



UNICUS
OLYMPIADS

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Sample Paper



Class 3

Unicus Global Science Olympiad (UGSO)

Time: 60 minutes

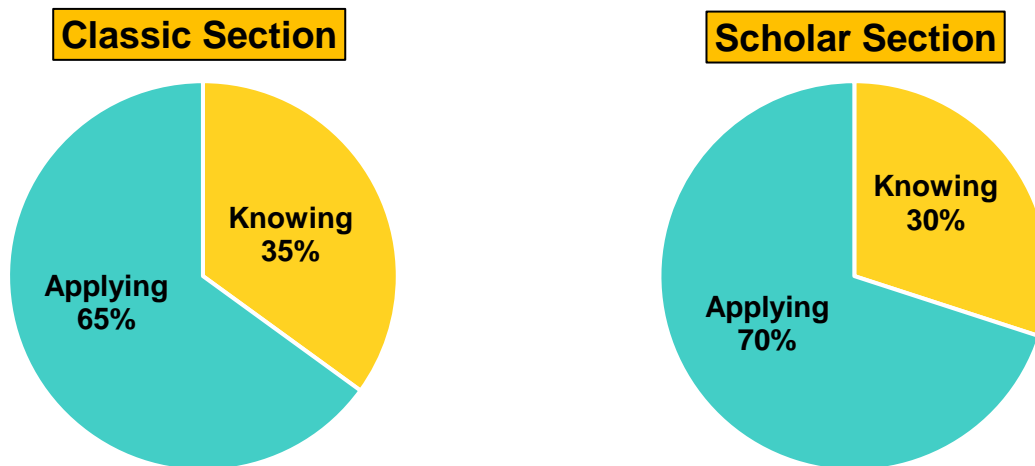
Pattern and Marking Scheme			
Section	Total Questions	Marks per Question	Total Marks
Classic Section	20	1	20
Scholar Section	10	2	20
Grand Total	30		40

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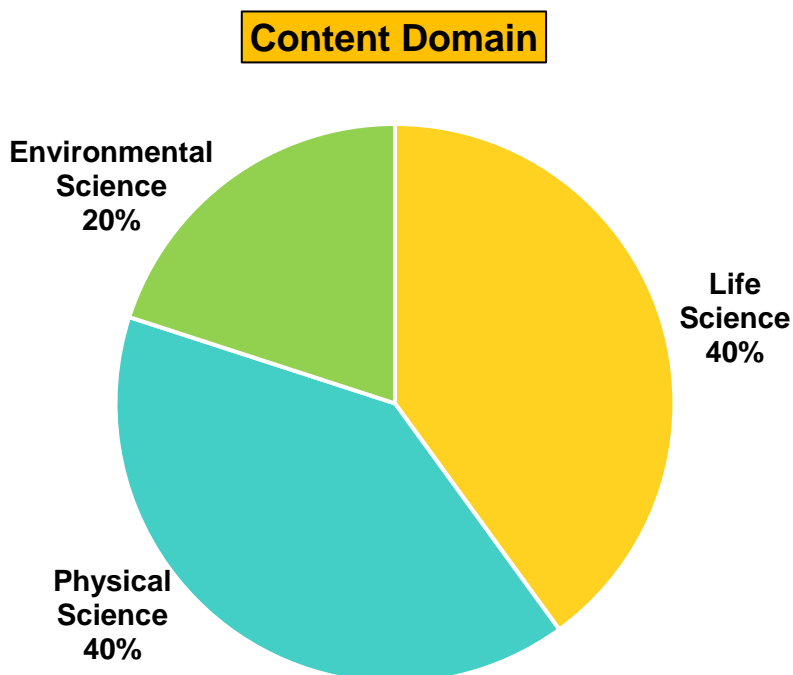
The **Unicus Global Olympiad** is organised around two dimensions:

1. Content dimension, specifying the subject matter domains to be assessed
2. Cognitive dimension, specifying the thinking processes to be assessed

