

SECTION A

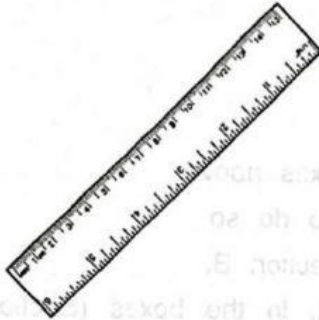
Answer ALL the questions in this section.

Each questions or statement is followed by four suggested answers or completions. Choose the BEST ANSWER or COMPLETION and write the letter next to it in the answer box.

1. A plumber wants to find out the diameter of a pipe.

Which of the following instruments should he used to measure the external diameter of the pipe accurately?

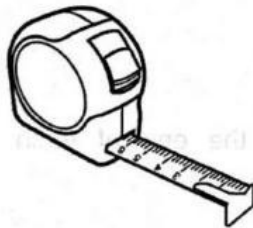
A.



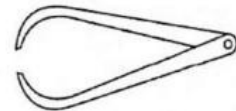
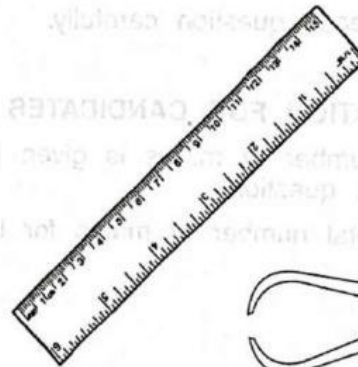
C.



B.



D.



2. Table 2 shows the freezing and boiling points of four liquids.

| | Mercury | Alcohol | Pentane | Water |
|---------------------------------------|---------|---------|---------|-------|
| Freezing point ($^{\circ}\text{C}$) | -39 | -114 | -130 | 0 |
| Boiling point ($^{\circ}\text{C}$) | 357 | 78 | 36 | 100 |

Table 2

Which liquid can be used in a thermometer to measure temperature between -50°C and 50°C ?

- A. Alcohol
B. Mercury
C. Pentane
D. Water

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3. A group of four Y8 students uses a stop watch to measure the time taken for their friend, Asri to run one complete round at the field track. Figure 3 shows the stop watch at the start and end of one complete round.

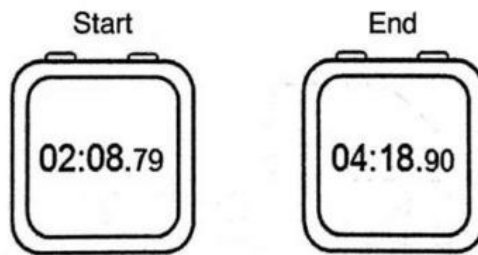


Figure 3

Who reads the time taken for Asri to run one complete round at the field track correctly?

- A. Abdul Wahab 2 hours 10.79 minutes
B. Aziemah 2 hours 10.11 minutes
C. Masni 2 minutes 10.11 seconds
D. Zulfa 2 minutes 10.90 seconds

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4. Solid X and Liquid Y in Figure 4 have definite volume

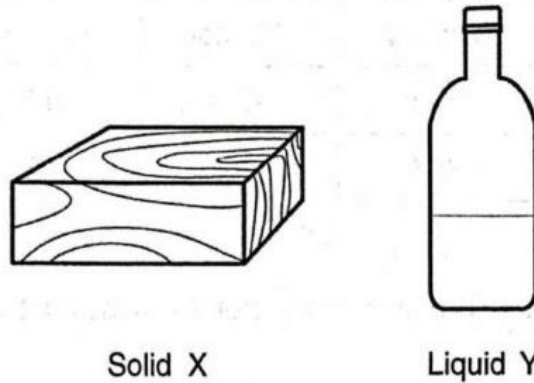
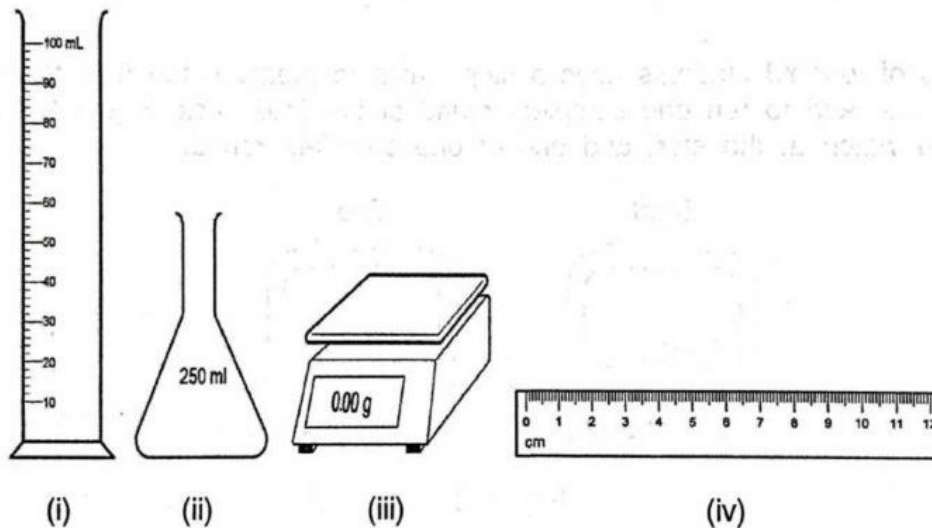


