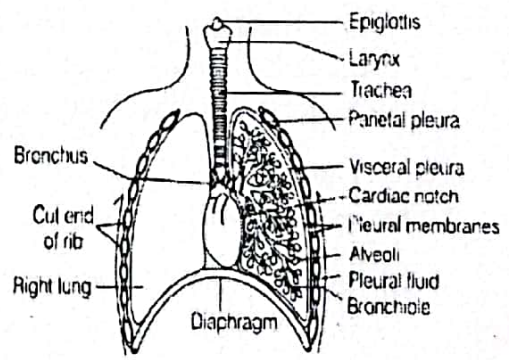
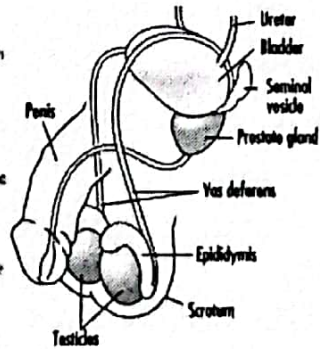
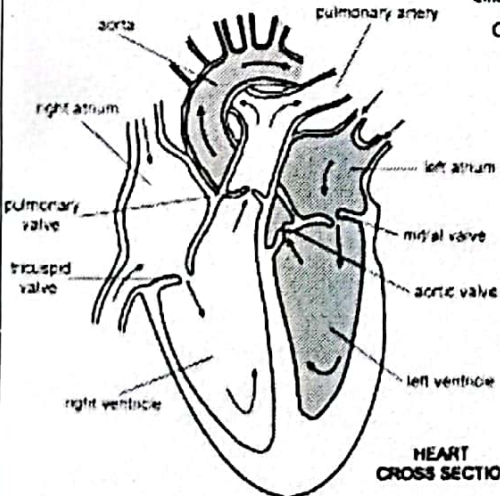
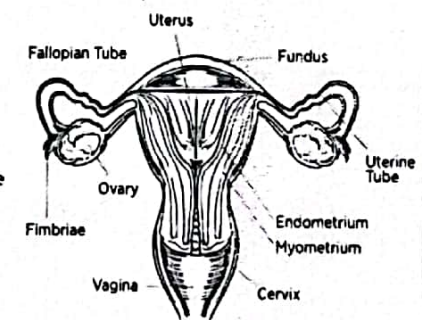
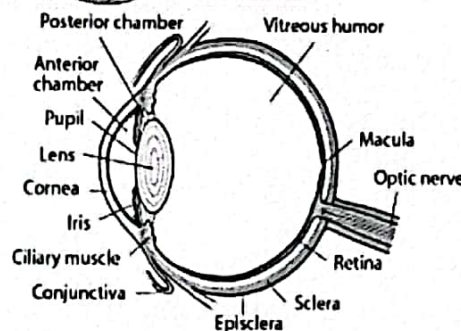
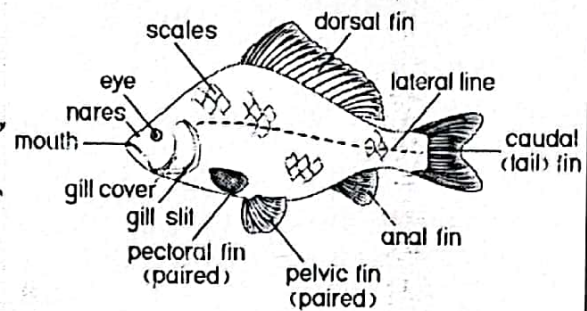
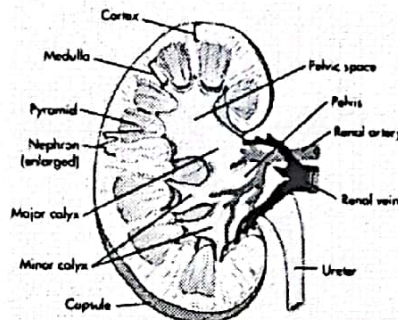
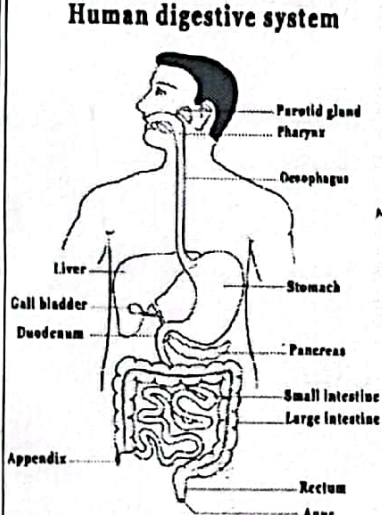




