

# GATE 2022 Aptitude Solution 12th Feb Session Memory Based

## GATE 2022 Papers

Hello GATE Aspirant!

Hope you did the paper to your best level. Here are the solutions and answers to the questions of the \_\_\_\_\_

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## Questions & Solutions

Q1)

P is the sister of Q. Q is the husband of R. R is the mother of S. T is the husband of P. T is \_\_\_\_\_ of S?

- (A) The Grandfather
- (B) An uncle**
- (C) The father
- (D) A brother

*P(female) is sister of Q(male). Q is husband of R(female). S is child of Q and R. T(male) is husband of P. Thus, T is uncle of S.*

Q2)

Healthy eating is a critical component of healthy aging. When should one start eating healthy? It turns out it is never too early. For example, babies who start eating healthy in the first year are more likely to have better overall health as they get older. Which is correct from below?

- (A) Eating healthy and better overall health are more correlated at a young age but not at old age.

**(B) Eating healthy can be started at any age, the earlier the better**

(C) Healthy eating is more important for adults than kids

(D) Healthy eating is important for those with good health conditions but not for others.

Q3)

Fill in the blanks:

You should \_\_\_\_\_ when to say \_\_\_\_\_.

**(A) know/no**

(B) no/no

(C) know/know

(D) no/know

You should know when to say no.

Q4)

Fill in the blanks:

The movie was funny and I \_\_\_\_\_?

(A) Could helped laughed

(B) Could help laughing

**(C) Couldn't help laughing**

(D) Couldn't help laughed

The movie was funny and I couldn't help laughing.

Q5)

A survey of 450 students about their subject of interest results in the following outcome.

- 150 students are interested in maths
- 200 students are interested in physics
- 175 students are interested in chemistry
- 50 students are interested in maths and physics
- 60 students are interested in physics and chemistry
- 40 students are interested in maths and chemistry
- 30 students are interested in maths, chemistry and physics

Remaining students are interested in humanities. The students interested in humanities is:

(A) 10

(B) 45

(C) 30

(D) 40

$$\begin{aligned}P(M \cup Ph \cup C) &= P(M) + P(Ph) + P(C) - P(M \cap C) - P(M \cap Ph) - P(C \cap M) + P(M \cap Ph \cap C) \\&= 150 + 200 + 175 - 40 - 50 - 60 + 30 = 405\end{aligned}$$

$$P(Hum) = 450 - 405 = 45$$

Q6)

Given below are 2 statements and 4 conclusions drawn based on the statements:

Statement 1: Some soaps are clean

Statement 2: All clear objects are wet

Conclusion 1: Some clear objects are soaps.

Conclusion 2: No clear object is a soap

Conclusion 3: Some wet objects are soaps.

Conclusion 4: All wet objects are soaps.

Which is logically inferred?

- (A) Either conclusion 3 or 4 is correct
- (B) Either conclusion 1 or 2 is correct
- (C) Only conclusion 1 is correct
- (D) Only conclusions 1 and 3 are correct**



*Conclusions 1 and 3 are correct.*

Q7)

In the last few years, several new shopping malls were opened in the city. The total number of visitors to the malls is impressive. However, the total revenue generated through sales in the shops in these malls is generally low.

Which of the following statements is logically inferred?

- (A) Fewer people are visiting the malls but spending more.
- (B) Fewer people are visiting the malls and not spending enough.
- (C) More people are visiting the malls and spending more.
- (D) More people are visiting the malls but not spending enough.**

Q8)

Consider the following equations of straight lines:

L1:  $2x - 3y = 5$

L2:  $3x + 2y = 8$

L3:  $4x - 6y = 5$

L4:  $6x - 9y = 6$

Which is correct?

- (A) L2 is parallel to L4 and L2 is perpendicular to L1
- (B) L1 is parallel to L2 and L1 is perpendicular to L3
- (C) L3 is parallel to L4 and L3 is perpendicular to L2
- (D) L4 is parallel to L3 and L4 is perpendicular to L2**

L1:  $y = (2/3)x - 5/3$

L2:  $y = -(3/2)x + 8/3$

L3:  $y = (4/6)x - 5/6$

L4:  $y = (6/9)x - 6/3$

Slopes of L3 and L4 are the same thus they are parallel

The product of slopes of L1 and L2 is -1 thus they are perpendicular

Q9)

If  $p:q = 1:2$ ,  $q:r = 4:3$ ,  $r:s = 4:5$ , and  $u$  is 50% more than  $s$ .  $p:u = ?$

- (A) 2:15
- (B) 16:45
- (C) 1:5
- (D) 4:25**

$p:q = 1:2 = 2:4$  and  $q:r = 4:3$  so  $p:q:r = 2:4:3$

$r:s = 4:5 = 12:15$  and  $p:q:r = 2:4:3 = 8:16:12$  so  $p:q:r:s = 8:16:12:15$

$u:s = 1.5:1 = 3:2$ ,  $s:u = 2:3 = 30:45$  and  $p:q:r:s = 8:16:12:15 = 16:32:24:30$

Then  $p:q:r:s:u = 16:32:24:30:45$

Thus,  $p:u = 16:45$

Q10)

P invested 5000/month for 6 months/yr and Q invested  $x$ /month for 8 months/yr for a partnership business. The profit is shared in proportion to the total investment made in that year. If at the end of the investment year, Q receives  $4/9$  of total profit, what is  $x$ :

- (A) 8437
- (B) 3000
- (C) 2500
- (D) 4687**

P's profit =  $(1 - 4/9)$  of total profit =  $5/9$  total profit

P's profit/Q's profit =  $5/4$

$(P's \text{ investment} \times 6\text{months/yr}) / (Q's \text{ investment} \times 8\text{months/yr}) = 5/4$

$(5000 \times 6) / (x \cdot 8) = 5/4$

$x = 3000$

Q11)

$x:y:z = \frac{1}{2} : \frac{1}{3} : \frac{1}{4}$

What is  $(x+z-y)/y$  ?

(A) 1.25

(B) 0.75

(C) 3.25

(D) 2.25

Multiplying by 12,  $x:y:z = 6:4:3$

$(x+z-y)/y = (6+3-4)/4 = 5/4 = 1.25$

We are keeping on updating its article based on memory-based questions. Keep coming back for more at [apsed.in/blog](https://apsed.in/blog). The official key will be out soon on the [GATE official website](#).

*Disclaimer: All the questions are memory-based and taken from some of our students who appeared for GATE 2022. The official notification for the same will be out soon and we will spread it across then.*