

IBPS CLERK PRE-2017 (QUANT) MEMORY BASED Solutions By ADDA247
S36. Ans.(a)
Sol.

 speed of current = $y = 3$

 Down stream speed = $9 \times 3 = 27$ km/h

 Speed of boat = x

$$x + y = 27$$

$$x = 24 ; \because y = 3$$

 Distance travelled upstream in 5 hr = speed $\times$ Time

$$= (x - y) \times 5$$

$$= (24 - 3) \times 5$$

$$= 21 \times 5 = 105 \text{ km}$$

S37. Ans.(a)
Sol.

 Let least even number = x

 Consecutive even numbers $\Rightarrow x, x+2, x+4, x+6$

 Let least odd number = y

 Consecutive odd numbers = $y, y+2, y+4$

ATQ

$$[x + (x + 2) + (x + 4) + (x + 6)] - [y + (y + 2) + (y + 4)] = 81$$

$$4x + 12 - 3y - 6 = 81$$

$$4x - 3y = 75 \quad \dots(i)$$

Now,

sum of smallest even and odd numbers

$$x + y = 59 \quad \dots(ii)$$

solving (i) and (ii)

$$x = 36, y = 23$$

 Now sum of largest even number and largest odd number $\Rightarrow$

$$(36 + 6) + (23 + 4) = 69$$

Alternate $\Rightarrow$

Sum of least even and odd number = 59

$$x + y = 59$$

 Now 4th consecutive even number is $x + 6$ and 3rd consecutive odd number is $y + 4$.

 Now $\Rightarrow$

Required value

$$x + 6 + y + 4$$

$$= x + y + 10$$

$$= 59 + 10$$

$$= 69$$

S38. Ans.(c)**Sol.**

In scheme A Interest

$$= \frac{X \times 8 \times 2}{100}$$

In scheme B Interest

$$\frac{(X + 1400) \times 12 \times 2}{100}$$

ATQ,

$$\frac{(X + 1400) \times 12 \times 2}{100} - \frac{X \times 8 \times 2}{100} = 880$$

$$X = 6800$$

S39. Ans.(c)**Sol.**

Required ratio

$$= \frac{68 + 74 + 78}{90 + 86 + 84} = \frac{220}{260} = \frac{11}{13}$$

S40. Ans.(d)**Sol.**

Total books sold on Friday from Store C & D

$$= \frac{115}{100} \times 40 + \frac{120}{100} \times 95$$

$$= 46 + 114$$

$$= 160$$

S41 Ans.(b)**Sol.**

Required percentage

$$= \frac{(85 + 55) - (36 + 74)}{(36 + 74)} \times 100 = \frac{30}{110} \times 100$$

$$= 27 \frac{3}{11} \%$$

S42. Ans.(e)**Sol.**

Required average

$$= \frac{1}{3} (89 + 82 + 84)$$

$$= \frac{1}{3} \times 255$$

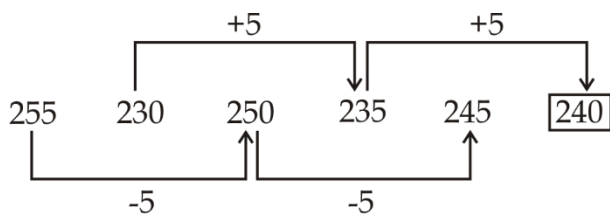
$$= 85$$

S43. Ans.(a)**Sol.**

Required difference = (82 + 90) - (57 + 54)

$$= 172 - 111$$

$$= 61$$

S44. Ans.(b)**Sol.****S45. Ans.(c)****Sol.**Series is $\times 0.5 + 1, \times 1 + 1.5, \times 1.5 + 2, \times 2 + 2.5$

$$\therefore ? = 5 \times 1.5 + 2$$

$$= 9.5$$

S46. Ans.(d)**Sol.**

Series is

$$8 \times 0.5 = 4$$

$$4 \times 1 = 4$$

$$4 \times 2 = 8$$

$$8 \times 4 = 32$$

$$32 \times 8 = 256$$

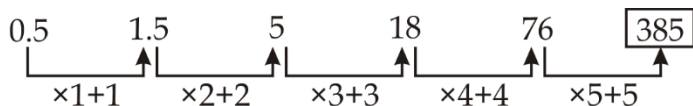
S47. Ans.(a)**Sol.**Series is $-1^2, -2^2, -3^2, -4^2, \dots$

$$\therefore ? = 115 - 16$$

$$= 99$$

S48. Ans.(b)**Sol.**

Series is

**S49. Ans.(c)****Sol.**

Average age of A and B 2 year ago = 26

$$\text{Present Average age } \frac{A+B}{2} = 28$$

$$\text{Present age } A+B = 56$$

$$A's \text{ age after 5 year} = 40$$

$$\text{Now } A's \text{ age} = 40 - 5 = 35$$

$$B's \text{ age} = 56 - 35 = 21$$

$$C's \text{ age} = 21 + 5 = 26$$

$$\text{Required difference} = 35 - 26 = 9$$

S50. Ans.(e)**Sol.**

$$X : Y = 2x : 3x$$

$$X + Y = 60$$

$$2x + 3x = 60$$

$$x = 12$$

$$X = 2x = 24$$

$$Y = 3x = 36$$

$$X + Y + Z = 24 \times 3$$

$$60 + Z = 24 \times 3$$

$$Z = 12$$

$$X - Z = 24 - 12 = 12$$

S51. Ans.(d)**Sol.**Let cost price of both article = $100x$ Profit on sell of 1st article = 40% of $100x = 40x$ Selling price of 1st article = $140x$ Selling price of 2nd Article

$$= 140x - \frac{140 \times 25}{100} = 105x$$

Profit of on 2nd Article = $105x - 100x = 5x$

$$\begin{aligned} \text{Total profit percent} &= \frac{45x}{200x} \times 100 \\ &= 22\frac{1}{2}\% \end{aligned}$$