**SUREKEY EXAMINATIONS BOARD**  
**PRIMARY SEVEN UNIQUE SERIES**  
**2023**  
**INTEGRATED SCIENCE**  
**OFFICIAL MARKING GUIDE**

**PREPARED BY:**  
**Human digestive system**

**JAMIE HUMPHREY 0757451425**

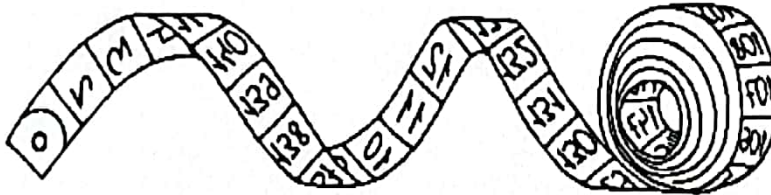


Diagrammatic view of human respiratory system  
 (sectional view on the left side)

- 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.

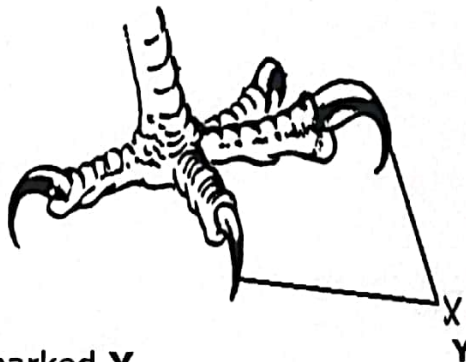


13. Name the garden tool shown in the diagram above.
- tape measure.
14. In which method of planting is the garden tool above required?
- row planting
- ADVICE: Expose learners to different garden tools and their uses.
15. State any **one** way in which the spread of germs through food can be controlled.
- 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 as 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 x 2) 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 insulator.**



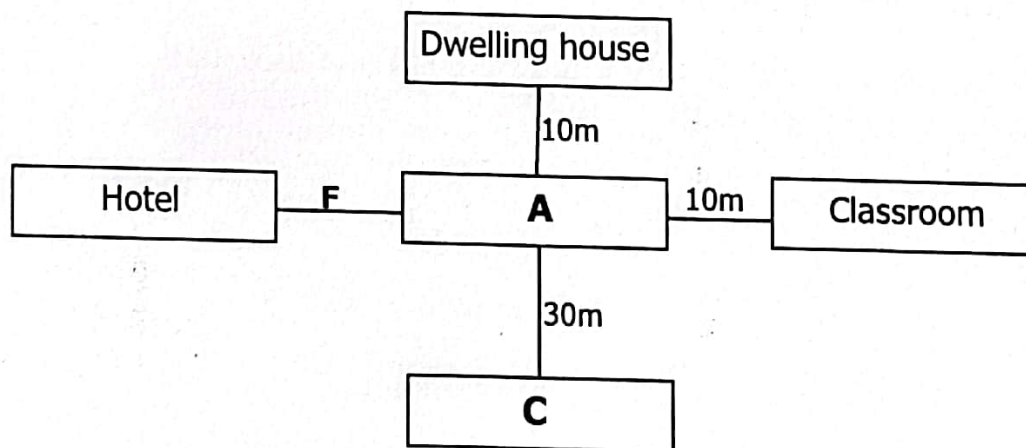
35. Which immunizable disease causes stiff muscles in children?  
**-tetanus**
36. Apart from causing diseases, give any **one** other way in which bacteria are dangerous to people?  
**-They make milk to go sour**  
**-They make food to go bad**  
**-They make wounds and cuts to become septic.**
37. 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 latrine.  
**-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**

