



**SUREKEY EXAMINATIONS BOARD**

**PRIMARY SEVEN PLE PREP  
EXAMINATIONS SET TWO**

**IIINTEGRATED SCIENCE  
OFFICIAL MARKING GUIDE**

**2022**

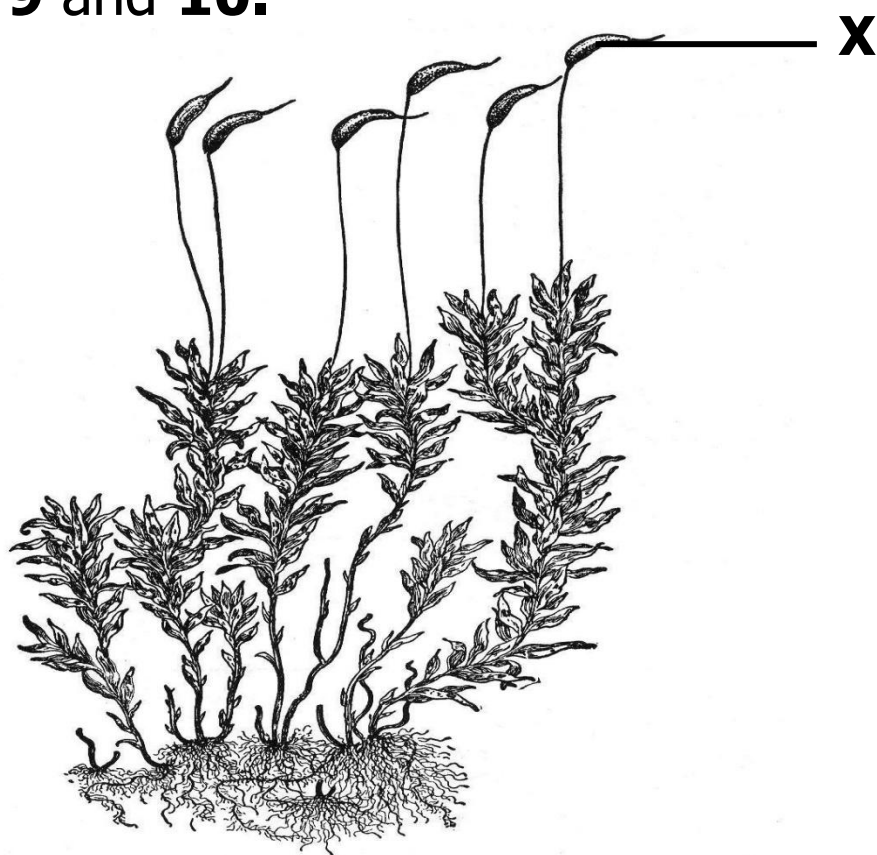
**0700-758668 / 0774-088304**

## SECTION A: 40 MARKS

1. Name the body organ that uses sound energy to function.
  - **Ears/ The ear**
2. Which element of Primary Health Care is promoted by scrubbing sandals regularly?
  - **Personal hygiene.**
3. Name the main energy resource from nuclear fuels.
  - **Uranium.**
4. Mention any **one** factor that affects the rate of evaporation.
  - **Size of the surface.**
  - **Humidity.**
  - **Amount of heat energy.**
  - **Speed of wind.**
5. State the main reason why objects weigh less when immersed in water.
  - **Due to up thrust force/ due to buoyancy.**
6. State any **one** way of improving the production of anti bodies in the body.
  - **Through immunization/ Feeding on a balanced diet.**
7. Apart from carbohydrates, mention any **one** other class of food that provides energy to the body.
  - **Fats and oils (lipids) / proteins.**
8. State the difference between the movement of a frog and that of a snake.
  - **A frog moves by leaping while a snake moves by slithering/gliding.**

