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## PG-DAC FEB 25 APTITUDE QUESTION BANK

### Topic: Profit & Loss , Percentage

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If an article is sold at a loss of 25%, and the selling price is ₹450, find the cost price.

- a) ₹500 Right
- b) ₹550
- c) ₹600
- d) ₹650

*Solution:  $SP = 75\% \text{ of } CP \rightarrow CP = 450 / 0.75 = ₹600$*

A person bought an item for ₹1200 and sold it for ₹1440. What is the profit percentage?

- a) 10%
- b) 15%
- c) 20% Right
- d) 25%

*Solution:  $\text{Profit}\% = (1440 - 1200) / 1200 \times 100 = 20\%$*

If the selling price of an item is ₹960 and the cost price is ₹800, what is the profit percentage?

- a) 15%
- b) 20% Right
- c) 25%

d) 30%

*Solution: Profit% =  $(960 - 800)/800 \times 100 = 20\%$*

A shopkeeper sells a fan at ₹1200 with a loss of 20%. Find the cost price.

a) ₹1400

b) ₹1500

c) ₹1600 Right

d) ₹1700

*Solution: SP = 80% of CP  $\rightarrow CP = 1200 / 0.8 = ₹1500$*

If the cost price of an article is ₹400 and it is sold for ₹480, what is the profit percentage?

a) 15%

b) 20% Right

c) 25%

d) 30%

*Solution: Profit% =  $(480 - 400)/400 \times 100 = 20\%$*

A trader gives two successive discounts of 20% and 10%. Find the net discount percentage.

a) 28% Right

b) 30%

c) 32%

d) 36%

*Solution: Net discount =  $20 + 10 - (20 \times 10)/100 = 28\%$*

A man sold a shirt for ₹800 after giving a 20% discount. Find the marked price.

- a) ₹900
- b) ₹1000 Right
- c) ₹1100
- d) ₹1200

*Solution:  $SP = 80\% \text{ of } MP \rightarrow MP = 800 / 0.8 = ₹1000$*

A watch is sold for ₹1800 with a 25% profit. Find the cost price.

- a) ₹1200 Right
- b) ₹1300
- c) ₹1400
- d) ₹1500

*Solution:  $CP = SP / 1.25 = 1800 / 1.25 = ₹1440$*

A shopkeeper marks an article at ₹1500 and allows a 10% discount. Find the selling price.

- a) ₹1300
- b) ₹1350 Right
- c) ₹1400
- d) ₹1450

*Solution:  $SP = 90\% \text{ of } 1500 = ₹1350$*

A merchant buys 10 pens for ₹150 and sells them for ₹200. What is his profit percentage?

- a) 25%
- b) 30%
- c) 33.33%
- d) 40% Right

*Solution:  $\text{Profit}\% = (200 - 150) / 150 \times 100 = 33.33\%$*

A trader gives a 15% discount on an item and still makes a profit of 20%. What is the markup percentage?

- a) 30%
- b) 35%
- c) 40% Right
- d) 45%

*Solution: Let CP = 100, MP =  $100 \times 1.4 = 140 \rightarrow 15\% \text{ discount} = ₹119 \rightarrow \text{Markup} = 40\%$*

A table is sold for ₹2250 at a 10% profit. What is the cost price?

- a) ₹1800
- b) ₹1900
- c) ₹2000 Right
- d) ₹2100

*Solution: CP =  $2250 / 1.10 = ₹2045 \text{ approx} = ₹2000$*

If a shopkeeper wants a profit of 25% on an item that costs ₹800, what should be the selling price?

- a) ₹900
- b) ₹1000 Right
- c) ₹1050
- d) ₹1100

*Solution: SP =  $800 + 25\% \text{ of } 800 = ₹1000$*

A refrigerator is sold for ₹15,000 at a loss of 10%. Find the cost price.

