



UNIFIED COUNCIL

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NATIONAL LEVEL SCIENCE TALENT SEARCH EXAMINATION (UPDATED)

CLASS - 4

Question Paper Code : UN460

KEY

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

SOLUTIONS

MATHEMATICS

1. (C) Number of books read by Devi last year
= $226 - 42 = 184$

Number of books read by Harini last year
= $226 + 15 = 241$

Number of books the three children read
altogether last year = $226 + 184 + 241 = 651$

2. (D) Number of equal parts in the figure = 12
Fraction of the figure to be shaded

$$= \frac{3 \times 3}{4 \times 3} = \frac{9}{12}$$

Number of equal parts shaded in the
figure = 4

Number of equal parts to be shaded = 9

Number of additional equal parts to be
shaded = $9 - 4 = 5$

3. (C) $4 \text{ km } 56 \text{ m} - 3 \text{ km } 187 \text{ m}$
= $3 \text{ km } 1056 \text{ m} - 3 \text{ km } 187 \text{ m}$
= $0 \text{ km } 869 \text{ m}$

Piyush travelled $0 \text{ km } 869 \text{ m}$ further from
his house to the shopping mall than
Tarun

4. (C) The given digits are 0, 1, 2, 3, 4, 5 and 6
The largest 7-digit number formed using the given digits is 6543210

Its predecessor is $6543210 - 1 = 6543209$

5. (B) Amount of time he spent on the two tasks

$$= 1 \text{ h } 15 \text{ min} + 55 \text{ min}$$

$$= 1 \text{ h } 70 \text{ min} = 2 \text{ h } 10 \text{ min}$$

6. (A) Multiples of 12 : 12, 24, 36...

$$\text{Check : } 24 \div 8 = 3$$

7. (D) Multiples of 6 : 6, 12, 18, 24, 30,....

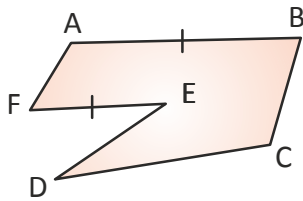
Multiples of 8 : 8, 16, 24, 32, ...

Multiples of 12 : 12, 24, 36, ...

All 3 of them will visit the library on the same day, 24 days after 1st March.

1st March $\xrightarrow{+24 \text{ days}}$ 25th March

The required date is 25th of March



8. (B)

9. (C) $4020 + 4530 = 8550 \text{ ml} = 8 \text{ l } 550 \text{ ml}$

10. (B) 8 adult = ₹ 20 × 8 = ₹ 160

$$4 \text{ children} = ₹ 8 \times 4 = ₹ 32$$

$$= ₹ 160 + ₹ 32 = ₹ 192$$

11. (A) $680 \div 5 = 136$

$$136 \times 10 = 1360$$

12. (D) ₹ 8 - 5 × 5 p

$$₹ 8 - 25 \text{ p}$$

$$= ₹ 7.75$$

13. (A) $3.85 \text{ kg} + 5.2 \text{ kg} = 9.05 \text{ kg} \approx 9.1 \text{ kg}$

14. (C) $1 - \frac{2}{5} = \frac{3}{5}$

$$35 \text{ cm} \times 25 \text{ cm} = 875 \text{ cm}^2$$

$$\frac{3}{5} \times 875 \text{ cm}^2 = 525 \text{ cm}^2$$

15. (B) Number of Secondary pupils

$$= 3023 - 1440 = 1583$$

Number of secondary pupils more than primary pupils

$$= 1583 - 1440 = 143$$

There are 143 more Secondary pupils than Primary pupils

16. (B) $\frac{2}{3} + \frac{1}{5} = \frac{10}{15} + \frac{3}{15}$

$$= \frac{13}{15} \text{ (fraction of wall painted)}$$

$$1 - \frac{13}{15} = \frac{2}{15}$$

$$\frac{2}{15} \times 675 \text{ m}^2 = 2 \times 45 = 90 \text{ m}^2$$

17. (A) Largest 3 - digit number = 999

Smallest 2 - digit = 10

$$= 999 \div 10$$

Quotient = 99, Remainder = 9

18. (D) $6080 \text{ m} - 2060 \text{ m} = 4020 \text{ m}$

$$= 4 \text{ km } 20 \text{ m}$$

19: (B) 28 years 9 months - 18 years 11 months

= 9 years 10 months

20. (A) Sum of 2 numbers = 56

Difference between 2 numbers = 12

$$56 - 12 = 44$$

$$\text{smaller number} = 44 \div 2 = 22$$

$$\text{Bigger number} = 56 - 22 = 34$$

$$\text{Sum of 2 numbers} = 34 + 22 = 56$$

$$\text{Difference between 2 numbers} = 34 - 22 = 12$$

21: (C) Number of 7 days in 28 days

$$= 28 \div 7 = 4$$

$$4 \times 3 = 12 \text{ l} = 12 \text{ 000 ml}$$

She uses 12 000 ml of water in 28 days

22: (D) The number of balloons is $6 \times 7 + 7 \times 6 = 84$

23: (A) I am 14620

Ten thousands	Thousands	Hundreds	Tens	Ones
1	4	6	2	0

24: (D) Maximum time shows on the digital clock is 23 : 59, which have the greatest sum i.e., $2 + 3 + 5 + 9 = 19$

