UNICUS OLYMPIADS

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Sample Paper

Class 3
Unicus Global Math Olympiad (UGMO)

Time: 60 minutes
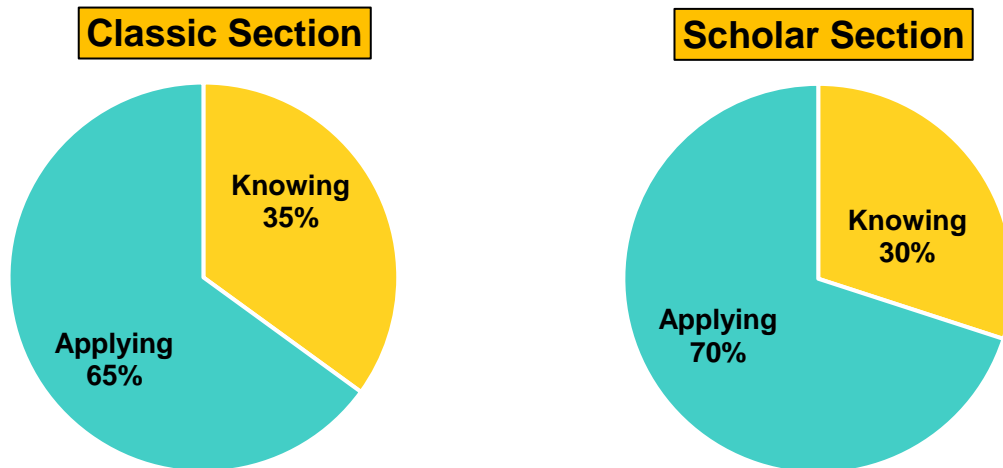
Pattern and Marking Scheme			
Section	**Total Questions**	**Marks per Question**	**Total Marks**
Classic Section	20	1	20
Scholar Section	10	2	20
Grand Total	**30**		**40**

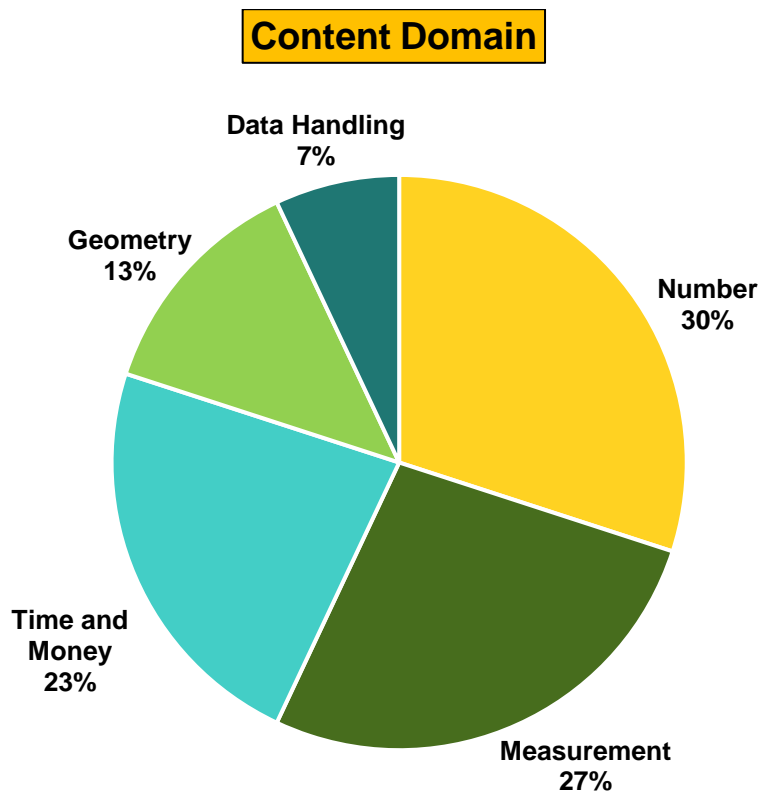**Unicus Global Mathematics Olympiad (UGMO)**

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

Classic Section

Knowing
35%

Applying
65%

Scholar Section

Knowing
30%

Applying
70%

Target percentages of the question paper devoted to content domains

Content Domain

Data Handling
7%

Geometry
13%

Number
30%

Time and
Money
23%

Measurement
27%

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

Classic Section (Each Question is 1 Mark)

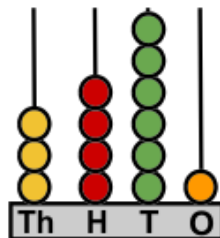| Cognitive Domain: Knowing	Content Domain: Number

