



SUREKEY EXAMINATIONS BOARD

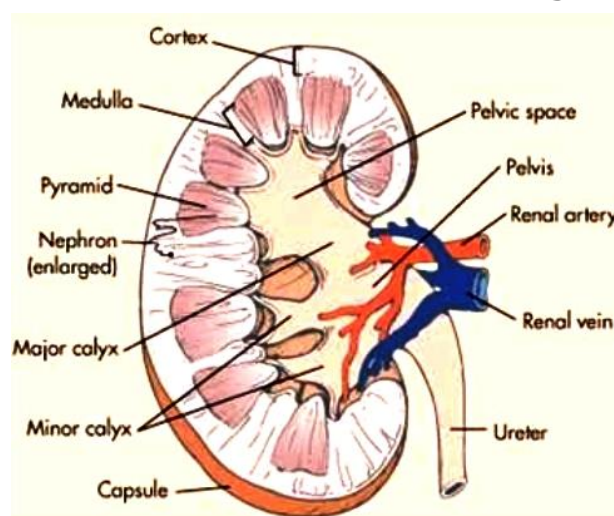
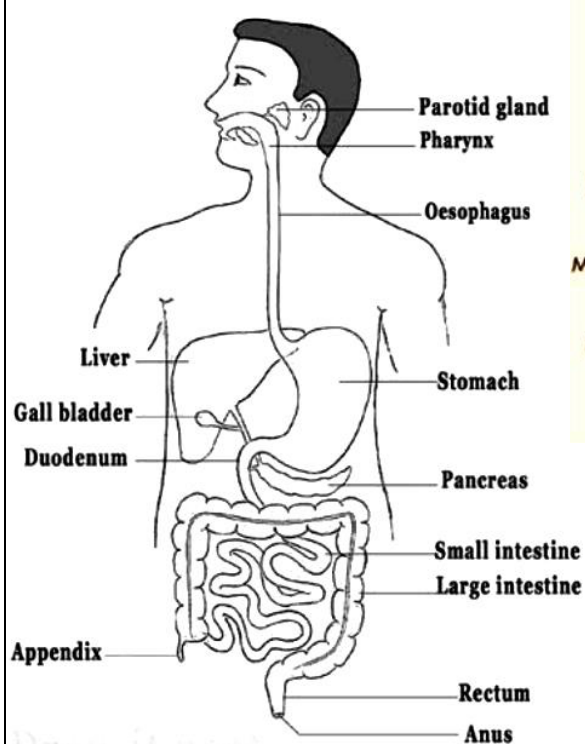
PRIMARY SEVEN UNIQUE SERIES