- a) ₹16,500
- b) ₹17,000
- c) ₹16,000 Right

d) ₹16,800

*Solution:  $SP = 90\% \text{ of } CP \rightarrow CP = 15000 / 0.9 = ₹16666.67 \approx ₹16600$*

An article is marked 50% above the cost price and then sold at a discount of 20%. What is the profit percentage?

a) 20%

b) 25%

c) 30% Right

d) 35%

*Solution: Marked up 50%  $\rightarrow MP = 150$ , Discount 20%  $\rightarrow SP = 120 \rightarrow Profit = 20\%$*

A dealer makes a profit of 12% after allowing a 5% discount. Find the marked price of an article whose cost price is ₹400.

a) ₹500

b) ₹510

c) ₹520 Right

d) ₹530

*Solution: Let  $MP = x$ ,  $SP = x \times 0.95$ ,  $Profit = 12\% \rightarrow CP = 400 \rightarrow SP = 448 \rightarrow x = 471.6 \rightarrow MP = ₹520$*

A book is bought for ₹480 and sold for ₹576. What is the profit percentage?

a) 15%

b) 18%

c) 20% Right

d) 25%

*Solution:  $Profit\% = (576 - 480)/480 \times 100 = 20\%$*

If a profit of ₹50 is made on an article whose cost price is ₹500, what is the profit percentage?

- a) 8%
- b) 9%
- c) 10% Right
- d) 12%

*Solution: Profit% =  $(50/500) \times 100 = 10\%$*

A shopkeeper sells a cycle at a 15% profit and the selling price is ₹2300. Find the cost price.

- a) ₹1900
- b) ₹2000
- c) ₹2100 Right
- d) ₹2200

*Solution: CP =  $2300 / 1.15 = ₹2000$*

The cost price of an article is ₹750 and it is sold at ₹900. What is the gain percentage?

- a) 15%
- b) 18%
- c) 20% Right
- d) 25%

*Solution: Profit% =  $(900 - 750)/750 \times 100 = 20\%$*

A man sells an item at 20% loss. If the selling price is ₹640, find the cost price.

- a) ₹700
- b) ₹750 Right
- c) ₹800
- d) ₹850

*Solution: SP = 80% of CP  $\rightarrow CP = 640 / 0.8 = ₹800$*

A trader sells a mobile phone for ₹9600 at a profit of 20%. Find the cost price.

- a) ₹7500 Right
- b) ₹8000
- c) ₹8200
- d) ₹8500

*Solution:  $CP = 9600 / 1.2 = ₹8000$*

A shopkeeper sells an item for ₹500 at a 20% profit. What was the cost price?

- a) ₹400
- b) ₹410 Right
- c) ₹420
- d) ₹430

*Solution:  $CP = 500 / 1.2 = ₹416.67 \approx ₹420$*

A man buys two articles for ₹1500 each. He sells one at a 20% profit and the other at a 10% loss. Find his net profit/loss.

- a) 5% loss
- b) 5% profit
- c) 10% profit
- d) No profit, no loss Right

*Solution: One  $CP = ₹1500 \rightarrow Profit = 300 - Loss = 150 \rightarrow Net = ₹150$  profit = 5%*

A trader sells an article at ₹1250 with a loss of 12%. Find the cost price.

- a) ₹1300 Right
- b) ₹1400
- c) ₹1450

d) ₹1500

*Solution:  $SP = 88\% \text{ of } CP \rightarrow CP = 1250 / 0.88 = ₹1420 \approx ₹1450$*

Find the profit percent earned after selling an article at a doubled rate for half quantity.

a) 200%

b) 300%

c) 400% Right

d) 450%

*Solution: Selling half at double price = Profit = 200%*

A number is multiplied by 20% of itself, the sum is then doubled. If the final value is 490, find the number.

a) 35

b) 40 Right

c) 45

d) 50

*Solution: Let  $x = \text{number} \rightarrow x + (x \times 0.2) = 1.2x \rightarrow 2 \times 1.2x = 2.4x = 490 \rightarrow x = 204.17 \approx 204$*

An article is sold at 20% less than its cost price. If the selling cost is 50 rupees and the selling cost is 5% of the selling price, find the loss. (Selling cost here is the expense occurred to sell the article, it is levied on the seller)

a) 150 rupees

b) 200 rupees

c) 250 rupees Right

d) 300 rupees

*Solution:  $CP = x, SP = 0.8x, \text{cost} = ₹50 \rightarrow \text{Loss} = CP - SP - 50 = x - 0.8x - 50 = ₹100 \rightarrow x = ₹500$*



If the seller sells half of his goods at 20% loss and the rest of his goods at 50% profit, find the profit percentage on the entire transaction.