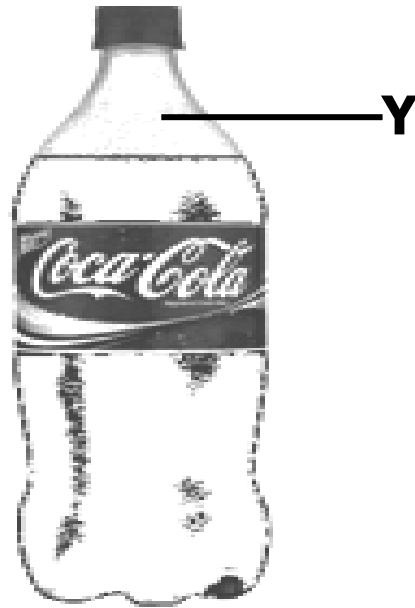


The diagram below shows **a non flowering plant**. Study and use it to answer questions **9** and **10**.



9. To which group of non flowering plants does the above plant belong?
- **Spore producing non flowering plants / spore producing plants.**
10. How is part marked **X** useful to the above non flowering plant?
- **It produces spores.**
11. Why is dew formed at night and not during day?
- **At night the temperature is low for water vapour to condense while during day the temperature is high.**
12. State any **one** way in which brick making affects wildlife in the environment.
- **It causes destruction of animal habitats.**
  - **It causes destruction of their food.**
  - **Leads to destruction of vegetation.**
13. Which group of birds help to promote sanitation in an area?
- **Scavenger birds.**
14. Which property of air enables a person to wear perfume?
- **Air can be compressed.**

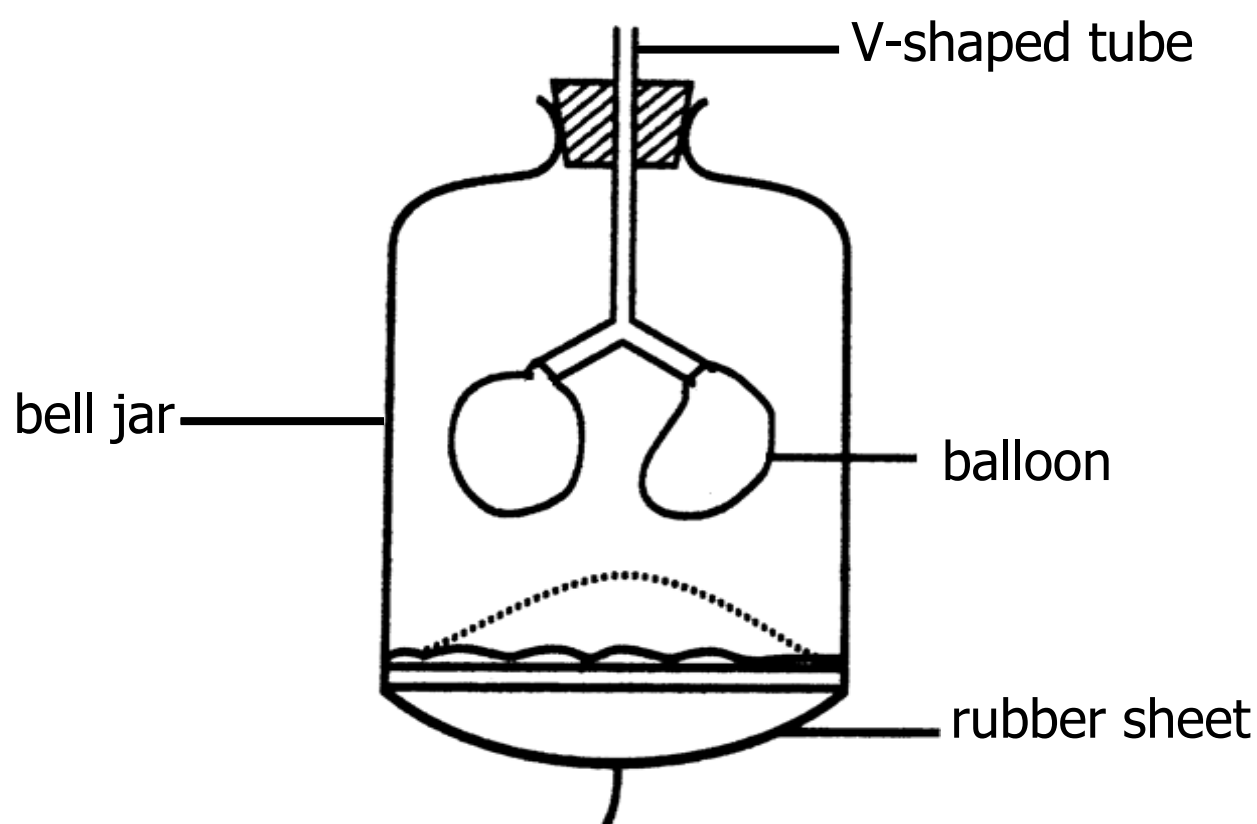
The diagram below is of a **sealed soda bottle** .Study and use it to answer questions **15** and **16**.



