Book For

State Bank Of India

भारतीय स्टेट बैंक
State Bank of India

SBI Clerk Aptitude Sample Paper

(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

Answer : [A]

Explanation:
Required number = H.C.F. of (91 - 43), (183 - 91) and (183 - 43)
= H.C.F. of 48, 92 and 140 = 4.

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(2) A, B and C start at the same time in the same direction to run around a circular stadium. A completes a round in 252 seconds, B in 308 seconds and c in 198 seconds, all starting at the same point. After what time will they again at the starting point ?

[A] 26 minutes and 18 seconds

[B] 42 minutes and 36 seconds

[C] 45 minutes

[D] 46 minutes and 12 seconds

Answer : [D]

Explanation:
L.C.M. of 252, 308 and 198 = 2772.
So, A, B and C will again meet at the starting point in 2772 sec. *i.e.,* 46 min. 12 sec.

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(3) The ratio of two numbers is 3 : 4 and their H.C.F. is 4. Their L.C.M. is:

[A] 12

[B] 16

[C] 24

[D] 48

Answer : [D]

Explanation:
Let the numbers be $3x$ and $4x$. Then, their H.C.F. = x. So, $x = 4$.
So, the numbers 12 and 16.
L.C.M. of 12 and 16 = 48.

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(4) The greatest possible length which can be used to measure exactly the lengths 7 m, 3 m 85 cm, 12 m 95 cm is:

[A] 15 cm

[B] 25 cm

[C] 35 cm

[D] 42 cm

Answer : [C]

Explanation:
Required length = H.C.F. of 700 cm, 385 cm and 1295 cm = 35 cm.

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(5) Which of the following has the most number of divisors?

[A] 99

[B] 101

[C] 176

[D] 182

Answer : [C]

Explanation:
99 = 1 x 3 x 3 x 11
101 = 1 x 101
176 = 1 x 2 x 2 x 2 x 2 x 11
182 = 1 x 2 x 7 x 13
So, divisors of 99 are 1, 3, 9, 11, 33, .99
Divisors of 101 are 1 and 101
Divisors of 176 are 1, 2, 4, 8, 11, 16, 22, 44, 88 and 176
Divisors of 182 are 1, 2, 7, 13, 14, 26, 91 and 182.
Hence, 176 has the most number of divisors.

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(6) The percentage increase in the area of a rectangle, if each of its sides is increased by 20% is:

[A] 40%

[B] 42%

[C] 44%

[D] 46%

Answer : [C]

Explanation:
Let original length = x metres and original breadth = y metres.
Original area = (xy) m^2.

New length = $\left(\frac{120}{100}x\right)_m = \left(\frac{6}{5}x\right)_m$.

New breadth = $\left(\frac{120}{100}y\right)_m = \left(\frac{6}{5}y\right)_m$.

New Area = $\left(\frac{6}{5}x \times \frac{6}{5}y\right)_{m^2} = \left(\frac{36}{25}xy\right)_{m^2}$.

The difference between the original area = xy and new-area 36/25 xy is
= (36/25)xy - xy
= xy(36/25 - 1)
= xy(11/25) or (11/25)xy
$\therefore$ Increase % = $\left(\frac{11}{25}xy \times \frac{1}{xy} \times 100\right)_{\%} = 44\%$.

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(7) A rectangular park 60 m long and 40 m wide has two concrete crossroads running in the middle of the park and rest of the park has been used

as a lawn. If the area of the lawn is 2109 sq. m, then what is the width of the road?

[A] 2.91 m

[B] 3 m

[C] 5.82 m

[D] None of these

Answer : [B]

Explanation:
Area of the park = (60 x 40) m^2 = 2400 m^2.
Area of the lawn = 2109 m^2.
$\therefore$ Area of the crossroads = (2400 - 2109) m^2 = 291 m^2.
Let the width of the road be x metres. Then,
$60x + 40x - x^2 = 291$
$\Rightarrow x^2 - 100x + 291 = 0$
$\Rightarrow (x - 97)(x - 3) = 0$
$\Rightarrow x = 3$.

