Book For

Canara Bank

Canara Bank SO Aptitude Sample Paper Pre Exam

(1) 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

Answer : [A]

Explanation:

20% of $a = b \Rightarrow \frac{20}{100}a = b$.

$\therefore$ b% of 20 $= \left(\frac{b}{100} \times 20\right) = \left(\frac{20}{100}a \times \frac{1}{100} \times 20\right) = \frac{4}{100}a$ = 4% of a.

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(2) Two numbers A and B are such that the sum of 5% of A and 4% of B is two-third of the sum of 6% of A and 8% of B. Find the ratio of A : B.

[A] 2 : 3

[B] 1 : 1

[C] 3 : 4

[D] 4 : 3

Answer : [D]

Explanation:

5% of A + 4% of B $= \frac{2}{3}$ (6% of A + 8% of B)

$\Rightarrow \frac{5}{100}A + \frac{4}{100}B = \frac{2}{3}\left(\frac{6}{100}A + \frac{8}{100}B\right)$

$\Rightarrow \frac{1}{20}A + \frac{1}{25}B = \frac{1}{25}A + \frac{4}{75}B$

$\Rightarrow \left(\frac{1}{20} - \frac{1}{25}\right)A = \left(\frac{4}{75} - \frac{1}{25}\right)B$

$\Rightarrow \frac{1}{100}A = \frac{1}{75}B$

$\frac{A}{B} = \frac{100}{75} = \frac{4}{3}$.

$\therefore$ Required ratio = 4 : 3

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(3) In an election between two candidates, one got 55% of the total valid votes, 20% of the votes were invalid. If the total number of votes was 7500, the number of valid votes that the other candidate got, was:

[A] 2700

[B] 2900

[C] 3000

[D] 3100

Answer : [A]

Explanation:
Number of valid votes = 80% of 7500 = 6000.
∴ Valid votes polled by other candidate = 45% of 6000
$= \left(\frac{45}{100} \times 6000\right) = 2700.$

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(4) In a certain school, 20% of students are below 8 years of age. The number of students above 8 years of age is $\frac{2}{3}$ of the number of students of 8 years of age which is 48. What is the total number of students in the school?

[A] 72

[B] 80

[C] 120

[D] 150

[E] 100

Answer : [E]

Explanation:
Let the number of students be x. Then,
Number of students above 8 years of age = (100 - 20)% of x = 80% of x.
∴ $80\% \text{ of } x = 48 + \frac{2}{3} \text{ of } 48$

$\Rightarrow \frac{80}{100}x = 80$

$\Rightarrow x = 100.$

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(5) Three candidates contested an election and received 1136, 7636 and 11628 votes respectively. What percentage of the total votes did the winning candidate get?

[A] 57%

[B] 60%

[C] 65%

[D] 90%

Answer : [A]

Explanation:
Total number of votes polled = (1136 + 7636 + 11628) = 20400.
∴ Required percentage $= \left(\frac{11628}{20400} \times 100\right)\% = 57\%.$

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(6) The greatest number of four digits which is divisible by 15, 25, 40 and 75 is:

[A] 9000

[B] 9400

[C] 9600

[D] 9800

Answer : [C]

Explanation:
Greatest number of 4-digits is 9999.
L.C.M. of 15, 25, 40 and 75 is 600.
On dividing 9999 by 600, the remainder is 399.
∴ Required number (9999 - 399) = 9600.

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(7) The H.C.F. of two numbers is 23 and the other two factors of their L.C.M. are 13 and 14. The larger of the two numbers is:

[A] 276

[B] 299

[C] 322

[D] 345

Answer : [C]

Explanation:
Clearly, the numbers are (23 x 13) and (23 x 14).
∴ Larger number = (23 x 14) = 322.

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(8) 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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(9) The L.C.M. of two numbers is 48. The numbers are in the ratio 2 : 3. Then sum of the number is:

[A] 28

[B] 32

[C] 40

[D] 64

Answer : [C]

Explanation:
Let the numbers be $2x$ and $3x$.
Then, their L.C.M. = $6x$.
So, $6x = 48$ or $x = 8$.
∴ The numbers are 16 and 24.
Hence, required sum = (16 + 24) = 40.

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(10) The greatest number which on dividing 1657 and 2037 leaves remainders 6 and 5 respectively, is:

[A] 123

[B] 127

[C] 235

[D] 305

Answer : [B]

Explanation:
Required number = H.C.F. of (1657 - 6) and (2037 - 5)
= H.C.F. of 1651 and 2032 = 127.

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(11) Given that $10^{0.48} = x$, $10^{0.70} = y$ and $x^z = y^2$, then the value of z is close to:

[A] 1.45

[B] 1.88

[C] 2.9

[D] 3.7

Answer : [C]

Explanation:
$x^z = y^2 \Leftrightarrow 10^{(0.48z)} = 10^{(2 \times 0.70)} = 10^{1.40}$
$\Rightarrow 0.48z = 1.40$
$\Rightarrow z = \frac{140}{48} = \frac{35}{12} = 2.9$ (approx.)

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(12) If $5^a = 3125$, then the value of $5^{(a-3)}$ is:

[A] 25

[B] 125

[C] 625

[D] 1625

Answer : [A]

Explanation:
$5^a = 3125 \Leftrightarrow 5^a = 5^5$
$\Rightarrow a = 5.$
$\therefore 5^{(a-3)} = 5^{(5-3)} = 5^2 = 25.$

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(13) $(25)^{7.5} \times (5)^{2.5} \div (125)^{1.5} = 5^?$

[A] 8.5

[B] 13

[C] 16

[D] 17.5

[E] None of these

Answer : [B]

Explanation:

Let $(25)^{7.5} \times (5)^{2.5} \div (125)^{1.5} = 5^x$.