Figure 4

The apparatus below are found in science laboratory.



Which of the following apparatus is used for finding the volume of solid X and Liquid Y?

| | Solid X | Liquid Y |
|----|---------|----------|
| A. | (i) | (iv) |
| B. | (i) | (ii) |
| C. | (ii) | (iii) |
| D. | (iv) | (i) |



5. Figure 5 shows a mimosa plant.



Figure 5

Which of the following stimuli will cause a response in this plant?

- A. Gravity
B. Light
C. Touch
D. Water

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6. Study the classification chart in Figure 6.

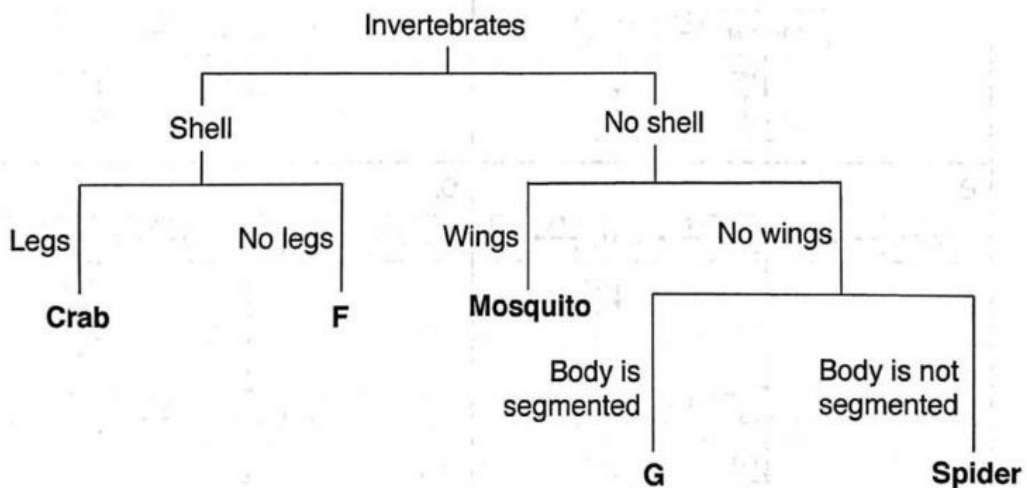


Figure 6

Which of the following are possible invertebrates F and G?

| | Invertebrate F | Invertebrate G |
|----|----------------|----------------|
| A. | Centipede | Earthworm |
| B. | Centipede | Snail |
| C. | Earthworm | Snail |
| D. | Snail | Earthworm |

