

ESKO Aptitude Question Paper

1. The edge of a cuboid are in the ratio 1 : 2 : 3 and its surface area is 88 cm^2 . The volume of the cuboid is :

- A. 24 cm^3
- B. 48 cm^3
- C. 64 cm^3
- D. 120 cm^3

Ans: B

Exp: Let the dimensions of the cuboid be x , $2x$ and $3x$.

Then, $2(x \cdot 2x + 2x \cdot 3x + x \cdot 3x) = 88$

$$= 2x^2 + 6x^2 + 3x^2 = 44 = 11x^2 = 44 = x^2 = 4 = x = 2.$$

Therefore volume of the cuboid = $(2 \cdot 4 \cdot 6) \text{ cm}^3 = 48 \text{ cm}^3$

2. Look at this series: 80, 10, 70, 15, 60, ... What number should come next?

- A. 20
- B. 25
- C. 30
- D. 50

Ans: A

Ex: This is an alternating addition and subtraction series. In the first pattern, 10 is subtracted from each number to arrive at the next. In the second, 5 is added to each number to arrive at the next

3. Pointing out to a lady, Rajan said, "She is the daughter of the woman who is the mother of the husband of my mother. "Who is the lady to Rajan ?

- A. Aunt
- B. Grand daughter
- C. Daughter
- D. Sister

Ans: A

Ex: Mother's husband – Father: Father's mother – Grandmother: Grandmother's daughter – Father's sister: Father's sister – Aunt.

So, the lady is Rajan's Aunt.

Hence, the answer is A

4. May 6, 1993 was Thursday. What day of the week was on May 6, 1992 ?

- A. Saturday
- B. Tuesday
- C. Wednesday
- D. Friday

Ans: B

Ex: 1992 being a leap year, it has 2 odd days.

So, the day on May, 1993 is 2 days beyond the day on May 6, 1992.

But, on May 6, 1993 it was Thursday.

So, on May 6, 1992 it was Tuesday.

5. Read the following information carefully and answer the questions that follow :

A + B means A is the son of B; A – B means A is the wife of B; A * B means A is the brother of B; A/B means A is

the mother of B and $A = B$ means A is the sister of B.

What does $P + R - Q$ mean ?

Q is the father of P

Q is the son of P

Q is the uncle of P

Q is the brother of P

Ans:A

Ex: Clearly , $P + R - Q$ means P is the son of R who is the wife of Q i.e. Q is the father of P.

6.A father tells his son, "I was of your present age when you were born". If the father is 36 now, how old was the boy 5 years back ?

A.13

B.15

C.17

D.20

Ans:A

Ex: Let the father's age be x and the son's age be y . Then, $x - y = y$ or $x = 2y$

Now, $x = 36$. So, $2y = 36$ or $y = 18$.

Therefore son's present age = 18 years.

So, son's age 5 years ago = 13 years.

7.Sakshi can do a piece of work in 20 days. Tanya is 25% more efficient than Sakshi. The number of days taken by Tanya to do the same piece of work is:

A.15

B.16

C.18

D.25

Answer:B

Ex:Ratio of times taken by Sakshi and Tanya = $125:100 = 5:4$.

Suppose Tanya takes x days to do the work.

$5 : 4 :: 20 : x$? $x = (4 \times 20)/5$

? $x = 16$ days

Hence, Tanya takes 16 days to complete the work.

8.A train left station at A hour B minutes. It reached station Y at B hour C minutes on the same day, after travelling C hours A minutes (clock shows time from 0 hours to 24 hours). Number of possible value of A is?

A.0

B.1

C.2

D.3

Answer:A

Ex:A hours + C ours = B hours(i)

A, C and B cannot have values greater than or equal to 24

B minutes + A minutes = C minutes(ii)

Looking at two equation, we get no value of A satisfies both equation

9.A merchant marks his goods up by 75% above his cost price. What is the maximum % discount that he can offer so that he ends up selling at no profit or loss?

- A.75%
- B.46.67%
- C.300%
- D.42.85%

Answer:D

Ex:Let us assume that the cost price of the article = Rs.100

Therefore, the merchant would have marked it to Rs.100 + 75% of Rs.100 = 100 + 75 = 175.

Now, if he sells it at no profit or loss, he sells it at the cost price.i.e. he offers a discount of Rs.75 on his selling price of Rs.175

Therefore, his % discount = $(75/175) \times 100 = 42.85\%$

10.Two students appeared at an examination. One of them secured 9 marks more than the other and his marks was 56% of the sum of their marks. The marks obtained by them are:

- A.39, 30
- B.41, 32
- C.42, 33
- D.43, 34

Ans:C

Ex:Let their marks be $(x + 9)$ and x .

Then, $x + 9 = (56/100)(x + 9 + x)$

$$25(x + 9) = 14(2x + 9)$$

$$3x = 99$$

$$x = 33$$

So, their marks are 42 and 33.

11.Two pipes can fill the cistern in 10hr and 12 hr respectively, while the third empty it in 20hr. If all pipes are opened simultaneously, then the cistern will be filled in

- A.7.5 hr
- B.8 hr
- C.8.5 hr
- D.10 hr

Ans:A

Ex:Work done by all the tanks working together in 1 hour.

$$\Rightarrow 1/10 + 1/12 - 1/20 = 2/15$$

Hence, tank will be filled in $15/2 = 7.5$ hour

12. A boat can travel with a speed of 13 km / hr in still water. If the speed of the stream is 4 km / hr. find the time taken by the boat to go 68 km downstream?

- A. 2 hours
- B. 3 hours
- C. 4 hours
- D. 5 hours

Ans:C

Ex:Speed Downstream= $(13 + 4)$ km/hr

$$= 17 \text{ km/hr.}$$

Time taken to travel 68 km downstream = $(68 / 17)$ hrs

$$= 4 \text{ hrs.}$$

13. How many digits will be there to the right of the decimal point in the product of 95.75 and .02554 ?

- (A) 5
- (B) 6
- (C) 7
- (D) none of these

Ans: B

Explanation: Sum of decimal places = 7.

Since the last digit to the extreme right will be zero (since $5 \times 4 = 20$), so there will be 6 significant digits to the right of the decimal point

14. The total of the ages of Amar, Akbar and Anthony is 80 years. What was the total of their ages three years ago?

- (A) 71
- (B) 72
- (C) 74
- (D) 77

Ans: A

15. Look at this series: 1000, 200, 40, ... What number should come next?

- (A) 8
- (B) 10
- (C) 15
- (D) 20

Ans: A

Explanation: This is a simple division series. Each number is divided by 5.