15. Why was the space labeled **Y** left in the bottle?
  - **To give room for increase in volume when the soda freezes**
16. Name the gas which bubbles out when the bottle is opened.
  - **Carbon dioxide.**
17. Mention any **one** disorder of the reproductive system in males.
  - **Impotence.**
  - **Premature ejaculation.**
  - **Low sperm count.**
  - **Malformed sperms.**
  - **Deformed penis.**
18. Why is an egg shell porous?
  - **To allow free exchange of gases.**
  - **To allow in and out air.**
19. Give the use of a lactometer to a cattle farmer.
  - **It helps a farmer to detect water in milk/ to detect fats in milk.**
20. State any **one** reason why it is important to cover the mouth with a handkerchief when sneezing.
  - **It helps to prevent germs from spreading to other people.**
  - **It helps to prevent droplet infection.**
  - **It helps to prevent mucus from falling on other people.**

21. In which way does the sun contribute to the formation of rain?
- **Sun heat causes evaporation in water bodies.**
  - **Sun heat causes evapo-transpiration.**
22. Name the longest bone in the upper limb.
- **Humerus.**
23. Give the role of the tongue during food digestion.
- **It pushes food to the gullet // Rolls food into a bolus.**

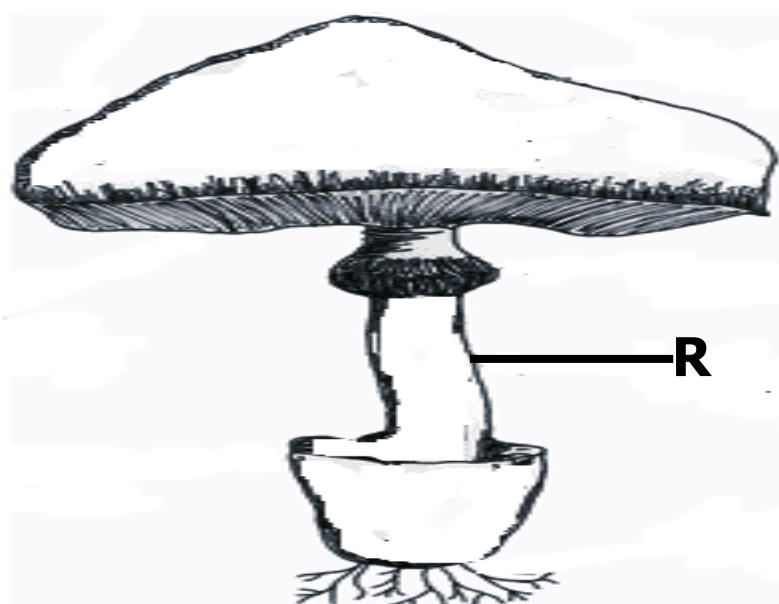
The diagram below shows **how one of the body systems works**. Study and use it to answer the questions **24** and **25**.