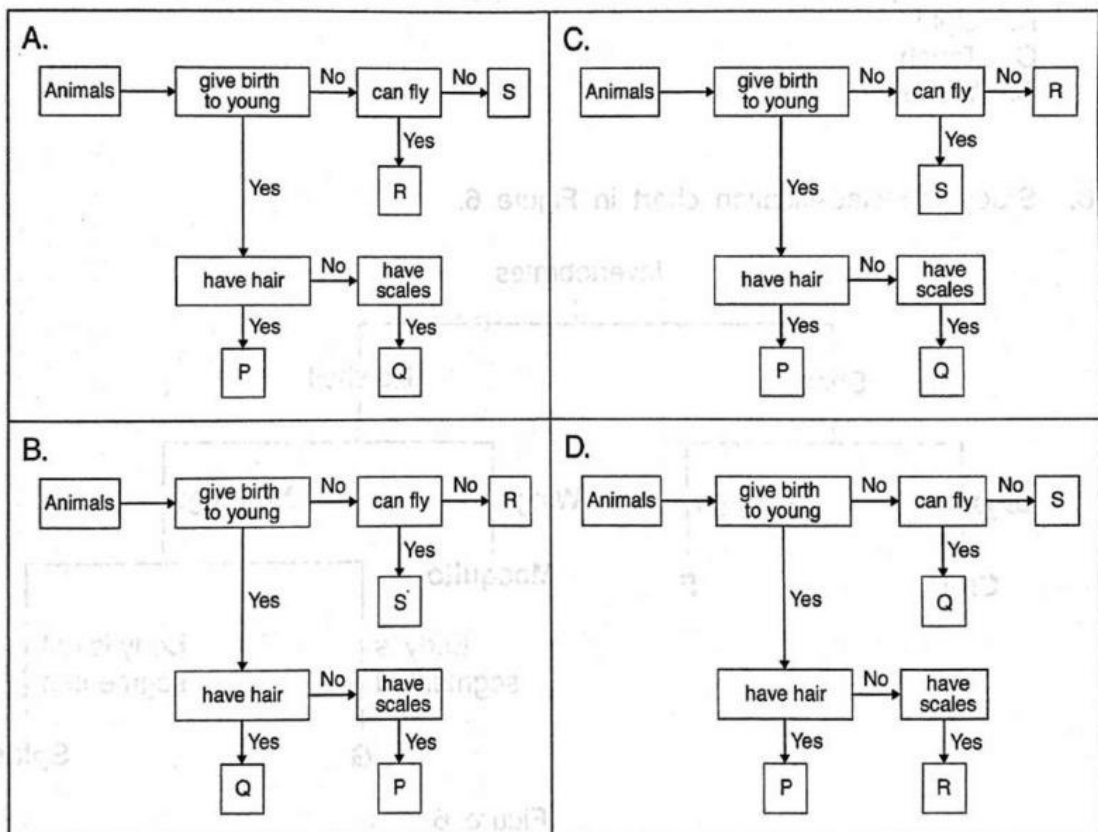
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7. Table 7 describes the characteristic of four different animals.

| Animal | Give birth (✓/✗) | Hair (✓/✗) | Scales (✓/✗) | Fly (✓/✗) |
|--------|---------------------|---------------|-----------------|--------------|
| P | ✓ | ✓ | ✗ | ✗ |
| Q | ✓ | ✗ | ✓ | ✗ |
| R | ✗ | ✗ | ✗ | ✓ |
| S | ✗ | ✗ | ✗ | ✗ |

Table 7

Which of the following charts **best** represent the animals in Table 7?



8. Figure 8 shows the water before placed in a freezer.

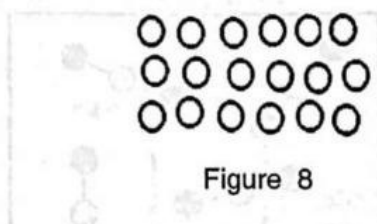
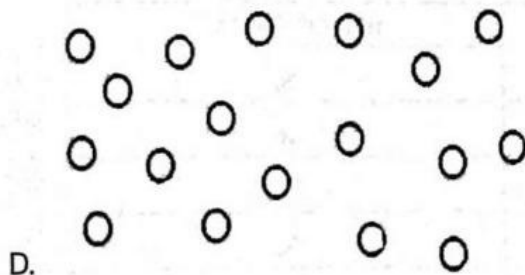
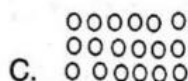


Figure 8

Which diagram represents the arrangement of particles when the liquid freezes?



9. Which of the following processes can be considered as diffusion?

- A. A snoring person in the middle of the night
 B. Sand pouring to the ground from a moving truck
 C. The smell of frying eggs during breakfast
 D. Water entering your ear during swimming



10. Figure 10 represents a mixture of carbon dioxide, CO_2 , and carbon monoxide, CO .

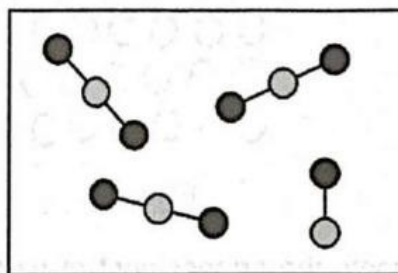


Figure 10

Which statement is **correct**?