2023

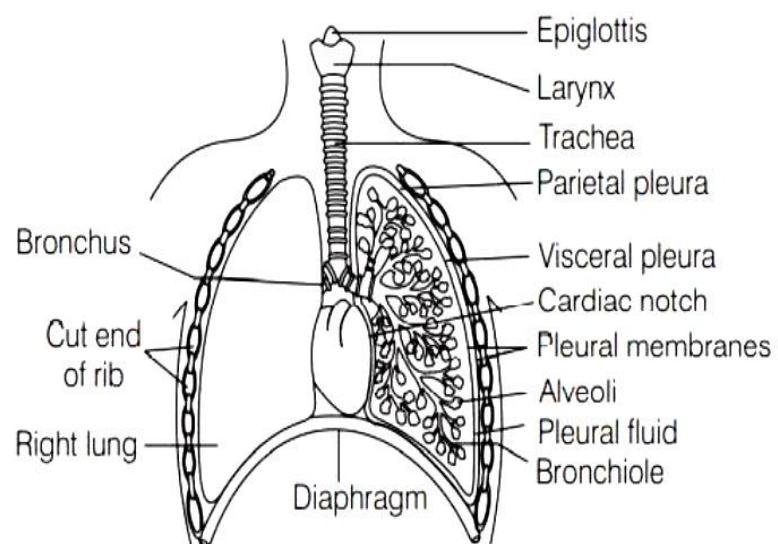
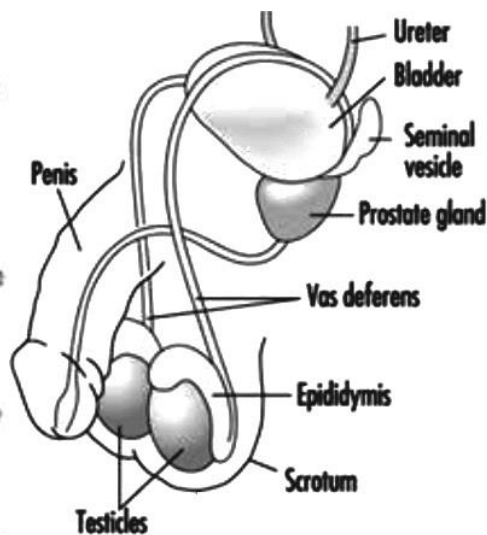
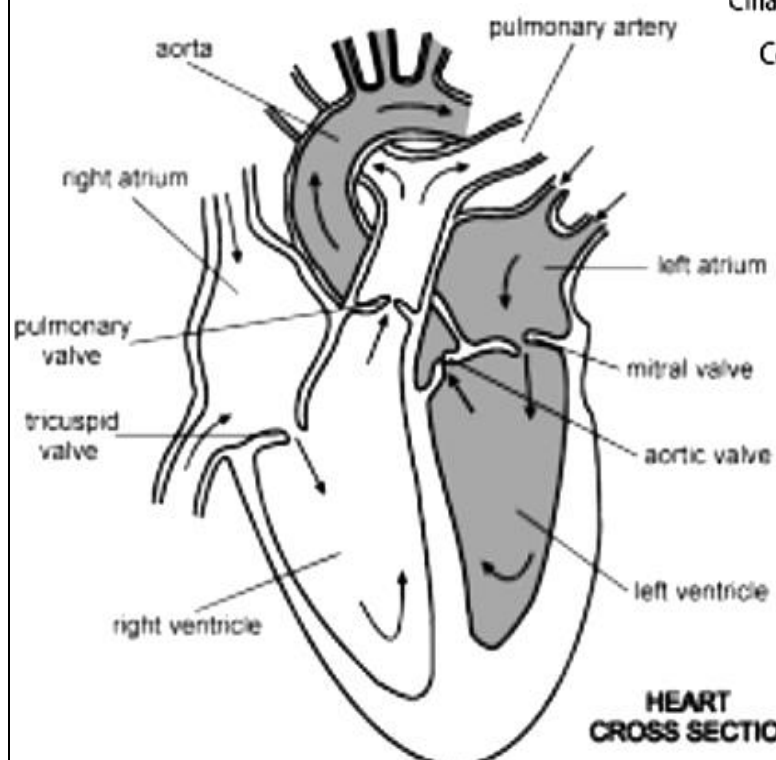
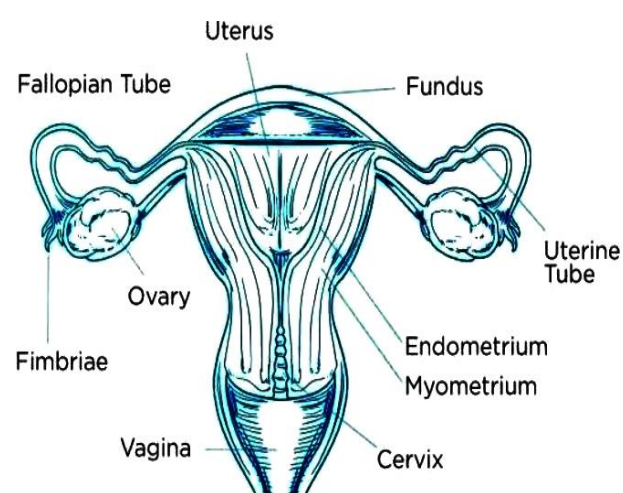
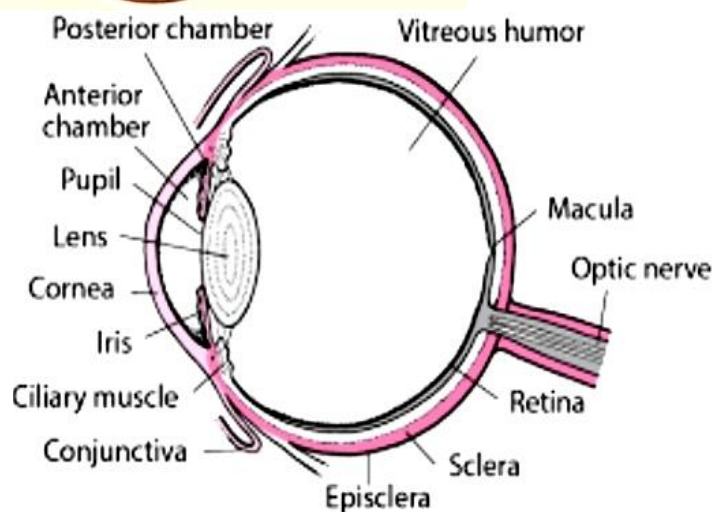
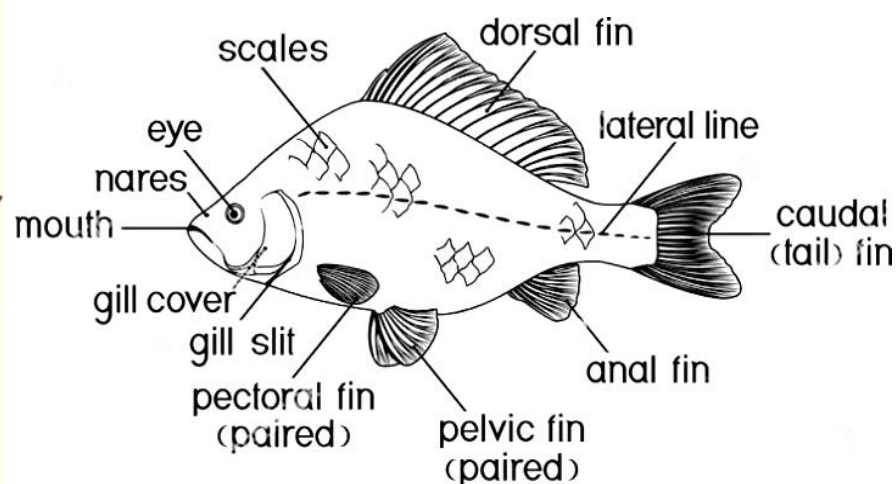
INTEGRATED SCIENCE

