# Online Aptitude Test :: Aptitude Test 1

**Marks : 17/20**

| | | |
|---|---|---|
| Total number of questions | : | **20** |
| Number of answered questions | : | **20** |
| Number of unanswered questions | : | **0** |

## Test Review : View answers and explanation for this test.

1. Find the greatest number that will divide 43, 91 and 183 so as to leave the same remainder in each case.
   - A. 4 ✓
   - B. 7 ✗
   - C. 9 ✗
   - D. 13 ✗

   Your Answer: Option A

   Correct Answer: Option A

   Explanation:

   ired number = H.C.F. of (91 - 43), (183 - 91) and (183 - 43)

1:1 ऑनलाइन क्लासेस के लिए रजिस्टर करें।
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2. Which of the following fraction is the largest ?

☑ A. $\dfrac{7}{8}$ ✅

☐ B. $\dfrac{13}{16}$ ❌

☐ C. $\dfrac{31}{40}$ ❌

☐ D. $\dfrac{63}{80}$ ❌

Your Answer: Option A

Correct Answer: Option A

Explanation:

L.C.M. of 8, 16, 40 and 80 = 80.

$$\dfrac{7}{8}=\dfrac{70}{80}; \quad \dfrac{13}{16}=\dfrac{65}{80}; \quad \dfrac{31}{40}=\dfrac{62}{80}$$

Since, $\dfrac{70}{80}>\dfrac{65}{80}>\dfrac{63}{80}>\dfrac{62}{80}$, so $\dfrac{7}{8}>\dfrac{13}{16}>\dfrac{63}{80}>\dfrac{31}{40}$

So, $\dfrac{7}{8}$ is the largest.

Learn more problems on : Problems on H.C.F and L.C.M

Discuss about this problem : Discuss in Forum

3. $\dfrac{.009}{?} = .01$

☐ A. .0009 ❌
☑ B. .09 ❌
☐ C. .9 ✅
☐ D. 9 ❌

Your Answer: Option B

Correct Answer: Option C

Explanation:

Let $\dfrac{.009}{x} = .01$; Then $x = \dfrac{.009}{.01} = \dfrac{.9}{1} = .9$

Learn more problems on : Decimal Fraction

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4. The least perfect square, which is divisible by each of 21, 36 and 66 is:

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Correct Answer: Option A

Explanation:

L.C.M. of 21, 36, 66 = 2772.

Now, 2772 = 2 x 2 x 3 x 3 x 7 x 11

To make it a perfect square, it must be multiplied by 7 x 11.

So, required number = $2^2$ x $3^2$ x $7^2$ x $11^2$ = 213444

Learn more problems on : [Square Root and Cube Root](#)

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5.  If $x = \dfrac{3 + 1}{3 - 1}$ and $y = \dfrac{3 - 1}{3 + 1}$, then the value of $(x^2 + y^2)$ is:

   - A. 10 ✗
   - B. 13 ✗
   - C. 14 ✓
   - D. 15 ✗

Your Answer: Option C

Correct Answer: Option C

Explanation:

$x = \dfrac{(3 + 1)}{(3 - 1)} \times \dfrac{(3 + 1)}{(3 + 1)} = \dfrac{(3 + 1)^2}{(3 - 1)} = \dfrac{3 + 1 + 23}{2} = 2 + 3.$

$y = \dfrac{(3 - 1)}{(3 + 1)} \times \dfrac{(3 - 1)}{(3 - 1)} = \dfrac{(3 - 1)^2}{(3 - 1)} = \dfrac{3 + 1 - 23}{2} = 2 - 3.$

$\therefore x^2 + y^2 = (2 + 3)^2 + (2 - 3)^2$

$= 2(4 + 3)$

$= 14$

Learn more problems on : [Square Root and Cube Root](#)

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Direction (for Q.No. 6):

Each of the questions given below consists of a question followed by three statements. You have to study the question and the statements and decide which of the statement(s) is/are necessary to answer the question.

6. What is Arun's present age?
   I. Five years ago, Arun's age was double that of his son's age at that time.
   II. Present ages of Arun and his son are in the ratio of 11 : 6 respectively.
   III. Five years hence, the respective ratio of Arun's age and his son's age will become 12 : 7

Your Answer: Option D

Correct Answer: Option D

Explanation:

 II. Let the present ages of Arun and his son be $11x$ and $6x$ years respectively.

 I. 5 years ago, Arun's age = 2 x His son's age.

 III. 5 years hence, $\dfrac{\text{Arun's Age}}{\text{Son's age}} = \dfrac{12}{7}$

Clearly, any two of the above will give Arun's present age.