1. Which of the following shows the correct ascending order of numbers?

   a. 2164 > 2017 > 1024 > 1009

   b. 2164 < 2017 < 1024 < 1009

   c. 2017 > 2164 > 1024 > 1009

   d. 2164 > 2017 > 1009 > 1024

Cognitive Domain: Applying	Content Domain: Number

2. What is the number name of the predecessor of the number shown in the abacus?

   a. Three thousand four hundred and sixty
   b. Three thousand four hundred and sixty-one
   c. Three thousand four hundred and seventy
   d. Three thousand four hundred and seventy-one

Cognitive Domain: Applying	Content Domain: Number

3. How many sketch pens will be there in 127 such similar packets?

SKETCHPENS

   a. 624   b. 712

   c. 762   d. 889

Cognitive Domain: Applying	Content Domain: Number

4. A bakery shop packs 8 cookies in each packet. How many packets are packed if 120 cookies are packed in a day?

a. **12**   b. **13**

c. **14**   d. **15**

Cognitive Domain: Knowing	Content Domain: Number

5. Identify the type of fraction.

$$\frac{43}{7}$$

a. Improper fraction   b. Proper fraction
c. Mixed fraction   d. Unit fraction

Cognitive Domain: Applying	Content Domain: Number

6. What will come in place of □?

$$\frac{5}{6} = \frac{\square}{18}$$

a. **10**   b. **12**

c. **15**   d. **18**

Cognitive Domain: Applying	Content Domain: Measurement

7. The length of an insect is 171 mm. What will be the total length of 3 such insects?

a. **513 cm**   b. **5 cm 13 mm**

c. **51 cm 3 mm**   d. **50 cm 13 mm**

Cognitive Domain: Applying	Content Domain: Measurement

8. From the flour packet, the chef uses 275 g of flour to bake cake and 185 g of flour to bake cookies. How much amount of flour will be left?

2 kg

a. **465 g**

b. **1 kg 245 g**

c. **1 kg 540 g**

d. **1 kg 580 g**

Cognitive Domain: Knowing	Content Domain: Measurement

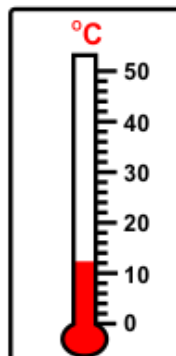**9.** A 20 L bucket is completely filled with water. If a child plays and spills 4 L 365 mL of water from the bucket, how much water is left in the bucket?

a. **15 L 365 mL**

b. **15 L 635 mL**

c. **15 L 645 mL**

d. **16 L 635 mL**

Cognitive Domain: Applying	Content Domain: Measurement

10. The thermometer given shows the temperature of city A. The temperature of city B is three times the temperature of city A. What is the temperature of city B?

a. **48°C**

b. **30°C**

c. **33°C**

d. **36°C**

Cognitive Domain: Applying	Content Domain: Measurement

11. As per the instructions of an oven, a pizza is to be cooked at 326°F but Bianca sets the temperature of the oven to 18°F colder. At what temperature has she set the oven?

a. **308°F**

b. **318°F**

c. **344°F**

d. **354°F**

Cognitive Domain: Knowing	Content Domain: Time and Money

12. Fill in the blank:
The time shown on the clock is ___.

a. quarter past 7

b. quarter to 7

c. half past 7

d. quarter to 8

Cognitive Domain: Knowing	Content Domain: Time and Money

13. Sara eats her lunch at the time shown on the clock. Which of the following options gives the correct time in 24-hour format?

a. **02:15:00**

b. **14:15:00**

c. **02:02:15**

d. **16:15:00**

Cognitive Domain: Applying	Content Domain: Time and Money

14. An oven bakes a cake in 45 minutes. If 3 cakes were baked in the oven, how much time was taken to bake the three cakes?

a. 1 hour 45 minutes

b. 2 hours

c. 2 hours 15 minutes

d. 2 hours 30 minutes

Cognitive Domain: Applying	Content Domain: Time and Money

15. A family bought 2 similar-sized pizzas and a bottle of coke. If they paid $100 at the counter, what change will be received?

$18 $9

a. $27   b. $45

c. $45   d. $55

Cognitive Domain: Knowing	Content Domain: Geometry

16. Which of the following shows a pair of perpendicular lines?

a.

b.

c.

d.

Cognitive Domain: Applying	Content Domain: Geometry

17. Which of the following is an obtuse angle?

a.

b.

c.

d.