S52. Ans.(c)**Sol.**

Area of square = 1225

$$a^2 = 1225$$

$$a = 35, \text{ diagonal of square} = a\sqrt{2} = 35\sqrt{2}$$

length of rectangle = 80% of $35\sqrt{2}$

$$l = 28\sqrt{2}$$

$$\text{Perimeter} = 94\sqrt{2}$$

$$2(l+b) = 94\sqrt{2}$$

$$2l + 2b = 94\sqrt{2}$$

$$2b = 94\sqrt{2} - 56\sqrt{2}$$

$$2b = 38\sqrt{2}$$

$$b = 19\sqrt{2}$$

$$\begin{aligned} \text{Area} &= l \times b = 28\sqrt{2} \times 19\sqrt{2} \\ &= 1064 \end{aligned}$$

S53. Ans.(a)**Sol.**

$$\begin{aligned} \text{Monthly salary} &= \frac{7.68}{12} \text{ Lack} \\ &= 64000 \end{aligned}$$

$$\begin{aligned} \text{Saving} &= \text{Income} - \text{Expenditure} \\ &= 64000 - 12000 - 4000 - 8000 \\ &= 40,000 \end{aligned}$$

S54. Ans.(b)**Sol.**

$$\frac{40}{100} \times 5 \times ? = 48$$
$$\Rightarrow ? = 24$$

S55. Ans.(c)**Sol.**

$$? = 4 \times 5$$
$$= 20$$

S56. Ans.(a)**Sol.**

$$?^2 = \frac{40 \times 64}{80} - 7$$
$$\Rightarrow ?^2 = 32 - 7$$
$$\Rightarrow ?^2 = 25$$
$$\Rightarrow ? = 5$$

S57. Ans.(d)**Sol.**

$$\frac{25}{100} \times 16 \times (15 - ?)^3 = 256$$
$$\Rightarrow (15 - ?)^3 = 64$$
$$\Rightarrow ? = 11$$

S58. Ans.(b)**Sol.**

$$90 = \frac{15}{100} \times 1000 \times \frac{3}{100} \times \frac{100}{?}$$
$$\Rightarrow ? = \frac{10}{2}$$
$$\Rightarrow ? = 5$$

S59. Ans.(b)**Sol.**

$$? = 28 + 215 - 49$$
$$= 194$$

S60. Ans.(c)**Sol.**

$$\frac{10}{3} - \frac{9}{8} \times ? = \frac{17}{6}$$
$$\Rightarrow \frac{9}{8} \times ? = \frac{1}{2}$$
$$\Rightarrow ? = \frac{4}{9}$$

S61. Ans.(a)**Sol.**

$$\frac{40}{100} \times 6 \times ? = 48$$
$$\Rightarrow ? = \frac{80}{4}$$
$$\Rightarrow ? = 20$$

S62. Ans.(d)**Sol.**

$$\begin{aligned}
 ? &= 37 + 83 + 8 \\
 &= 128
 \end{aligned}$$

S63. Ans.(b)**Sol.**

$$\begin{aligned}
 4 \times ? &= 195 - 99 \\
 \Rightarrow ? &= \frac{96}{4} \\
 \Rightarrow ? &= 24
 \end{aligned}$$

S64. Ans.(c)**Sol.**

$$\begin{aligned}
 2^? &= 2^{12-6-4} \\
 \Rightarrow ? &= 2
 \end{aligned}$$

S65. Ans.(b)**Sol.**

$$\begin{aligned}
 ? &= \frac{1}{5} \times 36 - 2 \\
 &= 7.2 - 2 \\
 &= 5.2
 \end{aligned}$$

S66. Ans.(d)**Sol.**

$$? = 90 - 50 = 40$$

S67. Ans.(a)**Sol.**

$$\begin{aligned}
 554 + 116 - 169 &=? \\
 \Rightarrow ? &= 501
 \end{aligned}$$

S68. Ans.(b)**Sol.**

$$\begin{aligned}
 1562 + 15.6\% \text{ of } ? &= 3590 \\
 \Rightarrow ? &= \frac{202800}{15.6} = 13000
 \end{aligned}$$

S69. Ans.(c)**Sol.**

A can do work in = 24 days

B is with 20% more efficiency, so B can do same work in = 20 days

C can do the same work in = 20 + 10 = 30 days

One day work of A and C

$$\begin{aligned}
 &= \frac{1}{24} + \frac{1}{30} \\
 &= \frac{5+4}{120} \\
 &= \frac{9}{120} \Rightarrow \frac{3}{40}
 \end{aligned}$$

Time require by A and C = $40/3$ days

S70. Ans.(C)

Sol.

$$\frac{\text{Milk}}{\text{Water}} = \frac{5x}{4x}$$

According to question

$$\frac{5x}{4x + 2} = \frac{10}{9}$$

$$x = 4$$

$$\text{New amount of water} = 4x + 2 = 16 + 2 = 18$$

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