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NATIONAL LEVEL SCIENCE TALENT SEARCH EXAMINATION

CLASS - 4

Question Paper Code : 1O109

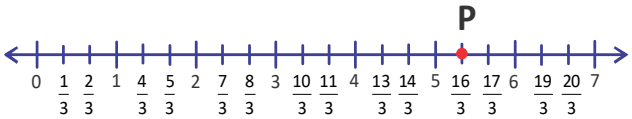
KEY

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

SOLUTIONS

MATHEMATICS

01. (D)



02. (C) 48600 ÷ 30 = 1620
64500 ÷ 50 = 1290
58000 ÷ 40 = 1450
69600 ÷ 60 = 1160

03. (D) 4.9 kg – 3 kg = 1.9 kg
= 1900 g

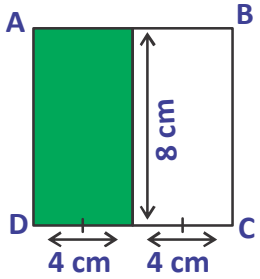
04. (D) 15 m = 1500 cm

05. (A) 25000 mℓ + 650 mℓ + 22000 mℓ + 860 mℓ
= 48510 mℓ
= 48ℓ 510mℓ

06. (D) 6th multiple of 7 = 6 × 7 = 42
11^{th} multiple of 12 = 11 × 12 = 132
12^{th} multiple of 10 = 12 × 10 = 120
∴ Difference = 132 – 120 = 12

07. (B) A Polygon is a closed shape with straight sides & the number of sides is equal to the number of corners.

08. (B)



$L \times B = 4\text{ cm} \times 8\text{ cm} = 32\text{ cm}^2$

09. (D) 42 min + 2 hrs 28 min = 190 min = 3 hrs 10 min

17 : 15 – 3hrs 10min = 14 : 05

10. (B) 85643, 79432, 79349, 58732, 58723

11. (B) M = L. C. M. of 18, 24, 40 = 360

N = H. C. F of 60, 180, 360 = 60

$\therefore$ 2M + 15N = 1620

$\therefore$ The digit in thousands place is 1.

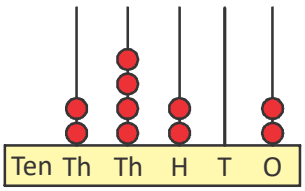
12. (D) 9999 ÷ 99 = 101

13. (D) 400 + 140 = 540

14. (A) $\frac{1}{2}+\frac{1}{8}=\frac{4+1}{8}=\frac{5}{8}$

$1-\frac{5}{8}=\frac{8-5}{8}=\frac{3}{8}$

15. (C)



The number represented by abacus

= 24202

Now, to form a number that lies between 24631 and 25212 a ring in the thousand string must be added i.e. 1000 must be added to 24202, we get 24202 + 1000

= 25202

[as 24631 < 25202 < 25212]

16. (B)

Is not a symmetrical figure

17. (C) 78 × 5 = 390

390 ÷ 10 = 39

So, there are 39 tens in 78 × 5

18. (C) The Product of 448 × 406 is 181,888 and the remainder when divided by 5 is 3. To make the sum divisivle by 5, we need to add 2(since 5 – 3 = 25)

19. (A) DCVI = 500 + 100 + 5 + 1 = 606

$\therefore$ 516 < 606

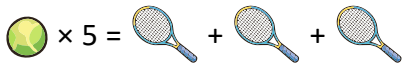
20. (C) From 10th Feb to 28th Feb 2025 there are 19 days. From 1st march to 20th March 2025 there are 20 days, making the total 39 days.

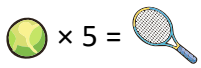
21. (B) From 9 : 30 am to 3 : 30 pm is exactly 6 hours

22. (B) 4 × Rs. 3.30 + 2 × Rs. 1.85 = Rs. 16.90

23. (D) To make Rs. 1 lakh, we divide 100,000 by 100, which gives 1000 notes.

24. (D) There are total of Eight factors of 24. they are 1, 2, 3, 4, 6, 8, 12 and 24.