OFFICIAL MARKING GUIDE

PREPARED BY:
Human digestive system



JAMIE HUMPHREY 0757451425

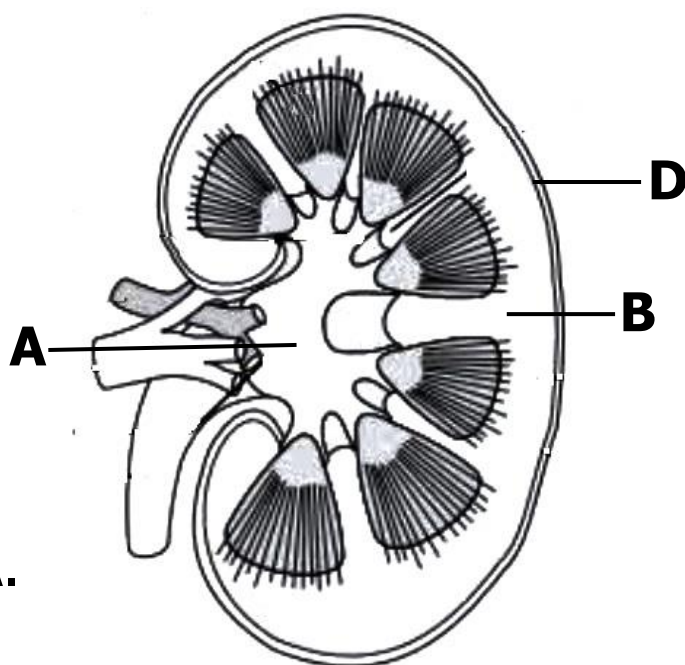


Diagrammatic view of human respiratory system
(sectional view on the left side)

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

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

- The diagram below shows a human kidney. Use it to answer questions **6** and **7**.



- 2 | Page

- Farmers can collect manure easily.
- There are less cases of disease outbreak.

10. State any **one** characteristic of molluscs.

- They have unsegmented soft bodies.
- They have tentacles on their bodies.
- They have a shell or a mantle for protection.

11. In which way is carbon dioxide useful to beverage industries?

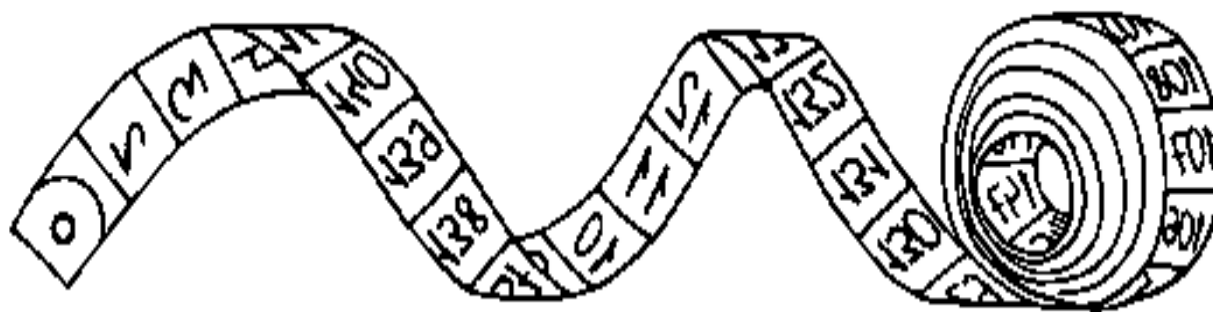
- It is used to preserve soft drinks.

(Reject it prevents breeding of bacteria in soft drinks)

12. To which group of simple machines does a pencil sharpener belong?

- Wheels and axle.

The diagram below shows a garden tool used in planting. Use it to answer question **13** and **14**.



13. Name the garden tool shown in the diagram above.

- tape measure.

14. In which method of planting is the garden tool above required?

- row planting

ADVICE: Expose learners to different garden tools and their uses.

15. State any **one** way in which the spread of germs through food can be controlled.

- Keeping food in clean places.
- Covering food properly.
- Serving food in clean plates or cups.
- Warming leftover food before eating.
- Washing hands before touching food.

16. Mention any **one** traditional method of extracting honey from honey combs.

- Floating the wax method.

- Pressing honey method *(Reject centrifuging method)*

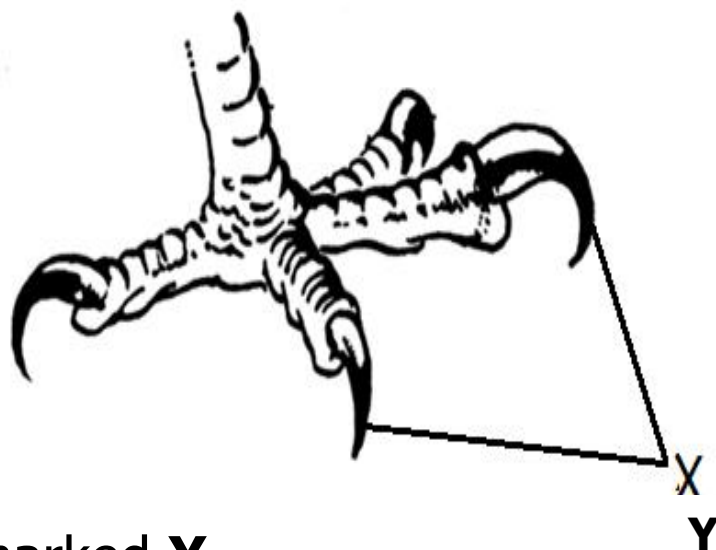
ADVICE: Take learners through the concept of honey and a bee product.

17. How is the storage of seeds in a pine plant different from that of a pea plant?

- A pine stores seeds in cones while a pea plant stores food in pods.