Cognitive Domain: Knowing	Content Domain: Geometry

18. What 3D shape does the given picture resemble?

a. **pyramid**

b. **cylinder**

c. **sphere**

d. **cuboid**

Directions (19-20): Study the given pictograph and answer the following questions:

The given pictograph shows the number of saplings planted from Monday to Thursday.

Monday	
Tuesday	
Wednesday	
Thursday	
Each = 7 saplings	

Cognitive Domain: Applying	**Content Domain: Data Handling**

19. How many more saplings were planted on Thursday than on Tuesday?

a. **1**

b. **7**

c. **21**

d. **28**

Cognitive Domain: Applying	**Content Domain: Data Handling**

20. On which day the maximum number of saplings were planted and how many?

a. **Thursday, 4**

b. **Wednesday, 5**

c. **Thursday, 28**

d. **Wednesday, 35**

Scholar Section (Each Question is 2 Marks)

Cognitive Domain: Applying	**Content Domain: Number**

21. Identify the 4-digit number based on the hints.
The ones place digit is the greatest single-digit odd number.
The sum of the tens and ones place digits is 13.
The thousands place digit is 4 more than the tens place digit.
The hundreds place digit is 2 less than the thousands place digit.

a. **6489**

b. **6849**

c. **8469**

d. **8649**

Cognitive Domain: Applying	**Content Domain: Number**

22. A train is carrying 2083 passengers. At a station, 693 passengers get down from the train and 786 passengers board the train. How many passengers are there in the train now?

a. **1390**

b. **1990**

c. **2176**

d. **2869**

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Cognitive Domain: Applying	Content Domain: Number

23. Which of the following shows the given fraction in its simplest form?

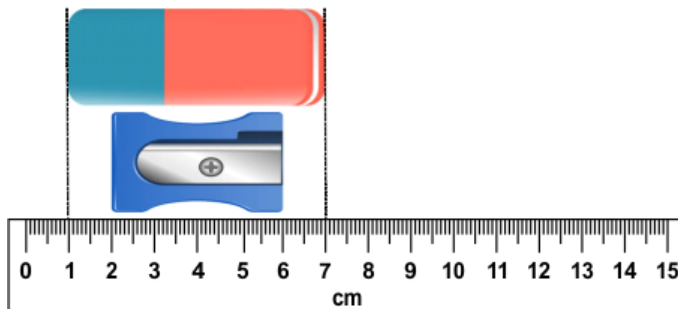$$\frac{28}{42}$$

a. $\dfrac{2}{3}$ b. $\dfrac{14}{21}$

c. $\dfrac{4}{6}$ d. $\dfrac{7}{21}$

Cognitive Domain: Knowing	Content Domain: Measurement

24. How much longer is the eraser than the sharpener?

a. **1 cm**   b. **2 cm**

c. **3 cm**   d. **4 cm**

Cognitive Domain: Knowing	Content Domain: Measurement

25. The weight of mother, father and child is 146 kg altogether. If the mother weighs 64 kg and the father weighs 8 kg more than the mother, what will be the weight of the child?

a. **8 kg**   b. **10 kg**

c. **12 kg**   d. **14 kg**

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Cognitive Domain: Applying	Content Domain: Measurement

26. Soups are served in bowls as shown in a restaurant. If the chef receives an order to prepare 8 bowls of soup, how much amount of soup will he prepare?

225 mL

a. **1 L 600 mL**　　　　b. **1 L 780 mL**

c. **1 L 800 mL**　　　　d. **1 L 900 mL**

Cognitive Domain: Applying	Content Domain: Time and Money

27. Lisa started shopping at 5:20 p.m. and finished her shopping by 7:45 p.m. For what duration did she do shopping?

a. **1 hour 55 minutes**

b. **2 hours 5 minutes**

c. **2 hours 15 minutes**

d. **2 hours 25 minutes**

Cognitive Domain: Knowing	Content Domain: Time and Money

28. How much money is shown here?

a. **54¢**　　　　b. **62¢**

c. **504¢**　　　　d. **512¢**

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Cognitive Domain: Applying	Content Domain: Time and Money

29. What is the total amount required to purchase 16 bags of chips and 14 packages of biscuits?

$3 $6

a. **$48**   b. **$84**

c. **$122**   d. **$132**

Cognitive Domain: Applying	Content Domain: Geometry

30. How many angles are acute angles?

a. **3**   b. **4**

c. **5**   d. **6**

Answer Key

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