UIMO

Unified International
Mathematics Olympiad

UNIFIED INTERNATIONAL MATHEMATICS OLYMPIAD *(UPDATED)*

CLASS - 3
Question Paper Code : UM9009

KEY

1. A	2. D	3. D	4. D	5. D	6. D	7. B	8. B	9. A	10. C
11. B	12. B	13. A	14. A	15. D	16. A	17. A	18. C	19. C	20. D
21. B	22. C	23. A	24. D	25. C	26. A	27. B	28. B	29. C	30. B
31. D	32. C	33. A	34. C	35. C	36. C	37. B	38. D	39. D	40. A
41. D	42. D	43. D	44. B	45. A	46. B	47. C	48. B	49. B	50. D

EXPLANATIONS

MATHEMATICS

1. **(A)** When white part of the traffic cone is removed and laid flat is ⌓

2. **(D)** 2019 × 1000 = 2019000 (7-digits)

3. **(D)** Option (A) leaves remainder → 4

   Option (B) leaves remainder → 5

   Option (C) leaves remainder → 6

   Option (D) leaves remainder → 7

4. **(D)** No. of bicycles = 5 → 5 × 2 wheels = 10 wheels

   No. of tricycles = 3 → 3 × 3 wheels = 9 wheels

   No. of quadbike = 1 → 1 × 4 wheels = 4 wheels

   = 10 + 9 + 4 = 23 wheels

5. **(D)** There are 10 – se$\underline{V}$ens in the unit digit,

   10 – se$\underline{V}$entys, 9 – fi$\underline{V}$es in the units, ele$\underline{V}$en and twel$\underline{V}$e

   10 + 10 + 9 + 2 = 31 times

6. **(D)** 3445 > 3322

7. **(B)** Number of apples on a tree = 15

   Number of apples on the ground = 6

   Total no.of apples = 15 + 6 = 21

8. (B) Since, 3 steps 1 jump of a crow

So, 1 step = $\dfrac{1}{3}$ jumps of crow

Therefore, 18 steps = $\dfrac{18}{3}$ = 6 jumps of the crow

9. (A) Multiply by 3 = 0 × 3

Subtract zero from it = 0 × 3 − 0 = 0

10. (C) 1 bus carries → 32 students

? → 323 students

323 ÷ 32 = 10 R 3

Hence 11 buses are needed to carry 323 students

11. (B) 1 child blow → 3 ballons in 1 minute

5 children blow → ? in 2 minute

5 children → 5 × 3 ballons

= 15 ballons in 1 minute

In 2 minutes = 15 + 15

= 30 ballons

5 children can blow 30 ballons in 2 minutes

12. (B) Only $\dfrac{1}{8}$ is less than $\dfrac{4}{8}$

13. (A)

$$\begin{array}{r} 7\;5\;8 \\ \times \quad\; 6 \\ \hline 4\,5\,4\,8 \end{array}$$

14. (A) 3 kg 381 g = 3381 g

Mass of one dictionary = 3381 ÷ 7

= 483 g

15. (D) The time shown on the clock is 29 minutes past 11

16. (A) Pranith can create these numbers

54637, 45637, 46537, 46357, 46375

The smallest of these arises when the 5 is inserted in between 4 and 6

17. (A) 3000 − 1623 = 1377

Value of the digit 3 in 1377 = 300

Value of the digit 3 in 1732 = 30

300 − 30 = 270

18. (C) Height of 9 cupboard = 208 cm

Height of 2 cupboards = 208 × 2 = 416 cm

Height of the wall is same as 2 cupboards = 416 cm

19. (C) Cost of a can of soft drink = ₹ 20.50

Amount with Amit = ₹ 10.50

Amount needed to Amit to buy the can of soft drink = ₹ 20.50 − ₹ 10.50 = ₹ 10

20. (D) Capacity of white paint = 9 l

Capacity of red paint = 13 l

Capacity of both paints = 9 + 13 = 22 l

21. (B) ₹ 44.90 − ₹ 24.80 = ₹ 20.1

₹ 20.1 − ₹ 10.20 = ₹ 9.9

₹ 9.9 + ₹ 10.20 = ₹ 20.1

22. (C) 4001 ml − 251 ml = 3750 ml

= 3 l 750 ml

23. (A) Mass of the toy is 415 g [∵ 1 unit = 5 g]

