



NATIONAL LEVEL SCIENCE TALENT SEARCH EXAMINATION

CLASS - 3

Question Paper Code : UN494

KEY

1. D	2. C	3. B	4. C	5. C	6. C	7. C	8. C	9. C	10. A
11. B	12. B	13. C	14. D	15. D	16. B	17. B	18. B	19. B	20. D
21. B	22. B	23. A	24. C	25. D	26. D	27. C	28. B	29. D	30. A
31. C	32. B	33. B	34. B	35. B	36. B	37. A	38. A	39. C	40. D
41. D	42. B	43. A	44. D	45. C	46. C	47. C	48. A	49. A	50. C
51. C	52. C	53. D	54. A	55. C	56. A	57. B	58. A	59. B	60. C

SOLUTIONS

MATHEMATICS

01. (D) $90 \div 6 = 15$

$$\begin{array}{r} 15 \\ 6 \overline{) 90} \\ \underline{-6} \\ 30 \\ \underline{-30} \\ 0 \end{array}$$

The number of boxes Mrs Shanti needed was 15.

02. (C) 6 fifty paise coins = ₹ 3

4 one rupee coins = ₹ 4

3 two rupee coins = ₹ 6

20 twenty five paise coins = ₹ 5

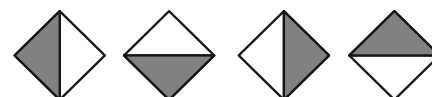
∴ Option (C) has greatest value

03. (B) 2 h 20 min + 3 h 45 min = 5 h 65 min

5 h 65 min = 6 h 5 min (60 min = 1 h)

2 h 20 min + 3 h 45 min is 5 min more than 6 h

04. (C)

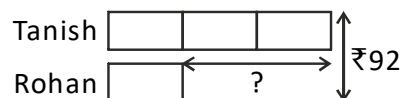


05. (C) Odd numbers between 13 and 20 : 15, 17, 19

06. (C) 4 units $\rightarrow$ ₹92

1 unit $\rightarrow$ ₹92 $\div$ 4 = ₹23

3 units $\rightarrow$ 3 $\times$ ₹23



Difference $\rightarrow$ ₹69 - ₹23 = ₹46

07. (C) 8.30 p.m. $\xrightarrow{+4h}$ 12.30 p.m.

3 p.m. $\xrightarrow{+2h}$ 5 p.m. $\xrightarrow{+30 \text{ min}}$ 5.30 p.m.

6.45 p.m. $\xrightarrow{+2h}$ 8.45 p.m. $\xrightarrow{+15 \text{ min}}$ 9 p.m.

4 h + 2 h 30 min + 2 h 15 min = 8 h 45 min

The clinic is open for 8 h 45 min altogether on a working day

08. (C) Option (A) : 208 $\div$ 3 = 69 R 2

Option (B) : 208 $\div$ 4 = 52

Option (C) : 208 $\div$ 2 = 104

Option (D) : 208 $\div$ 5 = 41 R 3

09. (C) Volume of water needed to fill container B
 $\rightarrow$ 20 - 14 = 6 l

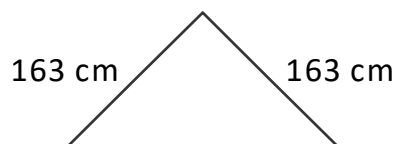
Volume of water left in container A
 $\rightarrow$ 23 - 6 = 17 l

10. (A) $9 \times 9 = 81$  $\rightarrow$ 9

$8 \times 8 = 64$  $\rightarrow$ 8

$9 \times 8 = 72$

11. (B) Length of two sides $\rightarrow$ 163 + 163 = 326 cm



Total length of three sides $\rightarrow$ 6m = 600 cm

600 - 326 = 274 cm

The length of the third side is 274 cm

12. (B) The difference between 8100 and 1616 is 6484. A number that is 1056 less than this difference is 5428.