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(8) A man walked diagonally across a square lot. Approximately, what was the percent saved by not walking along the edges?

[A] 20

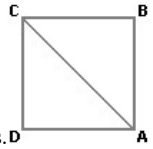
[B] 24

[C] 30

[D] 33

Answer : [C]

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



Then, AB + BC = $2x$ metres.
AC = $\sqrt{2}x = (1.41x)$ m.
Saving on $2x$ metres = $(0.59x)$ m.
Saving % = $\left(\frac{0.59x}{2x} \times 100\right)\%$ = 30% (approx.)

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(9) The diagonal of the floor of a rectangular closet is $7\frac{1}{2}$ feet. The shorter side of the closet is $4\frac{1}{2}$ feet. What is the area of the closet in square feet?

[A]
$5\frac{1}{4}$

[B]
$13\frac{1}{2}$

[C] 27

[D] 37

Answer : [C]

Explanation:

Other side = $\left(\frac{15}{2}\right)^2 - \left(\frac{9}{2}\right)^2$ ft

= $\frac{225}{4} - \frac{81}{4}$ ft

= $\frac{144}{4}$ ft

= 6 ft.

∴ Area of closet = (6 x 4.5) sq. ft = 27 sq. ft.

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(10) A rectangular field is to be fenced on three sides leaving a side of 20 feet uncovered. If the area of the field is 680 sq. feet, how many feet of fencing will be required?

[A] 34

[B] 40

[C] 68

[D] 88

Answer : [D]

Explanation:

We have: l = 20 ft and lb = 680 sq. ft.

So, b = 34 ft.

∴ Length of fencing = (l + 2b) = (20 + 68) ft = 88 ft.

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(11)

The value of $\frac{(0.96)^3 - (0.1)^3}{(0.96)^2 + 0.096 + (0.1)^2}$ is:

[A] 0.86

[B] 0.95

[C] 0.97

[D] 1.06

Answer : [A]

Explanation:

Given expression = $\frac{(0.96)^3 - (0.1)^3}{(0.96)^2 + (0.96 \times 0.1) + (0.1)^2}$

= $\left(\frac{a^3 - b^3}{a^2 + ab + b^2}\right)$

= (a - b)

= (0.96 - 0.1)

= 0.86

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(12) 0.04 x 0.0162 is equal to:

[A] 6.48×10^{-3}

[B] 6.48×10^{-4}

[C] 6.48×10^{-5}

[D] 6.48×10^{-6}

Answer : [B]

Explanation: 4 x 162 = 648. Sum of decimal places = 6.
So, 0.04 x 0.0162 = 0.000648 = 6.48×10^{-4}

(13)

Which of the following fractions is greater than $\frac{3}{4}$ and less than $\frac{5}{6}$?

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

[B] $\frac{2}{3}$

[C] $\frac{4}{5}$

[D] $\frac{9}{10}$

Answer : [C]

Explanation:
$\frac{3}{4} = 0.75$, $\frac{5}{6} = 0.833$, $\frac{1}{2} = 0.5$, $\frac{2}{3} = 0.66$, $\frac{4}{5} = 0.8$, $\frac{9}{10} = 0.9$.

Clearly, 0.8 lies between 0.75 and 0.833.
$\therefore$ $\frac{4}{5}$ lies between $\frac{3}{4}$ and $\frac{5}{6}$.

(14) 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

Answer : [B]

Explanation:
Sum of decimal places = 7.
Since the last digit to the extreme right will be zero (since 5 x 4 = 20), so there will be 6 significant digits to the right of the decimal point.

(15) $3.\overline{87} - 2.\overline{59}$ = ?