- A. The mixture contains 4 molecules.
 B. The mixture contains 4 elements.
 C. The mixture contains 11 elements.
 D. The mixture contains 11 molecules.

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11. Which of the followings is a mixture?

- A. Bronze
 B. Nitrogen
 C. Salt
 D. Sugar

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12. Afif and Zahirah investigated the temperature changes when water is heated by setting up the apparatus in Figure 12.

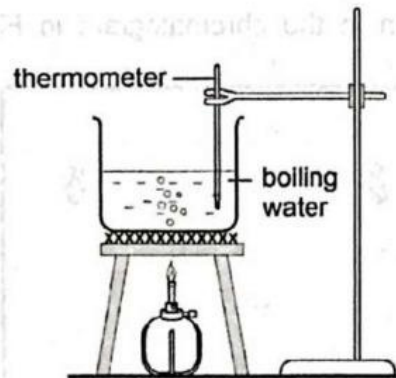


Figure 12

They heated the water for ten minutes and measure the temperature every 2 minutes interval.

Which of the following variables are kept the same in the experiment?

| | Size of beaker | Volume of water |
|----|----------------|-----------------|
| A. | x | x |
| B. | x | ✓ |
| C. | ✓ | x |
| D. | ✓ | ✓ |

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13. A student wishes to extract a coloured solution from some berries to make an indicator solution.

Which of the listed instructions should the student follow?

| | |
|---|---------------------|
| 1 | crush the berries |
| 2 | add acid |
| 3 | add a solvent |
| 4 | filter the mixture |
| 5 | distil the filtrate |

- A. 1, 2 and 4
B. 1, 3 and 4
C. 2, 3 and 5
D. 2, 4 and 5

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14. A mixture of two sugars are compared with four different known sugars using chromatography.

The results are shown in the chromatogram in Figure 14.

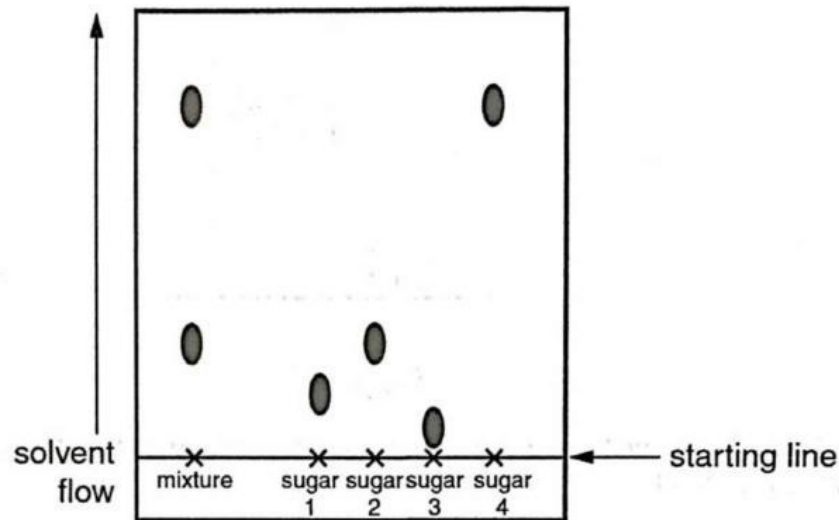


Figure 14

Which of the two known sugars does this mixture contain?

- A. 1 and 2
- B. 1 and 4
- C. 2 and 3
- D. 2 and 4



15. Figure 15 shows human cheek cells found in human body.

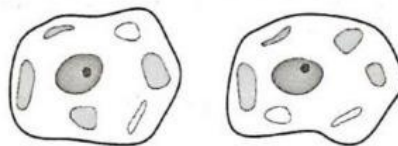


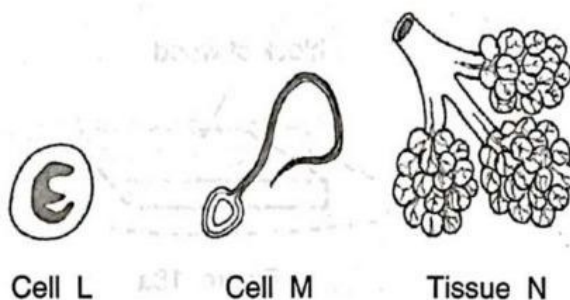
Figure 15

How many cell walls can be seen?

