Quantitative aptitude QUESTIONS

1. If a number A is 10% less than another number B and B is 10% more than 265, then A is equal to:
2. 291.50
3. 260.40
4. 270.00
5. **262.40**

B = 265 + 10% of 265

= >265 + 26.50 = 291.50  
so A = 291.50 - 10% of 291.50

=> 262.40

1. A cricketer scored 98 runs which included 3 boundaries and 8 sixes. What percent of his total score did he make by running between the wickets?
2. **34.54**
3. 54.34
4. 45.54
5. 38

Number of runs made by running = 98 - (3 x 4 + 8 x 6) = 38  
so required percentage = ((38 x 100)/110) %

=> 34.54%

1. 10% of the voters did not cast their vote in an election between two candidates.10% of the votes polled were found invalid. The successful candidate got 58% of the valid votes and won by a majority of 3240 votes. The number of voters enrolled on the voters' list was.
2. 26000
3. 125000
4. **25000**
5. 32400

Let the total number of voters be x then, votes polled = 90% of x.  
valid votes = 90% of (90% of x)  
hence , 58% of [90% of(90% of x)] - 42% of [90% of(90% of x)] = 3240  
16% of [90% of (90% of x)]= 3240  
solving above equation we get x = 25000

1. Two friends appeared for an examination. One of them secured nine marks more than the other and his marks was 56% of the sum of their marks. The marks obtained by them are:
2. 39,30.
3. 43,34.
4. **42,33.**
5. 41,32.

Let their marks be (x + 9) and x. then  
x+9 = (56/100) (x + 9 + x)

=> 25(x + 9) =14(2x + 9)   
=> 3x = 99

=> x = 33, so their marks are 33 and 33 + 9 = 42

1. Steve scored 30% marks and failed by 15 marks. Tony scored 40% marks and obtained 35 marks more than those required to pass. The pass percentage is:
2. 38%.
3. **33%.**
4. 43%.
5. 46%.

Let total marks = x then, (30% of x) + 15 = (40% of x) - 35  
=> 30x/100 + 15 = 40x/100 - 35

=>x =500  
so passing marks = (30% of 500) + 15 = 165  
so pass percentage = ((165/500) x 100) % = 33%

1. For photocopy of a sheet of paper it costs Re. 1 to. However, 3% discount is allowed on all photocopies done after first 1000 sheets. How much will it cost to copy 8000 sheets of paper?
2. 6370
3. 7700
4. **7790**
5. 6790

Total cost =Rs.[1 x 1000 + (100 - 3)% of 1 x 7000]

= Rs.(1000 + 0.97 x 7000)

= Rs.(1000 + 6790) = Rs.7790

1. While purchasing one item costing Rs. 500, I had to pay the sales tax at 9% and on another costing Rs. 6400; the sales tax was 7%. What percent of the sales tax I had to pay, taking the two items together on an average?
2. **71%**
3. 72%
4. 73%
5. 74%

Total sales tax paid = 9% of Rs. 500 + 7% of Rs. 6400

Rs.[(9/100) x 500 + (7/100) x 6400]=Rs(45+448)=493

Total cost of the items = Rs. (500 + 6400) = Rs. 6900.

Required % = [(493/6900) x 100] %=71%

1. In an election between two candidates, one got 65% of the total valid votes, 25% of votes were invalid. If the total number of votes was 8000, the number of valid votes that the other candidate got, was:
2. 2700
3. 2900
4. 3000
5. **2100**

Number of valid votes = 75% of 8000 = 6000.

Valid votes polled by other candidate = 35% of 6000

= [(35/100) x 6000] =2100

1. A fruit seller had some mangoes. He sells 20% mangoes and still has 1420 mangoes. Originally, he had:
2. 1420.
3. **1775.**
4. 1880.
5. 2140.

Suppose he had x mangoes.

Then, (100 - 20) % of x = 1420

[(80/100) \* x]=1420

X= 1420\*100/80 = 1775

1. In a rural by-election, 60% of the voters voted for candidate R whereas 30% of the remaining voted for candidate S. The remaining voters did not vote. If the difference between those who voted for candidate S and those who did not vote was 1200, how many individuals were eligible for casting vote in that election?
2. 10,000.
3. 42,000.
4. 50,000.
5. **60,000.**

Let the number of persons eligible to vote be x.

Then, voters who voted for S = 30% of x.

Voters who voted for R = 60% of (70% of x).

[(60/100 \* 70/100 \*100] % of x = 42% of x.

Voters who did not vote = [100 – (30 + 42)] % of x = 28% of x

30% of x - 28% of x = 1200

=> 2% of x = 1200

=> x = (1200\*100/2) =60000

1. In GATE examination, 85% of the candidates who were eligible belonged to the general category and 5% of the applicants were found not eligible. If 5700 eligible candidates belonged to other categories, then how many candidates applied for the examination?
2. 21000
3. 42000
4. **34000**
5. **40000**

Let the total number of applicants be x. Number of eligible candidates = 95% of x.

