

# Memory based Quantitative Aptitude Questions

SSC CHSL  
Tier-I 2021

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**MEMORY BASED QUANTITATIVE  
APTITUDE QUESTIONS FOR SSC CHSL  
TIER-I**

**Q1. If Principal of 2000 amounts to 2662 in 3 years. Find SI?**

1. 660
2. 772
3. 662
4. None of these

Ans. 3. 662

S.I. = Amount – Principal = 2662-2000 = 662

**Q2. Out of 450 apples 30% are rotten then find how many apples are not rotten?**

1. 350
2. 325
3. 315
4. 345

Ans. 3. 315

Apples not rotten = 70% of 450 = 315

**Q3. In how many years will the principal of 3000 will yield an SI of 1080 at 12% rate of interest?**

1. 2 years
2. 3 years
3. 5 years
4. None of these

Ans. 2. 3 years

$$1080 = \frac{3000 \times 12 \times T}{100}$$

T = 3 years

**Q4. A:B = 3:5, B:C = 7:9 then C:A is ?**

1. 21: 45
2. 45:21
3. 40:21
4. None of these

Ans. 2. 45:21

A:B = 3:5

B:C = 7:9

Then, C:A = 45:21

**Q5. The average of 8 numbers is 30. The average of first 4 numbers is 24 and that of the last 3 numbers is 36. What is the 6<sup>th</sup> number?**

1. 40
2. 36
3. 38

4. 28

Sol.2.

According to question,

The average of 8 numbers = 25

∴ The total of 8 numbers =  $30 \times 8 = 240$

Now, the average of first 4 numbers = 24

∴ The total of first 4 numbers =  $24 \times 4 = 96$

and total of last 3 numbers =  $3 \times 36 = 108$

∴ Required answer =  $240 - (96 + 108)$

=  $240 - 204 = 36$

**Q6. If  $5 \sin A - 4 \cos A = 0$ ,  $0^\circ < A < 90^\circ$ , then the value of  $(5 \sin A - 2 \cos A) / (5 \sin A + 3 \cos A)$ ?**

1. 5/7

2. 7/2

3. 2/7

4. 3/5

Sol.3.

$(\sin A) / (\cos A) = 4/5$

$(5 \sin A - 2 \cos A) / (5 \sin A + 3 \cos A) = (5 \times 4 - 2 \times 5) / (5 \times 4 + 3 \times 5) = 10/35 = 2/7$

**Q7. The value of  $((2 \sin A)(1 + \sin A)) / (1 + \sin A + \cos A)$  is equal to?**

1.  $1 - \sin A \cos A$

2.  $1 + \sin A - \cos A$

3.  $1 - \cos A - \sin A$

4.  $1 + \sin A + \cos A$

Sol. 3.

Let  $A = 0^\circ$  and Put this in equation

$(2 \sin A)(1 + \sin A) / (1 + \sin A + \cos A) = 0$

$1 + \sin A - \cos A = 0$

So, option 3rd is the answer

**Q8. P and Q can do a job together in 16 days. P is 3 times as efficient as Q. In how many days can P alone complete the work?**

1. 18 days

2.  $64/3$  days

3. 20 days

4. 25 days

Sol. Let Q does 1 unit/day.

Then, as P is thrice as efficient as Q, P will do 3 unit/day.

$(P+Q)$  one day work =  $3+1 = 4$  units/day

Total work =  $4 \times 16 = 64$  units

P alone will do work in =  $64/3 = 16$  days

**Q9. A does 70% of work in 14 days. He then calls in B and they together finish the remaining work in 5 days. How long B alone would take to do whole work?**

1. 120 days
2. 140 days
3. 80 days
4. 20 days

Sol. A does 70% work in 14 days

So one day efficiency of A = 5%

A and B together complete the remaining 30% work in 5 days

So one day efficiency of A and B = 6%

So one day efficiency of B =  $6\% - 5\% = 1\%$

Hence B complete the 100% work in 100 days.

**Q10. If 40% of a number is 100, then find 25% of that number:**

1. 32.5
2. 62.5
3. 12.5
4. 14.28

Sol.2.

Let the number be x.

Therefore, according to the question

$$2/5 x = 100$$

$$x = 250$$

$$25\% \text{ of } 250 = 250/4 = 62.5$$

**Q11. If the ratio of cost price and selling price be 10 : 11, then the profit percentage is**

1. 1%
2. 10%
3. 5%
4. 8%

Ans. 2. 10%

Given ratio,

$$\frac{CP}{SP} = \frac{10}{11}$$

Let CP = 10/- and SP = 11/-

∴ Profit = 1/-

$$\therefore \text{Profit \%} = \frac{\text{Profit}}{\text{CP}} \times 100\%$$

$$= \frac{1}{10} \times 100 = 10\%$$

**Q12. A Woman buys a toy for Rs 25 and sells it for Rs 30. Find her gain percent.**

1. 5%

2. 8%
3. 13%
4. 20%

Ans.

Cost Price (CP) = 25 Selling Price (SP) = 30

Gain (Profit) = SP - CP  $\Rightarrow 30 - 25 = 5$ .

Profit in %:

$$\% \text{ Gain} = \frac{\text{Gain}}{\text{CP}} \times 100 \Rightarrow \frac{5}{25} \times 100 = 20\%.$$

Hence, option D is correct.

**Q13. Two right circular cylinders of equal volume have their heights in the ratio 1 : 2.**

**The ratio of their radii is :**

1. 2 : 1
2. 1 : 2
3. 1 : 4
4. None of these

Ans. 4. None of these

$$V_1 : V_2 = 1 : 1$$

$$\pi r_1^2 h_1 : \pi r_2^2 h_2 = 1 : 1$$

$$\frac{r_1^2}{r_2^2} \times \frac{1}{2} = \frac{1}{1}$$

$$r_1 : r_2 = \sqrt{2} : 1$$

**Q14. If diagonal of a cube is cm, then its volume in cubic cm is :**

1. 8
2. 12
3. 24
4.  $\sqrt[3]{2}$

Ans. 1. 8

$$\text{Diagonal} = \sqrt{3a^2}, \sqrt{3}a = 2\sqrt{3}, a = 2$$

$$\text{Volume} = a^3 = 8$$

**Q15. The lateral surface area of a cylinder is 1056 and its height is 16 cm. Find its volume.**

- (a) 4545 cm<sup>3</sup>
- (b) 4455 cm<sup>3</sup>
- (c) 5445 cm<sup>3</sup>
- (d) 5544 cm<sup>3</sup>

Ans. (d) 5544 cm<sup>3</sup>

Let Radius =  $r$  cm,  $h = 16$  cm

$$2\pi rh = 1056$$

$$2 \times \frac{22}{7} \times r \times 16 = 1056$$

$$r = \frac{21}{2} \text{ cm}$$

$$\text{Volume} = \pi r^2 h = \frac{22}{7} \times \frac{21}{2} \times \frac{21}{2} \times 16 = 5544 \text{ cm}^3$$