

Quantitative Aptitude Mega Quiz for RRB (Solutions)

S1. Ans.(d)

Sol.

Mother = 43, son = 22

Father = 43 + 3 = 46

Difference will always remain same. i.e. 46 - 22 = 24 years

S2. Ans.(b)

Sol.

CP of sugar = 15 × 50 = 750

CP of Wheat = 20 × 75 = 1500

S.P. of sugar = $750 \times \frac{110}{100} = 825$

S.P. of Wheat = $1500 \times \frac{120}{100} = 1800$

Total sale value = 1800 + 825 = 2625

S3. Ans.(a)

Sol.

X do whole work in 4 days

Y do whole work in 8 days

Together = $\frac{4 \times 8}{8+4} = \frac{8}{3} = 2.67$ days

S4. Ans.(c)

Sol.

$x + 2y = 27$

$x - 2y = -1$

On adding

$2x = 26$

$x = 13$ and $y = 7$

S5. Ans.(d)

Sol.

$a \rightarrow 0.008$

$b \rightarrow 0.083$

$c \rightarrow 0.005$

$d \rightarrow 0.004$

option (d) is smallest.

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S6. Ans.(d)

Sol.

Range = Largest value - Smallest value

$$\text{Range} = 7 - 1 = 6$$

S7. Ans.(a)

Sol.

$$\text{Total price} = 1.2 \times 330 + 1.3 \times 270$$

$$= 396 + 351 = 747$$

$$\text{Remain amount} = 1000 - 747 = 253$$

S8. Ans.(d)

Sol.

$$\text{difference} = \frac{ab}{100} \%$$

$$= \frac{20 \times 20}{100} \% = 4\%$$

$$\text{Required value} = 12500 \times \frac{4}{100} = 500$$

S9. Ans.(a)

Sol.

$$\text{Speed of car A} = \frac{120 \times 2}{3} = 80 \text{ km/h.}$$

$$\text{Speed of car B} = \frac{80}{2} = 40 \text{ km/h.}$$



S10. Ans.(c)

Sol. $1184 - 8 = 1176$ which is divisible by 21

S11. Ans.(d)

Sol.

Let money with him $\Rightarrow 100$

Stolen $\Rightarrow 25$

Lost through the hole $\Rightarrow 10$

Remaining $\Rightarrow 100 - 35 \Rightarrow 65$

On food $\Rightarrow 65 \times \frac{1}{2}$

$= 32.5$

Remaining $\Rightarrow 32.5$

$32.5r \rightarrow 26$

$1r \rightarrow \frac{260}{325}$

$100r \Rightarrow \frac{26000}{325}$

$\Rightarrow \text{Rs. } 80$

S12. Ans.(c)

Sol.

$$1^{\text{st}} \text{ year} = 25\% = \frac{1}{4}$$

$$2^{\text{nd}} \text{ year} = 4\% = \frac{1}{25}$$

	Original	Final
1 st year →	4	5
2 nd year →	25	24
3 rd year →	4	5
4 th year →	25	24
5 th year →	4	5
	100	: 180

$$180r \rightarrow 72000 \text{ Rs.}$$

$$1r \rightarrow 400 \text{ Rs.}$$

$$100r \rightarrow 40000 \text{ Rs.}$$

S13. Ans.(b)

Sol.

$$\text{Initial eggs} \rightarrow 100$$

$$\text{Broken} \rightarrow 5$$

$$\text{Remaining} \rightarrow 95$$

$$7\% \text{ of } 95 \rightarrow 266$$

$$1r \rightarrow 40$$

$$100r \rightarrow \text{Rs. } 4000$$

S14. Ans.(c)

Sol.

$$\text{Total} \rightarrow 60$$

$$\text{Singer} \rightarrow 20$$

$$\text{Singers less than 25 years} \Rightarrow 20 \times \frac{20}{100}$$

$$\Rightarrow 4$$

$$\text{Total below 25 years}$$

$$= 60 \times \frac{40}{100}$$

$$= 24$$

$$\text{Dancers below 25 years}$$

$$= 24 - 4 = 20$$

$$\text{Dancers below 25 years}$$

$$= \frac{20}{40} \times 100$$

$$= 50\%$$

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S15. Ans.(b)