∴ Correct answer is (D).

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

Discuss about this problem : [Discuss in Forum](Discuss in Forum)

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7. If A = $x$% of $y$ and B = $y$% of $x$, then which of the following is true?
   - ☐ A. A is smaller than B. ✖
   - ☐ B. A is greater than B ✖
   - ☑ C. Relationship between A and B cannot be determined. ✖
   - ☐ D. If $x$ is smaller than $y$, then A is greater than B. ✖
   - ☐ E. None of these ✅

Your Answer: Option C

Correct Answer: Option E

Explanation:

$x\%$ of $y = \left(\dfrac{x}{100} \times y\right) = \left(\dfrac{y}{100} \times x\right) = y\%$ of $x$

∴ A = B.

Learn more problems on : [Percentage](Percentage)

Discuss about this problem : [Discuss in Forum](Discuss in Forum)

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8. If 20% of $a = b$, then $b$% of 20 is the same as:

   - ☑ A. 4% of $a$ ✅
   - ☐ B. 5% of $a$ ✖
   - ☐ C. 20% of $a$ ✖
   - ☐ D. None of these ✖

 Your Answer: Option A

 Correct Answer: Option A

 Explanation:

9. 3 pumps, working 8 hours a day, can empty a tank in 2 days. How many hours a day must 4 pumps work to empty the tank in 1 day?
   - ☐ A. 9 ✖
   - ☐ B. 10 ✖
   - ☐ C. 11 ✖
   - ☑ D. 12 ✅

Your Answer: Option D

Correct Answer: Option D

Explanation:

Let the required number of working hours per day be $x$.

*More pumps, Less working hours per day (Indirect Proportion)*

*Less days, More working hours per day (Indirect Proportion)*

$$\left.\begin{array}{l} \text{Pumps} \quad 4:3 \\ \text{Days} \quad \ \ 1:2 \end{array}\right\} :: 8 : x$$

$\therefore \ 4 \times 1 \times x = 3 \times 2 \times 8$

$\Rightarrow x = \dfrac{(3 \times 2 \times 8)}{(4)}$

$\Rightarrow x = 12.$

10. One pipe can fill a tank three times as fast as another pipe. If together the two pipes can fill the tank in 36 minutes, then the slower pipe alone will be able to fill the tank in:
   - ☐ A. 81 min. ✖
   - ☐ B. 108 min. ✖
   - ☑ C. 144 min. ✅
   - ☐ D. 192 min. ✖

Your Answer: Option C

Correct Answer: Option C

Explanation:

Let the slower pipe alone fill the tank in $x$ minutes.

Then, faster pipe will fill it in $\dfrac{x}{2}$ minutes.

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$\Rightarrow x = 144$ min.

Learn more problems on : Pipes and Cistern

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11. A motorboat, whose speed in 15 km/hr in still water goes 30 km downstream and comes back in a total of 4 hours 30 minutes. The speed of the stream (in km/hr) is:
- ☐ A. 4 ✖
- ☑ B. 5 ✔
- ☐ C. 6 ✖
- ☐ D. 10 ✖

Your Answer: Option B

Correct Answer: Option B

Explanation:

Let the speed of the stream be $x$ km/hr. Then,

Speed downstream = $(15 + x)$ km/hr,

Speed upstream = $(15 - x)$ km/hr.

$$\therefore \frac{30}{(15 + x)} + \frac{30}{(15 - x)} = 4\frac{1}{2}$$

$$\Rightarrow \frac{900}{225 - x^2} = \frac{9}{2}$$

$$\Rightarrow 9x^2 = 225$$

$$\Rightarrow x^2 = 25$$

$$\Rightarrow x = 5 \text{ km/hr.}$$

Video Explanation: https://youtu.be/lMFnNB3YQOo

Learn more problems on : Boats and Streams

Discuss about this problem : Discuss in Forum

12. A man took loan from a bank at the rate of 12% p.a. simple interest. After 3 years he had to pay Rs. 5400 interest only for the period. The principal amount borrowed by him was:
- ☐ A. Rs. 2000 ✖
- ☐ B. Rs. 10,000 ✖
- ☑ C. Rs. 15,000 ✔
- ☐ D. Rs. 20,000 ✖