Target percentages of the question paper devoted to cognitive domains



Target percentages of the question paper devoted to content domains



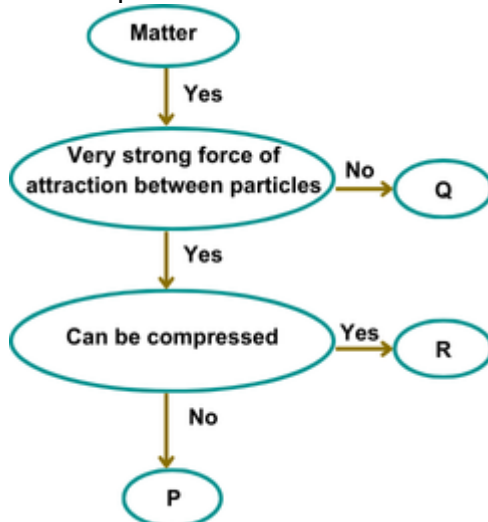
For more details, visit <https://www.unicusolympiads.com/>.

Classic Section (Each Question is 1 Mark)

Cognitive Domain: Applying

Content Domain: Physical Science

1. Study the given flow chart.
Where would a wooden chair be placed?



- a. Q
b. P
c. R and Q
d. R

Cognitive Domain: Applying

Content Domain: Physical Science

2. Andrea poured water into an ice cube tray and placed it in the freezer. Later, she placed the ice cubes in the sun and they disappeared and became steam.
Identify the three states of matter that Andrea observed with water in their correct order.

- a. solid, gas, liquid
b. solid, liquid, gas
c. liquid, solid, liquid, gas
d. gas, liquid, solid, liquid

Cognitive Domain: Knowing

Content Domain: Physical Science

3. Mrs Adam is a school teacher. She likes to have green tea with a teaspoon full of sugar during her break time. She has only ten minutes of break time to make and drink her tea as well.
If Mrs Adam wants to make a cup of tea quickly, what should she do?



- a. Mrs Adam should use cold water and not stir.
b. Mrs Adam should use hot water and not stir.
c. Mrs Adam should use cold water and stir gently.
d. Mrs Adam should use hot water and stir gently.

Cognitive Domain: Applying	Content Domain: Physical Science
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4. Betty saw her mother using detergent washing powder as shown in the given picture, to wash clothes.
Identify the substance and select the INCORRECT statement regarding it:



- a. This substance can be easily separated by using a sieve if mixed with water.
- b. This substance completely dissolves in water.
- c. This substance will mix completely in water if we increase the temperature of the water.
- d. This substance will mix completely in water with constant stirring.

Cognitive Domain: Knowing	Content Domain: Physical Science
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5. Names of objects are hidden in the word grid given below.
How many of them are-
P. luminous objects?
Q. non-luminous objects?

R	Q	B	U	L	B
G	U	M	A	T	J
T	T	O	R	C	H
H	W	O	K	I	A
S	U	N	D	F	T

- a. P – Two, Q – Five
- b. P – Two, Q – Two
- c. P – Three, Q – Four
- d. P – Four, Q – Three

Cognitive Domain: Applying	Content Domain: Physical Science
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6. Study the given relationship between the types of materials that allow or don't allow light to pass through them and choose the option that shows the same relationship:

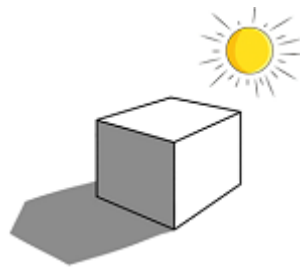
Tissue paper : Steel plate : Air

- a. Wooden bowl : Sand : Frosted glass
- b. Stone : Leather bag : Water
- c. Wooden desk : Brick : Tracing paper
- d. Wax paper : Coin : Clear glass

Cognitive Domain: Applying

Content Domain: Physical Science

7. The object shown here in the image casts a shadow. It is most likely made up of a material called Z.
Z could be _____.



