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NATIONAL LEVEL SCIENCE TALENT SEARCH EXAMINATION

Paper Code: UN426

Solutions for Class : 2

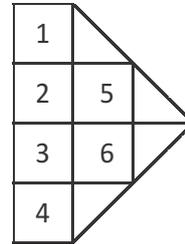
Mathematics

1. (B) $2 + 4 = 6, 10 - 2 = 8$
The number more than 6 and less than 8 is 7
2. (A) Total number of parts in the figure = 18
Number of shaded parts = 7
 \therefore The required fraction = $\frac{7}{18}$
3. (B)  = 1
Each  = 10
 = 20
Hence,
 +  +  +  +  +  is 71.
4. (A)

T	O
2	3
x	3
6	9
5. (C) Cost of frock (P) = ₹ 55
Cost of purse (Q) = ₹ 250
Cost of pair of shoes (R) = ₹ 80
Cost of necklace (S) = ₹ 100
 \therefore Arranging the items from the most expensive to the most cheapest, we get Q, S, R, P.
6. (C) Half kg = 500 g. So, both sides of simple balance will remain balanced.
7. (A) $20 > \boxed{5} + 10$
 $\Rightarrow 20 > 15$
 $\Rightarrow 5$ is the missing number in the box

8. (A) 51 tens = $51 \times 10 = 510$
5 tens 4 ones = $5 \times 10 + 4 \times 1 = 50 + 4 = 54$
 $\Rightarrow 54 + 510 = 564$

9. (A)



Number of individual squares = 6

$2 + 5 + 3 + 6$ also forms a square.

\therefore Total number of squares = $6 + 1 = 7$

10. (B) Minute hand is at 12 once in every hour i.e, at
12 : 00 am, 1 : 00 am, 2 : 00 am, 3 : 00 am, 4 : 00 am, 5 : 00 am, 6 : 00 am, 7 : 00 am, 8 : 00 am, 9 : 00 am, 10 : 00 am, 11 : 00 am, 12 : 00 pm, 1 : 00 pm, 2 : 00 pm, 3 : 00 pm, 4 : 00 pm, 5 : 00 pm, 6 : 00 pm, 7 : 00 pm, 8 : 00 pm, 9 : 00 pm, 10 : 00 pm, 11 : 00 pm.
So, 24 times in a day, the minute hand is at 12.
11. (D) $45 \div 3 = 15, 50 \div 5 = 10, 56 \div 4 = 14,$
 $32 \div 2 = 16$
 $\therefore 32 \div 2$ has the greatest value.
12. (D) If we place one bead at tens place, then the number will be 312.
If we place two bead at tens place, then the number will be 322.
If we place three bead at tens place, then the number will be 332.
If we place no bead at tens place, then the number will be 302, which is smallest
Hence, option (D) is correct.

13. (D) As per the diagram.
Box C is lighter than box A.
Box B is lighter than box C.
∴ Box B is lighter than box A also.
Hence, box B is the lighter. $[B < C < A]$

14. (B) Total number of bananas in a fruit basket = 400
Number of bananas in each bag = 20
Number of bags required to fill 400 bananas = $400 \div 20$

$$\begin{array}{r} 20 \overline{)400} (20 \\ -40 \\ \hline 0 \\ -0 \\ \hline 0 \end{array}$$

15. (C) '6' is the common digit at the place of ones in all the given digits.
16. (C)
17. (B) $8 \times 5 = 40$, $10 \times 4 = 40$
 $\Rightarrow 8 \times 5 = 10 \times 4$
 $6 \times 8 = 48$; $4 \times 4 = 16$
 $\Rightarrow 6 \times 8 > 4 \times 4$
 $7 \times 3 = 21$, $2 \times 5 = 10$
 $\Rightarrow 7 \times 3 > 2 \times 5$
 $4 \times 6 = 24$, $3 \times 9 = 27$
 $\Rightarrow 4 \times 6 < 3 \times 9$