25: (B) 1st week = 3456 trees

2nd week = 1357 trees

No. of trees left = 2468

Total no. of trees at first = $3456 + 1357 + 2468$

= 7281

SCIENCE

26. (C) A venus flytrap plant closes its leaves when insects sit on it. This shows that the plant is responding to stimulus.

27. (C) The part labelled 'X' is Pulp.

28. (B) Mushroom is a fungi. It grow on dead plants and animals and absorbs food.

29. (D) The leaves of water hyacinth are spongy and swollen leaf stalks coated with a layer of wax.

30. (A) The experiment shows condensation of water.

31. (A) A cockroach has three stages life cycle. Egg, nymph and an adult.

32. (D) A butterfly lays an egg. The egg hatches into a larva. The larva becomes a pupa and then pupa undergoes many changes grows into a butterfly. This process is called a metamorphosis.

33. (B) 'Z' represents carbon dioxide.

34. (A) The sun is a member of the solar system, it gives out light and heat, it is at the centre of the solar system.

35. (B) P = Solvent; Q = Solute; R = Solution.

36. (C) Harmful germs in water can be killed by boiling.

37. (B) We are able to walk properly because of friction between our soles and the ground.

38. (B) Wind energy causes the boat to move.

39. (D) In order to toast a slice of bread, the toaster changes electrical energy into heat energy.

40. (B) Hand lens magnifies the things.

41. (B) Body fat helps the penguin survive in its environment.

42. (A) A fire accident burns down a house, it is a damage caused due to carelessness of use energy from fire.

43. (D) Decomposers decompose the dead organic matter into nutrients.

44. (C) Gravitational force causes a soccerball to fall to the ground.

45. (A) Sunlight is the main source of energy for all the organisms in most food chain.

46. (D) A skunk's odor is unpleasant to other animals. A monarch butterfly's coloration warns birds of its bitter taste. These adaptations help these animals to avoid predators.

47. (D) The given diagram is a life cycle of butterfly.

48. (C) Fenugreek, spinach, and coriander are some edible leaves.

49. (B) Magnet attracts metal. In order for the car to be moved by the magnet, the car must contain metal.

50. (C) When force moves an object from its place, then it is set to be work is done.

51. (D) Venus is the brightest second planet from the sun.

52. (D) Canines help to tear food.

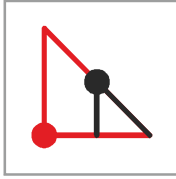
53. (B) X - carbon dioxide, Y - oxygen.

54. (C) Frog breathe through lungs and through moist skin in underwater.

55. (C) Digestion of food takes place in mouth, stomach and small intestine.

CRITICAL THINKING

56: (D) Number of 'chicks' still running around
= $16 - 1$ (eagle) $- 1$ (mother hen) $- 5 = 9$



57: (A)

58: (B)

59: (C) In first image deepika got 6 points means one single arrow is equal to 2 points.

In second image the arrow which is target have 4 points.

So, in third image 3 equal arrows in target means $4 \times 3 = 12$ points.

60: (C) According to the given diagram
 $A + B > C + D$ and $B + D = C$
From 10, 20, 30, 40 values, there are two possibilities

$$B + D = C \Rightarrow 10 + 20 = 30 \quad \dots (1)$$

$$B + D = C \Rightarrow 10 + 30 = 40 \quad \dots (2)$$

From (1)

$$C = 30, B + D = 10 + 20$$

If $B = 10, D = 20, C = 30$ then $A = 40$

$$A + B = 50, C + D = 50$$

$A + B = C + D$ (not satisfied)

If $B = 20, D = 10, C = 30$ then $A = 40$

$$A + B = 60, C + D = 40$$

$A + B > C + D$ (satisfied)

From (2)

If $B = 10, D = 30, C = 40$ then $A = 20$

$$A + B = 30, C + D = 70$$

$A + B < C + D$ (not satisfied)

If $B = 30, D = 10, C = 40$ then $A = 20$

$$A + B = 50, C + D = 50$$

$A + B = C + D$ (not satisfied)

\therefore The value of C is 30

THE END