18. State the method used to separate millet seeds from chaff.
-Winnowing (Reject flotation)
ADVICE: Help learners to understand different concepts of separating mixtures.
19. Give any **one** reason why the house of goats is made with a slanting surface.
-For easy cleaning. /To allow easy flow of urine.
20. How is salivary amylase useful during digestion of food in the body?
-Salivary amylase help to digest starchy food.
-Speeds up the digestion of starchy food.
21. A torch uses two dry cells. Calculate the voltage of the torch.
1 dry cell =1.5 volts
2 dry cells = (1.5 x2) volts
=3 volts
-The voltage of the torch is 3 volts
22. How does gonorrhoea increase the chances of a person getting HIV/AIDS?
-Gonorrhoea creates / causes sores/wounds on sexual organs through which HIV passes.
23. State any **one** way in which the spread of round worms can be prevented.
-Wash your hands before eating food
-Defecate in latrines only. -Regular deworming.
-Proper disposal of human wastes.
-Drink boiled water. -Do not play in dirty places.
-Keep latrines/toilets clean regularly.
-Spray insecticides to kill adult houseflies.

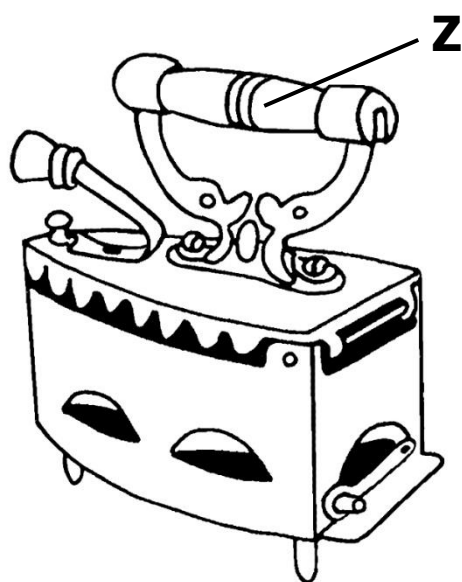
The diagram below shows a foot of an eagle. Use it to answer questions **24** and **25**.



24. Name the structure marked **Y**.
-talons/ claws (Accept sharp talons)
25. How are the structures marked **Y** useful to an eagle?
-For gripping or holding their prey firmly.

26. Why is it not necessary to put a lid on the hole of a Ventilated Improved Pit latrine?
-A lid limits proper circulation of air in the pit.
(Reject: To allow proper air circulation)
27. Name the source of energy for producers in a food chain.
-sun
28. State the method of making alcohol that requires heat to take place.
-distillation
29. Why is it advisable to cough or sneeze in a handkerchief?
-To prevent spreading of germs to other people.
-To prevent droplet infection.
-To control the spread of air borne diseases.
-To prevent spitting/ spreading mucus to nearby people.
30. Apart from sorting, state any **one** other step involved in cleaning clothes.
-soaking//wringing//rinsing//washing//ironing
31. Give any **one** way in which the skeleton is important to the human body.
-It gives the body shape. **-It aids body movement.**
-It protects delicate inner body organs.
-It provides room for muscle attachment.
-It helps in the manufacture of blood cells.
32. How does malaria leads to anaemia in the body?
-Malaria parasites destroy the red blood cells.

The diagram below is of a metallic ironing box. Use it to answer questions **33** and **34**.



33. Name the form of energy that enables the ironing box above to operate.
-heat energy
34. How is part marked **Z** able to prevent the user's hand from getting burnt while using the ironing box above?
-It is insulated/ It is made of wood which is a heat insulater.

