
MATHEMATICAL REASONING

1 $9000000 + 80000 + 700 + 2$ is same as

[A] 9870002

[B] 9080702

[C] 90800702

[D] 9087002

2 Which of the following statement is false with respect to roman numbers?

[A] Symbol V, L, D can be used more than once

[B] Symbol I, X, C, M can be repeated 3 times

[C] Symbol I can be subtracted only from V and X

[D] None of these

3 What is the number in the **START** box?



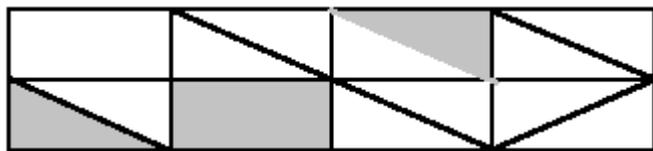
[A] 202.5

[B] 640

[C] 1120

[D] 207360

4 What fraction of the figure is shaded?



[A] $\frac{1}{4}$

[B] $\frac{3}{8}$

[C] $\frac{3}{14}$

[D] $\frac{1}{3}$

5 The daily consumption of milk of a family is $2\frac{1}{4}$ litres. The quantity of milk consumed by the family in the month of July is

[A] $68\frac{3}{4}$ litres

[B] $68\frac{1}{4}$ litres

[C] $61\frac{3}{4}$ litres

[D] $69\frac{3}{4}$ litres

6 Arun purchased 57 mobile phones for ₹ 341943. What is the cost of one mobile phone?

[A] ₹ 5999

[B] ₹ 6999

[C] ₹ 5989

[D] ₹ 6989

7 The sum of 3018 and 301.8 is equal to

[A] 3310.8

[B] 3318.8

[C] 3319.8

[D] 3219.8

8 When the number 21978 is multiplied by a 1-digit number, the product is the given number with digits in reverse order. The 1-digit number is

[A] 8

[B] 6

[C] 4

[D] 2

9 The numeral for ninety five crore nine thousand five is

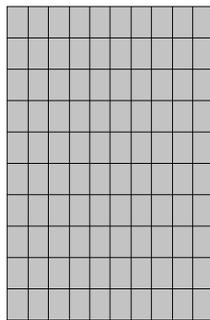
[A] 9509005

[B] 95009005

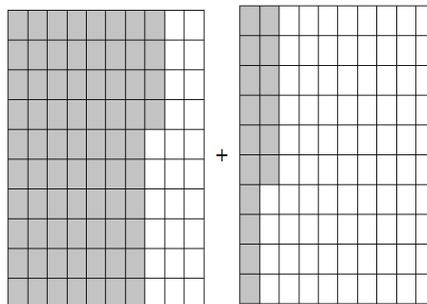
[C] 959005

[D] 950009005

10 The model below is shaded to represent the number 1



Each of the following models is shaded to represent a decimal number



If two decimals are added, what is the sum

[A] 0.09

[B] 0.90

[C] 9.0

[D] 90.0

11 There were 1582 chicken eggs and 475 duck eggs in a basket. 128 chicken eggs and 128 duck eggs were broken. How many eggs were not broken?