Sol.

$$A = \frac{125}{100} B$$

$$A : B = 5 : 4$$

$$C = \frac{80}{100} B$$

$$B : C = 5 : 4$$

$$A : B : C = 25 : 20 : 16$$

$$(25 + 20 + 16)r \rightarrow 61000$$

$$61r \rightarrow 61000$$

$$1r \rightarrow 1000 \text{ Rs.}$$

$$C \text{ invested} \Rightarrow 1000 \times 16$$

$$\Rightarrow 16000 \text{ Rs.}$$

S16. Ans.(c)

Sol.

$$\text{Total} \rightarrow 100$$

$$\text{Skilled worker} \rightarrow 75$$

$$\text{Unskilled worker} \rightarrow 25$$

$$\text{Permanent skilled worker} = 75 \times \frac{80}{100}$$
$$= 60$$

$$\text{Permanent unskilled worker} = 25 \times \frac{20}{100}$$
$$= 5$$

$$\text{Temporary worker} = 100 - 65$$
$$= 35$$

$$35r \rightarrow 126$$

$$1r \rightarrow \frac{126}{35}$$

$$100r \rightarrow \frac{126}{35} \times 100$$
$$= 360$$



S17. Ans.(c)

Sol.

$$\text{Sum of 1st three} = 45$$

$$\text{Sum of last three} = 48$$

$$\text{Score of last} = 19$$

$$\text{Score of 2nd \& 3rd} = 48 - 19$$
$$= 29$$

$$\text{Score of 1st} = 45 - 29$$
$$= 16$$

$$\% = \frac{16}{16} \times 100$$
$$= 100 \%$$

S18. Ans.(a)

Sol.

$$\text{Original sale} = 100 \times 100 = 10000$$

$$\text{New Sale} = 80 \times 180 = 14400$$

$$\text{Net effect} = 44\% \text{ Increase}$$

S19. Ans.(d)

Sol.

$$\text{Let 3rd number} \Rightarrow 100$$

$$1^{\text{st}} \text{ number} = 20$$

$$2^{\text{nd}} \text{ number} = 50$$

$$\% \text{ 1st number to 2nd number}$$

$$= \frac{20}{50} \times 100$$

$$= 40\%$$

S20. Ans.(d)

Sol.

$$\text{Time} = 2 \text{ years}$$

$$\text{Rate} = 4\%$$

$$\text{Compound interest} = \text{Rs. } 102$$

$$\text{CI for 2 years} = R + R + \frac{R \times R}{100}$$

Where R \rightarrow Rate of interest

Combined Rate% of CI for 2 years

$$= 4 + 4 + \frac{4 \times 4}{100} = 8.16\%$$

$$\text{SI for two years} = 2 \times 4 = 8\%$$

$$\text{According to the question SI for 2 years} = \frac{102}{8.16} \times 8 = \text{Rs. } 100$$

$$\text{required simple interest} = \text{Rs. } 100$$

S21. Ans.(c)

Sol.

$$(19 - 13)r \rightarrow 420 \text{ crore}$$

$$6r \rightarrow 420 \text{ crore}$$

$$1r \rightarrow 70 \text{ crore}$$

$$17r \rightarrow 17 \times 70 \Rightarrow 1190 \text{ Crore}$$

S22. Ans.(c)

Sol.

