



UNICUS
OLYMPIADS

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Sample Paper



Class 4

Unicus Science Olympiad (USO)

Time: 60 minutes

Pattern and Marking Scheme			
Section	Total Questions	Marks per Question	Total Marks
Classic Section	30	1	30
Scholar Section	10	2	20
Grand Total	40		50

Classic Section (Each Question is 1 Mark)

1. Olivia would like to buy new pots and pans. She would like her new pots to be made a material that is strong, long-lasting and has a shiny appearance. What kind of pots do you recommend she buy?

a. Metal
b. Wood
c. Plastic
d. Silk

2. Ana is going to England during the winter season. She would like to wear a sweater that will keep her warm. What do you suggest her sweater be made of?

a. Wool
b. Silk
c. Cotton
d. All of the above

3. Kate claimed that all animals have an outer body covering. Lavanya disagreed with her by providing her with an example to support her answer. Which animal did Lavanya use as an example?

a. Penguin
b. Fish
c. Frog
d. Alligator

4. What is the similarity seen between whales and bats in terms of their reproduction?



- a. Both lay eggs but do not give any parental care.
b. Both lay eggs on the land.
c. Both give birth to their young ones.
d. Both lay eggs in water.

5. Look at the different objects shown below and identify the similarity between them:



- a. They are natural sources of light.
b. They are artificial sources of light.
c. They are non-luminous bodies which do not have their own light.
d. Both b and c

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6. Which of the following pairs are wrongly classified?

- D: Coconut seed - Dispersed by animals
- E: Cherry seeds - Dispersed by birds
- F: Dandelion seed - Dispersed by wind
- G: Cotton seed - Dispersed by water

- a. D and E
 - b. E and F
 - c. F and G
 - d. G and D
-

7. Choose the correct statement from the following:

- a. The hottest planet in the solar system is Venus.
 - b. A solar year consists of 363 days.
 - c. Satellites like Moon are very small heavenly body that are capable of revolving around a star.
 - d. Milky way is the only spiral shaped galaxy in the universe.
-

8. Look carefully at the flower. Identify the reason why the flower is pollinated by the wind:



- a. Because it doesn't have a bright colour.
 - b. Because it has short filaments.
 - c. Because it is not sweet-smelling.
 - d. Because it has a feathery stigma.
-

9. Observe the fruit shown below and choose the correct option by identifying its point of reproduction:



- a. Buds present in the stem
 - b. Seeds
 - c. Buds present in the leaves
 - d. Buds present in the roots
-

10. Choose the correct option:

- Statement 1: Animals rely solely on the external structure to help them survive.
- Statement 2: Flowers do not play a role in a plant's survival.

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

- 11.** People use various means of transport to travel from one place to another whether short distance or far.

Which of the following cannot be used by people to travel from one place to another?



-
- 12.** During respiration, the respiratory system works to bring in oxygen. Which other parts of the body help as well?

1. Stomach
2. Ribs
3. Diaphragm
4. Liver

- a. 1 and 2 only
c. 2 and 3 only

- b. 1 and 4 only
d. 3 and 4 only

-
- 13.** Sarah is blindfolded and given a glass of vinegar. Which sense organ(s) can she make use to identify the vinegar?

1. Ears
2. Eyes
3. Tongue
4. Nose

- a. 3 only
c. 1, 3 and 4 only

- b. 3 and 4 only
d. 1, 2 and 3 only

-
- 14.** Identify the organ which breaks the food further so that the human body can absorb vitamins, minerals, proteins and carbohydrates from food:

- a. Large intestine
c. Small intestine

- b. Stomach
d. Liver

-
- 15.** Why are the days on different planets of the different time period?

- a. The planets revolve around the Sun in different orbits.
 - b. The planets rotate on their axis at different speeds.
 - c. The planets revolve around the moon at different speeds.
 - d. All of the above
-

- 16.** Read the passage below and answer the question that follows:

Kevin went to a science museum with his elder sister who is an astronaut. From the museum, he saw the sky using a telescope and was able to see a big bright object. His sister told him that this bright object in the sky is a planet that is very unique as it has rings and the greatest number of moons. Moving further he also saw groups of stars forming a shape of the bear. What do we call such a group of stars that form some pattern such as a bear in Kevin's case?