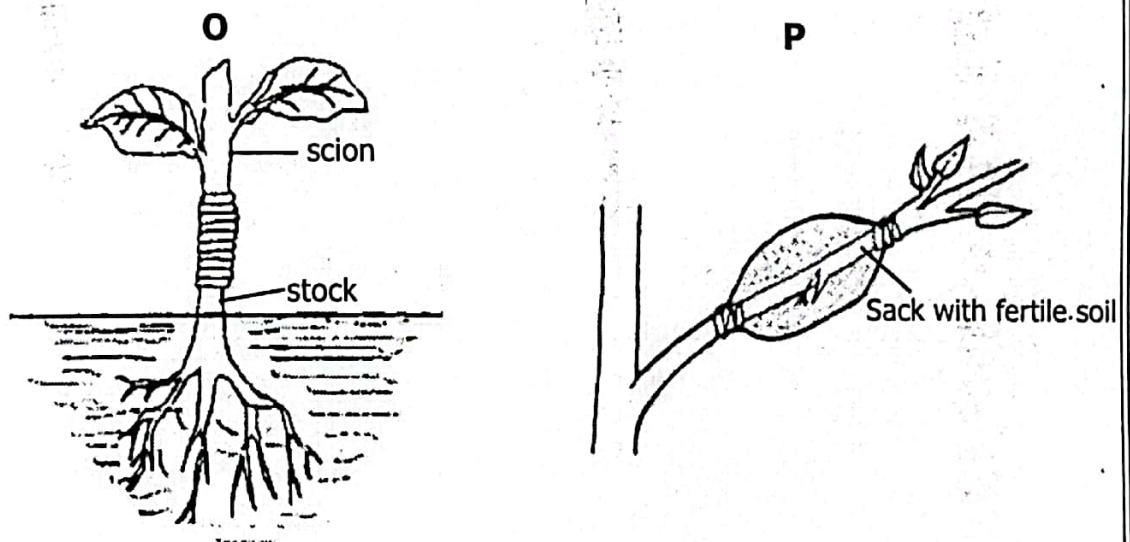
45. (a) Mention any **two** physical processes in matter that help in rain formation.  
**-condensation**  
**-evaporation (Reject: transpiration)**  
*ADVICE: Help learners to understand the process of water cycle.*
- (b) State any **two** properties of solid state of matter.  
**-Solids have closely 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	<b><u>For joining metals</u></b>
<b><u>Brass</u></b>	Copper and zinc	For making ornaments
Bronze	<b><u>Copper and tin</u></b>	For making medals
Dental amalgam	Mercury and copper	<b><u>For dental filling of the teeth</u></b>

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)*

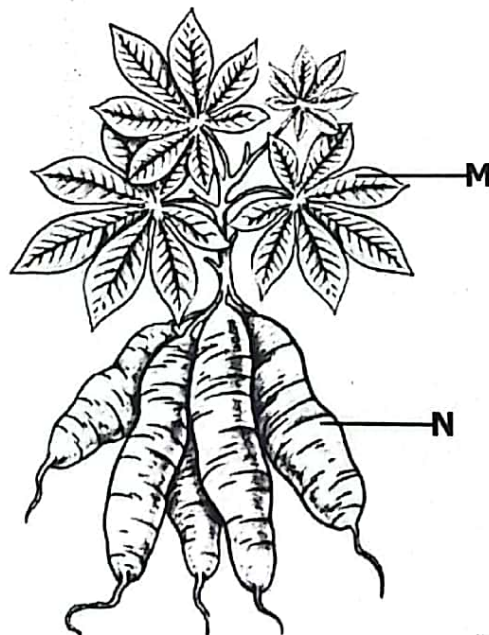
48. The diagram below shows artificial methods of vegetative plant propagation. Study and use it to answer the questions that follow.