[A] 981

[B] 1929

[C] 2021

[D] None of these

12 Repetition of a Roman numeral means

[A] Multiplication

[B] Addition

[C] Squaring

[D] Twice the number

13 Which one of the following shows **five hundred six million seventy three thousand eight** in standard form?

[A] 516,073,008

[B] 506,073,008

[C] 506,111,0008

[D] 506,068,908

14 What is the greatest common factor of the numbers given below?

24 and 18

[A] 2

[B] 8

[C] 4

[D] 6

15 Which one of the following does not describe the value of the digit 5 in the number **21.3572**?

[A] 500 ten thousandths

[B] 50 tenths

[C] 50 thousands

[D] 5 hundredths

16 I am a 4-digit number, 1964. Use only '+' and '-' sign and make me nothing.

[A] $1 - 9 + 6 - 4$

[B] $1 + 9 - 6 + 4$

[C] $1 - 9 - 6 + 4$

[D] $1 + 9 - 6 - 4$

17 Which one of the following is a proper fraction?

[A] $\frac{5}{3}$

[B] $\frac{3}{5}$

[C] $1\frac{3}{5}$

[D] $\frac{3}{3}$

18 A stationary shop opens at 9:00am and closes at 8:30pm. How long does it remain open?

[A] 10 h 30 min

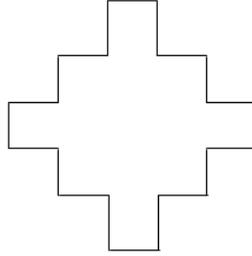
[B] 11 h 30 min

[C] 12 h 30 min

[D] 9 h 30 min

19 Each side of the figure given below measures 1cm. The perimeter of the figure is

- [A] 10 cm
- [B] 12 cm
- [C] 20 cm
- [D] 22 cm



20 Which one of the following is not an equivalent fraction of $\frac{2}{5}$?

- [A] $\frac{8}{20}$
- [B] $\frac{20}{45}$
- [C] $\frac{12}{30}$
- [D] $\frac{26}{65}$

21 How many four digit numbers are there between 999 and 3000?

- [A] 2001
- [B] 2000
- [C] 1999
- [D] 1998

22 Look at the numbers in the box

0.7 0.05 0.8 0.06

Which two numbers in the box have a difference of **0.75**?

- [A] 0.7 and 0.05
- [B] 0.8 and 0.06
- [C] 0.7 and 0.06
- [D] 0.8 and 0.05

23 Average age of A, B and C is 10 years. If the average age of A and C is 9 years, then how many years old is B?

- [A] 9
- [B] 10
- [C] 11
- [D] 12

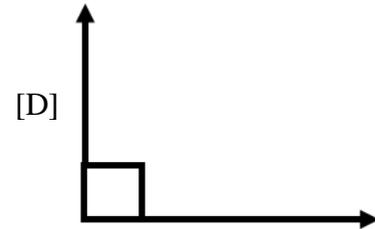
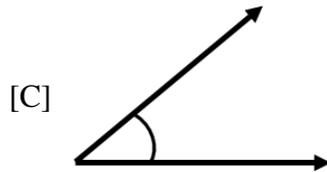
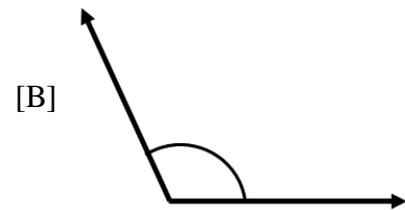
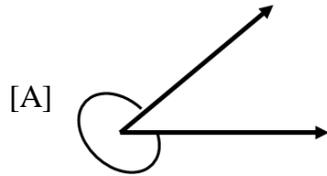
24 The electronic Expert store sold 8,124 computers last year. The store also sold 2,336 printers. How many computers and printers did the store sell last year?

- [A] 10460
- [B] 10640
- [C] 10840
- [D] 10940

25 In how many different ways we can arrange 24 glasses on a kitchen shelf? Choose the correct option

- [A] 1 way [all 24 glasses in 1 row]
- [B] 2 ways [all 24 glasses in 1 row, 2 rows of 12 glasses]
- [C] 3 ways [all 24 glasses in 1 row, 2 rows of 12 glasses, 3 rows of 8 glasses]
- [D] 4 ways [all 24 glasses in 1 row, 2 rows of 12 glasses, 3 rows of 8 glasses, 4 rows of 6 glasses]

26 Which of the following is greater than 180° ?



27 What is the difference in the place value of the digits 7 and 5 in the numeral 57354219?

[A] 6950000

[B] 6995000

[C] 6905000

[D] 6950500

28 $22.48 \div 0.2$ is equal to

[A] 11.24

[B] 110.24

[C] 112.40

[D] 121.4

29 $22.48 \div 0.2$ is equal to

[A] 11.24

[B] 112.40

[C] 110.24

[D] 121.4

30 What is the supplement angle of 103° ?

[A] 66°

[B] 22°

[C] 77°

[D] 47°

31 $100 \div 200 \times 300 + 400 - 500 = ?$

[A] 150

[B] 100

[C] 50

[D] None of these

32 A broken scale is used to measure the height of a plant. The length of the broken scale is 12 cm. The height of the plant is 10.50 times greater than the broken scale. What is the height of the plant?

[A] 126 cm

[B] 125.5 cm

[C] 126.55 cm

[D] 1.2650 cm

33 Aruna went for shopping. She hired an auto to cover the distance of 5.50 km. If auto fare is ₹ 20 for the first 1 km distance and ₹ 6.50 for further each 1 km then how much amount she gave to auto driver?