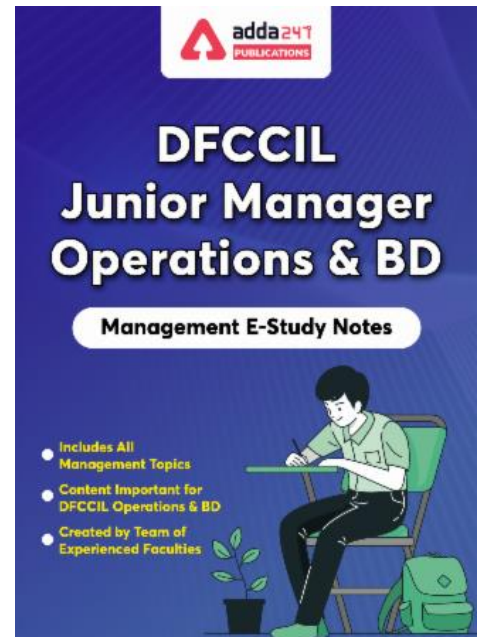
$$\text{Ratio} \rightarrow 3x, 2x, x.$$

$$\text{ATQ } 15x + 20x + 20x = 165$$

$$55x = 165$$

$$x = 3$$

$$\text{Value of currency Notes Rs. } 20 = 3 \times 20 = 60\text{Rs}$$



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S23. Ans.(a)

Sol.

$$\begin{aligned}a : b &= 1 : 4 \\b : c &= 1 : 8 \\a : b : c &= 1 : 4 : 32\end{aligned}$$

$$1r \rightarrow 2$$

$$32r \rightarrow 64$$

S24. Ans.(a)

Sol.

3 years Ago $\rightarrow 5 : 9 \rightarrow$ difference 4 $\rightarrow \times 2$

After 5 years $\rightarrow 3 : 5 \rightarrow$ difference 2 $\rightarrow \times 4$

New Ratio \rightarrow

3 year Ago $\rightarrow 10 : 18$

After 5 years $\rightarrow 12 : 20$

$2r \rightarrow 8$ years

$1r \rightarrow 4$ years

Age of Maya = $10 \times 4 + 3 = 43$

S25. Ans.(a)

Sol.

$$\text{Ratio} \rightarrow \frac{1}{2} : \frac{2}{3} : \frac{3}{4}$$

$$\Rightarrow 6 : 8 : 9$$

$$(9 - 6)r \rightarrow 45$$

$$1r \rightarrow 15$$

$$\text{Middle number} \Rightarrow 15 \times 8 \Rightarrow 120$$



S26. Ans.(b)

Sol.

Ratio $\rightarrow 3 : 5 : 7$

$$\text{New Ratio} \rightarrow \frac{3 \times 150}{100} : \frac{5 \times 160}{100} : \frac{7 \times 150}{100}$$

$$\Rightarrow 45 : 80 : 105$$

$$\Rightarrow 9 : 16 : 21$$

S27. Ans.(c)

Sol.

Fresh watermelon \rightarrow

Water Pulp

$$90 : 10 \Rightarrow 9 : 1$$

After 10 kg water Evaporates $\Rightarrow 80 : 20 \Rightarrow 4 : 1$

$$(9 - 4)r \rightarrow 10\text{kg}$$

$$5r \rightarrow 10\text{kg}$$

$$1r \rightarrow 2\text{kg}$$

$$10r \rightarrow 20\text{ kg}$$

Weight of original watermelon = 20 kg

S28. Ans.(a)

Sol.

$$x \rightarrow 3k, y \rightarrow 2k$$

$$2x^2 + 3y^2 = 2 \times 9k^2 + 3 \times 4k^2 = 18k^2 + 12k^2 = 30k^2$$

$$3x^2 - 2y^2 \Rightarrow 3 \times 9k^2 - 2 \times 4k^2 = 19k^2$$

$$\text{Ratio} = 30k^2 : 19k^2 = 30 : 19$$

S29. Ans.(a)

Sol.

$$\text{Third Proportion} = \frac{6 \times 6}{3} = 12$$

S30. Ans.(a)

Sol.

$$a : b :: c : d$$

$$a^2 + b^2 + c^2 + d^2 = 50$$

$$a + b = 4$$

$$b : c = 3 : 2$$

$$b \rightarrow 3$$

$$c \rightarrow 2$$


$$a \rightarrow 4 - 3 = 1$$

$$1 + 9 + 4 + d^2 = 50$$

$$d = 6$$

$$\text{Average} = \frac{3 + 2 + 1 + 6}{4} = 3$$

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