24. Name the body system represented by the above model.
- **Respiratory system.**
25. What does the rubber sheet represent?
- **Diaphragm.**
26. Apart from the type of soil, name any **one** other factor to consider when constructing a house.
- **Relief**
  - **Distance from the main road**
  - **Distance from the water source**
  - **Drainage of the soil**
27. Why is it recommended to use lukewarm water when tepid sponging a person with fever?
- **To open up the pores of the skin in order for heat to be lost. // It allows vasodilatation to take place.**
  - **To let out excess heat so as to cool the body temperature**

28. Give an example of a mollusc which is a crop pest to a farmer.  
• **A land snail.**
29. Name the condition characterized by sunken soft spot on the baby's head.  
• **Dehydration.**
30. How does the removal of broken bottles in the compound help in the control of malaria?  
• **It destroys the breeding places for female anopheles mosquitoes.**

The diagram below shows **a fungus**. Study and use it to answer the questions **31** and **32**.



31. Name the part marked **R**.  
• **stalk/stipe**
32. Why is the above fungus unable to make its own food?  
• **It does not have chlorophyll.**
33. Give any **one** way in which smoking affects teeth.  
• **It changes the colour of teeth/ it stains teeth**
34. Apart from gaseous state, mention **one** other state of matter in which heat travels by convection.  
• **Liquid state.**
35. State **one** reason why shearing is done in summer season.  
• **To protect the sheep against coldness during cold weather**  
• **There is enough heat to keep the sheep warm**

36. In which way is a damp proof course useful when constructing a house?
- **It prevents dampness in the house.**
  - **It prevents moisture/water from getting into the wall to weaken it. // To prevent water from rising up to the wall to weaken it.**
37. State any **one** importance of rinsing clothes during washing.
- **It helps to remove soapy water from clothes.**
  - **It helps to remove dirty water from clothes.**
38. Name the type of bees that are friendly to a crop farmer.
- **Worker bees**
39. Why shouldn't people with AIDS be isolated?
- **AIDS is a non contagious disease.**
  - **AIDS is not an air borne disease.**
  - **AIDS does not spread through body contact with an infected person.**
40. Mention the weather instrument used to show the intensity of Sun shine received in an area.
- **A sunshine recorder.**

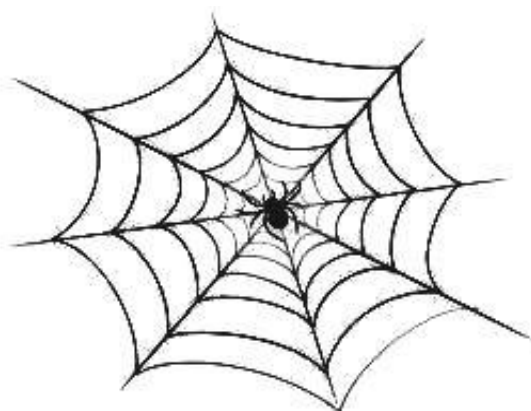
## **SECTION B: 60 MARKS**

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

41. (a) State the use of each of the following items in promoting personal hygiene;
- (i) Pumice stone **For scrubbing feet // for cleaning feet**
  - (ii) Nail cutter **For cutting finger nails short. // for grooming finger nails. // To cut long nails**
- (b) Give any **one** reason why it is important to bathe regularly.  
**It helps to prevent skin diseases/ it helps to prevent a bad smell**
- (c) Mention any **one** disease spread due to poor personal hygiene.
- **Ringworm infection**
  - **Scabies**
  - **Candidiasis**
  - **Tooth decay**



