

**Question 10: Answer the following:**

**1 a** Give one reason why most scientists classify viruses as non-living.

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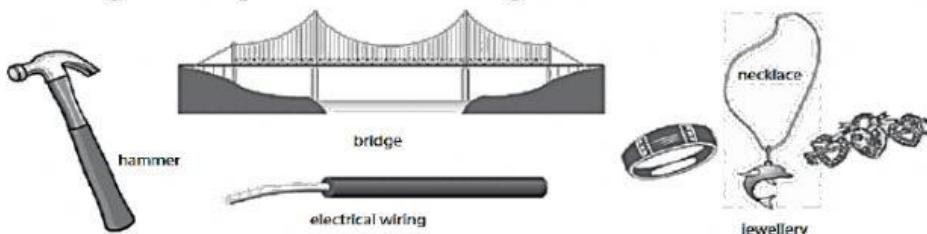
**b** Give one reason why some scientists classify viruses as living.

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**2.** Define fertile.

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**3 –** Use the drawings to complete the sentences given below:



a. Give reasons why iron is used to make tools like a hammer?

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b. Why is gold used to make jewellery?

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c. Why is copper used to make electrical wiring?

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**4.** Which of the following is not a property of metals? Tick (✓) **one** box.

Conduct electricity  
 High melting and boiling points

Do not conduct heat  
 Feel cold to the touch

**5.** What is an Alloy? Give examples of three alloys.

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6. Why is an alloy of aluminium used to build aeroplanes?

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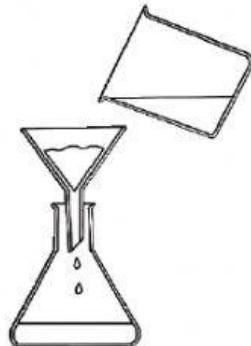
7. Why is an alloy used to make 'silver' coins, and not pure silver?

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8. Ahmed mixes sand and water in a beaker. He separates the mixture using the equipment below:

State the name of this method of separation.

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Suggest why the sand remains in the filter paper?

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9. Copper is used to make wiring in electrical circuits. Copper can also be used to make pans. State the property of copper that is used for making the following:

• Electrical wiring: \_\_\_\_\_



• Cooking pans: \_\_\_\_\_

10. Write down one safety measure that you should take when heating an evaporating basin of a solution of copper sulfate to obtain copper sulfate crystals.

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11. Some salt is dissolved in a beaker of water. Describe a method to separate salt from water.

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12. Give three examples of foods that contain acids. \_\_\_\_\_

13. Give three examples of household products that are alkaline.

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14. You have two beakers of colourless liquid, one is an acid and one is an alkali. Explain how you could identify the acid and the alkali.

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15. Explain what an indicator does?

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16. A pH probe can be used to get an accurate reading from different liquids. An example of a pH probe is shown below.

A variety of solutions were tested and the results are shown in the table below. Put a  in the correct box to show whether the solution was acidic, alkaline or neutral.



Solution	pH reading	Acidic	Alkaline	Neutral
lemon juice	2.2			
toothpaste	9.9			
pure water	7.0			
tomato juice	4.4			

17. Hessa is playing a violin. Fajer hears the sound from the other side of the room. What must happen for Fajer to hear the sound?

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18. Explain why sound doesn't travel in vacuum?

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19. The speed of a sound wave in air is 340 metres per second. The speed of a sound wave in a solid concrete is 2950 metres per second. Use ideas about particles to suggest reasons for the difference in speed.

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20. People who work beside aeroplanes wear ear protection. Explain why loud sounds can damage people's ears.

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21. Thani walks through a tunnel.

When Thani puts his foot down it makes a sound. He then hears the same sound again after a very short time. Explain why he hears the sound again.

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22. The speed of sound in air is 340 metres per second. Salama stands 85 metres away from a tall cliff. She bangs a drum loudly.

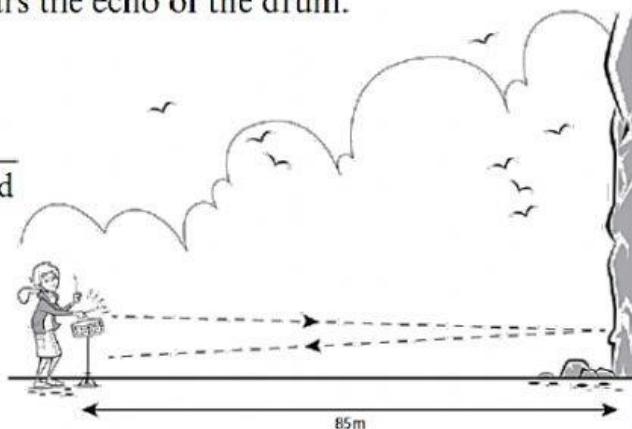
Calculate the time, in seconds, until she hears the echo of the drum.

Use the equation:

$$\text{Time in seconds} = \frac{\text{distance in metres}}{\text{speed in metres per second}}$$

Show your working.

\_\_\_\_\_ seconds



23. In 1912, Alfred Wegener developed the idea of continental drift. Explain what is meant by continental drift.

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24. Describe the evidences that led to this idea of continental drift.

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25. Some people did not believe Wegener's idea because he could not explain how the continental drift happened. What theory was developed in the 1960s that explained this idea?

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