- a. wood
b. clear glass
c. cellophane paper
d. butter paper

Cognitive Domain: Knowing

Content Domain: Physical Science

8. Three boys went camping in the forest. They noticed that the sound of their voices changed when they moved from an open field to a spot surrounded by trees.
What is the reason for the sudden change in sound?

- a. The trees are making the sound very loud.
b. The trees are absorbing some of the sound.
c. The trees are making their voice sound more clearer.
d. The trees are adding more sound to the surroundings.

Cognitive Domain: Applying

Content Domain: Physical Science

9. Choose the correct option regarding the two statements written below.
Statement 1: Two astronauts will not be able to hear each other when in space.
Statement 2: Pleasant sounds make us feel uncomfortable and irritated.

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

Cognitive Domain: Applying

Content Domain: Physical Science

10. Jeff loves to play the flute and has done many school annual concerts where he easily plays the flute.
How does a flute produce sound when you blow air into it?



- The material used to make the flute has the ability to produce sound.
- The flute absorbs the air from outside.
- The air stops moving inside the flute the moment we blow into it.
- The air vibrates inside the flute, producing a sound which comes out from the holes.

Cognitive Domain: Applying

Content Domain: Life Science

11. Study the given table and select the option that best represents the headings X, Y and Z:

Features	X	Y	Z
Has chisel-shaped beak	Yes	No	No
Makes a hole in the tree	Yes	No	No
Pendant-shaped nest with tunnel-like opening	No	Yes	No
Cup-shaped nest	No	No	Yes

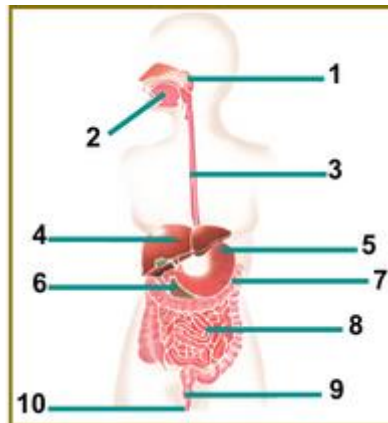
- X – Tailor bird, Y – Woodpecker, Z – Weaver bird
- X – Parrot, Y – Tailor bird, Z – Swallow
- X – Woodpecker, Y – Weaver bird, Z – Tailor bird
- X – Pigeon, Y – Tailor bird, Z – Hawk

Cognitive Domain: Knowing

Content Domain: Life Science

12. Donald had a plate full of fried chicken for lunch.

After eating a meal rich in fats, which labelled organ will produce bile to help digest these fats?



- | | |
|-----------|-----------|
| a. Part 5 | b. Part 7 |
| c. Part 9 | d. Part 4 |

Cognitive Domain: Applying

Content Domain: Life Science

13. Read the given statements and select the option that correctly identifies whether they are true or false:

- The excretory system consists of a pair of kidneys.
- Digestion is completed in the large intestine.

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3. The skeletal system gives shape and support to our body.

- a. 1: True, 2: False, 3: True
c. 1: True, 2: False, 3: False

- b. 1: False, 2: True, 3: True
d. 1: False, 2: True, 3: False

Cognitive Domain: Knowing

Content Domain: Life Science

14. During summer vacation, Harry was at home with his parents and siblings. They always stayed at home. In spite of staying at home Harry used to take bath daily and change his clothes and wear clean ones.

Why is it important to wear clean clothes even if you stay home?

- a. To look fashionable
b. To keep clothes from getting old
c. To prevent skin infections, be free from germs and smell good
d. To change appearance everyday

Cognitive Domain: Applying

Content Domain: Life Science

15. The teacher asked four students to tell some actions that they can take to help reduce the amount of waste we produce.

Who took the correct step towards waste reduction?

Cathy - Use single-use plastic bags for shopping.

Ben - Buy more of packaged foods.

Kevin - Reusing old containers and recycling materials.

Joey - Throw away items that can still be used.