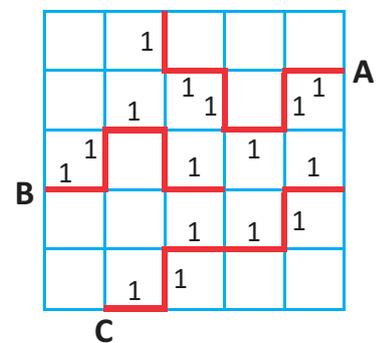
Hence, the correct answer is $6 \times 8 > 4 \times 4$

18. (A) Table for given figures is as follows

Figure	Straight lines	Curved lines
(A) 	2	2
(B) 	8	0
(C) 	1	2
(D) 	0	2

Only figure (A) has 2 straight lines and 2 curved lines.

19. (C) We know, that,
1 hour = 60 minutes
1 day = 24 hours
1 week = 7 days
1 month = 4 or 5 weeks
∴ Minute < Hour < Day < Week < Month
20. (D) 332 is the greatest even number among the given options.
21. (B) $12 \times 3 = 36$ m.
22. (C) Fraction $\frac{2}{7}$ means the whole 7 equal parts. Also, the two parts of the seven part are taken.
23. (C) $472 < 493$; $250 > 230$
 $64 \text{ tens} = 64 \times 10 = 640$
 $460 \text{ ones} = 460$
 $\Rightarrow 640 > 460$
 $7 \text{ hundreds and } 5 \text{ ones} = 700 + 5 = 705$
 $745 > 705$
∴ Option (C) is the correct statement.
24. (D) The total length of lines A, B and C = 17.



25. (B) Given 1 vase = 3 cups
1 bucket = 5 cups
1 bucket = 5 cups means
3 buckets = $5 \times 3 = 15$ cups
1 vase = 3 cups
 $\Rightarrow 15 \text{ cups} \Rightarrow 15 \div 3 = 5$ vases
Thus, 5 vases are needed to fill up 3 buckets.

General Science

26. **(B)** Pencil is a non-living thing.
27. **(D)** The puppy is a living thing. It is able to bark, feed on milk and wag its tail. Having four legs does not necessarily mean that it is a living thing. The table has four legs but it is not a living thing.
28. **(B)** The figure in option (B) is zebra crossing symbol.
29. **(B)** A climber coils around the stems of other plants for support and to get sunlight.
30. **(B)** A hut is a kutcha house. A kutcha is made of mud and palm leaves.
31. **(A)** Crow is an omnivorous animal.
32. **(D)** Rice, wheat & maize all are the examples of cereals and beans are pulses.
33. **(B)** Rose and hibiscus are shrubs, pumpkin and watermelon are creepers, mango and apple are trees, money plant and beans are creepers.
34. **(C)** A sharpener is safe for sharpening a pencil.
35. **(B)** Rat is the living-thing made by using the letters given below only once.
36. **(C)** Moving air is called wind. Wind help in moving a parachute.
37. **(A)** Tree can prepare their own food. The mushroom and the crab depends on other organisms for their food.
38. **(A)** The arrow is pointing on shoulder.
39. **(B)** The custard apple fruit has been grouped wrongly as it has many seeds. It should be placed in Group A instead.
40. **(A)** Figure 'A' represents the correct posture.
41. **(B)** We get heat and light from the Sun.
42. **(A)** Animals cannot make their own food, they depends on other organisms for its food.
43. **(B)** Stomach is a part of the human body. It digest the food we eat. It cannot be seen from outside. It gets upset when you eat food which is not fresh.
44. **(C)** Birds, trees and worms are living things.
45. **(A)** Bear is an omnivore. Omnivores eat both plant parts and animals.
46. **(A)** The diagram given below shows that living things can grow.
47. **(A)** We should cross the road only at zebra crossing.
48. **(D)** The given experiment shows that air has weight.
49. **(C)** Woollen clothes keep our bodies warm. Hence we wear woollen clothes when it is cold in winter season.
50. **(D)** The moon in the given figure is full moon.