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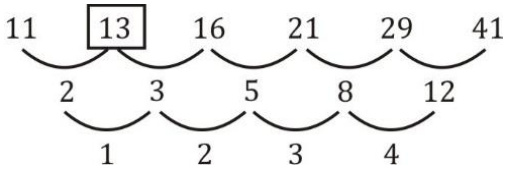
SBI Clerk Prelims Memory Based 2019 (Solution)

Numerical Ability

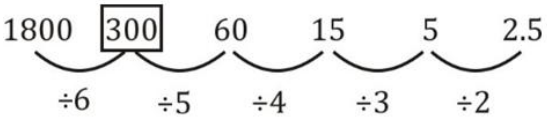
S36. Ans (d)

Sol.



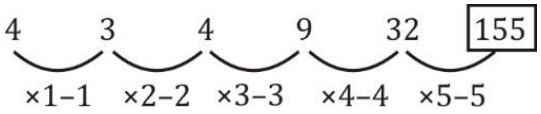
S37. Ans (a)

Sol.



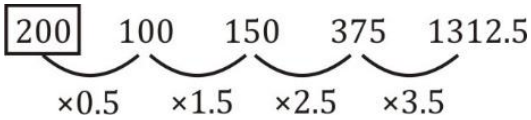
S38. Ans (b)

Sol.



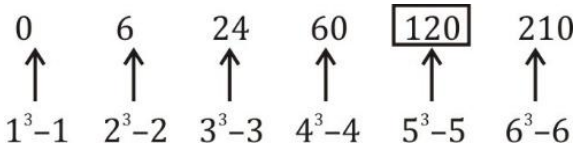
S39. Ans (e)

Sol.



S40. Ans (d)

Sol.



S41. Ans.(b)
Sol.
Required average = $\frac{72+90+48}{3}$
= 70

S42. Ans.(a)
Sol.
Required ratio = $\frac{60+90}{90+70}$
= $\frac{150}{160}$
= 15: 16

S43. Ans.(e)
Sol.
Required % = $\frac{\{(72+48)-72\}}{72} \times 100$
= $\frac{200}{3}\%$
= $66\frac{2}{3}\%$

S44. Ans.(b)
Sol.
Required difference = (72 + 90) – (78 + 70)
= 162 – 148
= 14

S45. Ans.(c)
Sol.
Required % = $\frac{78+72}{60} \times 100$
= $\frac{150}{60} \times 100$
= 250%

S46. Ans (d)
Sol.
$17.28 \div ? = 200 \times 3.6 \times 0.2$
$? = \frac{17.28}{144}$
$= 0.12$

S47. Ans (a)
Sol.
$\frac{486}{?} \times \frac{7392}{66} = 1008$
$\frac{486}{?} = \frac{1008}{112}$
$? = \frac{486}{9}$
$? = 54$

S48. Ans (e)
Sol.
$\frac{100}{700} \times 4200 \times \frac{1}{24} = (?)^{\frac{1}{2}}$
$25 = (?)^{\frac{1}{2}}$
$? = 625$

S49. Ans (c)
Sol.
$? = \frac{90 \times 7 \times 8}{5} = 1008$

S50. Ans (b)
Sol.
$? = \frac{0.3125}{2.5}$
$? = 0.125$

S51. Ans. (b)
Sol.
$\frac{1496}{17} = \frac{?}{100} \times 220$
$? = 40$

S52. Ans (d)
Sol.
$\frac{36}{100} \times 180 \times \frac{10}{4} = ?$
$? = 162$

S53. Ans (b)
Sol.
$0.08 \times 555 - 16.4 = ?$
$? = 44.4 - 16.4$
$? = 28$

S54. Ans (d)
Sol.
$\frac{35}{100} \times 150 \times 16 + 22 = ?$
$? = 840 + 22 = 862$

S55. Ans (c)
Sol.
$\frac{9240}{?} = 330$
$? = 28$

S56. Ans.(e)
Sol.
Let the sum be Rs 100x
CI in first year= Rs 20x
CI in two years= 44% of 100x= Rs 44x
CI in 2nd year= 44x-20x= Rs 24x
ATQ
24x-20x=1200
x=300
Required sum=Rs 30,000

S57. Ans.(b)
Sol.
Speed in upstream=18 km/hr
Speed in downstream= 24 km/hr
Required total distance= $(24 + 18) \times 7 = 294\ km$

S58. Ans.(d)
Sol.
Let income of A and B be Rs 5x and Rs 9x respectively
Expenditure of A=Rs $\frac{15}{8}x$
Saving of A=$Rs\ \frac{25}{8}x$
Expenditure of B= Rs 4x
Saving of B= Rs 5x
ATQ
$\frac{65}{8}x = 1950$
x=240
required difference= Rs 960

S59. Ans.(c)
Sol.
Let total work be 60 units (LCM of 12 and 7.5)
Efficiency of A= 5 units/ day
Efficiency of A and B together= 8 units/ day
Efficiency of B= 3 units/ day
Time taken by B alone to do that work=20 days
Time taken by C alone=23 days

S60. Ans.(b)
Sol.
Side of the square=9 cm
Perpendicular side of the triangle= 12 cm
Hypotenuse of the triangle=$\sqrt{81 + 144} = \sqrt{225} = 15\ cm$
Perimeter of the triangle= 36 cm

S61. Ans.(a)

Sol.