Eligible candidates of other categories = 15% of (95% of x)

=>(15/100)\*(95/100)\*x=(57/400)x

=>(57/400)x=5700

X=[(5700\*400)/57]=40000

1. The price of a sedan is $5,000. It was insured to 85% of its price. The car was damaged completely in an accident and the insurance company paid 90% of the insurance. What was the difference between the price of the car and the amount received?
2. $5000
3. $3000
4. **$1175**
5. $2350

Amount paid to car owner = 90% of 85% of $5,000

=$[(90/100)x(85/100)\*5000]=$3825

Required difference =$(5000-3825)=$1175

1. When 25% is lost in grinding spices, India can export 30 lakh tons of it. On the other hand, if 20% is lost in grinding, it can export 40 lakh tons of spices. The production of spices in the country is:
2. 100 lakh tons
3. **200 lakh tons**
4. 300 lakh tons
5. 400 lakh tons

Let the total production be x lakh tons.

Then, 25% of x – 20% of x = (40 – 30) lakh tons

 5% of x = 10 lakh tons

 x = (10\*100/5) = 200 lakh tons.

1. Martina bought a machine for Rs 75,000 and spent Rs 5000 on repair and Rs 1000 on transport. And sold it with 25% profit. At what price did she sell the machine?
2. 109000
3. 110000
4. **109350**
5. 110350

Cost price = (75000+5000+1000) = 81000,

Profit = 35%  
Selling price = 135% of 81000

=> (135 x 81000)/100 = 109350

1. In an electronic store, the profit is 325% of the cost. If the cost increases by 25% but the selling price remains constant, approximately what percentage of the selling price is the profit?
2. 65
3. **70**
4. 75
5. 60

Let CP = Rs 100. Then, profit = 325, SP = 425  
new CP = 125% of Rs 100 = 125, new SP = 400  
profit = (425 - 125) = 300   
required percentage = (300x100)/425 = 70% (approx.)

1. A woman purchased a box full of pens at the rate of 7 for Rs 9 and sold all of them at the rate of 8 for Rs 11. In this transaction, she gained Rs 10. How many pens did the box contain?
2. 110
3. 100
4. **112**
5. 120

Suppose, number of pens bought = LCM of 7 and 8 = 56  
CP of 56 pens = Rs (9x56/7) = 72

SP of 56 pens = Rs (11x56/8) = 77  
Now, Rs 5 gained on 56 pens  
So, Rs 10 are gained on (56x10/5) = 112 pens

1. By making mixture of two types of Wheat and selling the mixture at the rate of Rs 177 per kg, a wholesaler makes a profit of 18%. If to every 2 kg of one type costing Rs 200 per kg, 3 kg of the other type is added, then how much per kg does the other brand cost?
2. 100
3. 115
4. **116**
5. 119

Let the cost of the other brand be Rs r per kg.  
CP of 5kg = (2x200 + 3r) = (400 + 3r)   
SP of 5 kg = (5 x 177) = 885  
so [(805 - (400 + 3r)) x100]/ (400 + 3r) = 18

=> r =116.66

1. A textile merchant sells half of his cloth at 20% profit, half of the remaining at 20% loss and rest he sells at the cost price. In the total transaction, his gain or loss will be:
2. 10%
3. **5%**
4. 12%
5. 6%

Let the CP of whole be Rs x.

CP of 1/2 stock = Rs x/2, CP of 1/4 stock = Rs x/4  
Total SP = Rs [(120% of x/2) + (80% of x/4) + x/4] = Rs (3x/5 + x/5 + x/4)

= Rs 21x/20  
Gain = Rs (21x/20 - r) = Rs x/20  
so gain % = (x/20 \* 1/x \* 100) % = 5%

1. Steve sold 10 books for a total profit of Rs. 144 and 12 books for a total profit of Rs. 460. At what profit per books should he sell the remaining 20 books so that he gets an average profit of Rs. 20 per book?
2. 10.4
3. 11.8
4. 13.3
5. 14.3

Total profit required = Rs. (42 x 20) = Rs. 840.

Profit on 22 books = Rs. (460 + 144) = Rs. 604

Profit on 20 books = Rs. (840 - 604) = Rs. 236.

Average profit on these books = Rs 236/20=11.8

1. William earns a profit of Rs.900 by selling an article which is double the loss incurred when the same article is sold for Rs. 450. At what price should he sell the article to make 25% profit?
2. 600
3. 750
4. 800
5. 650

Let C.P. = Rs. x. Then, 900 - x = 2 (x - 450)

 3x = 1800

 x = 600

Required S.P. = 125% of Rs. 600

Rs. 125/100\*600=Rs.750