

Quant Mega Quiz for SSC CGL Tier - 2 (Solutions)

S1. Ans.(b)

Sol.

In 2016, number of students in class XII of

$$\text{School A} = \frac{105}{100} \times 800 = 840$$

$$\text{School B} = \frac{110}{100} \times 700 = 770$$

$$\text{School C} = \frac{120}{100} \times 650 = 780$$

$$\text{So, required ratio} = 840:770:780 = 84:77:78$$

S2. Ans.(a)

Sol. Required percentage

$$= \frac{2150-350}{2150} \times 100 \approx 84\%$$

S3. Ans.(c)

Sol. Required average

$$= \frac{1}{6} (150 + 300 + 300 + 500 + 650 + 800)$$

$$= \frac{1}{6} \times 2700 = 450$$

S4. Ans.(a)

Sol.

Students in school A = 2700

Students in school B = 2600

Students in school C = 2700

So, ratio = 27:26:27

S5. Ans.(a)

Sol. Required percentage

$$= \frac{400}{2600} \times 100 \approx 15.4\%$$

S6. Ans.(d)

Sol.



$$\text{Distance PQ} = 60 \times 6\frac{1}{3} = 380 \text{ km}$$

$$\text{Speed of Swift} = \frac{380 \times 4}{19} = 80 \text{ km/h}$$

Complete Preparation for  
SSC Exams

**SSC**  
**EXTREME**

Video Courses, Test Series,  
eBooks

**S7. Ans.(b)**

**Sol.** Amount required to buy either 60 apples or 40 mangoes = 100% available amount

Since 14 is 35% of 40

∴ Amount spent on buying 14 mangoes = 35% of available amount

Remaining money = (70% – 35%) of available money = 35% of available amount

Number of apples that can be purchased with 35% of available amount = 35% of 60 = 21

**S8. Ans.(c)**

**Sol.**

Let the number of additional workers = M

Thus (24 + M) men will work for remaining 63 days to complete remaining 84% of the work left.

$$\therefore \frac{24 \times 57}{16} = \frac{(24+M) \times 63}{84}$$

$$\Rightarrow 114 = 24 + M$$

$$\Rightarrow M = 90$$

**S9. Ans.(d)**

**Sol.**

Let the upstream speed be x km/h

And the downstream speed by y km/h

Then, according to the question,

$$\frac{40}{x} + \frac{55}{y} = 13 \quad \dots (i)$$

$$\text{and, } \frac{30}{x} + \frac{44}{y} = 10 \quad \dots (ii)$$

Solving the equations (i) and (ii), we get x = 5 and y = 11

Therefore, the speed of the man in still water

$$= \frac{1}{2}(x + y) = \frac{1}{2}(5 + 11) = \frac{16}{2} = 8 \text{ km/h}$$

**S10. Ans.(d)**

**Sol.** Work done in one day by A, B, C and D are  $\frac{1}{4}$ ,  $\frac{1}{8}$ ,  $\frac{1}{16}$  and  $\frac{1}{32}$  respectively

Using option,

B & C does  $\frac{3}{16}$  of work in one day

While A & D does  $\frac{1}{4} + \frac{1}{32} = \frac{9}{32}$  of work in one day.

Hence,

A & D take  $\frac{32}{9}$  days.

While B & C take  $\frac{16}{3} = \frac{32}{6}$  days

Hence, the 1<sup>st</sup> pair must comprise of A & D.

S11. Ans.(b)

Sol.

Total no. of AK-47 and Hand grenades together

$$= \frac{(108+72)}{360} \times 36,000$$

$$= 18000$$

Total no. of AK-56 and missiles together

$$= \frac{(90+60)}{360} \times 36000$$

$$= 15,000$$

$$\therefore \text{Required percentage} = \frac{18000}{15000} \times 100 = 120\%$$

S12. Ans.(a)

Sol.

$$\text{Required average} = \frac{1}{3} \times \frac{(30+72+60)}{360} \times 36000$$

$$= 5,400$$

S13. Ans.(c)

Sol.

$$\text{Required ratio} = \frac{30+90}{108+72} = \frac{120}{180} = \frac{2}{3}$$

S14. Ans.(b)

Sol.