[A] 1.20

[B] $1.\overline{2}$

[C] $1.\overline{27}$

[D] $1.\overline{28}$

Answer : [D]

Explanation:
$3.\overline{87} - 2.\overline{59} = (3 + 0.\overline{87}) - (2 + 0.\overline{59})$

$= \left(3 + \frac{87}{99}\right) - \left(2 + \frac{59}{99}\right)$

$= 1 + \left(\frac{87}{99} - \frac{59}{99}\right)$

$= 1 + \frac{28}{99}$

$= 1.\overline{28}$.

(16) If a person walks at 14 km/hr instead of 10 km/hr, he would have walked 20 km more. The actual distance travelled by him is:

[A] 50 km

[B] 56 km

[C] 70 km

[D] 80 km

Answer : [A]

Explanation:
Let the actual distance travelled be x km.

Then, $\frac{x}{10} = \frac{x + 20}{14}$

$\Rightarrow 14x = 10x + 200$
$\Rightarrow 4x = 200$
$\Rightarrow x = 50$ km.

(17) An aeroplane covers a certain distance at a speed of 240 kmph in 5 hours. To cover the same distance in $1\frac{2}{3}$ hours, it must travel at a speed of:

[A] 300 kmph

[B] 360 kmph

[C] 600 kmph

[D] 720 kmph

Answer : [D]

Explanation:
Distance = (240 x 5) = 1200 km.
Speed = Distance/Time

Speed = 1200/(5/3) km/hr. [We can write $1\frac{2}{3}$ hours as 5/3 hours]

$\therefore$ Required speed = $\left(1200 \times \frac{3}{5}\right)_{km/hr}$ = 720 km/hr.

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(18) A man on tour travels first 160 km at 64 km/hr and the next 160 km at 80 km/hr. The average speed for the first 320 km of the tour is:

[A] 35.55 km/hr

[B] 36 km/hr

[C] 71.11 km/hr

[D] 71 km/hr

Answer : [C]

Explanation:

Total time taken = $\left(\frac{160}{64} + \frac{160}{80}\right)_{hrs.}$ = $\frac{9}{2}$ hrs.

$\therefore$ Average speed = $\left(320 \times \frac{2}{9}\right)_{km/hr}$ = 71.11 km/hr.

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(19) A car travelling with $\frac{5}{7}$ of its actual speed covers 42 km in 1 hr 40 min 48 sec. Find the actual speed of the car.

[A]
$17\frac{6}{7}$ km/hr

[B] 25 km/hr

[C] 30 km/hr

[D] 35 km/hr

Answer : [D]

Explanation:

Time taken = 1 hr 40 min 48 sec = 1 hr $40\frac{4}{5}$ min = $1\frac{51}{75}$ hrs = $\frac{126}{75}$ hrs.

Let the actual speed be x km/hr.

Then, $\frac{5}{7}x \times \frac{126}{75} = 42$

$\Rightarrow x = \left(\frac{42 \times 7 \times 75}{5 \times 126}\right)$ = 35 km/hr.

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(20) Robert is travelling on his cycle and has calculated to reach point A at 2 P.M. if he travels at 10 kmph, he will reach there at 12 noon if he travels at 15 kmph. At what speed must he travel to reach A at 1 P.M.?

[A] 8 kmph

[B] 11 kmph

[C] 12 kmph

[D] 14 kmph

Answer : [C]

Explanation:
Let the distance travelled by x km.

Then, $\frac{x}{10} - \frac{x}{15} = 2$

$\Rightarrow 3x - 2x = 60$
$\Rightarrow x = 60$ km.

Time taken to travel 60 km at 10 km/hr = $\left(\frac{60}{10}\right)_{\text{hrs}}$ = 6 hrs.

So, Robert started 6 hours before 2 P.M. *i.e.,* at 8 A.M.

$\therefore$ Required speed = $\left(\frac{60}{5}\right)_{\text{kmph.}}$ = 12 kmph.