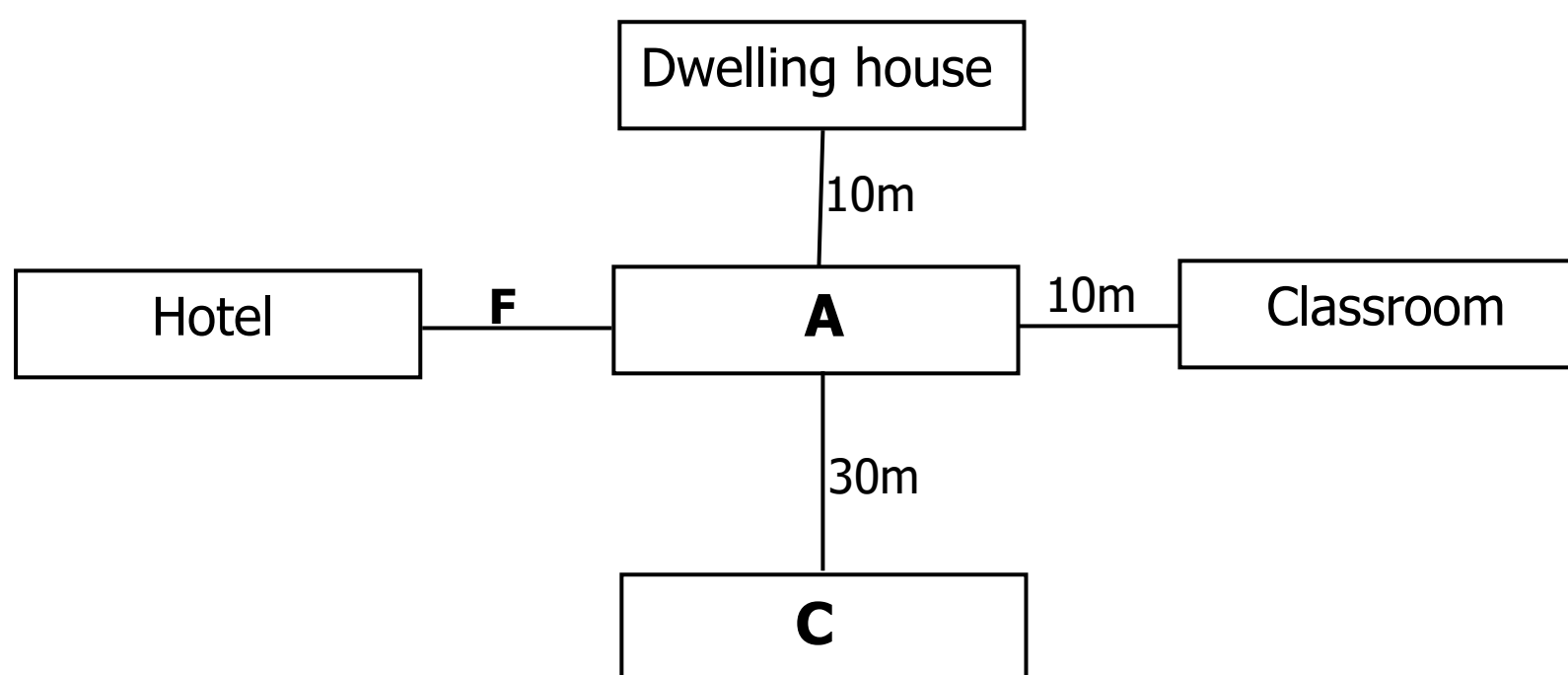
35. Which immunizable disease causes stiff muscles in children?
-tetanus
36. Apart from causing diseases, give any **one** other way in which bacteria are dangerous to people?
-They make milk to go sour
-They make food to go bad
-They make wounds and cuts to become septic.
37. State any **one** characteristic of renewable resources in the environment.
-Exist in large amounts.
-Can be replaced naturally after use.
-Do not get exhausted/used up.
-Capable of regeneration.
-Are always available for use.
38. Give any **one** way in which people use density in their daily life.
-Density helps in buoyancy and flotation
-Density helps in cooking and baking.
-Density helps in sorting and separation of mixtures.
-Density helps in construction to determine appropriate materials.
39. Name the weather instrument used to measure atmospheric pressure.
-barometer
40. State the group of annual crops which help to prevent kwashiorkor in children?
-legumes/ leguminous crops

SECTION B: 60 MARKS

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

41. (a) Which component of blood transports digested food in the body?
-blood plasma/ plasma
- (b) Apart from the component above, name any **two** other components of blood.
-Red blood cells
-white blood cells// blood platelets/platelets
- (c) State any **one** way in which the volume of blood can be increased in the body.
-Through blood transfusion. -Feeding on food rich in iron.
-Taking iron supplement tablets.
-Taking plenty of fruit juice and water regularly.

42. (a) Which stage of a housefly do maggots develop into during metamorphosis?
-pupa
- (b) How are maggots useful in pit latrines?
-They reduce the volume of faeces by feeding on it.
- (c) Apart from maggots, name **one** other organism that is useful in pit latrines.
-bacteria
- (d) Why is it not advisable to pour chemicals like acids in pit latrines?
-Chemicals like acids kill maggots and bacteria that help to reduce the volume of faeces in pit latrines.
(Reject: To prevent killing maggots and bacteria)
43. (a) Name the part of a fish that enables it to;
- (i) smell food from water **nostril**
- (ii) sense danger in water **lateral line**
- (b) State any **two** ways in which a fish is able to live in water.
-A fish has fins for swimming in water.
-A fish has scales on its body for protection from external damages.
-A fish has a streamlined body to reduce viscosity in water.
-A fish has gills for breathing in water.
-A fish has a lateral line to detect vibration in water.
44. The diagram below shows a good site for a pit latrine. Study and use it to answer the questions that follow.



- (a) Name the building found at point marked **A**.
-Pit latrine/ latrine/ toilet
- (b) Identify the distance marked **F**.
-10 metres

- (c) Why is the building marked **A** put at a distance of 30 metres from item marked **C**?
-To prevent faeces from seeping into water to contaminate it.
-To prevent contamination of water by human wastes.
- (d) Mention any **one** other building that can be built 10 metres away from building marked **A**.
Kitchen/ shop/ hostel/ church/ mosque/ market buildings/ parking yard/ supermarket/ salon/ barber's shop/ sick bay/ hospital/ clinic/ cinema hall/ offices/ restaurant