42. The diagram below shows **a structure built by a spider**. Study and use it to answer the questions that follow.



- (a) Name the structure above.
- **Spider web** (*Reject cob web*)
- (b) Give any **two** importance of the above structure to a spider.
- (i) **For trapping prey**
  - (ii) **It a habitat for spiders**
  - (iii) **For protection**
- (c) State any **one** reason why a spider is not put in the same group with a butterfly.
- **A spider breathes through lung books while a butterfly breathes through spiracles.**
  - **A spider has two main body divisions while a butterfly has three main body divisions.**
  - **A spider has eight jointed legs while a butterfly has six jointed legs.**
43. (a) State any **two** ways in which mulching helps to control soil erosion in a garden.
- **Mulches reduce the strength and the speed of flowing water**
  - **Mulches trap soil flowing with water.**
  - **Mulches prevent strong wind from blowing away top soil.**
  - **Mulches prevent direct hitting of soil by raindrops**
- (b) Give any **two** effects of soil erosion in the environment.
- **Leads to Soil exhaustion**
  - **Causes Silting**
  - **Causes blockage of drainage channels**
  - **Affects soil texture**
44. (a) Give the main function of the heart in the human body.



- **To pump blood to all parts of the body.**

(b) Apart from the heart, give **one** other organ of the circulatory system.

- **Blood vessels**

(c) Why does blood go to the following organs during circulation?

(i) Lungs     **-To pick oxygen and drop carbon dioxide**  
**-To be oxygenated.**

(ii) Kidneys.     **for blood to be filtered / purified.**

45. The table below shows **measures** and their **basic units**. Study and complete it correctly.

Measures	Units
(i) Density	<b>grams per cubic units</b>
(ii) <b>mass</b>	grams
(iii) <b>volume</b>	cubic units
(iv) Weight	<b>Newtons</b>

46. (a) In which way do people get tape worm infestations?

- **Through eating undercooked meat.**

(b) What do tape worms feed on in the human body?

- **Digested food**

(d) State the function of each of the following parts to a tape worm.

(i) Suckers     **They provide extra attachment onto the intestinal walls**

(ii) Segments     **For storing eggs/reproduction**

47. (a) State any **one** way in which bacteria are useful to milk

processing industries.

- **Bacteria help in the production of dairy products like yogurt, butter and cheese.**

(b) How is the reproduction of bacteria different from that of yeast?

- **Bacteria reproduce by cell division or binary fission while yeast reproduces by budding .**

(c) How are flagella useful to bacteria?