- | | |
|------------------|-----------|
| a. Constellation | b. Galaxy |
| c. Asteroid | d. Comet |
-

- 17.** Which of the following is/are the cause of water pollution?

1. Setting a drainage system that drains rainwater on the rooftop to the underground.
2. Using a lot of detergents to clean clothes.
3. Leakage from landfills.

- | | |
|-----------|-----------------|
| a. Only 1 | b. Only 2 |
| c. Only 3 | d. Both 2 and 3 |
-

- 18.** Choose the option that shows the correct sequence of the following events:

- A: Water gets polluted.
B: Manufacturing industries release poisonous chemicals in the rivers.
C: Fishes consume this polluted water.
D: Fishes die due to the polluted water.

- | | |
|------------|------------|
| a. B-A-C-D | b. A-B-C-D |
| c. D-A-B-C | d. C-D-A-B |
-

- 19.** Leo lives in a house which is occupied by only his family and is very large in area. Jack lives in a building where many other families live on different floors.

Select the correct option regarding this:

- | | |
|--------------------------------|----------------------------|
| a. Jack lives in a bungalow. | b. Leo lives in a tent. |
| c. Jack lives in an apartment. | d. Leo lives in a caravan. |
-

- 20.** Ron lives at a place where it rains a lot. Sometimes there is snowfall too. What kind of roof his house should have?

- | | |
|------------------|----------------|
| a. Sloping roof | b. Flat roof |
| c. Circular roof | d. Square roof |
-

- 21.** Read the following clues about a bird 'X':

- Clue 1: It lay eggs that are eaten by humans.
Clue 2: Its flesh is also eaten and savoured around the world.
Clue 3: Its shelter is coop.
Identify the bird:

- | | |
|---------|-----------------|
| a. Hawk | b. Heron |
| c. Hen | d. Humming Bird |
-

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22. Read the following clues about an animal product 'X':

Clue 1: It is sweet and collected by bees from the nectar of the flowers.

Clue 2: After that, bees produce it in their hives.

Clue 3: It has a unique property that it doesn't get spoiled.

Clue 4: Some people use it as an alternative to sugar.

Identify 'X':

- a. Jaggery
- b. Sugarcane
- c. Brown sugar
- d. Honey

23. A student reaches one hand into a bag filled with smooth objects. The student feels the objects but does not look into the bag. Which property of the objects can the student most likely identify?

- a. Shape
- b. Colour
- c. Ability to reflect light
- d. Ability to conduct electricity

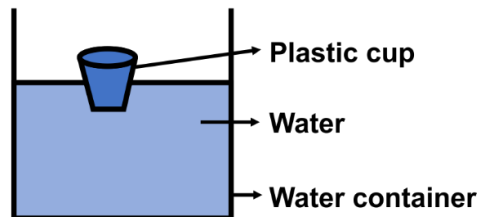
24. Select the correct option and complete the following sentence:

Sleet, rain, snow, and hail are forms of _____.

- a. erosion
- b. evaporation
- c. groundwater
- d. precipitation

25. The diagram below shows a plastic cup floating in a container of water.

If some marbles are placed in the cup, the water level will _____.



- a. decrease
- b. increase
- c. remain the same
- d. cannot say

26. Complete the following sequence:

Magma → Lava → A → B

- a. A - Air, B - Atmosphere
- b. A - Igneous rocks, B - Crust
- c. A - Solid, B - Vapour
- d. A - Solid, B - Vapour

27. I produce bile, store nutrients and also make antibodies to help you fight diseases. What am I?

- a. Liver
- b. Heart
- c. Stomach
- d. Small intestine

28. Lilly and Jane were having a nice time in the park. Jane met a person and called him dad. The same person called Lilly as his daughter. What is the relationship between the two girls?