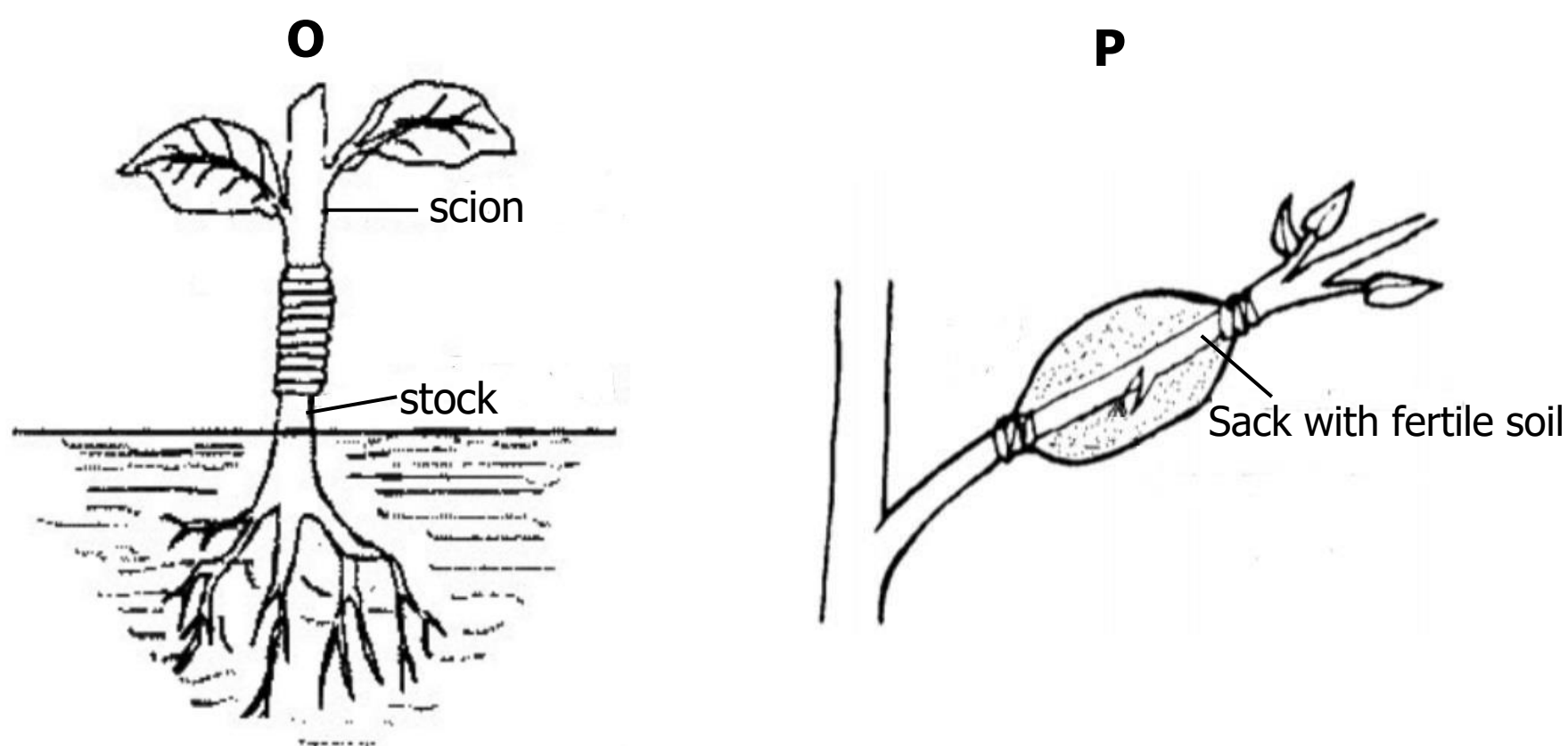
45. (a) Mention any **two** physical processes in matter that help in rain formation.
-condensation
-evaporation (*Reject: transpiration*)
ADVICE: Help learners to understand the process of water cycle.
- (b) State any **two** properties of solid state of matter.
-Solids have closely packed molecules.
-Solids have strong cohesion.
-Solids have fixed volume.
-Solid molecules can vibrate.
-Solids allow heat transfer by conduction.
(*Reject: solids have definite shape*)
Note: some solids have no definite shape e.g. stones, keys, glasses, pens, pencils, padlocks, leaves, roots, etc

46. The table below shows alloys, their combination and their uses. Study and complete it correctly.

| Alloy | Combination | Use |
|---------------------|------------------------------|---|
| Solder | Lead and tin | <u>For joining metals</u> |
| <u>Brass</u> | Copper and zinc | For making ornaments |
| Bronze | <u>Copper and tin</u> | For making medals |
| Dental amalgam | Mercury and copper | <u>For dental filling of the teeth</u> |

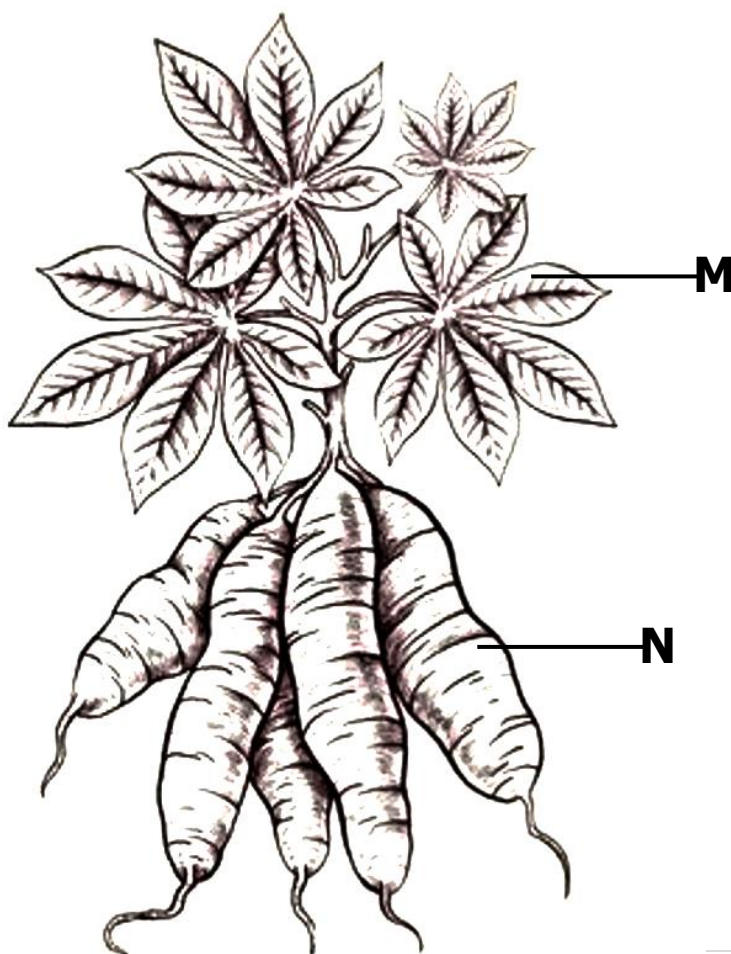
47. (a) Name the farm practice carried out in sheep that helps to;
- (i) make mating easy **docking**
- (ii) control foot rot in sheep **hoof trimming**
- (b) Give any **two** methods of grazing sheep.
- zero grazing** **-free range grazing**
-paddock
- (Reject: tethering.) Note: the sheep are not tethered because the rope can easily strangle and kill the sheep)*

