



## Online Aptitude Test :: Aptitude Test 3

 

अभी त्

WhiteHat Jr

Total number of questions	:	<b>20</b>
Number of answered questions	:	<b>20</b>
Number of unanswered questions	:	<b>0</b>

☐ A.3500 ❌

☒ B.4000 🟢

☐ C.4050 ❌

☐ D.5000 ❌



Adding (i), (ii) and (iii), we get:  $2(P + Q + R) = 33000$  or  $P + Q + R = 16500$  .... (iv)

Subtracting (ii) from (iv), we get  $P = 4000$ .

∴ P's monthly income = Rs. 4000.

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2. A library has an average of 510 visitors on Sundays and 240 on other days. The average number of visitors per day in a month of 30 days beginning with a Sunday is:

- ☐ A. 250 ✗  
☐ B. 276 ✗  
☐ C. 280 ✗  
☒ D. 285 ✓

Your Answer: Option D

Correct Answer: Option D

Explanation:

Since the month begins with a Sunday, there will be five Sundays in the month.

$$\begin{aligned} \text{Required average} &= \left( \frac{510 \times 5 + 240 \times 25}{30} \right) \\ &= \frac{8550}{30} \\ &= 285 \end{aligned}$$

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3. The sum of two numbers is 25 and their difference is 13. Find their product.

- ☐ A. 104 ✗  
☒ B. 114 ✓  
☐ C. 315 ✗  
☐ D. 325 ✗

Your Answer: Option B

Correct Answer: Option B

Explanation:

Let the numbers be  $x$  and  $y$ .

Then,  $x + y = 25$  and  $x - y = 13$ .

$$4xy = (x + y)^2 - (x - y)^2$$

$$= (25)^2 - (13)^2$$

$$= (625 - 169)$$



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Direction (for Q.No. 4):

Each of the questions given below consists of a statement and / or a question and two statements numbered I and II given below it. You have to decide whether the data provided in the statement(s) is / are sufficient to answer the given question. Read the both statements and

- Give answer (A) if the data in Statement I alone are sufficient to answer the question, while the data in Statement II alone are not sufficient to answer the question.
- Give answer (B) if the data in Statement II alone are sufficient to answer the question, while the data in Statement I alone are not sufficient to answer the question.
- Give answer (C) if the data either in Statement I or in Statement II alone are sufficient to answer the question.
- Give answer (D) if the data even in both Statements I and II together are not sufficient to answer the question.
- Give answer (E) if the data in both Statements I and II together are necessary to answer the question.

4. What is the number?

I. The sum of the two digits is 8. The ratio of the two digits is 1 : 3.

II. The product of the two digit of a number is 12. The quotient of two digits is 3.

- ☐ A. I alone sufficient while II alone not sufficient to answer ✖
- ☐ B. II alone sufficient while I alone not sufficient to answer ✖
- ☒ C. Either I or II alone sufficient to answer ✔
- ☐ D. Both I and II are not sufficient to answer ✖
- ☐ E. Both I and II are necessary to answer ✖

Your Answer: Option C

Correct Answer: Option C

Explanation:

Let the tens and units digit be  $x$  and  $y$  respectively. Then,

$$\text{I. } x + y = 8 \text{ and } \frac{x}{y} = \frac{1}{3}$$

$$\therefore \text{ I gives, } 4y = 24 \Leftrightarrow y = 6.$$

$$\text{So, } x + 6 = 8 \Leftrightarrow x = 2.$$

$$\text{II. } xy = 12 \text{ and } \frac{x}{y} = \frac{3}{1}$$

$$\therefore \text{ II gives, } x^2 = 36 \Leftrightarrow x = 6.$$

$$\text{So, } 3y = 6 \Leftrightarrow y = 2.$$

Therefore, Either I or II alone sufficient to answer.



5. A is two years older than B who is twice as old as C. If the total of the ages of A, B and C be 27, then how old is B?

- ☐ A. 7 ✗  
☐ B. 8 ✗  
☐ C. 9 ✗  
☒ D. 10 ✔  
☐ E. 11 ✗

Your Answer: Option D

Correct Answer: Option D

Explanation:

Let C's age be  $x$  years. Then, B's age =  $2x$  years. A's age =  $(2x + 2)$  years.

$$\therefore (2x + 2) + 2x + x = 27$$

$$\Rightarrow 5x = 25$$

$$\Rightarrow x = 5.$$

Hence, B's age =  $2x = 10$  years.

