



# UNICUS OLYMPIADS

## Sample Paper (2020-21)

**Class 6**

**Unicus Science Olympiad**



<b>Section – Class*</b> <small>*Syllabus covered</small>	<b>Total Questions</b>	<b>Marks per Questions</b>	<b>Total Questions</b>
Classic Section – Class 5	28	1	28
Classic Section – Class 4	12	1	12
Scholar Section – Class 5	7	2	14
Scholar Section – Class 4	3	2	6
<b>Grand Total</b>	<b>50</b>		<b>60</b>

1. Match Column I with Column II:

**Column I**

1. Sweet potato
2. Rhizophora
3. Money plant
4. Rose
5. Carrot
6. Wheat

**Column II**

- P. Fibrous root system
- Q. Tap root system
- R. Storage root
- S. Classified under shrub
- T. Mangrove plant
- U. Climber

- a) 1 - R, 2 - T, 3 - U, 4 - S, 5 - Q, 6 - P
- c) 1 - R, 2 - T, 3 - P, 4 - S, 5 - Q, 6 - U

- b) 1 - P, 2 - T, 3 - U, 4 - S, 5 - Q, 6 - R
- d) 1 - T, 2 - R, 3 - U, 4 - Q, 5 - S, 6 - P

**Correct Answer: a**

*1 Mark*

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2. Read the passage below and identify X correctly:

The X lies below the cerebellum. It works all the twenty-four hours and controls the heart-beat, the breathing movements and the work of many internal organs. If X is injured, the heart and the lungs will stop working and death follows instantaneously.

- a) Cerebrum
- b) Axon
- c) Medulla oblongata
- d) Thalamus

**Correct Answer: c**

*1 Mark*

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3. Read the two statements written below and select the correct option related to them:

**Statement 1** - Scissors is a first-class lever where the fulcrum is between the load and the effort. It uses two first-class levers together.

**Statement 2** - Stairs are an example of the inclined plane.

- a) Statement 1 is correct but statement 2 is incorrect
- b) Statement 1 is incorrect but statement 2 is correct
- c) Both the statements are correct
- d) Both the statements are incorrect

**Correct Answer: c**

*1 Mark*

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4. 600 cm<sup>3</sup> of air is pumped into the three containers x, y and z shown below. What will be the volume of air in each of these containers?



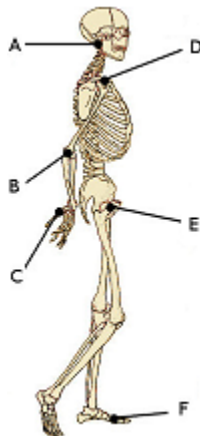
- a) x – 600 cm<sup>3</sup>, y – 600 cm<sup>3</sup>, z – 600 cm<sup>3</sup>      b) x – 300 cm<sup>3</sup>, y – 500 cm<sup>3</sup>, z – 1200 cm<sup>3</sup>  
c) x – 600 cm<sup>3</sup>, y – 300 cm<sup>3</sup>, z – 600 cm<sup>3</sup>      d) x – 300 cm<sup>3</sup>, y – 600 cm<sup>3</sup>, z – 600 cm<sup>3</sup>

**Correct Answer: b**

*1 Mark*

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5. Refer to the diagram given below and select the correct option:



- a) A – Pivot joint, B – Hinge joint, D – Ball and socket joint  
b) A – Ball and socket joint, C – Hinge joint, E – Ball and socket joint  
c) B – Hinge joint, D – Ball and socket joint, F – Pivot joint  
d) C – Saddle joint, E – Pivot joint, F – Ball and socket joint

**Correct Answer: a**

*1 Mark*

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6. State which of the following statements are TRUE:
1. An earthquake can be detected with an instrument called a seismograph.
  2. An earthquake is a sudden shaking of the ground caused by the movements or vibrations deep inside the earth.
  3. The layers of the earth under the tectonic plates are cold and in a molten state because the core below is extremely cold.

a) 1 and 2  
c) 1, 2 and 3

b) 2 and 3  
d) None of them

**Correct Answer: a**

*1 Mark*

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7. In which of the following cases, the friction is not useful:

1. Sharpening a pencil.
2. Gears (in machines) rubbing against each other.
3. Striking a matchstick to light it.
4. Ball bearing in roller bladders.

a) 1 and 4  
c) 1 and 3

b) 2 and 4  
d) 3 and 4

**Correct Answer: b**

*1 Mark*

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8. A chemical change produces a new substance whereas a physical change does not produce a new substance. Which of the following pair of changes are irreversible?

M: Stretching a rubber band  
N: Burning of matchstick  
O: Germination of seed  
P: Dissolving sugar in water

a) M and O  
c) N and O

b) O and P  
d) M and P

**Correct Answer: c**

*1 Mark*

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9. Samay took some dry moong seeds and soaked them overnight in water. Then, he boiled the seeds. After boiling, he drained the extra water, wrapped the boiled seeds in a wet cloth and set them aside for 28 hours. After 28 hours, he observed that seeds did not germinate. Which of the following is the reason for the failure of germination?
- a) Seeds should have been wrapped in a dry cloth.
  - b) Seeds should not have been soaked in water overnight.
  - c) Seeds should not have been boiled.
  - d) Extra water should not have been drained.

**Correct Answer: c**

*2 Marks*

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10. We know that, in water cycle, water enters in air by some processes. If we say that, water vapor enters into air by a process 'A' and by 'B' it gets converted into water droplets, then which of the following correctly identifies 'A' and 'B'?



- a) A – Evaporation, B – Condensation
- b) A – Transpiration, B - Evaporation
- c) A – Transpiration, B- Precipitation
- d) A – Precipitation, B – Condensation

**Correct Answer: a**

*2 Marks*

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