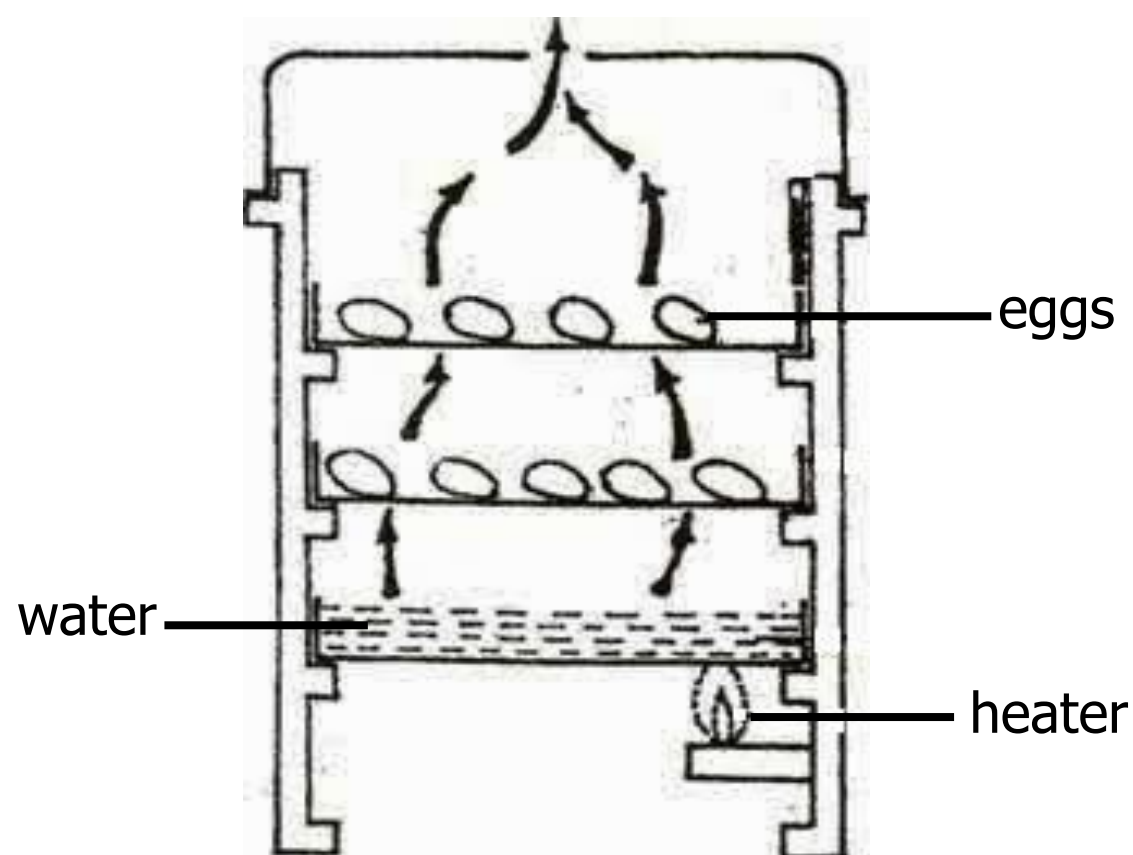
- **For movement**

(d) Why is it not advisable to pour dangerous chemicals like paraffin and acids in pit-latrines?

- **chemicals kill bacteria that decompose faeces / reduce the volume of faeces in pit-latrines.**
- **Chemicals affect biodegradation**
- **Chemicals kill faeces decomposers in the pit.**

48.

The diagram below shows **a method of incubation**. Study and use it to answer the questions that follow.



(a) Name the method of incubation shown in the diagram above.

- **Artificial incubation**

(b) State the function of the heater in the diagram above.

- **It provides warmth for the eggs to hatch**

(c) Give any **two** advantages of the above method of incubation.

- **Many eggs are hatched at once.**
- **It can be used for commercial purposes**
- **It is long lasting**
- **It is easier to feed chicks in one place**

49. The table below shows **forms of current electricity in A** and their **sources in B**.

<b>A</b>	<b>B</b>
(i) Solar electricity	dry cell
(ii) Hydro electricity	fossil fuel
(iii) Thermal electricity	sun
(iv) Chemical electricity	fast flowing water

For each of the forms of current electricity in **A**, write the source from which it is produced from **B**.

- (i) Solar electricity      **sun**
- (ii) Hydro electricity      **fast flowing water**
- (iii) Thermal electricity      **fossil fuel**
- (iv) Chemical electricity      **dry cell**

50. (a) Name any **two** body organs that are greatly affected by alcohol.  
 • **Brain/ liver.**
- (b) Apart from damaging body organs, state any **two** other effects of alcoholism to an individual.  
 • **It causes loss of self respect/ self neglect/ poverty / accidents.**

51. (a) Which communicable disease attacks both rabbits and human

beings?

- **Pneumonia**

(b) State any **one** sign of the disease named in (a) above.

- **High temperature //Fever // Shivering.**
- **Loss of appetite**
- **Persistent cough**

(c) Give any **one** reason why a caged hutch should be raised above the ground.

- **To prevent crawling enemies from entering the hutch**
- **To prevent flowing water from entering the hutch**
- **To protect rabbits from wild animals**
- **To prevent them from stepping in their droppings and urine**
- **To prevent dampness in the hutch.**
- **To prevent rabbits from burrowing (digging holes in the hutch.**

(d) Apart from raising it from the ground, mention any **one** other quality a good hutch should possess.

- **It should always be kept clean**
- **It should allow enough air entering in it**
- **It should not leak on rainy days**
- **It should be strong enough to protect rabbits from dogs and other wild animals**
- **Leak proof / well roofed**
- **Well ventilated.**
- **Strong enough**
- **Cemented floor.**

52. (a) Name **one** material from which local salt can be prepared at home.

