# UIM

## Unified International Mathematics Olympiad

## UNIFIED INTERNATIONAL MATHEMATICS OLYMPIAD

### CLASS - 2
### Question Paper Code : 4O119

### KEY

| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 |
|---|---|---|---|---|---|---|---|---|----|
| A | C | C | D | B | C | A | A | C | D |
| **11** | **12** | **13** | **14** | **15** | **16** | **17** | **18** | **19** | **20** |
| D | B | B | A | B | A | A | D | B | C |
| **21** | **22** | **23** | **24** | **25** | **26** | **27** | **28** | **29** | **30** |
| A | A | A | D | C | D | B | B | C | D |
| **31** | **32** | **33** | **34** | **35** | **36** | **37** | **38** | **39** | **40** |
| C | C | D | A | B | A | C | C | C | B |

### EXPLANATIONS

#### MATHEMATICS

01. (A)  On the balance, X needs fewer weights to balance, so X is heavier than Y and Z, therefore X is the heaviest ball.
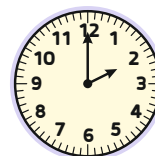
02. (C)  ⭐ = 8

$8 \div 8 = 1$

03. (C)  90 tens 57 ones

$= 900 + 57 = 957$

The digit in the tens place is 5.

04. (D)  The given clock shows 12:00 O'clock and two hours later means 2:00 O'clock

05. (B)  p = 40 ; q = 80

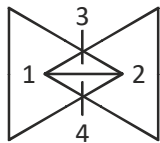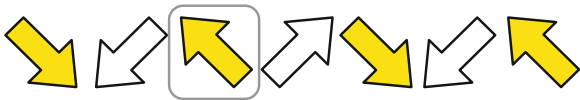$60 + 40 = 100 = 20 + 80 = 100$

$40 + 80 = 120$

06. (C)  $6 + 5 + 3 + 6 = 20$

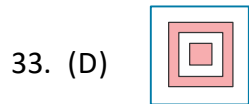total 20 pencils, each member gets 10 pencils.

| 07. | (A) | There are 7 boxes given, each box has pair of shoes. |
| | | So, 7 × 2 = 14 |
| 08. | (A) | 90, 67, 59, 36, 21, 18 |
| 09. | (C) | All numbers ending in 2, 4, 6, 8 are even. |
| | | That's the rule for even numbers. The others are incorrect. |
| 10. | (D) | The yellow strip is 4 times the blue strip. |
| | | So, blue + 4 blue = 5 equal parts |
| | | All together they make 20 cm |
| | | 20 ÷ 5 = 4 cm |
| | | The blue strip is 4 cm long (Option D) |
| 11. | (D) | 3 × 7 = 21 |
| 12. | (B) | Volume of orange juice in the 9 bottles = 9 × 5 = 45 litres |
| | | 45 + 3 = 48 litres |
| | | Nitya had 48 litres of orange juice at first. |
| 13. | (B) | There are 10 curved lines in the given picture. |
| 14. | (A) | 25 − 14 = 11 (no. of children) |
| | | 11 − 3 = 8 |
| | | 8 ÷ 2 = 4 (no. of boys) |
| | | 4 + 3 = 7 |
| 15. | (B) | 48 − 6 = 42 ; 42 ÷ 7 = 6 |
| 16. | (A) | 1 chick = 10 balls |
| | | 3 chicks = 10 + 10 + 10 = 30 balls |
| 17. | (A) | To make the given quantity 6 litres, we should add 2 litres. |
| 18. | (D) | Option (A) : 50 blocks |
| | | Option (B) : 90 blocks |
| | | Option (C) : 20 blocks |
| | | Option (D) : 100 blocks |
| 19. | (B) | Nail X = 4 cm, Nail Y = 6 cm, Nail Z = 7 cm |
| | | Nail Z is 3 cm longer than Nail X. |

20. (C)
✔ + ✔ = 40
20 + 20 = 40, so ✔ = 20
✘ + ✔ = 52
✘ + 20 = 52
52 − 20 = 32
✘ = 32

21. (A)  4 + 2 = 6 (Tuesday)
4 + 4 + 4 + 4 + 2 = 18 (Thursday)
18 − 6 = 12

22. (A)  72 kg − 45 kg = 27 kg

23. (A)  64 tens 93 ones = 640 + 93 = 733

24. (D)  16 + 4 = 4 + 16

25. (C)  10 + 23 = 33

26. (D)  Two story books ₹ 25 + ₹ 25 = ₹ 50

27. (B)  There are 2 half hours in 1 hour. So there are 4 half hours in 2 hours.

28. (B)



29. (C)



30. (D)  Sat, Sun, Mon, Tue, Wed, Thur
1st   2nd   3rd   4th   5th   6th
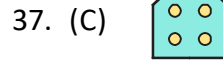
## REASONING

31. (C)  is not hidden in the given box.

32. (C) 

33. (D) 

34. (A) Two triangles have 6 sides and one square have 4 sides, so 6 + 4 = 10 sides

35. (B) 

36. (A) $3 : 12 : : 5 : ?$

$12 = 3 \times 4$

$5 \times 4 = 20$

37. (C) 

38. (C) 

39. (C) Dog, cat, rabbit are animals that live with people and are kept at home or on farms. So they belong to domestic animals.

40. (B) Alphabet 'N' is missing in the group.

*The End*