I. $x^2 - 13x + 40 = 0$

$x^2 - 5x - 8x + 40 = 0$

$x(x - 5) - 8(x - 5) = 0$

$x = 5, 8$

II. $2y^2 - y - 15 = 0$

$2y^2 - 6y + 5y - 15 = 0$

$2y(y - 3) + 5(y - 3) = 0$

$y = 3, -5/2$

$x > y$

S62. Ans.(e)

Sol.

I. $5x^2 + 17x + 6 = 0$

$5x^2 + 15x + 2x + 6 = 0$

$5x(x + 3) + 2(x + 3) = 0$

$x = -3, -\frac{2}{5}$

II. $2y^2 + 11y + 12 = 0$

$2y^2 + 8y + 3y + 12 = 0$

$2y(y + 4) + 3(y + 4) = 0$

$y = -4, -\frac{3}{2}$

No relation

S63. Ans.(a)

Sol.

$7x^2 - 19x + 10 = 0$

$7x^2 - 14x - 5x + 10 = 0$

$7x(x - 2) - 5(x - 2) = 0$

$x = 2, \frac{5}{7}$

II. $8y^2 + 2y - 3 = 0$

$8y^2 + 6y - 4y - 3 = 0$

$2y(4y + 3) - 1(4y + 3) = 0$

$y = \frac{-3}{4}, \frac{1}{2}$

$x > y$

S64. Ans.(a)

Sol.

I. $x^2 - 8x + 15 = 0$

$\Rightarrow x^2 - 5x - 3x + 15 = 0$

$\Rightarrow x(x - 5) - 3(x - 5) = 0$

$\Rightarrow (x - 3)(x - 5) = 0$

$\therefore x = 3 \; or \; 5$

II. $y^2 - 3y + 2 = 0$

$\Rightarrow y^2 - 2y - y + 2 = 0$

$\Rightarrow y(y - 2) - 1(y - 2) = 0$

$\Rightarrow (y - 1)(y - 2) = 0$

$\therefore$ y = 1 or 2

$\therefore x > y$

S65. Ans.(c)

Sol.

I. $3x^2 - 7x + 4 = 0$

$\Rightarrow 3x^2 - 4x - 3x + 4 = 0$

$\Rightarrow (3x - 4)(x - 1) = 0$

$x = \frac{4}{3} \; or \; 1$

II. $2y^2 - 9y + 10 = 0$

$\Rightarrow 2y^2 - 4y - 5y + 10 = 0$

$\Rightarrow (2y - 5)(y - 2) = 0$

$\Rightarrow y = \frac{5}{2}$ or 2

$y > x$

S66. Ans.(d)

Sol.

Let the distance be D km

ATQ

$\frac{D}{\left(\frac{D}{2x} + \frac{D}{8x}\right)} = 36.8$

x=23

S67. Ans.(a)

Sol.

Ratio of their profit sharing

A: B: C = $7 \times 3 : \; 8 \times 12 : \; 5 \times 7 = 21 : 96 : 35$

Annual profit = 136800

Difference b/w A and C's share of profit

$= \frac{14}{152} \times 136800$

= Rs 12,600

S68. Ans.(a)
Sol.
Let SP of both article = 8x
ATQ,

	Article 1		Article 2		
CP	6x	$\times\frac{3}{4}$	4x	$\times\frac{1}{2}$ =	10x
SP	8x		8x	=	16x

Profit % $= \frac{16x-10x}{10x} \times 100 = 60\%$

S69. Ans.(a)
Sol.
Let initial quantity of milk and water in the mixture be '40x liters' and '10x liters' respectively.
ATQ,
$\frac{\left(40x\times\frac{1}{2}\right)}{10x\times\frac{1}{2}+24} = \frac{1}{1}$
$\frac{20x}{5x+24} = \frac{1}{1}$
20x = 5x + 24
15x = 24
x = 1.6
So, required quantity = 40x + 10x
= 50x
= 80 liters

S70. Ans.(b)
Sol.
Let age of Shivam and Deepak 4 years ago be '2x years' and '3x years' respectively.
ATQ,
$\frac{2x}{3x+4+5} = \frac{8}{15}$
$\frac{2x}{3x+9} = \frac{8}{15}$
30x = 24x + 72
6x = 72
x = 12
So, present age of Shivam = 2x + 4
= 28 years