a result of dysentery. Control of the spread of dysentery.
43	P.5	a) Rhizobia (Nitrogen Fixing bacteria) / Putrefying bacteria / Nitrifying bacteria / Anaerobic bacteria b) Cause crop diseases / Make crops rot / Cause stunted growth. c) By boiling milk / By refrigeration / By using pasteurization / Sterilization / By putting their milk in clean containers.	Vibrio cholera / Denitrifying bacteria Make food go bad. By covering milk.	Examples of useful bacteria. Dangers of harmful bacteria.O. Preservation of milk/ Keeping milk safe.
44	P.7	a)(i) N - Switch (ii) M- Gong	N - Fuse M - Hammer	Part of an electric bell and how it operates.
45	P.6	a) It hits the gong to produce sound / Part K hits the gong to produce sound. c) It becomes magnetized / " -ins magnetism.	It produces sound. Drilling	Function of the hammer. Gaining magnetism. Method used to obtain coal. Uses of coal.
46	P.7	a) Mining b) Coal is used to melt metal scrap in scrap industries / Is a source of thermal electricity / Is used as a fuel in ship and locomotive engines / Is used to make tar for surfacing roads. c) Crude oil / Petroleum	Is used to cook. Paraffin / Diesel	Examples of fossil fuels.
		a) Dermis layer / Epidermis layer b) By erecting the hair / By vasoconstriction / Narrowing blood vessels / By developing goose pimples. c) Ringworm	Cornified / Granular / Malpighian layer By sweating Yaws	Main layers of the skin. How the skin regulates body temperature. Signs of ringworm

47	P.7	a) Single fixed pulley i) By reversing the direction of force applied / By changing the direction of force applied. c) For hoisting flags on masts / for lifting building materials at a building site / For moving curtains on curtain rods /Dormitories / For painting tall parts on building / For towing vehicles with mechanical problems / For carrying heavy metal scrap / For moving of lifts and elevators.	Single movable pulley By giving MA of the machine For lifting goods.	Pulley systems Advancing of a single fixed pulley Uses of pulleys.	Discuss the simple machines and how they simplify work.
48	P.6	a) (i) Lungs expand to let in inhaled air. (ii) Contracts and flattens b) The nose has cilia to filter inhaled air / Has mucus to filter and moisten inhaled air. / Inhaled air / Has a rich supply of blood capillaries with blood that warms inhaled air / Has two nostrils for easy passage of inhaled and exhaled air.	Enlarges / Shortens The nose is soft.	Process of inhalation Adaptations of the nose to its respiratory functions.	Recording and writing sofas and staff are methods of storing music with sound.
49	P.5	a) (i) Q - Convection (ii) P. Conduction b) Ironing clothes c) Liquids and gases have freely moving molecules when heated / Molecules in liquids and gases possess free motion.	Q - Conduction P - Convection Sweeping / Bathing Have spaced molecules	-Methods of heat transfer. -Hygiene activity that requires use of conduction. -How convection occurs.	Demonstrate heat transfer through liquids, gases, solids and vacuum.
50	P.3	a) A mosquito undergoes a complete life cycle while cockroach undergoes an incomplete life cycle / A mosquito undergoes four stages of development while a cockroach undergoes three stages of development. b) (i) Through bites / By biting (ii) By contaminating food / Water c) Insecticides kill adult insect vectors / Insecticides lead to death of adult insects / They contain chemicals which kill insects.	Difference in lifecycle of a cockroach and a mosquito.	A mosquito undergoes three stages while a cockroach undergoes 4 stages. (i) Through hair body. (ii) Through bites They kill parasites.	Revise through the structures of common vectors and their lifecycle in a comprehensive revision. How vector spreads germs. Role of insecticides in control of insect vectors.

51	P.5	a) (i) T.T vaccine (Tetanus Toxoid vaccine) (ii) DPT vaccine b)(i) Right upper arm (ii) Right upper thigh	BCG vaccine Tetanus vaccine (i) Left upper arm (ii) Left upper thigh	Vaccines administered against Tetanus. Correct body site for immunization.	Guide the candidates through sites for vaccine administration, and the immunization schedule.
52	P.5	i) Amount of matter a body contains. ii) Gravitational force exerted on an object. iii) Amount of space occupied by an object. iv) Mass per unit volume.	Other alternative responses.	Definitions of common terms used in matter.	Make calculations involving mass, density and volume.
53	P.4	a) (i) For proper air circulation / Allows in light. (ii) Protects rabbits from harsh weather / Prevents sunshine / rainfall from entering b) Californian rabbits / Earlop rabbits / Rex rabbits / Chinchilla rabbits / New Zealand white rabbits / Angora	(i) To prevent Escaping. (ii) For decoration Black spotted rabbits.	Importance of parts on a hutch. Uses of given parts on a hutch. Exotic rabbit breeds.	Discuss rabbit keeping as a business and diseases affecting rabbits.
54	P.5	a) (i) X - Burdizzo (ii) Y - knapsack sprayer / Knapsack b) Heart water/ East coast fever / Red water / Anaplasmosis / Sleeping sickness c) The above instrument deactivates testes / It castrates an animal/ Crushes sperm ducts / Helps to control unwanted mating.	(i) Pruner (ii) Pair of scissors Foot and mouth	Equipments used on a farm. Equipments used on a farm. Tick-borne diseases Importance of burdizzo	-Avail the candidates with clear structures of common tools used in closed castration method. -Avail the candidates with clear structures of common tools used in closed castration method.
55	P.6	a) Arteries are thick walled while veins are thin walled / Arteries have a narrow lumen while veins have a wide lumen/ Articles lack valves while veins have valves. b) Heart / Blood	Arteries are thick walled but veins are not.	Complete differences	Guide the learners through the structures and uses of each main component of the circulatory system i.e. heart blood and blood vessels.
			Blood capillaries	Main parts of the circulatory system.	