24. (D)

The new sheet has 12 sides

25. (C) 1 km = 1000 m

26. (A)

$$\begin{array}{r} 3\;6\;0 \\ +1\;4\;3 \\ \hline 5\;0\;3 \end{array} \qquad \begin{array}{r} 5\;0\;3 \\ -\quad 8\;7 \\ \hline 4\;1\;6 \end{array}$$

John had 416 balloons at first

27. (B) 20 minutes to 1:00 = 12:40

28. (B) x + 500 g = 2 kg 500 g

Mass of x is 2 kg

x is 1 kg less than y

So the mass of object y is (2 + 1 = 3 kg)

29. (C) Part of cake ate by Nisha = $\dfrac{3}{8}$
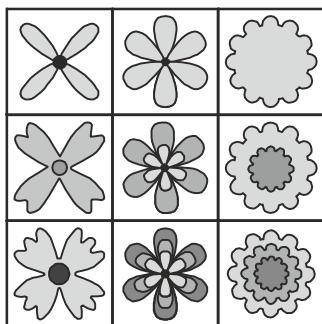
Part of cake took by her brother = $\dfrac{1}{4}$

Part of cake left = $1 - \dfrac{3}{8} - \dfrac{1}{4}$

= $\dfrac{8}{8} - \dfrac{3}{8} - \dfrac{2}{8} = \dfrac{3}{8}$ is left

30. (B) Option (A) :– $\dfrac{8}{8} = 1$

Option (B) :– $\dfrac{14}{2} = 7$

Option (C) :– $\dfrac{18}{9} = 2$

Option (D) :– $\dfrac{6}{8} = \dfrac{3}{4}$

31. (D) $20 + 20 = 40$ and $20 + 30 = 50$

32. (C) 2 : 24 is very close to 2:25

33. (A) $5 \times 3 = 15$

$15 = 15$

from the given options

$5 = 15 \div 3$

$5 = 5$

34. (C) If 2 cookies = ₹ 50

Cost of each cookie = ₹ 25

₹ 25 + ₹ 25 = ₹ 50

candy + cup cake = ₹ 35

To find the cost of candy

cookie + cup cake = ₹ 45

candy + cup cake = ₹ 35

₹ 15 + ₹ 20 = ₹ 35

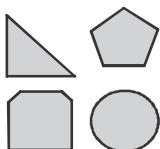**35. (C)** Rectangle, quarter circle and semicircle

REASONING

36. (C) Table is the odd one out because the chair, sofa and stool are used to sit on.

37. (B)

38. (D) A $_B$ C $_D$ E $_F$ G $_H$ I $_J$ K $_L$ M $_N$ O

39. (D)

40. (A)

41. (D)

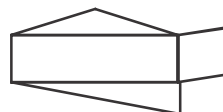**42. (D)** 'A' appers once in STATISTIC and twice in STATISTICAL
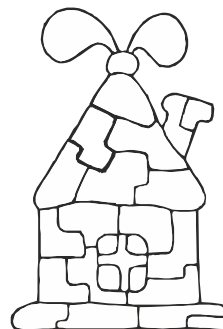
43. (D)

44. (B) There are '7' rectangles in the given figure.

45. (A)

CRITICAL THINKING

46. (B)

47. (C) No. of pigs = 3

Thrice the no. of pigs means $3 \times 3 = 9$

At present 6 animals

3 more cows need so, that the total no. of animals is equal to thirce the no. of pigs.
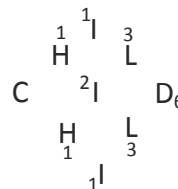
48. (B) Present time 1 : 30 = 13:30

2 hrs 30 minutes before means

13 hrs 30 min – 2 hr 30 min = 11'O clock

49. (B)

$$C \quad \underset{1}{H} \quad \overset{1}{I} \quad \underset{1}{\overset{2}{I}} \quad \underset{3}{L} \quad \underset{3}{L} \quad D_6 \quad \underset{1}{\overset{3}{L}} \quad \underset{1}{I}$$

I can form the word "CHILD" in 6 ways.

50. (D) Small rabbit is 7 weeks 2 days.

There are '7' days in a week.

So, 5 days are needed to become the rabbit '8' weeks old.