- a. Sisters
- b. Cousins
- c. Brothers
- d. Aunt and Neice

29. Joseph and his family were going to Mumbai from Delhi to attend a wedding. Which of the following transport they should not use?



d. All of the above

30. Which of the following modes of communication can be used to deliver a message to a huge public at the same time?



d. All of the above

Scholar Section (Each Question is 2 Marks)

31. Look at the birds shown below and choose the correct statement about their beak:



1

2

- a. Bird 1 has a long and slender beak while bird 2 has a strong, sharp and heavy beak.
 - b. Bird 1 has a short and broad beak while bird 2 has a strong, sharp and heavy beak.
 - c. Bird 1 has a short and broad beak while bird 2 has a long, thin and curved beak.
 - d. Bird 1 has a long, thin and curved beak and bird 2 has a short and broad beak.
-

32. Susan conducted an experiment to check the solubility of various substances. She took salt, sugar, chalk, sawdust and four beakers to conduct her experiment. She added a teaspoon of salt to a beaker containing water and repeated the same with the other substances. She kept the beakers aside for some time and waited. After some time, which of the following will she observe?

- a. Sugar and chalk dissolve in water but salt and sawdust are insoluble in water.
 - b. Chalk and sawdust dissolve in water but salt and sugar are insoluble in water.
 - c. Salt and sugar dissolve in water but chalk and sawdust remain insoluble in water.
 - d. Salt and sawdust dissolve in water but sugar and chalk are insoluble in water.
-

33. Solve the riddle!

I reproduce by producing seeds. But I am not a dicot. Which plant am I?

a.



Avocado

b.



Pine Tree

c.



Tomato

d.



Mango

34. Monica gobbled down her food quickly and did not chew her food well. Which part of her digestive system will have to work harder to digest her food?

- | | |
|--------------------------------|--|
| a. Gullet and stomach | b. Stomach and kidney |
| c. Stomach and small intestine | d. Small intestine and large intestine |
-

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

Statement 1: A ring of small bodies, which are made of rock and metal, and are present between inner and outer planets, are called comets.

Statement 2: Jupiter has the fastest orbiting speed around the sun.

- 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.
-

36. Four students during a classroom discussion made the following statements:

Kate: The nest of a tailorbird has a tunnel-like opening at the bottom.

Leonard: Weaver bird makes its nest in a hole in a tree trunk which it pecks with its beak.

Michael: Penguin makes its nest underwater.

Peter: A cuckoo is an unusual bird which does not make a nest.

Who among them made the incorrect statement?

- a. Only Kate
- b. Only Michael
- c. Both Leonard and Peter
- d. Kat, Leonard and Michael

37. A student has a ball of clay that sinks when placed in a pan of water. Which property should he change to make the clay float?

- a. Colour
- b. Texture
- c. Mass
- d. Shape

38. Consider the information given below and complete the sentence that follows:

One hot, summer day it rained very heavily. After the rain, a plastic pan on a picnic table had 2 cm of rainwater in it. Four hours later, all the rainwater in the pan was gone.

If the day were cool instead of hot, the rainwater in the pan would have disappeared

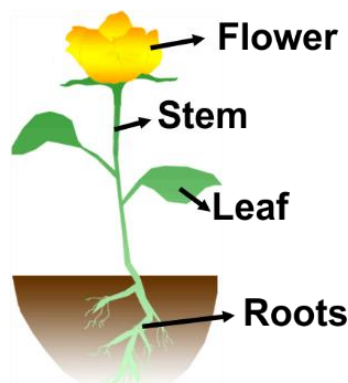
- a. slower
- b. faster
- c. in the same amount of time
- d. the water will not disappear at all

39. A mother hen clucks loudly when danger is near and her chicks quickly gather around her. Which sense helps the chicks receive this warning about danger from their mother?

- a. Smell
- b. Taste
- c. Sight
- d. Hearing

40. The diagram below shows the parts of a plant:

Function	Plant Part
Uses sunlight to make food	P
Absorbs water and nutrients	Q
Produces seeds	R



- a. P – Leaf, Q – Stem, R – Stem
- b. P – Leaf, Q – Root, R – Flower
- c. P – Root, Q – Stem, R – Leaf
- d. P – Root, Q – Stem, R – Flower

Answer Key

1.	a	2.	a	3.	c	4.	c	5.	b	6.	d	7.	a
8.	d	9.	b	10.	d	11.	a	12.	c	13.	b	14.	c
15.	b	16.	a	17.	d	18.	a	19.	c	20.	a	21.	c
22.	d	23.	a	24.	d	25.	b	26.	b	27.	a	28.	a
29.	b	30.	d	31.	a	32.	c	33.	b	34.	c	35.	d
36.	d	37.	d	38.	a	39.	d	40.	b				