$$\begin{array}{r} 5 \ 4 \ 6 \ 8 \\ - \ 2 \ 1 \ 1 \ 3 \\ \hline 3 \ 3 \ 5 \ 5 \end{array}$$

13. (C)

14. (D) Capacity of 3 cups $\rightarrow$ 600 ml

Capacity of 1 cup $\rightarrow$ 600 $\div$ 3 = 200 ml

Capacity of 8 cups $\rightarrow$ 8 $\times$ 200 = 1600 ml

Capacity of 1 kettle $\rightarrow$ 10 $\times$ 200 = 2000 ml

Capacity of 2 kettles $\rightarrow$ 2 $\times$ 2000 = 4000 ml

Capacity of 2 kettles and 8 cups $\rightarrow$ 4000 + 1600 = 5600 ml

= 5 l 600 ml

15. (D) 2 kg 871 g = 2871 g

2 kg 871 g is heavier than 2781 g

The order, starting with the largest mass, is 27 kg, 3 kg 985 g, 2 kg 871 g and 2781 g

16. (B) @ = 2, # = 3, \$ = 4, & = 5

(A) : 5 + 5 + 5 + 5 + 5 = 5 $\times$ 4

25 $\neq$ 20

(B) : 2 $\times$ 4 = 2 + 2 + 2 + 2

8 = 8

(C) : 3 + 3 + 3 + 3 + 3 + 3 + 3 = 73

21 $\neq$ 73

(D) : 4 + 4 + 4 = 2 + 2 + 2 + 2 + 2

12 $\neq$ 10

17. (B) $\xrightarrow{\text{Left}}$ 8 8 8 $\xleftarrow{\text{Right}}$

$\therefore$ Value of first from the left in 888 is 800.

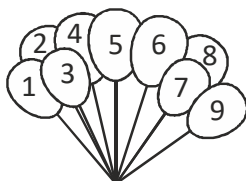
18. (B)

(A) Both the numbers are greater than 30: If both numbers were greater than 30, their sum would be greater than 60 (because 30 + 30 = 60). So, this is not possible.

(B) At least one of these is greater than 20: If one number was exactly 20, the other number would have to be 30 to make a sum of 50. So, at least one number has to be greater than 20 to reach a sum of 50. This is true.

- (C) Both the numbers are less than 10: The largest sum we can get with two numbers both less than 10 is $9 + 9 = 18$, which is less than 50. So, this is not possible.

19. (B) Total number of balloons = 9



4 balloons pop the remaining balloons
 $= 9 - 4 = 5$

$\therefore$ The fraction of remaining balloons = $\frac{5}{9}$

20. (D)

(A) 103 - The number given is 210 (21X). This number, 103, is smaller because the tens place digit is 0.

(B) 123 - This number is smaller as well because it has 1 in the hundreds place, whereas our number has 2 in the hundreds place.

(C) 211 - This number has the same hundreds and tens digits as the number given (21X), so it's not larger.

(D) 220 - This number is larger because it has 2 in the hundreds place, just like the given number (21X), and it also has 0 in the tens place, which is larger than any digit from 1 to 9.

21. (B) $66 \div 3 = 22$

$\therefore A = 22$

$$80 \div 4 = 20$$

$\therefore B = 20$

$$A + B = 22 + 20 = 42$$

22. (B) Length of arrow C = 3 m 98 cm

Length of arrow B = Length of arrow C + 5 cm

$$= 3 \text{ m } 98 \text{ cm} + 5 \text{ cm}$$

$$= 4 \text{ m } 3 \text{ cm}$$

$$\text{Length of arrow A} = 4 \text{ m } 3 \text{ cm} + 4 \text{ cm}$$

$$= 4 \text{ m } 7 \text{ cm}$$

23. (A) Which is represented by the figure in option (A)

$$\begin{array}{r} 27 \div 9 = 3 \\ 36 \div 9 = 4 \end{array}$$

24. (C) A pencil, An eraser, A pin

25. (D) $3 \times 4 \times 5 = 1 \times 3 \times 4 \times 5$

$$60 = 1 \times 60$$

$$60 = 60$$

GENERAL SCIENCE

26. (D) The function of a flower is to give rise to fruit.