- **Ash from burnt plants**

(b) State the method that is used to prepare local salt at home.

- **Filtration.** (*Reject: Evaporation of a water salt solution to dryness*)

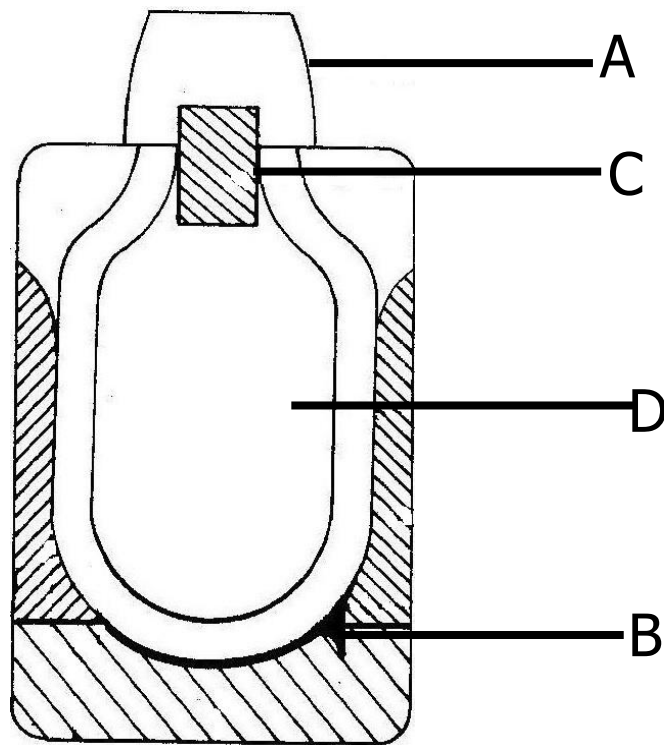
(c) Give any **two** ways in which the local salt prepared at home



is useful to people.

- (i) **For softening food during cooking.**
- (ii) **For making food tasty.**
- (iii) **It is used as a preservative.**
- (iv) **It is used as pesticide.**

53. The diagram below is of a **vacuum flask**. Study and use it to answer the questions that follow.



- (a) Name the parts marked **A** and **B**.
  - (i) **A cup /drinking cup.**
  - (ii) **B vacuum seal/ exhausting tube.**
- (b) State the difference in function between parts marked **C** and **D**.
  - **C prevents heat loss by conduction while D prevents heat loss by radiation.**
- (c) In which way is a vacuum flask able to maintain the required temperature of hot liquids?
  - **By preventing heat loss by conduction, convection and radiation.**

54. (a) Which structures in the muscular skeletal system of a person join,

- (i) bone to bone? **Ligaments**
- (ii) muscle to bone? **Tendons**

(b) Mention **one** disorder of the muscular-skeletal system.

- **Strain**
- **Sprains**
- **Dislocation**
- **Fractures**

(c) Give **one** health practice that helps to keep the muscular skeletal system in a good working condition.

- **Eating a balanced diet.**
- **Regular physical exercising.**
- **Immunizing children**
- **Ensuring good posture**
- **Having enough rest for muscles to clean up.**

55. (a) State the importance of a vent pipe on a Ventilated Improved Pit-latrine (VIP Latrine).

- **It lets out the bad smell**
- **It directs house flies to the screen to be trapped.**

(b) Why should a VIP latrine be left without a lid at the hole?

- **To allow free air circulation in the pit.**

(c) Apart from having a vent pipe, in which **two** other ways is a VIP latrine different from an ordinary pit-latrine?

- **A VIP latrine has a screen which traps house flies until they die while an ordinary pit latrine doesn't.**
- **A VIP latrine doesn't require a lid on the hole while an ordinary pit latrine requires a lid on the hole.**

**END**