Let price of one AK-56 and one missile is  $x$  and  $3x$  respectively.

$$\therefore x \times 9000 + 3x \times 6000 = 72 \text{ crores}$$

$$27x = 72,00,000$$

$$x = 2.66 \text{ lacs}$$

S15. Ans.(d)

Sol.

Required difference

$$= \frac{((108+90)-(60+30+72))}{360} \times 36000 = 3600$$

S16. Ans.(b)

Sol.

$$\text{Rate of waste pipe} = \frac{(40+60) \times 8}{32} = \frac{800}{32}$$

$$= 25 \text{ lit/min.}$$



The advertisement features a woman, Neetu Singh, in a pink and white patterned top, sitting against a dark red background. In the top left corner, there is a logo with the word 'LIVE' and a circular arrow icon. In the top right corner, the word 'BILINGUAL' is written in white. Below the woman's image, the text 'ENGLISH BY NEETU SINGH' is written in large, white, bold letters, followed by '12<sup>th</sup> May' in a slightly smaller font. At the bottom, there are two orange boxes: the first contains 'Tue, Thr, Sat' and the second contains '5 pm - 7 pm'.

**S17. Ans.(c)**

**Sol.** Let efficiency of P and Q is  $3x$  and  $5x$  units/day respectively.

ATQ,

$$8x \times 6 + 3x \times 4 = 1$$

$$\Rightarrow x = \frac{1}{60}$$

$$\therefore \text{Efficiency of P} = \frac{3}{60} = \frac{1}{20} \text{ unit/day}$$

$\therefore$  P will complete the whole work in 20 days.

**S18. Ans.(a)**

**Sol.**

Let actual time was  $t$  hours

ATQ,

$$6 \times \left(t + \frac{10}{60}\right) = 7t$$

$$\Rightarrow t = 1 \text{ hours}$$

$\therefore$  Required distance = 7 km

**S19. Ans.(d)**

**Sol.**

Required answer = L.C.M. of (16, 24, 36)

= 144 min.

= 2 hr. 24 min.

**S20. Ans.(c)**

**Sol.**

Let per kg price of Sugar initially was Rs. 100.

Then, total expenditure in a month was

$$100 \times 30 = 3000$$

After increase in price,

$$x \times 132 = \frac{110}{100} \times 3000, \text{ where } x$$

= new monthly consumption of family

$$\Rightarrow x = 25 \text{ kg}$$

**S21. Ans.(c)**

**Sol.**

Remaining amount

$$= (50000 - (8000 + 24000)) = \text{Rs. } 18000$$

Let Rs. 18000 be lent at the rate of  $r\%$  p.a.

According to the question,

$$\frac{8000 \times 11 \times 1}{2 \times 100} + \frac{24000 \times 6 \times 1}{100} + \frac{18000 \times r \times 1}{100}$$

$$= 3680$$

$$\begin{aligned} \Rightarrow 440 + 1440 + 180r &= 3680 \\ \Rightarrow 1880 + 180r &= 3680 \\ \Rightarrow 180r &= 3680 - 1880 = 1800 \\ \Rightarrow r &= \frac{1800}{180} = 10\% \end{aligned}$$

**S22. Ans.(c)**

**Sol.**

Time taken by both Ravi and Rajesh =  $\sqrt{t_1 t_2}$

Here,  $t_1 = 32$  hours,

$$t_2 = 12\frac{1}{2} = \frac{25}{2}$$

$$\text{So, required time} = \sqrt{32 \times \frac{25}{2}} = 20 \text{ hours}$$

**S23. Ans.(b)**

**Sol.**

Let leak can empty the tank in  $x$  hrs.