- A. 0
- B. 1
- C. 2
- D. 3



16. Figure 16 below shows cell L, cell M and tissue N in a human body.



Cell L Cell M Tissue N

Figure 16

Which systems are associated with cell L, cell M and tissue N?

| | Cell L | Cell M | Tissue N |
|----|---------------------|---------------------|---------------------|
| A. | Reproductive system | Transport system | Respiratory system |
| B. | Respiratory system | Reproductive system | Transport system |
| C. | Transport system | Respiratory system | Reproductive system |
| D. | Transport system | Reproductive system | Respiratory system |



17. How much work is done when a weight of 12N is raised vertically through 50cm shown in Figure 17?



Figure 17

- A. 6 Nm
- B. 12 Nm
- C. 60 Nm
- D. 120 Nm



18. A block of wood with flat, rectangular sides rests on a table as shown in Figure 18a.

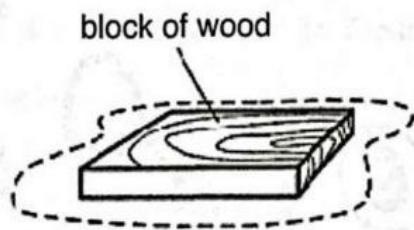


Figure 18a

The wood is now turned so that it rests on the table on its smallest side as shown in Figure 18b.

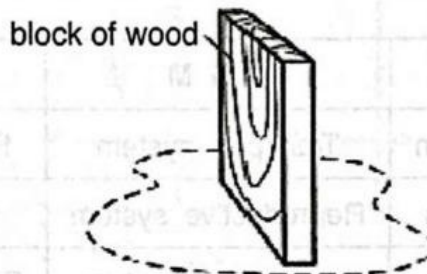


Figure 18b

Describe the change in force and pressure exerted by the brick on the table.

| | Force | Pressure |
|----|--------------|-----------------|
| A. | increased | increased |
| B. | increased | unchanged |
| C. | unchanged | increased |
| D. | unchanged | unchanged |

19. Azmi wants to place a potted plant on the steps leading up to the stage.

At which position, **A**, **B**, **C** or **D**, in Figure 19 should the potted plant be placed so that its potential energy will be the highest?

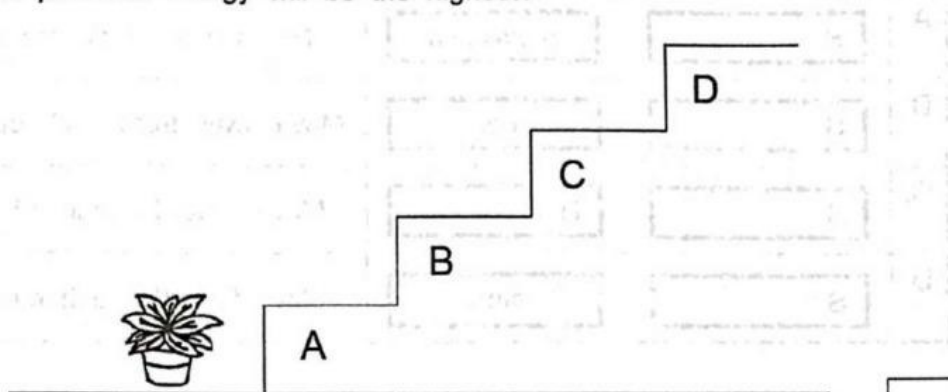


Figure 19

20. Figure 20 shows two identical ring magnets arranged through a plastic stick. The two rings 'float'.

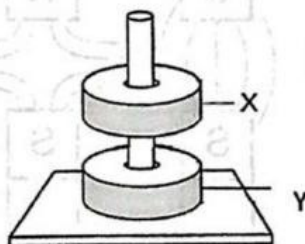


Figure 20

Which of the following explain why the ring magnet 'floats'?

- A. Magnet X and Y attracts as they have like poles facing each other.
- B. Magnet X and Y attracts as they have unlike poles facing each other.
- C. Magnet X and Y repels as they have like poles facing each other.
- D. Magnets X and Y repels as they have unlike poles facing each other.