25. (A)  × 5 =

 × 5 = × 3

Since more  are needed,  is smaller than  .

GENERAL SCIENCE

26. (D) They developed from eggs laid by frogs in the pond.

27. (D) Bear is an omnivore.

28. (C) The Sun is a source of solar energy.

29. (A) Trees release oxygen during the process of photosynthesis, which we use to breathe.

30. (C) Bat, dolphin and deer are mammals, that give birth and feed their young ones.

31. (B) Turning on a light switch allows change of electrical energy to light energy.

32. (D) The webbed legs of the frog helps it to swim in water.

33. (A) Heat energy produced by the campfire is helpful to roast Marshmellow.

34. (D) The life cycle of some insects egg → larva → pupa → adult

35. (B) The presence of chlorophyll in leaves gives them the green.

36. (B) Leaves produce food for the plant by photosynthesis.

37. (D) Scavengers are the animals that help to keep the environment clean. Hyena is a scavenger, leech and tapeworm are parasites and zebra is a herbivore.

38. (B) The pitcher plant grows in nutrition deficient soil. Hence, it feeds on insects to get required nutrients. Hence, it is an insectivore plant.

39. (C) The leaves of a tree change color in the fall. This is an example of a tree responding to its environment.

40. (D) When a person hits a drum mechanical energy i.e., hitting a drum with a drumstick is transformed into sound energy.

41. (A) Fish breathe through gills.

42. (B) It does not take care or feed its babies.

43. (B) The planet R represents jupiter. It is the largest planet. It rotates very task, it takes 9.8 hours. It is the fifth planet in the solar system. It has 16 moons.

44. (C) When a rubber band is stretched there is a change in shape, length and width but its mass remains the same.

45. (C) Air travels through 'X' before it reaches 'Y'.

46. (A) The given figure is a banyan plant. Hanging roots or prop root provide support tothe given plant.

47. (B) The force acting on the ball is gravitational force.

48. (A) Friction produces heat. When we rub our hands together on a cold day. It produces heat that warms our hands.

49. (A) Some birds fly south in the fall and return in the spring. This is an example of migration.

50. (D) The teeth tear, cut, crush or grind food into small pieces.

51. (B) The signal to the vehicles is red.

52. (B) Plastic bags take long time to decompose and make soil pollution.

53. (A) Some animals merge with their surroundings to protect themselves. This property is called camouflage. The chameleon can change its colour to match its surroundings. It have long tongue to catch its prey. It is an egg laying animal.

54. (D) A bat has the longest lifespan.

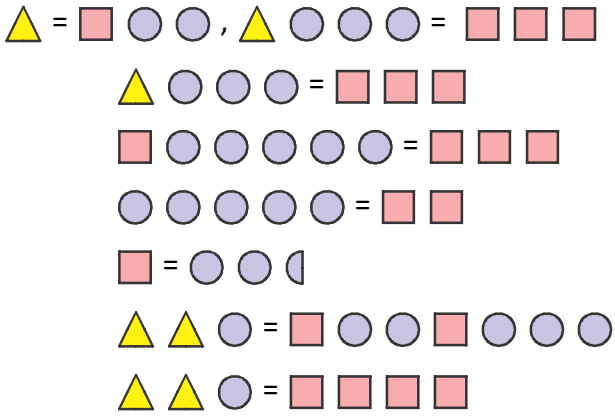
55. (A) In the given options jupiter is the outer planet.

CRITICAL THINKING

56. (C) Fan in option (C) is the largest fan among all and will throw more air.

Therefore, given three fans of the same design but different sizes, the fan with the largest size will throw more air compared to the smaller fans.

57. (D)



58. (B) Prioritizing studying ensures you are prepared for the test while still enjoying the movie if time permits.

59. (B) 

60. (C) The rule followed is

$(6 + 2) \times 9 = 72$

and $(9 + 6) \times 7 = 105$

Similarly, $(? + 4) \times 4 = 36$

$\Rightarrow ? + 4 = 9 \Rightarrow ? = 5$