



UNICUS OLYMPIADS

Sample Paper (2020-21)

Class 7

Unicus Science Olympiad



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

1. A bag contains a mixture of two solids X and Y. Solid X being lighter than solid Y. Solid X is an impurity which needs to be removed. What type of separating method will you use to obtain pure solid Y?

- a) Sieving
b) Winnowing
c) Threshing
d) Magnetic separation

Correct Answer: b

1 Mark

2. Read the following statements and choose the correct option:

Statement 1: A boy wearing coloured contact lens, grey in the left eye and green in the right eye, standing in front of a plane mirror observes the left eye green and the right eye as grey.

Statement 2: Lateral inversion makes the left side appears right and right side appears left.

- 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 and statement 2 is the correct explanation of statement 1.
d) Both the statements are correct but statement 2 is not the correct explanation of statement 1.

Correct Answer: c

1 Mark

3. Consider the table given below and select the correct option:

Habitat	Plant/Animal	Adaptive feature
Mountain	A	Strong hooves
B	C	Long ears
D	Cactus	Long roots

- a) A – Mountain goats, B – Rainforests, C – Camel, D – Desert
b) A – Deer, B – Desert, C – Yak, D – Temperate forest
c) A – Yak, B – Grasslands, C – Deer, D – Desert
d) A – Yak, B – Desert, C – Camel, D – Desert

Correct Answer: c

1 Mark

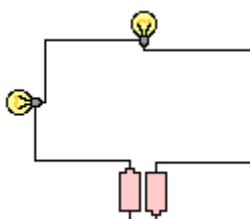
4. A train leaves place 'P' at 9:00 am. It reaches place 'Q' located at a distance of 80 km at 11:00 am. It makes a scheduled halt of 30 minutes and then starts for place 'R' which is 60 km from 'Q'. If it reaches 'R' at 1:30 pm. Find the average speed of the train:

- a) $280/9 \text{ kmh}^{-1}$ b) $300/7 \text{ kmh}^{-1}$
 c) 280 kmh^{-1} d) 150 kmh^{-1}

Correct Answer: a

1 Mark

5. Shraavan connected two bulbs across two cells in a simple circuit. How can he make the bulbs glow dimmer?



- a) Replace one cell with a piece of chalk. b) Replace one bulb with a piece of wire.
 c) Replace one bulb with another cell. d) Replace one cell with a piece of wire.

Correct Answer: d

1 Mark

6. Match the following:

List I

- P.** Dissolution
Q. Heating of sugar
R. Occurrence of a new moon
S. Occurrence of a rainbow

- a) P – 3, Q – 2, R – 4, S – 1
 c) P – 3, Q – 2, R – 1, S – 4

List II

1. Non-periodic change
 2. Chemical change
 3. Physical change
 4. Periodic change

- b) P – 2, Q – 3, R – 4, S – 1
 d) P – 2, Q – 3, R – 1, S – 4

Correct Answer: a

1 Mark

7. A bottle opener works with the load in between the fulcrum and the effort. Which of the following machines work the same way?



- a) Wheelbarrow
c) Claw hammer
b) Tongs
d) Scissors

Correct Answer: c

1 Mark

8.



Read the following clues about the constellation 'X' shown above and identify 'X':

Clue 1: It is also called The Hunter.

Clue 2: This constellation is visible in the winter season.

Clue 3: The brightest star in the sky, Sirius, can be located with the help of this constellation.

- a) Ursa major
c) Orion
b) Ursa minor
d) Cassiopeia

Correct Answer: c

1 Mark

9. Rohan was performing an activity to test the burning properties of cotton, wool and silk in his science laboratory. He held one end of the cotton yarn with a tong and brought the other end over the flame of a candle. He then performed the same activity with different yarns and observed carefully.

Which of the following observations is/are correct?

1. Cotton yarn does not catch fire easily. It does not shrink or melt on burning. It gives the odour of burning hair on heating
2. Wool yarn catches fire easily. It shrinks and melt on burning. It gives the odour of burning paper on heating.
3. Silk yarn does not catch fire easily. It shrinks away from the flame but does not melt. It gives the odour of charred meat on heating.

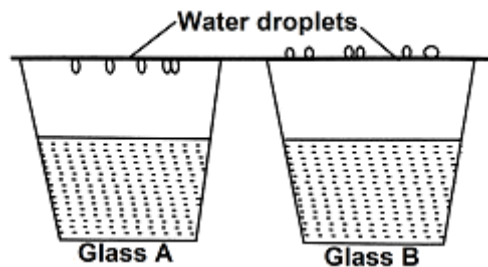
- a) 1 only
c) 3 only

- b) 2 only
d) Both 2 and 3

Correct Answer: c

2 Marks

10. Anamika poured equal amounts of water, each of a different temperature into two identical glasses, A and B. She then covered them with the identical lids. After five minutes, she observed the water droplets as shown below:



- a) Water in Glass A – Cold, Water in Glass B - Cold
- b) Water in Glass A – Hot, Water in Glass B - Hot
- c) Water in Glass A – Cold, Water in Glass B - Hot
- d) Water in Glass A – Hot, Water in Glass B - Cold

Correct Answer: d

2 Marks