

Syllabus for CSO is available at <https://www.crestolympiads.com/cso-syllabus>

**Pattern And Marking Scheme**

Class	Topic/Section	No. of Questions	Marks per Questions	Total Marks
	Practical Science	25	1	25
1 <sup>st</sup> to 4 <sup>th</sup>	Achiever's Section	10	2	20
	<b>Grand Total</b>	<b>35</b>	-	<b>45</b>
	Practical Science	40	1	40
5 <sup>th</sup> to 10 <sup>th</sup>	Achiever's Section	10	2	20
	<b>Grand Total</b>	<b>50</b>	-	<b>60</b>

1. Read the given statements:

1. For obtaining silk, moths are reared and their cocoons are collected to get silk threads. The larvae are fed with \_\_\_\_\_ leaves.
2. \_\_\_\_\_ is the process of unwinding or taking out silk fibres from cocoons.

Select the option that correctly fills the blanks.

- |                                 |                          |
|---------------------------------|--------------------------|
| a) 1-maple, 2-Scouring          | b) 1-mulberry, 2-Reeling |
| c) 1-neem, 2-Selective breeding | d) 1-mango, 2-Shearing   |

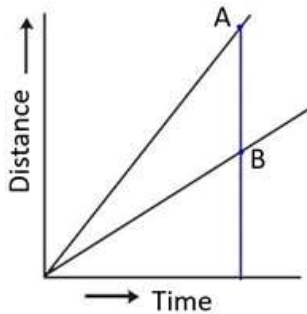
2. Read the passage given below and answer the question.

Excessive use of chemical fertilizers makes the soil acidic. Plants do not grow well when the soil is either too acidic or basic. When the soil is too acidic, it is treated with base like X and when the soil is basic then Y is added to it. Identify X and Y correctly.

- a) X-Baking soda, Y-Milk of magnesia
- b) X-Calamine solution, Y – Inorganic matter
- c) X - Organic matter, Y - Quick lime
- d) X - Quick lime, Y - Organic matter

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3. The image shows a distance-time graph of trucks A and B moving with different speeds. Choose the correct option.



- a) Both the trucks move with the same speed
- b) Truck B is moving faster than truck A
- c) Truck A is moving faster than truck B
- d) Both the trucks are at rest

- 
4. The class teacher is explaining about a component named Z found in human body.

Read the clues given below and identify the component named Z correctly.

**Clue 1:** We are a part of the body's immune system.

**Clue 2:** We help the body to fight infection and other diseases.

**Clue 3:** We are a type of blood cell.

- a) Plasma
- b) White blood cells
- c) Red blood cells
- d) Platelets

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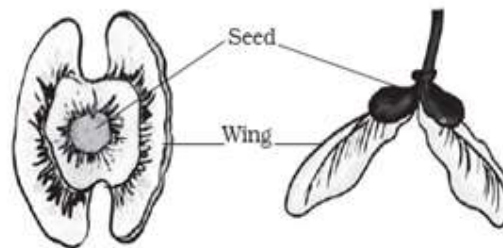
5. Study the table given below and identify X, Y and Z correctly from the given options.

Inexhaustible	Renewable	Non-renewable
Air	Fish	Iron
X	Y	Z

- a) X – Clay, Y – Pearls, Z – Gold  
c) X – Gold, Y – Clay, Z – Water

- b) X – Forest, Y – Coal, Z – Sand  
d) X – Petroleum, Y – Gold, Z – Clay

6. In the pictures given below we can see the seeds of drumstick and maple. Identify the agent of seed dispersal from the given options.



- a) Animals/Birds  
c) Water

- b) Wind  
d) Fruits burst with a sudden jerk

7. Which of the following statement is/are false about respiration?

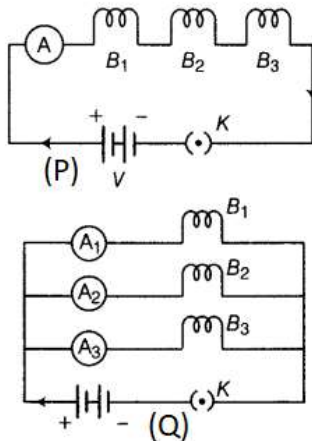
- During inhalation, ribs move inward and diaphragm is raised.
- In the alveoli, exchange of gases takes place i.e., oxygen from alveolar air diffuses into blood and  $\text{CO}_2$  from the blood into the alveolar air.
- Hemoglobin has a greater affinity for  $\text{CO}_2$  than  $\text{O}_2$ .
- Alveoli increase surface area for exchange of gases

- a) (i) and (ii)  
c) (ii) and (iv)

- b) (ii) and (iii)  
d) (i) and (iii)

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8. Carefully look at the circuit diagrams below and identify in which of these the bulbs will glow brightly.



- In circuit P only
- In circuit Q only
- In both circuits P and Q, the bulbs will glow with equal brightness
- Neither P nor Q

## Achiever's Section

9. Ravi kept water in two pans out in mid-day sunlight for an hour. One pan was painted black and the other painted white on its outer surface. After one hour it was tested that the temperature of water in both the pans were different. State the reason why?
- The dark coloured surface absorbed less heat so the temperature of water was high whereas light coloured surface reflects less heat so water temperature was low.
  - The dark coloured surface absorbed less heat so the temperature of water was low whereas light coloured surface reflects more heat so water temperature was high.
  - The dark coloured surface absorbed more heat so the temperature of water was low whereas light coloured surface reflects less heat so water temperature was high.
  - The dark coloured surface absorbed more heat so the temperature of water was high whereas light coloured surface reflects more heat so water temperature was low.

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10. Complete the following sentence.

Forests affect our food chain. Many food chains can be found in the forest and all food chains are linked.

A student wrote a wrong food chain in the following way:

Frog ----> Eagle ---> Insects ---> Grass ---> Snake

Identify the correct food chain from the following options.

- a) Eagle ---> Insects ----> Grass ----> Snakes ----> Frogs
- b) Eagle ---> Grass ----> Insects ----> Snakes ----> Frogs
- c) Eagle---> Insects ----> Grass ----> Frogs ----> Snakes
- d) Grass ---> Insects ----> Frogs ----> Snakes ----> Eagle

## Answers

1. (b), 2. (d), 3. (c), 4. (b), 5. (a), 6. (b), 7. (d), 8. (b), 9. (d), 10. (d)