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UNIFIED COUNCIL OLYMPIADS

UIMO
Unified International Mathematics Olympiad

UNIFIED INTERNATIONAL MATHEMATICS OLYMPIAD

CLASS - 3

Question Paper Code : UM9264

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D	C	B	B	A	C	D	B	B	A
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C	D	C	D	A	B	A	D	B	B
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C	C	D	B	D	B	D	D	B	D

EXPLANATIONS

MATHEMATICS

01. (B) 2185 – 799 = 1386

02. (C) Amount with 3 members = ₹4827

Amount with Farah = ₹1874

Amount with Roshni = ₹1874

Total amount with Farah and Roshni

= ₹1874 + ₹1874 = ₹3748

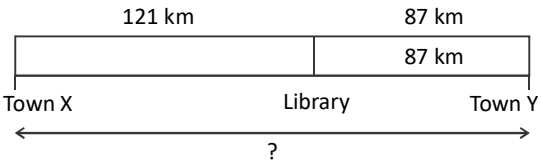
Amount Sony have

= ₹4827 – ₹3748 = ₹1079

Difference between Roshni and Sony

= ₹1874 – ₹1079 = ₹795

03. (C)



121 km + 87 km = 208 km

The total distance between Town X and Town Y is 208 km

04. (D) $\frac{1}{4} = \frac{4}{16}$

05. (A) $3l$ 500 ml = 3500 ml

Capacity of a bucket = 3500 ÷ 5

= 700 ml

06. (B) 4535 – 4507 = 28

Missing number = 4507 – 28 = 4479

07. (B) Total = 207

Number of adults in the concert = 180

Number of children = 207 – 180 = 27

Number of men = 27 + 30 = 57

Number of women = 180 – 57 = 123

08. (B) Except Saturday and Sunday Naina works for 20 days in the month of February

09. (B) The digit 5 appears exactly 16 times are :

5, 15, 25, 35, 45, 50, 51, 52, 53, 54, 55, 56, 57, 58, 59, 60, 61, 62, 63, 64.

So the maximum number of pages the book can have = 64

10. (D) No. of cakes sold on Monday = 396

No. of cakes sold on Tuesday = 396 + 370 = 766

11. (D) Option (D) shows $\frac{2}{3}$ of the shape shaded.

12. (C) Distance from the floor to the ceiling

= 328 cm

Height of Pihu = 159 cm

Height of the ladder

= 328 cm – 159 cm = 169 cm

13. (B) Mass of Mrs. Chaya = 50 kg

Mass of her son = 50 kg ÷ 5 = 10 kg

14. (B) No. of cookies with ved = 50

No. of cookies he ate = 2

No. of cookies left = 50 – 2 = 48

No. of cookies he packs in each bag = 4

No. of bags = 48 ÷ 4 = 12

15. (A) Adding 4 to each number in 1st row to get 2nd row number.

12 + 4 = 16, 6 + 4 = 10, 3 + 4 = 7, 5 + 4 = 9, 7 + 4 = 11

a = 7, b = 9

16. (C) No. of parts the dough divided into = 4

No. of parts Devi used = 3

Fraction of dough Devi used = $\frac{3}{4}$

17. (D) 17 legs = 8 legs + 9 legs

8 legs = 4 + 4

9 legs = 3 + 3 + 3

= 2 chairs and 3 stools

18. (B) 2 triangular and 3 rectangular surfaces

19. (B) 372 + 518 = 890

890 – 50 = 840

20. (A) 5 ☆ = 10 ⇒ ☆ = 10 ÷ 5 = 2

3 △ = 6 ⇒ △ = 6 ÷ 3 = 2

Then ☆☆ + △△

= 2 × 2 + 2 × 2 = 4 + 4 = 8

21. (C) 6 × 6 + 12 + 12 + 12 = _____ × 6

36 + 12 + 12 + 12 = _____ × 6

72 = _____ × 6

= 72 ÷ 6 = 12

22. (D) Mass of a sugar packet = 520 g

9 packets = 520 × 9 = 4680 g = 4 kg 680 g

23. (C) 3:45 $\xrightarrow{+20\text{min}}$ 3:65 ⟶ 4:05 (correct time now)