- a. Both Ben and Joey
c. Only Joey
b. Both Cathy and Kevin
d. Only Kevin

Cognitive Domain: Knowing

Content Domain: Environmental Science

16. James's family recently shifted to the new neighbourhood. They want to use more of renewable sources of energy. Which of the following actions will help them to achieve this goal?

1. Use LED light bulbs
2. Buy gasoline-operated generators
3. Keep the lights on in their rooms at all times
4. Use more of plastic products
5. Installing solar panels on the roof

- a. 1 and 5
c. 4 and 5
b. 2 and 3
d. 1 and 3

Cognitive Domain: Applying

Content Domain: Environmental Science

17. Consider the following statements and choose the correct option:

Statement 1: Wind energy is renewable and does not produce pollution, making it environmentally friendly.

Statement 2: Fossil fuels are non-renewable because they take millions of years to form and cannot be replenished.

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

Cognitive Domain: Knowing

Content Domain: Environmental Science

18. Gregory observed a few dew drops on the grass in his backyard one fine winter morning. He also noticed that on that cold day, he was able to see his breath as a misty cloud when he was breathing out.

What change of state are these two examples of?



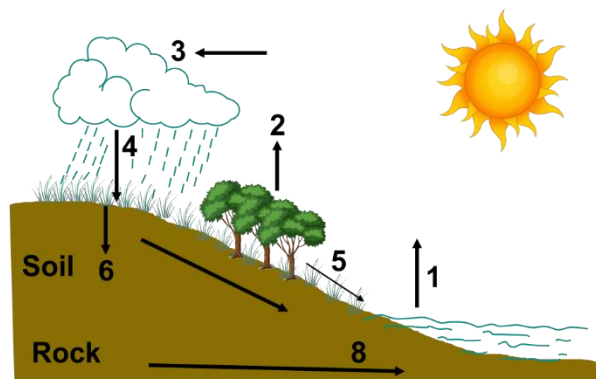
- a. Freezing
- b. Melting
- c. Evaporation
- d. Condensation

Cognitive Domain: Applying

Content Domain: Environmental Science

19. A farmer planted new crops a few months back and after a month he noticed that his crops were wilting due to lack of rain.

Which labelled part of the water cycle has been less active in his area?



- a. 4
- b. 1
- c. 3
- d. 8

Cognitive Domain: Applying

Content Domain: Environmental Science

20. Study the given word chop table.

Which of the following sets of boxes will give the name of the method by which water purification happens by adding chemicals to kill the germs?

1 CL	2 OT	3 RE	4 SI	5 D
6 BO	7 CH	8 IL	9 SH	10 NG
11 MN	12 OP	13 LO	14 RI	15 UE
16 FG	17 G	18 NA	19 TI	20 ON

- a. 6, 8, 10, 17
c. 3, 4, 5, 15

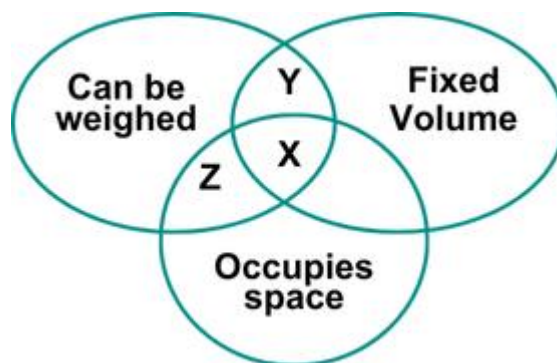
- b. 7, 13, 14, 18, 19, 20
d. 10, 11, 12, 13, 14

Scholar Section (Each Question is 2 Marks)