48. The diagram below shows artificial methods of vegetative plant propagation. Study and use it to answer the questions that follow.



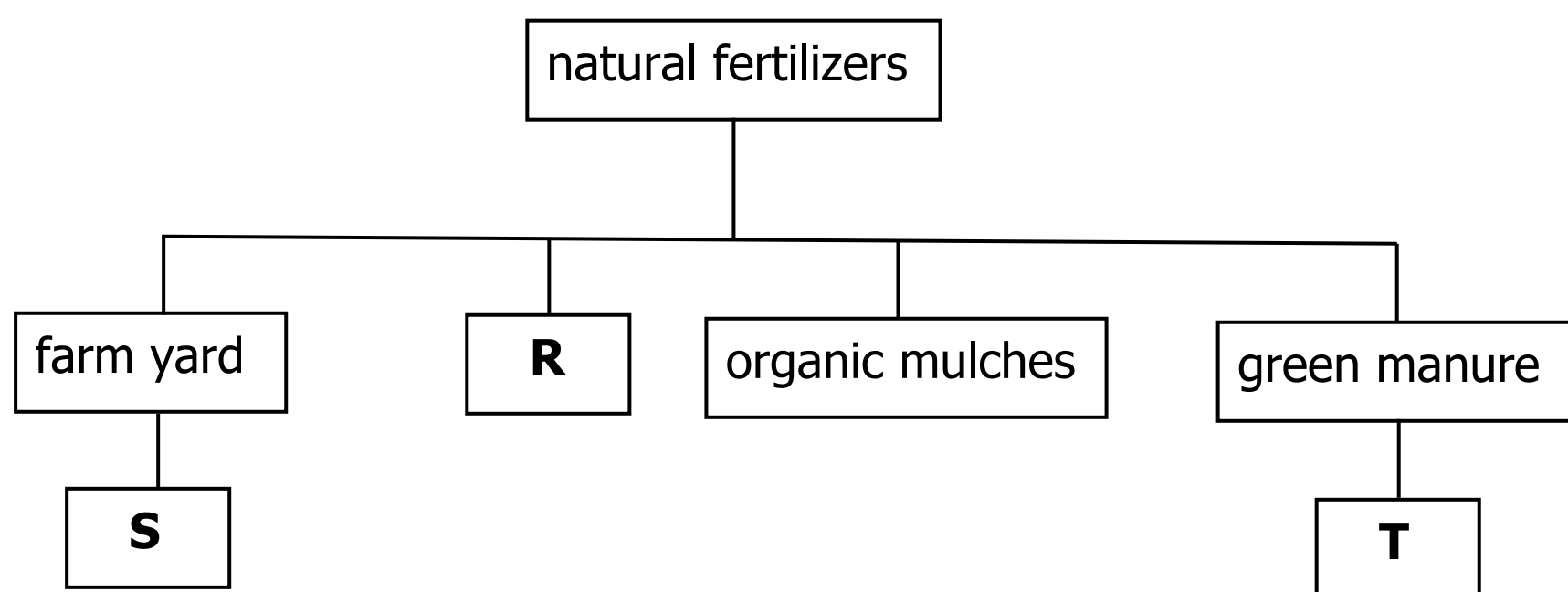
- (a) Name the artificial method of vegetative plant propagation marked **O** and **P**.
- (i) **O** **grafting**
- (ii) **P** **marcotting**
- (b) State the importance of the fertile soil found in the sack on the method marked **P**.
- The fertile soil encourages the growth of adventitious roots.**
- (c) Apart from the above methods, mention any **one** other artificial method of vegetative plant propagation.
- budding/ / layering**

49. (a) Write down any **two** food stuff that can be given to a baby during weaning.
-porridge// mashed matoke// mashed rice// mashed potatoes
-sweet bananas// mashed egg yolk/ /mashed beans
- (b) Give any **two** disadvantages of bottle feeding to a baby.
-The baby is at the great risk of illness.
-Cow's milk lacks antibodies.
-The nutrients in cow's milk are destroyed by overheating.
-Cow's milk does not contain a balanced diet.
-Cow's milk is not easily digested.
-Cow's milk does not promote the growth of the baby.
-Some babies are allergic to cow's milk.
50. (a) On which principle does a pinhole camera works?
-Light travels in a straight line.
- (b) Give any **two** characteristics of images formed by pinhole camera.
-The images are real.
-The images are inverted (upside down).
-The images are diminished (smaller than an object)
-Use mnemonic: RID
- (c) Mention any **one** factor which determines the sharpness of images formed by a pinhole camera.
-The size of the pinhole.
-The distance between the object and the pinhole
51. The diagram below shows a food crop commonly grown by people in the community. Study and use it to answer the questions that follow.