Your Answer: Option C

Correct Answer: Option C

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13. A man walked diagonally across a square lot. Approximately, what was the percent saved by not walking along the edges?
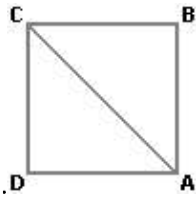
  ☐ A. 20 ✖
  ☐ B. 24 ✖
  ☑ C. 30 ✅
  ☐ D. 33 ✖

Your Answer: Option C

Correct Answer: Option C

Explanation:

Let the side of the square(ABCD) be $x$ metres.



Then, AB + BC = 2$x$ metres.

AC = 2$x$ = (1.41$x$) m.

Saving on 2$x$ metres = (0.59$x$) m.

Saving % = $\left(\dfrac{0.59x}{2x} \times 100\right)_{\%}$ = 30% (approx.)

Learn more problems on : Area

14. By investing in $16\frac{2}{3}$% stock at 64, one earns Rs. 1500. The investment made is:

  ☑ A. Rs. 5640 ✖
  ☐ B. Rs. 5760 ✅
  ☐ C. Rs. 7500 ✖
  ☐ D. Rs. 9600 ✖

Your Answer: Option A

Correct Answer: Option B

Explanation:

To earn Rs. $\dfrac{50}{3}$, investment = Rs. 64.

To earn Rs. 1500, investment = Rs. $\left(64 \times \dfrac{3}{50} \times 1500\right)$ = Rs. 5760.

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- [ ] A.gains Rs. 55 ✖
- [x] B.gains Rs. 50 ✅
- [ ] C.loses Rs. 30 ✖
- [ ] D.gains Rs. 30 ✖

Your Answer: Option B

Correct Answer: Option B

Explanation:

S.P.= P.W. of Rs. 2200 due 1 year hence

$$= Rs.\left[\frac{2200 \times 100}{100 + (10 \times 1)}\right]$$

$$= Rs.\ 2000.$$

∵ Gain = Rs. (2000 - 1950) = Rs. 50.

Learn more problems on : [True Discount]

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Direction (for Q.No. 16):
Find the odd man out.
16.    10, 25, 45, 54, 60, 75, 80
- [ ] A.10 ✖
- [ ] B.45 ✖
- [x] C.54 ✅
- [ ] D.75 ✖

Your Answer: Option C

Correct Answer: Option C

Explanation:

Each of the numbers except 54 is multiple of 5.

Learn more problems on : [Odd Man Out and Series]

Discuss about this problem : [Discuss in Forum]

Direction (for Q.Nos. 17 - 19):
Find out the wrong number in the given sequence of numbers.
17. 582, 605, 588, 611, 634, 617, 600
- [x] A.634 ✅
- [ ] B.611 ✖
- [ ] C.605 ✖
- [ ] D.600 ✖

Your Answer: Option A

Correct Answer: Option A

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18. 36, 54, 18, 27, 9, 18.5, 4.5

   ☐ A.4.5 ✖
   ☑ B.18.5 ✅
   ☐ C.54 ✖
   ☐ D.18 ✖

Your Answer: Option B

Correct Answer: Option B

Explanation:

The terms are alternatively multiplied by 1.5 and divided by 3. However, 18.5 does not satisfy it.

Learn more problems on : Odd Man Out and Series

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19.  56, 72, 90, 110, 132, 150

   ☐ A.72 ✖
   ☐ B.110 ✖
   ☐ C.132 ✖
   ☑ D.150 ✅

Your Answer: Option D

Correct Answer: Option D

Explanation:

The numbers are 7 x 8, 8 x 9, 9 x 10, 10 x 11, 11 x 12, 12 x 13.

So, 150 is wrong.

Learn more problems on : Odd Man Out and Series

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Direction (for Q.No. 20):
Insert the missing number.
20.  8, 24, 12, 36, 18, 54, (....)

   ☑ A.27 ✅
   ☐ B.108 ✖
   ☐ C.68 ✖
   ☐ D.72 ✖

Your Answer: Option A

Correct Answer: Option A

Explanation:

˅  Numbers are alternatively multiplied by 3 and divided by 2.

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