Cognitive Domain: Knowing

Content Domain: Physical Science

21. Refer to the given Venn diagram and select the option that correctly identifies X, Y and Z:



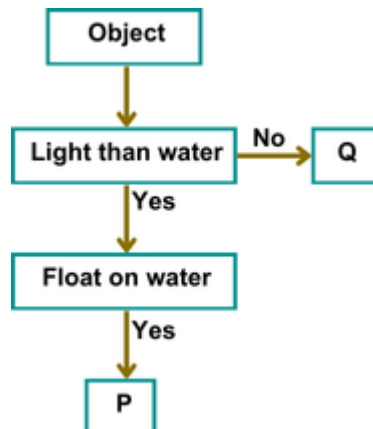
- a. X – Solid, Y – Liquid, Z – Gas
c. X – Gas, Y – Solid, Z – Liquid

- b. X – Liquid, Y – Gas, Z – Solid
d. X – Gas, Y – Solid, Z – Liquid

Cognitive Domain: Applying

Content Domain: Physical Science

22. Refer to the given flow chart and correctly identify P and Q from the options given below:



- a. P – Rock, Q – Rubber slipper
 b. P – Plastic spoon, Q – Book
 c. P – Paper clip, Q – Candle
 d. P – coin, Q – cork

Cognitive Domain: Applying

Content Domain: Life Science

23. Select the option that DOES NOT correctly classify the organs based on the body system they belong to:

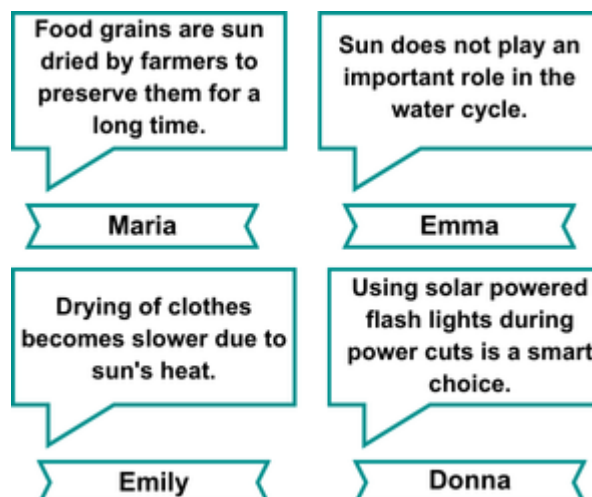
- a. Respiratory system – Bronchi, Digestive system – Stomach, Excretory system – Urethra
 b. Respiratory system – Blood vessels, Digestive system – Ureter, Excretory system – Small Intestine
 c. Respiratory system – Larynx, Digestive system – Oesophagus, Excretory system – Kidney
 d. Respiratory system – Trachea, Digestive system – Large Intestine, Excretory system – Bladder

Cognitive Domain: Applying

Content Domain: Life Science

24. Four students, Maria, Emma, Emily and Donna made some statements about the Sun as a natural resource.

Who among the following students made statements that were true?



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- a. Emma and Emily
- c. Maria and Emma

- b. Maria and Donna
- d. Donna and Emily

Direction (for questions 25 to 27): Carefully read the given passage and answer the following questions.

Plants are remarkable organisms found everywhere, from towering trees to tiny blades of grass. They come in various shapes and sizes and are vital for maintaining our planet's health and beauty. Plants grow and change over time, starting their lives as seeds that sprout with sufficient water, sunlight, and warmth.

Plants have several essential parts: roots anchor and absorb nutrients, stems support and transport fluids, leaves perform photosynthesis to produce food, and flowers enable reproduction. They also provide us with many products, such as timber, paper, fruits, vegetables, herbs, spices, and fibres like cotton, making them crucial to both ecosystems and human life.

Cognitive Domain: Knowing

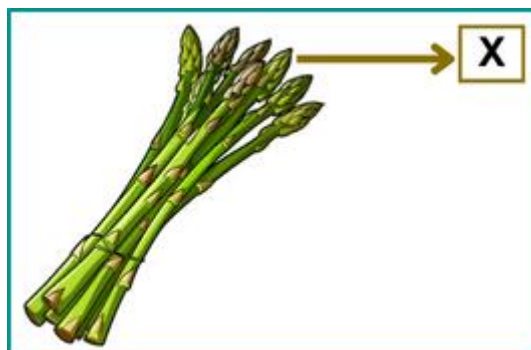
Content Domain: Life Science

- 25.** Marina is making a vegetable stir-fry and wants to add something that is a stem and a flower part of the plant that is eaten as a vegetable.
Which of the following would Marina add to her stir-fry?
- a. stem – celery, flower – broccoli
 - b. stem – radish, flower – rose
 - c. stem – lettuce, flower – turmeric
 - d. stem – corn, flower – carrot