- (a) Name the part marked **N**.
-root tuber (Reject: root/ tuber)
- (b) Which viral disease attacks part marked **M**?
-cassava mosaic/ mosaic
- (c) Identify the class of food found in part marked **N**.
-Carbohydrates (Reject: go food/ energy giving food)
- (d) In which way is the food storage in the plant above different from that of a sugarcane?
-The plant above stores its food in the roots while a sugar cane stores its food in the stem. (Reject: stem tuber)

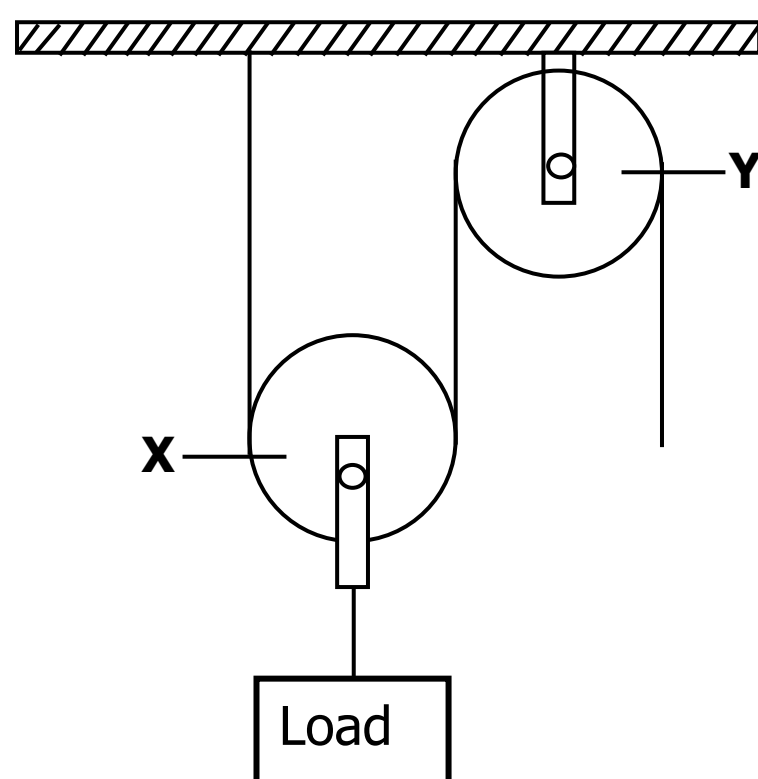
52. The table below shows types of natural fertilizers. Study and use it to answer the questions that follows.



- (a) Name the type of natural fertilizers represented by **R**.
-compost manure
- (b) Which group of plants is represented by **T**?
-legumes/ leguminous plants (Reject: annual crops)
- (c) Mention any **one** material that can be put at **S**.
-animal dung/ droppings/ urine (Reject: leftover food)
- (d) Identify the type of natural fertilizer from the table above to which dry grass belongs.
-organic mulches

53. (a) Give any **two** examples of emotional changes in adolescents.
- Adolescents become interested in the members of opposite sex.
 - They move in peer groups.
 - They develop increased sexual desires.
 - They become angry and disappointed easily
 - They reject rules of their parents, teachers and elders.
 - They become interested in their bodies.
- (b) Write down any **one** disorder that affects the reproductive system of human beings.
- | | |
|--------------------|------------------|
| -Fibroids | -Sterility |
| -Miscarriage | -Vaginal fistula |
| -Low sperm count | -Vaginitis |
| -Impotence | -Ovarian tumour |
| -Ectopic pregnancy | |
- (c) State any **one** way in which adolescents can manage their body changes.
- Bathing regularly.
 - Washing underwears regularly.
 - Using deodorants.
 - Changing pads during menstruation period daily.
 - Feeding on food rich in iron by adolescent girls.
 - Shaving hair around pubes and in the armpits.
 - Using antiperspirants changes.
54. (a) Write down any **two** factors to consider when choosing a site for building a residential house.
- Distance from the source// Distance from the road.
 - Drainage of the area// Distance from the health centres.
- (b) Give any **one** quality of a good residential house.
- It should be well ventilated//free from leakage//built on a well drained area//should have ample space for accommodation// have a damp proof source on its foundation.
- (c) State any **one** danger of failing to clean the residential house regularly.
- Leads to the breeding of vectors and germs.
 - Leads to unpleasant smell in the house.
 - Increases the risk of disease outbreak.
 - Leads to invasion of rats and cockroaches that destroy house property.
 - Leads to accumulation of dust on house property

55. The diagram below is of a block and tackle pulley system. Study and use it to answer the questions that follow.



- (a) Name the pulleys marked **X** and **Y** in the system above.
- (i) **X** **single movable pulley**
- (ii) **Y** **single fixed pulley**
- (b) Give **one** way in which the above pulley system simplifies work.
-By changing the direction of force/ it changes the direction of force
- (c) State the advantage of using pulley marked **X** over pulley marked **Y**.
-Less effort is used to lift the load using pulley X than using pulley Y.
-Pulley X requires less effort to lift the load than pulley Y.
(Reject the answer involving pronouns, names of pulleys and without comparison)

END



