



NATIONAL LEVEL SCIENCE TALENT SEARCH EXAMINATION (UPDATED)

CLASS - 4

Question Paper Code : UN487

KEY

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

SOLUTIONS

MATHEMATICS

01. (C) Factors of 318 = 1, 2, 3, 6, 53, 106, 159, 318

From the given options,

Options (C) 6 is a factor of 318.

02. (C) In 473743, the digit 7 appears, in hundreds and ten thousands place.

Th	H	T	O
4	6	7	1

03. (A)

Thousands digit is even = 4

Hundreds digit is even = 6

Tens digit is odd = 7

04. (D) $? \times 12 = 84$

$$= 84 \div 12 = 7$$

7 is multiplied by 6 = 42

05. (A) Product of 2 and 9 = 18

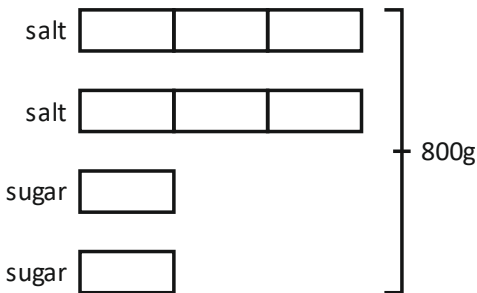
Quotient of 72 and 4 = 18

06. (B) Products of three numbers = 1024

Products of first number and second number = 64

$$\text{Third number} = 1024 \div 64 = 16$$

07. (B) Given
- $$\square + \square + \square = ₹12$$
- $$3 \square = ₹12$$
- $$\square = ₹4 \text{ and}$$
- $$\bigcirc + \bigcirc + \square = ₹48$$
- $$2 \bigcirc + ₹4 = ₹48$$
- $$2 \bigcirc = ₹48 - ₹4 = ₹44$$
- $$\bigcirc = ₹44 \div 2 = ₹22$$
- then $\bigcirc + \square = ₹22 + ₹4 = 26$
08. (B) $4895 + 2531 = 7426$
09. (A) $7 \text{ km } 930 \text{ m} - 2 \text{ km } 160 \text{ m} = 5770 \text{ m}$
10. (B) Total no. of pages in a book = 800
- Nikhil reads the book in a day = $\frac{1}{8}$
- $$= \frac{1}{8} \times 800 = 100 \text{ pages}$$
- No. of pages read in 3 days
- $$= 100 \times 3 = 300 \text{ pages}$$
11. (D) Capacity of water in the beaker = $1 \text{ l } 800 \text{ ml} = 1800 \text{ ml}$
- Total water is poured in 4 similar cups
- $$= 1800 \text{ ml} \div 4$$
- $$= 450 \text{ ml of water in each cup.}$$
12. (C) 248 minutes
- 1 hour = 60 minutes
- 248 minutes = ? hours
- $$248 \div 60 = 4 \text{ R } 8$$
- 248 min = 4 hours 8 minutes
13. (A) The distance apart between straight lines AB and FG is always the same (6 square units).

14. (D) $₹440 + ₹415 = ₹855$ (Rishi)
- $$₹855 + 468 = ₹1323$$
- (Anitha)
- $$₹1323 - ₹335 = ₹988$$
15. (A)
- 
- Total number of parts: $3 + 3 + 1 + 1 = 8$
- $$800 \div 8 = 100$$
- The mass of a packet of salt : $100 \times 3 = 300$
- The mass of a packet of salt is 300 g.
16. (B) Rope A = 463 cm
- Rope B = $463 \times 2 = 926 \text{ cm}$
- Rope C = $926 \times 7 = 6482 \text{ cm}$
- Total length = $463 \text{ cm} + 926 \text{ cm} + 6482 \text{ cm}$
- $$= 7871 \text{ cm}$$
17. (C) Perimeter of the given figure = 26 m
18. (A) Smallest number when rounded to the nearest hundred is 300 = 250
- Greatest number when rounded to the nearest hundred is 300 = 349
- Difference between the smallest and greatest number = $349 - 250 = 99$
19. (B) $500 - 200 = 300 = \text{CCC}$
20. (A) Cost of 3 hand bags + 2 purses = ₹96.50
- Cost of 9 hand bags + 6 purses = ₹96.50
- $$\times 3 = ₹289.50$$
21. (B) $9\frac{7}{12} = \frac{115}{12}$
22. (C) $7 \text{ l } 400 \text{ ml} \times 4$
- $$= 7400 \times 4 = 2960 \text{ ml} = 29 \text{ l } 600 \text{ ml}$$