Cognitive Domain: Applying

Content Domain: Life Science

- 26.** Refer to the given picture and identify plant part X.
How is plant part X useful to a plant?
- A. Helps to keep the plant standing upright and straight.
 - B. Helps in transporting food made by the leaves to different parts of the plant.
 - C. It holds the plant firmly to the soil.
 - D. It plays a crucial role in the plant's reproduction by helping them make seeds.



- a. B and C only
- c. C and D only

- b. A and B only
- d. A and D only

Cognitive Domain: Applying

Content Domain: Life Science

27. The image shown below is that of a water hyacinth plant. Identify the INCORRECT statement related to the water hyacinth:



- a. It reproduces through seeds.
- b. They are floating plants.
- c. The roots do not help the plant to absorb nutrients from the water.
- d. They are flowering plants.

Direction (for questions 28 to 30): Carefully read the given passage and answer the following questions.

Animals are fascinating creatures that inhabit every corner of our planet. From the tiniest insects to the majestic whales of the ocean, the animal kingdom is diverse and extraordinary.

Birds are a fascinating group of animals known for their ability to fly. With their feathers and lightweight bones, birds have adapted to life in the air, soaring high above the ground in search of food and shelter. From the colourful parrots of the rainforest to the majestic eagles of the mountains, birds come in a stunning variety of shapes and sizes. Some birds, like penguins and ostriches, have lost the ability to fly but are well-adapted to life on the ground. One of the most diverse groups of animals is the insect class. Insects can be found in nearly every habitat on Earth, from the depths of the rainforest to the frozen tundra. They come in a wide range of shapes, sizes, and colours, and play vital roles in ecosystems as pollinators, decomposers, and food sources for other animals.

Cognitive Domain: Knowing

Content Domain: Life Science

28. Consider the following statements and choose the correct option:
Statement 1: Birds with webbed feet can walk on mud easily.
Statement 2: Birds with webbed feet can kill their prey and tear the flesh into small pieces.
- a. Both the statements are incorrect.
 - b. Both the statements are correct.
 - c. Statement 1 is incorrect but statement 2 is correct.
 - d. Statement 1 is correct but statement 2 is incorrect.

Cognitive Domain: Applying

Content Domain: Life Science

29. Refer to the given table where a few insects have been classified based on a certain basis. Select the option that correctly identifies A and B:

Group 1	Group 2
A	Lice
Dragonfly	B
Honey bee	Cockroach

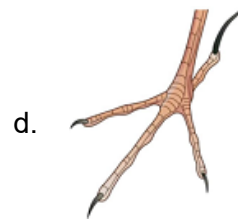
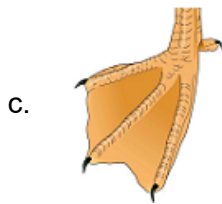
- a. A – Silkworm, B – Termite
 c. A – Wasp, B – Locust

- b. A – Bedbug, B – Housefly
 d. A – Mosquito, B – Honeybee

Cognitive Domain: Applying

Content Domain: Life Science

30. Jessica saw a bird walking and scratching the soil for worms and seeds. Identify the kind of foot the bird would have.



Answer Key

1.	b	2.	c	3.	d	4.	a	5.	c	6.	d	7.	a
8.	b	9.	c	10.	d	11.	c	12.	d	13.	a	14.	c
15.	d	16.	a	17.	c	18.	d	19.	a	20.	b	21.	a
22.	b	23.	b	24.	b	25.	a	26.	b	27.	c	28.	d
29.	a	30.	b										