Then, $\frac{(5^2)^{7.5} \times (5)^{2.5}}{(5^3)^{1.5}} = 5^x$

$\Rightarrow \frac{5^{(2 \times 7.5)} \times 5^{2.5}}{5^{(3 \times 1.5)}} = 5x$

$\Rightarrow \frac{5^{15} \times 5^{2.5}}{5^{4.5}} = 5^x$

$\Rightarrow 5^x = 5^{(15 + 2.5 - 4.5)}$

$\Rightarrow 5^x = 5^{13}$

$\therefore \ x = 13.$

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(14) $(256)^{0.16} \times (256)^{0.09} = ?$

[A] 4

[B] 16

[C] 64

[D] 256.25

Answer : [A]

Explanation:

$(256)^{0.16} \times (256)^{0.09} = (256)^{(0.16 + 0.09)}$

$= (256)^{0.25}$

$= (256)^{(25/100)}$

$= (256)^{(1/4)}$

$= (4^4)^{(1/4)}$

$= 4^{4(1/4)}$

$= 4^1$

$= 4$

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(15)

$\frac{1}{1 + a^{(n - m)}} + \frac{1}{1 + a^{(m - n)}} = ?$

[A] 0

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

[C] 1

[D] $a^{m + n}$

Answer : [C]

Explanation:

$\frac{1}{1 + a^{(n - m)}} + \frac{1}{1 + a^{(m - n)}} = \frac{1}{\left(1 + \frac{a^n}{a^m}\right)} + \frac{1}{\left(1 + \frac{a^m}{a^n}\right)}$

$= \frac{a^m}{(a^m + a^n)} + \frac{a^n}{(a^m + a^n)}$

$= \frac{(a^m + a^n)}{(a^m + a^n)}$

$= 1.$

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(16) Mr. Thomas invested an amount of Rs. 13,900 divided in two different schemes A and B at the simple interest rate of 14% p.a. and 11% p.a. respectively. If the total amount of simple interest earned in 2 years be Rs. 3508, what was the amount invested in Scheme B?

[A] Rs. 6400

[B] Rs. 6500

[C] Rs. 7200

[D] Rs. 7500

[E] None of these

Answer : [A]

Explanation:
Let the sum invested in Scheme A be Rs. x and that in Scheme B be Rs. (13900 - x).
Then, $\left(\frac{x \times 14 \times 2}{100}\right) + \left(\frac{(13900 - x) \times 11 \times 2}{100}\right) = 3508$

$\Rightarrow 28x - 22x = 350800 - (13900 \times 22)$
$\Rightarrow 6x = 45000$
$\Rightarrow x = 7500.$
So, sum invested in Scheme B = Rs. (13900 - 7500) = Rs. 6400.

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(17) Reena took a loan of Rs. 1200 with simple interest for as many years as the rate of interest. If she paid Rs. 432 as interest at the end of the loan period, what was the rate of interest?

[A] 3.6

[B] 6

[C] 18

[D] Cannot be determined

[E] None of these

Answer : [B]

Explanation:
Let rate = R% and time = R years.
Then, $\left(\frac{1200 \times R \times R}{100}\right) = 432$

$\Rightarrow 12R^2 = 432$
$\Rightarrow R^2 = 36$
$\Rightarrow R = 6.$

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(18) A sum of Rs. 12,500 amounts to Rs. 15,500 in 4 years at the rate of simple interest. What is the rate of interest?

[A] 3%

[B] 4%

[C] 5%

[D] 6%

[E] None of these

Answer : [D]

Explanation:
S.I. = Rs. (15500 - 12500) = Rs. 3000.
Rate = $\left(\frac{100 \times 3000}{12500 \times 4}\right)\%$ = 6%

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(19) A sum of Rs. 725 is lent in the beginning of a year at a certain rate of interest. After 8 months, a sum of Rs. 362.50 more is lent but at the rate twice the former. At the end of the year, Rs. 33.50 is earned as interest from both the loans. What was the original rate of interest?

[A] 3.6%

[B] 4.5%

[C] 5%

[D] 6%

[E] None of these

Answer : [E]

Explanation:
Let the original rate be R%. Then, new rate = (2R)%.
Note:

Here, original rate is for 1 year(s); the new rate is for only 4 months i.e. $\frac{1}{3}$ year(s).
$\therefore \left(\frac{725 \times R \times 1}{100}\right) + \left(\frac{362.50 \times 2R \times 1}{100 \times 3}\right) = 33.50$

$\Rightarrow$ (2175 + 725) R = 33.50 x 100 x 3
$\Rightarrow$ (2175 + 725) R = 10050
$\Rightarrow$ (2900)R = 10050
$\Rightarrow R = \frac{10050}{2900} = 3.46$

$\therefore$ Original rate = 3.46%

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(20) A certain amount earns simple interest of Rs. 1750 after 7 years. Had the interest been 2% more, how much more interest would it have earned?

[A] Rs. 35

[B] Rs. 245

[C] Rs. 350

[D] Cannot be determined

[E] None of these

Answer : [D]

Explanation:
We need to know the S.I., principal and time to find the rate.
Since the principal is not given, so data is inadequate.