Learn more problems on : [Problems on Ages](#)

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6.  $(17)^{3.5} \times (17)^x = 17^8$

- ☐ A. 2.29 ✗  
☐ B. 2.75 ✗  
☐ C. 4.25 ✗  
☒ D. 4.5 ✔

Your Answer: Option D

Correct Answer: Option D

Explanation:

$$\text{Let } (17)^{3.5} \times (17)^x = 17^8.$$

$$\text{Then, } (17)^{3.5 + x} = 17^8.$$

$$\therefore 3.5 + x = 8$$

$$\Rightarrow x = (8 - 3.5)$$

$$\Rightarrow x = 4.5$$

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7. ✓ If  $x = 3 + 22$ , then the value of  $\left(x - \frac{1}{x}\right)$  is:



✓ D.33 ✗

Your Answer: Option D

Correct Answer: Option B

Explanation:

$$\begin{aligned} \left(x - \frac{1}{x}\right)^2 &= x + \frac{1}{x} - 2 \\ &= (3 + 22) + \frac{1}{(3 + 22)} - 2 \\ &= (3 + 22) + \frac{1}{(3 + 22)} \times \frac{(3 - 22)}{(3 - 22)} - 2 \\ &= (3 + 22) + (3 - 22) - 2 \\ &= 4. \\ \therefore \left(x - \frac{1}{x}\right) &= 2. \end{aligned}$$

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8. A and B together have Rs. 1210. If  $\frac{4}{15}$  of A's amount is equal to  $\frac{2}{5}$  of B's amount, how much amount does B have?

- ☐ A.Rs. 460 ✗  
☒ B.Rs. 484 ✓  
☐ C.Rs. 550 ✗  
☐ D.Rs. 664 ✗

Your Answer: Option B

Correct Answer: Option B

Explanation:

$$\begin{aligned} \frac{4}{15}A &= \frac{2}{5}B \\ \Rightarrow A &= \left(\frac{2 \times 15}{5 \times 4}\right)B \\ \Rightarrow A &= \frac{3}{2}B \\ \Rightarrow \frac{A}{B} &= \frac{3}{2} \\ \Rightarrow A : B &= 3 : 2. \end{aligned}$$

✓ D. 1. B =  $\left(\frac{1210 \times 2}{5}\right)$  B = 484



9. Speed of a boat in standing water is 9 kmph and the speed of the stream is 1.5 kmph. A man rows to a place at a distance of 105 km and comes back to the starting point. The total time taken by him is:

- ☐ A. 16 hours ✖
- ☐ B. 18 hours ✖
- ☐ C. 20 hours ✖
- ☒ D. 24 hours ✔

Your Answer: Option D

Correct Answer: Option D

Explanation:

Speed upstream = 7.5 kmph.

Speed downstream = 10.5 kmph.

$$\therefore \text{Total time taken} = \left( \frac{105}{7.5} + \frac{105}{10.5} \right) \text{hours} = 24 \text{ hours.}$$

Learn more problems on : [Boats and Streams](#)

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10. A sum fetched a total simple interest of Rs. 4016.25 at the rate of 9 p.c.p.a. in 5 years. What is the sum?

- ☐ A. Rs. 4462.50 ✖
- ☐ B. Rs. 8032.50 ✖
- ☐ C. Rs. 8900 ✖
- ☒ D. Rs. 8925 ✔
- ☐ E. None of these ✖

Your Answer: Option D

Correct Answer: Option D

Explanation:

$$\begin{aligned} \text{Principal} &= \text{Rs.} \left( \frac{100 \times 4016.25}{9 \times 5} \right) \\ &= \text{Rs.} \left( \frac{401625}{45} \right) \\ &= \text{Rs.} 8925. \end{aligned}$$

Learn more problems on : [Simple Interest](#)

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11. A person takes a loan of Rs. 200 at 5% simple interest. He returns Rs. 100 at the end of 1 year. In order to clear his dues at the end of 2 years, he would pay:

- ☐ A. Rs. 105 ✖
- ☐ B. Rs. 110 ✖
- ☒ C. Rs. 115 ✔
- ☐ D. Rs. 115.50 ✖

✓



$$\text{Amount to be paid} = \text{Rs.} \left( 100 + \frac{200 \times 5 \times 1}{100} + \frac{100 \times 5 \times 1}{100} \right) \\ = \text{Rs. } 115.$$

Learn more problems on : [Simple Interest](#)

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12. The difference between the length and breadth of a rectangle is 23 m. If its perimeter is 206 m, then its area is:

- ☐ A. 1520 m<sup>2</sup> ✖
- ☐ B. 2420 m<sup>2</sup> ✖
- ☐ C. 2480 m<sup>2</sup> ✖
- ☒ D. 2520 m<sup>2</sup> ✔

Your Answer: Option D

Correct Answer: Option D

Explanation:

We have:  $(l - b) = 23$  and  $2(l + b) = 206$  or  $(l + b) = 103$ .

Solving the two equations, we get:  $l = 63$  and  $b = 40$ .

$$\therefore \text{Area} = (l \times b) = (63 \times 40) \text{ m}^2 = 2520 \text{ m}^2.$$

Learn more problems on : [Area](#)

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13. What was the day of the week on 28<sup>th</sup> May, 2006?