27. (C) (P) Cow (Q) Rat (R) Wolf

28. (B) Peacock is our national bird. It has a crest on its head and attractive feathers all over the body. It cries aloud before the rain and dances to attract its partner.

29. (D) Clove is a bud while cinnamon is obtained from the stem.

30. (A) In roasting, food is cooked over an open flame, whereas boiling is done in a vessel, steaming is done in a pressure cooker or steamer and baking is done in an oven or microwave.

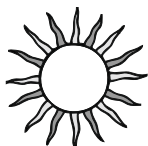
31. (C) The given figure is of a stilt house. It is made almost ten to twelve feet above the ground on wooden or bamboo pillars called stilts. It is suitable for places like Assam, where it rains heavily and floods are common.

32. (B) Apoorva would require her skin and eyes to choose piece of cloth as sense of sight is required for identifying red colour and sense of touch is required to identify soft cloth.

33. (B) Sweet milk freezes and hardens to become ice-cream. While preparing ice-cream, sugar and flavors are added to the milk. This sweet milk is filled in cones and is then frozen.

34. (B) Heart pumps blood to all tissues and parts of the body.

35. (B) Tank, bucket, tumbler, spoon



36. (B)

37. (A) Moving air is called wind while slow moving wind is called breeze.

38. (A) When we mix juice with water it is in liquid state.

39. (C) Hooked beak, keen vision, sharp talons

40. (D) The top soil, the subsoil and the parent material forms the layers of the soil.

41. (D) Bats are mammals that have wings and can fly. They are not birds because they give birth to young ones and do not have beaks or feathers.

42. (B) Hot steam is gaseous state.

43. (A) Lungs

44. (D) Hot air has less weight.

45. (C) Moon is the only natural satellite of Earth. It has no life forms. Neil Armstrong was the first man to step on it. Jupiter and Mars are planets while Sun is a star.

46. (C) Arun did not chew food properly while eating have he got stomachache.

47. (C) The easiest way to tell the difference between wading birds and perching birds is by the difference in their foot structure.

48. (A) Granite is a hard rock while chalk is a soft rock. It is very difficult to break granite while it is easy to powder chalk using hands.

49. (A) Topsoil layer is loosely packed.

50. (C) Wool is obtained from the fleece or hair of sheep.

51. (C) Group of stars which make patterns in the sky are known as constellations.

52. (C) Gas cannot be seen and is a part of air. Liquid flows and when it is spilled it takes the shape of the floor as liquid does not have its own shape. The particles of solid are tightly packed and everything on this earth is made of matter.

53. (D) For making toys, clayey soil is required which consists of fine particles with very little air space between them. It retains a lot of water and is good for making toys and pots. The soil found near a beach is sandy soil. It is not suitable for making toys as it has lots of spaces between its particles and cannot retain much water.

54. (A) Humus is made up of rotten leaves and decayed bodies of animal.

55. (C) Nervous system receives messages from sense organs and send to brain.

CRITICAL THINKING

56. (A) To tighten a screw, turn it clockwise (to the right).

To loosen a screw, turn it anti-clockwise (to the left).

57. (B) The correct answer is B. Seeking help from the teacher is the right approach, as it promotes problem-solving and responsible behavior, unlike copying, which is dishonest.

58. (A)

★	★	★	★
Q		★	R
★		★	S
★	★	★	

59. (B) If Mini's 2 dogs have 4 puppies each and the remaining 2 dogs have 2 puppies each. Then, the total number of puppies will be $2 \times 4 + 2 \times 2 = 12$.

Out of these 12 puppies, she finds home for 9 of them, thus she must have kept $12 - 9 = 3$ puppies.

60. (C)