$\therefore \frac{8}{3}$  hours work of two pipes and leakage

$$= \left( \frac{1}{16} + \frac{1}{24} - \frac{1}{x} \right) \times \frac{8}{3}$$

$$= \left( \frac{1}{6} + \frac{1}{9} - \frac{8}{3x} \right)$$

$$= \left( \frac{5}{18} - \frac{8}{3x} \right)$$

$$\text{Remaining part} = 1 - \left( \frac{5}{18} - \frac{8}{3x} \right) = \left( \frac{13}{18} + \frac{8}{3x} \right)$$

$$\therefore \frac{48}{5} \left( \frac{13}{18} + \frac{8}{3x} \right) = \frac{48}{5}$$

$$\Rightarrow \frac{8}{3x} = \frac{5}{18}$$

$$\Rightarrow x = \frac{48}{5}$$

$$\Rightarrow x = 9.6 \text{ hours}$$

**S24. Ans.(a)**

**Sol.** Let the amounts be Rs. 100 and Rs. 200 respectively.

The value of the 100 would become  $100 \times \frac{6}{7} \times \frac{6}{7} = \frac{3600}{49} = 73.46$

The other person's investment of 200 would become  $200 \times 1.2 \times 1.2 = 288$

The total value would become  $288 + 73.46 = 361.46$

This represents approximately a 20% increase in the value of the amount after 2 year.

**S25. Ans.(c)**

**Sol.**

Let C.P. of each desktop = Rs.  $100x$

Case I:

Total CP of 20 desktop =  $2000x$

$$\therefore \text{Total SP} = (1200x + 240x) + (800x + 80x) = 2320x$$

$$\therefore \text{Profit} = 2320x - 2000x = 320x$$

TEST SERIES

Bilingual



SSC CGL TIER-II

PRIME

59 Total Tests | eBooks

sscadda.com

Case II:

Profit = 15% of 2000 = 300x

Difference of profits = 320x - 300x → Rs. 36000

∴ 100x = CP of one desktop =  $\frac{36000}{20} \times 100 = \text{Rs. } 1,80,000$

**S26. Ans.(a)**

**Sol.**

$$\frac{M_1 D_1 H_1}{W_1} = \frac{M_2 D_2 H_2}{W_2}$$
$$\Rightarrow \frac{4 \times 10 \times 5}{1} = \frac{2 \times 20 \times H_2}{2}$$
$$\Rightarrow H_2 = 10 \text{ hrs}$$

**S27. Ans.(d)**

**Sol.**

Let the price of B per kg be Rs. X. Then, the price of A per kg = Rs. 3X

1kg of C contains 2/7 kg of A and 5/7 kg of B

Price of 1 kg of C = (2/7) × 3X + (5/7)X = (11/7)X

By the given condition, 11X/7

= 5.20 - 0.80

= Rs. 4.40

⇒ X = 4.40 × (7/11) = Rs. 2.80

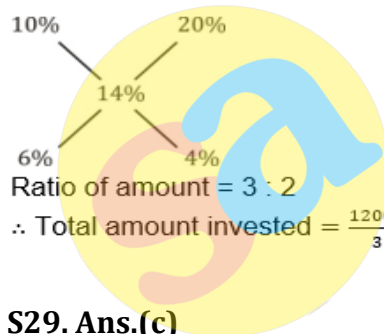
Hence the price of B per kg = Rs. 2.80.

**S28. Ans.(c)**

**Sol.**

Let amount invested at 20% per annum = x Rs.

By mixture and allegation method



∴ Total amount invested =  $\frac{12000}{3} \times 5 = 20,000 \text{ Rs.}$

**S29. Ans.(c)**

**Sol.**

Let the ratio of two original numbers be 1 : x.

$$\therefore \frac{1+1}{x+1} = \frac{R}{S}$$

$$\text{and } \frac{3}{x+2} = \frac{1}{2}$$

$$\Rightarrow x = 4$$

$$\text{So, } \frac{1}{x} = \frac{P}{Q} = \frac{1}{4}$$

∴ Required sum = 5

**S30. Ans.(c)**

**Sol.**

$$M = 2S$$

$$S = 0.6 D$$

$$R = 0.5 V$$

$$V = 1.9 M$$

From these,

$$R = 0.5 \times 1.9 M = 9.5 M$$

$$V = 1.9 M$$

$$S = 0.5 M$$

$$D = \frac{10}{6} \times \frac{5}{10} M = \frac{5}{6} M$$

So, Shweta weighs least since Megha > Shweta.

6 Months Subscription

# SSC CGL TIER-II MAHA PACK

Test Series, Live Classes,  
Video Course, Ebooks

**Bilingual** (With e-Books)



sscadda.com