4:05 $\xrightarrow{+1\text{h}}$ 5:05 $\xrightarrow{+25\text{min}}$ 5:30

24. (D) $\frac{6}{12} = \frac{6 \div 2}{12 \div 2} = \frac{3}{6}$

25. (A) Quantity of juice in 9 glasses → 9 × 200 = 1800 $m\ell$

Total quantity of juice poured out → 1850 + 1800 = 3650 $m\ell$

Quantity of juice left → 10000 – 3650 = 6350 $m\ell$

= 6 ℓ 350 $m\ell$

26. (B) $\boxed{+8} \xrightarrow{\times 5} 40 \xrightarrow{+8} 48 \xrightarrow{\div 6} 8 \xrightarrow{-5} 3$

So, missing number = 8

27. (A) 1 rupee = 100 paise

? = 6400 paise

6400 ÷ 100 = 64 rupees

28. (D) 14, 26, 38, 50, 62, 74

They give a remainder of 2 when divided by 3

14 ÷ 3 = Q = 4, R = 2

26 ÷ 3 = Q = 8, R = 2

38 ÷ 3 = Q = 12, R = 2

50 ÷ 3 = Q = 16, R = 2

62 ÷ 3 = Q = 20, R = 2

74 ÷ 3 = Q = 24, R = 2

29. (B) 4730 + 120 = 4850

4850 ÷ 10 = 485

30. (B) $\frac{3}{7}$

31. (C) Difference between 8121 – 1249 = 6872

The value of digit 8 in 6872 = 800

32. (B) Cost of a camera = ₹220

Cost of a mobile phone

= ₹220 ÷ 4 = ₹55

Cost of 2 mobile phones

= ₹55 × 2 = ₹110

33. (B) 3:30 pm + 1 hr 30 min

= 4 hrs 60 min = 5'0 clock = 5:00 pm

34. (C) 100 mm < 50 cm < 2 m

So, ascending order is 100 mm, 50 cm, 2 m

35. (A) 15 = 6 + 

 = 15 – 6 = 9

 ×  = 45

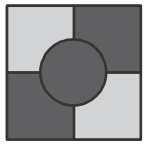
9 ×  = 45

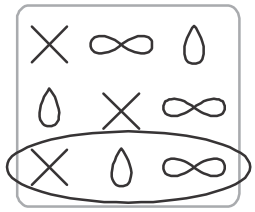
 = 45 ÷ 9 = 5

REASONING

36. (B) 

37. (C) Rain is only in liquid form mist, cloud and vapour are in gaseous state.

38. (A) 

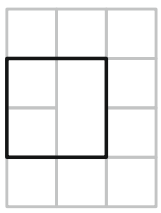
39. (A) 

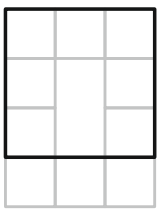
40. (A) There are ten small squares

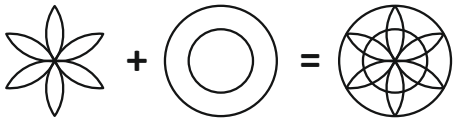
two 2 × 2 squares = 2

two 3 × 3 squares = 2

10 + 2 + 2 = 14





41. (C) 

42. (C) 

43. (D) April, August, January, July, June
1 2 3 4 5

$\therefore$ 3rd word is January

44. (B) Number 2 belongs to group Q.

Group (P)			
03	09	11	15
17	13	31	
33	35	37	

Group (Q)			
02	03	04	05
06	07	08	09
10	11	12	13

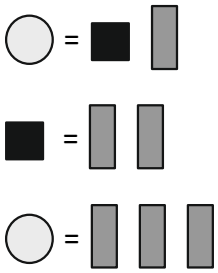
Group (R)			
01	05	15	25
35	45	55	
51	53	57	

Group (S)		
07	21	29
35	49	47
43	51	91

45. (D) 

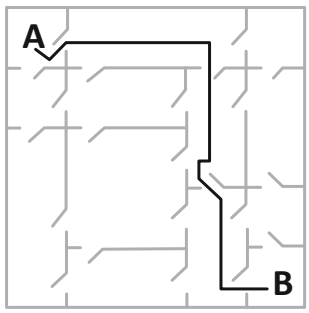
Second image is the mirror of first image.

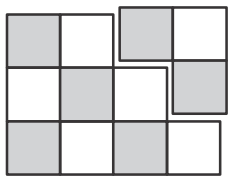
CRITICAL THINKING

46. (B) 

47. (D) The first four balls might be black in the worst rare situation. I need to take 4 + 2 = 6 balls.

48. (D) 

49. (B) 

50. (D) 

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