- ☐ A. Thursday ✖
- ☐ B. Friday ✖
- ☐ C. Saturday ✖
- ☒ D. Sunday ✔

Your Answer: Option D

Correct Answer: Option D

Explanation:

28 May, 2006 = (2005 years + Period from 1.1.2006 to 28.5.2006)

Odd days in 1600 years = 0

Odd days in 400 years = 0

5 years = (4 ordinary years + 1 leap year) =  $(4 \times 1 + 1 \times 2) \equiv 6$  odd days

Jan.   Feb.   March   April   May  
(31 + 28 + 31 + 30 + 28) = 148 days

$\therefore 148 \text{ days} = (21 \text{ weeks} + 1 \text{ day}) \equiv 1 \text{ odd day.}$



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14. The angle between the minute hand and the hour hand of a clock when the time is 4.20, is:

- ☐ A.  $0^\circ$  ✖  
☒ B.  $10^\circ$  ✔  
☐ C.  $5^\circ$  ✖  
☐ D.  $20^\circ$  ✖

Your Answer: Option B

Correct Answer: Option B

Explanation:

Angle traced by hour hand in  $\frac{13}{3}$  hrs =  $\left(\frac{360}{12} \times \frac{13}{3}\right)^\circ = 130^\circ$ .

Angle traced by min. hand in 20 min. =  $\left(\frac{360}{60} \times 20\right)^\circ = 120^\circ$ .

∴ Required angle =  $(130 - 120)^\circ = 10^\circ$ .

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15. At what angle the hands of a clock are inclined at 15 minutes past 5?

- ☐ A.  $58\frac{1}{2}^\circ$  ✖  
☐ B.  $64^\circ$  ✖  
☒ C.  $67\frac{1}{2}^\circ$  ✔  
☐ D.  $72\frac{1}{2}^\circ$  ✖

Your Answer: Option C

Correct Answer: Option C

Explanation:

Angle traced by hour hand in  $\frac{21}{4}$  hrs =  $\left(\frac{360}{12} \times \frac{21}{4}\right)^\circ = 157\frac{1}{2}^\circ$

Angle traced by min. hand in 15 min. =  $\left(\frac{360}{60} \times 15\right)^\circ = 90^\circ$ .

∴ Required angle =  $\left(157\frac{1}{2}\right)^\circ - 90^\circ = 67\frac{1}{2}^\circ$

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16. The angle between the minute hand and the hour hand of a clock when the time is 8.20 is:





Your Answer: Option B

Correct Answer: Option B

Explanation:

Angle traced by hour hand in  $\frac{17}{2}$  hrs =  $\left(\frac{360}{12} \times \frac{17}{2}\right)^\circ = 255^\circ$ .

Angle traced by min. hand in 30 min. =  $\left(\frac{360}{60} \times 30\right)^\circ = 180^\circ$ .

∴ Required angle =  $(255 - 180)^\circ = 75^\circ$ .

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17. At what time between 9 and 10 o'clock will the hands of a watch be together?

- ☒ A. 45 min. past 9 ✖
- ☐ B. 50 min. past 9 ✖
- ☐ C.  $49\frac{1}{11}$  min. past 9 ✔
- ☐ D.  $48\frac{2}{11}$  min. past 9 ✖

Your Answer: Option A

Correct Answer: Option C

Explanation:

To be together between 9 and 10 o'clock, the minute hand has to gain 45 min. spaces.

55 min. spaces gained in 60 min.

45 min. spaces are gained in  $\left(\frac{60}{55} \times 45\right)$  min or  $49\frac{1}{11}$  min.

∴ The hands are together at  $49\frac{1}{11}$  min. past 9.

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18. In how many ways can a group of 5 men and 2 women be made out of a total of 7 men and 3 women?

- ☒ A. 63 ✔
- ☐ B. 90 ✖
- ☐ C. 126 ✖
- ☐ D. 45 ✖
- ☐ E. 135 ✖

Your Answer: Option A

✓ Correct Answer: Option A



$$\left( 2 \times 1 \right)$$

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Direction (for Q.No. 19):

Find out the wrong number in the given sequence of numbers.

19. 8, 13, 21, 32, 47, 63, 83

- ☒ A.47 ✓  
☐ B.63 ✗  
☐ C.32 ✗  
☐ D.83 ✗

Your Answer: Option A

Correct Answer: Option A

Explanation:

Go on adding 5, 8, 11, 14, 17, 20.

So, the number 47 is wrong and must be replaced by 46.

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Direction (for Q.No. 20):

Insert the missing number.

20. 1, 4, 9, 16, 25, 36, 49, (....)

- ☐ A.54 ✗  
☐ B.56 ✗  
☒ C.64 ✓  
☐ D.81 ✗

Your Answer: Option C

Correct Answer: Option C

Explanation:

Numbers are  $1^2, 2^2, 3^2, 4^2, 5^2, 6^2, 7^2$ .

So, the next number is  $8^2 = 64$ .

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