- (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**

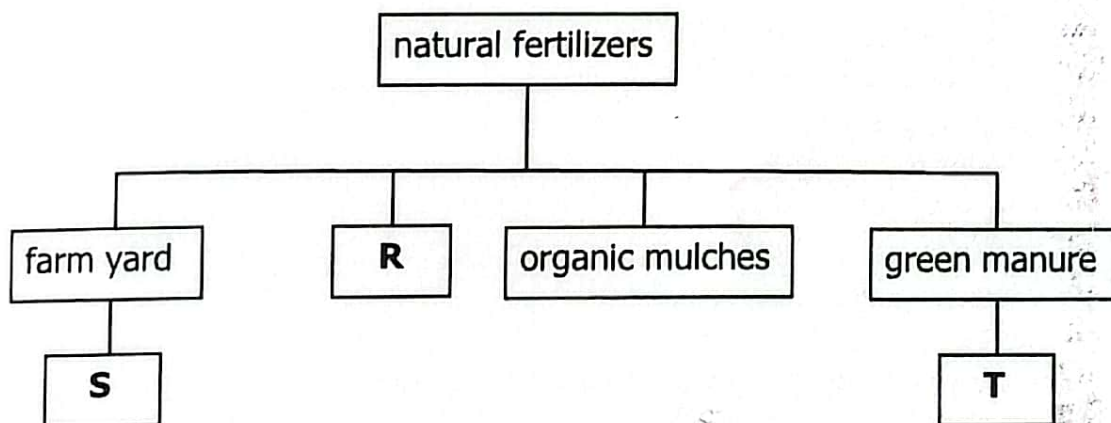


49. (a) Write down any **two** food stuff that can be given to a baby during weaning.  
-porridge// mashed matoke// mashed rice// mashed potatoes  
-sweet bananas// mashed egg yolk/ /mashed beans
- (b) Give any **two** disadvantages of bottle feeding to a baby.  
-The baby is at the great risk of illness.  
-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.



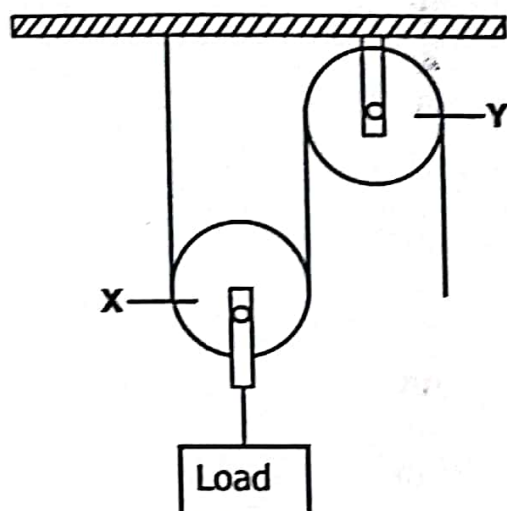
- (a) Name the type of natural fertilizers represented by **R**.  
-**compost manure**
- (b) Which group of plants is represented by **T**?  
-**legumes/ leguminous plants (Reject: annual crops)**
- (c) Mention any **one** material that can be put at **S**.  
-**animal dung/ droppings/ urine (Reject: 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  
 -Miscarriage  
 -Low sperm count  
 -Impotence  
 -Ectopic pregnancy  
 -Sterility  
 -Vaginal fistula  
 -Vaginitis  
 -Ovarian tumour
- (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.
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.
- X single movable pulley
  - 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