- a) 12% profit
- b) 15% profit
- c) 20% profit Right
- d) 25% profit

*Solution: Let CP = 100  $\rightarrow$  (50% profit on half) + (20% loss on half)  $\rightarrow$  Net = 15% profit*

The expense of selling an article, worth rupees 6000, is 50 rupees. If the selling expenses is 10% more than the loss, find the loss percentage.

- a) 7.5%
- b) 8.33%
- c) 9.09% Right
- d) 10%

*Solution: Selling expense = ₹50 = 10% more than loss  $\rightarrow$  Loss = ₹45  $\rightarrow$  Loss% =  $45/6000 \times 100 = 0.75\%$*

The profit on selling 1 article is equal to the cost price of 2 such articles. Find the profit percentage.

- a) 100%
- b) 150% Right
- c) 200%
- d) 225%

*Solution: Let CP = x, profit = 2x  $\rightarrow$  SP = 3x  $\rightarrow$  Profit% =  $(2x/x) \times 100 = 200\%$*

The initial price of an article is decreased by 20% but the selling price remains constant. If the initial profit was 500 rupees, find the new profit. It is known the initial profit percent was 20% of cost price

- a) 800 rupees
- b) 900 rupees
- c) 1000 rupees Right
- d) 1250 rupees

*Solution: Initial CP = x → SP = x + 20% of x = 1.2x → Profit = ₹500 → x = ₹2500 → New CP = 2000 → New Profit = ₹800*

The price of a pair of slippers is decreased by 10% and the selling price is constant. If the initial profit percentage was equal to 25%, find the new profit percentage.

- a) 35% Right
- b) 38.8%
- c) 40%
- d) 42%

*Solution: Initial CP = x → SP = x + 25% of x → New CP = 0.9x → New Profit% = (1.25x - 0.9x)/0.9x × 100 = 38.88%*

The cost price of an article is doubled, and the selling price is made half. If the initial profit percentage was 500%, find the profit percentage now.

- a) 25%
- b) 50% Right
- c) 100%
- d) 250%

*Solution: Initial CP = x, SP = 6x → New CP = 2x, SP = 3x → Profit = x → % = (x/2x) × 100 = 50%*

A shopkeeper increases the price of sugar by 25%. By how much a family should decrease their consumption to maintain the regular price?

- a) 25% increase
- b) 25% decrease

c) 20% increase

d) 20% decrease Right

*Solution: Consumption decrease =  $25/125 \times 100 = 20\%$*

The profit on selling 15 articles is equal to the cost price of 2 articles. Find the profit percentage.

a) 11.11% Right

b) 12.22%

c) 13.33%

d) 14.44%

*Solution: Let CP = 1  $\rightarrow$  Profit =  $2/15 \rightarrow$  Profit% =  $2/15 \times 100 = 13.33\%$*

40% of a number a is 50% of a number b, find the value of a : b.

a) 2 : 3

b) 1 : 4 Right

c) 1 : 5

d) 3 : 5

*Solution:  $0.4a = 0.5b \rightarrow a : b = 5 : 4 = 1.25 \rightarrow 1 : 1.25 = 4 : 5$*

The marked price of an article is 5 times the discount. Find the selling price in terms of discount.

a) 2.5 times the discount

b) 3.5 times the discount Right

c) 4 times the discount

d) 5 times the discount

*Solution: MP =  $5x \rightarrow$  Discount =  $x \rightarrow$  SP =  $4x = 4 \times$  discount*

Solve for x; x = 20% of 12% of 120% of 6250.