[A] ₹ 26.50

[B] ₹ 40.25

[C] ₹ 49.25

[D] ₹ 48

34 In an ice cream shop, the ratio of the number of chocolate ice creams sold to the number of vanilla ice cream sold is 1 : 4. If 48 vanilla ice creams were sold, how many chocolate ice creams were sold?

[A] 14

[B] 10

[C] 12

[D] 16

35 Choose the correct option

[A] $85^{\circ}\text{C} = 105^{\circ}\text{F}$

[B] $50^{\circ}\text{C} = 120^{\circ}\text{F}$

[C] $40^{\circ}\text{C} = 95^{\circ}\text{F}$

[D] $80^{\circ}\text{C} = 176^{\circ}\text{F}$

36 Which one of the following is true?

[A] $1.3749 < 1.0399$

[B] $1.7908 < 1.879$

[C] $1.526 < 1.2605$

[D] $1.463 < 1.3902$

37 A triangle is formed by joining

[A] Three collinear points

[B] Three non-collinear points

[C] Three equal points

[D] None of these

38 $100 \div 200 \times 300 + 400 - 500$ is equal to

[A] 150

[B] 100

[C] 50

[D] None of these

39 Which of the following expression is true?

[A] $\frac{1}{2} > 0.2$

[B] $\frac{1}{2} > 0.5$

[C] $\frac{1}{5} > 0.2$

[D] $\frac{1}{5} > 0.5$

40 Choose the correct option equivalent to the expression given below.

$$(6 \times 1) + (5 \times 0.01) + (8 \times 0.001)$$

[A] 65.08

[B] 60.58

[C] 6.508

[D] 6.058

LOGICAL REASONING

41 In the following question select the one which is different from the other three responses.

- [A] DEB [B] RTP
[C] HIF [D] NOL

42 In a certain code language **COMPUTER** is written as **RFUVQNPC**. How will **MEDICINE** be written in that code language?

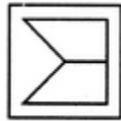
- [A] MFEDJJOE [B] EOJDEJFM
[C] MFEJDJOE [D] EOJDJEFM

43 The numbers in the grid go together in a certain way. What are the numbers that should be in the square marked by?

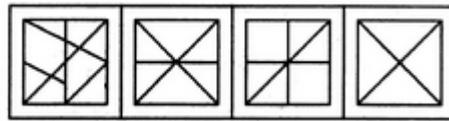
2	4	6
4	?	8
6	8	?

- [A] 4 and 6
[B] 6 and 10
[C] 6 and 8
[D] 4 and 8

44 Find out the alternative figure which contains figure (X) as its part.



(X)



(1) (2) (3) (4)

- [A] 1 [B] 2
[C] 3 [D] 4

45 What is the product of all the numbers in the dial of the telephone?

- [A] 158480 [B] 362880
[C] 0 [D] 1480

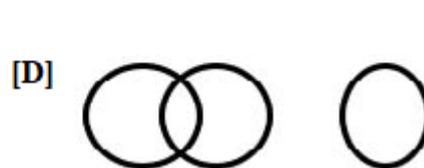
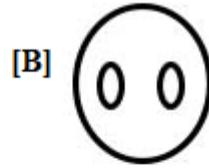
46 Choose the alternative which closely resembles the water-image of the given combination.

bridge

- (1) pɹ!qǝe (2) pɹ!qǝe
(3) pɹ!qǝe (4) pɹ!pǝe

- [A] 1 [B] 2
[C] 3 [D] 4

47 Which of the following Venn- diagram correctly illustrates the relationship among the classes : *Carrot, Food, Vegetables*



48 Sam ranked 9th from the top and 38th from the bottom in a class. How many students are there in the class?

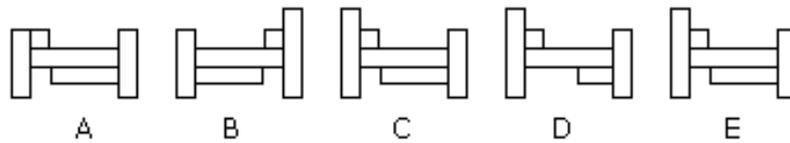
[A] 45

[B] 46

[C] 47

[D] 48

49 Which two pictures are identical?



[A] A and B

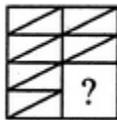
[B] B and C

[C] C and E

[D] C and D

50 Identify the figure that completes the pattern.

Question figure



Answer figure



[A]



[B]



[C]



[D]

SPACE FOR ROUGH WORK