23. (A) Program started at 16 : 30 = 4 : 30 pm
 Lasted for 2h 45 min
 $= 4 : 30 \text{ pm} + 2\text{h } 45 \text{ min}$
 $= 6 \text{ h } 75 \text{ min}$
 $= 7 \text{ h } 15 \text{ min} = 7 : 15 \text{ pm}$

24. (D) $14800 = 11000 + 3000 + 800$

25. (C) $1\frac{3}{4} + 2\frac{3}{8} = 2 + \square$

$$\frac{7}{4} + \frac{19}{8} = 2 + \underline{\hspace{2cm}}$$

$$\frac{14+19}{8} = 2 + \underline{\hspace{2cm}}$$

$$\frac{33}{8} = 2 + \underline{\hspace{2cm}}$$

$$\frac{33}{8} - \frac{2}{1} = \frac{33-16}{8} = \frac{17}{8} = 2\frac{1}{8}$$

GENERAL SCIENCE

26. (D) X is iron, Y is vitamin C, Z is roughage.
 27. (C) To test the need of chlorophyll. The leaf is bleached to test the presence of starch.
 28. (D) Camel, mouse, buffalo, fox and elephant give birth to young ones.
 29. (C) Wedge is a cutting, splitting and piercing tool.
 30. (B) A plant can survive without flowers.
 31. (B) In transpiration plants lose water from its leaves.
 32. (C) X is Venus which is also called evening star, Y is Moon and Z is Jupiter.
 33. (B) Fungi absorbs food from dead plants and animals.
 34. (C) Penguin and emu are birds and dolphin is a mammal. Hence, they all are warm-blooded. Guppy is a fish, hence it is a cold-blooded animal.
 35. (C) The main function of the kidney is to remove waste products from the body.

36. (D) In the given figure P, Q, R and S represent belly, legs, tail and hump respectively of a camel. Hump stores fat which can be used during shortage of food.

37. (A) In option A, P is producer, R and T are herbivores. Q is an omnivore and S is a carnivore, which matches with the given classification chart.

38. (B) Due to Earth's gravitational force the ball fall on the ground and it stopped due to frictional force.

39. (D) The given figure is of a tooth and X is enamel which is the outer hard covering of the tooth.

40. (A) Wood is a solid.

41. (A) The tree shown below is a conifer grow in hilly region.

42. (C) I - eggs of butterfly and IV - caterpillar of butterfly.

43. (C) Tidal energy comes from rise and fall of ocean tides and current.

44. (A) Arctic tern show migration.

45. (B) P - duckweed, Q - lotus, R - hydrilla

46. (C) P - cockroach and Q - frog

47. (D) Venus, Neptune and Uranus.

48. (A) An ice cube when placed in a glass of hot water changes its state.

49. (B) Air contains nitrogen (78%), oxygen (21%) and carbon dioxide (0.03%). So, X, Y and Z could be nitrogen, oxygen and carbon dioxide respectively.

50. (C) Mosquito sucks blood.

51. (C) It has stalks that contain air spaces to trap air.

52. (C) A door knob is an excellent example of a wheel and axle system.

53. (A) Cereals and potatoes are energy giving food.

54. (A) The grooves increases the friction and gives the good grip.

55. (A) Winnowing, threshing, sieving.

CRITICAL THINKING

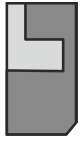
56. (D)

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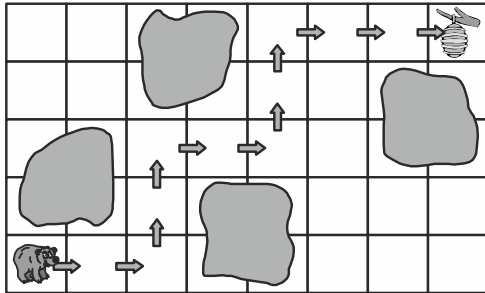


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57. (C)



58. (C)



59. (B)

$P > Q,$

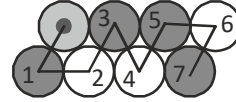
$R > P,$

$Q > S > T,$

$R > P > Q > S > T$

Hence, 'R' s fattest in the group.

60. (A)



===== The End =====