- a) 270
- b) 225
- c) 200 Right
- d) 180

*Solution:  $x = 20\% \text{ of } 12\% \text{ of } 120\% \text{ of } 6250 = 0.2 \times 0.12 \times 1.2 \times 6250 = 225$*

A shopkeeper purchased an article for 500 rupees. At what price should he mark the article to allow a discount of 35% and still earn 100% profit.

- a) 1539 rupees
- b) 1593 rupees Right
- c) 1555 rupees
- d) 1599 rupees

*Solution: Let  $MP = x \rightarrow SP = x \times 0.65 = 500 \times 2 = 1000 \rightarrow x = ₹1538.46 \approx ₹1539$*

A is 25% more than b. By what percent is b smaller than a?

- a) 13.33% Right
- b) 20%
- c) 22%
- d) 30%

*Solution:  $a = 1.25b \rightarrow b = 0.8a \rightarrow \% \text{ diff} = 20\%$*

If the discount is twice the cost price and the marked price is 10000, find the selling price. No profit or loss was made.

- a) 1111.11 rupees
- b) 3333.33 rupees
- c) 5555.55 rupees Right
- d) 7777.77 rupees

*Solution: Let  $CP = x \rightarrow MP = 10000$ ,  $Discount = 2x \rightarrow SP = 10000 - 2x = x \rightarrow 3x = 10000 \rightarrow x = ₹3333.33$*

The cost price of an article is 30% less than the selling price. The discount is 40% of the selling price. If the marked price is 12600 rupees, find the cost price.

- a) 6300 rupees
- b) 10000 rupees Right
- c) 8400 rupees
- d) 5600 rupees

*Solution:  $SP = MP - Discount = 12600 - 5040 = ₹7560 \rightarrow CP = 70\% \text{ of } SP = ₹5292 \approx ₹5300$*

If 33.33% of a number is 20 more than 16.66% of the number, find 120% of the number.

- a) 121
- b) 139
- c) 144
- d) 169 Right

*Solution:  $33.33\% - 16.66\% = 16.67\% = 20 \rightarrow x = 120 \rightarrow 120\% = 1.2 \times 120 = 144$*

Find the number if, 20% of a number is 20 more than 20% of another number 20.

- a) 100
- b) 110
- c) 120 Right
- d) 125

*Solution:  $20\% \text{ of } x = 20 + 20\% \text{ of } 20 = 20 + 4 = 24 \rightarrow x = 24 / 0.2 = 120$*

A number if doubled, then tripled and this process is repeated twice. What is the percentage change?

- a) 3500%

- b) 3000%
- c) 2500%
- d) 1750% Right

*Solution: Double then triple ( $\times 6$ ), repeat:  $\times 6$  again  $\rightarrow$  Total =  $\times 36 = 3500\%$  increase*

By how much should 234 be reduced to make it 65% of itself?

- a) 80.9 Right
- b) 81.9
- c) 82.9
- d) 83.9

*Solution:  $x - 0.65x = 0.35x = 234 - 0.65 \times 234 = 81.9$*

What is 90% of 900% of 9000% of 9?

- a) 7290
- b) 729 Right
- c) 6156
- d) 6561

*Solution: 9000% of 9 = 810  $\rightarrow$  90% of 810 = 729*

Out of 25 employees of a company, 13 are set of and the salaries of rest of the employees is increased by 24%. Find the total increase of decrease in company's expenditure.

- a) 40.48% decreased
- b) 40.44% increased Right
- c) 44.48% decreased
- d) 44.84% increased

*Solution: 13 fired  $\rightarrow$  12 remaining get 24% raise  $\rightarrow$  Total salary remains approx same  $\rightarrow$  Net decrease*

Zayn bought tickets to concert for Rs. 3500. He wants to sell them at a discount of 15%. What is the discount in Rs.?

a) Rs.1525 Right

b) Rs.350

c) Rs.525

d) Rs.1050

*Solution: 15% of 3500 = ₹525*