

**STUDY PARTNER, BANGALORE (An Institute for Competitive Exams)**

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1. An article is sold at a loss of 29%. Had it been sold for Rs. 84 more, the profit would have been 11%. The cost price of the article must be  
a. 210 b. 200 c. 180 d. 170

**Ans: a**

**Suppose C.P. = Rs. K**

$$\Rightarrow k - 29\% \text{ of } k + 84 = k + 11\% \text{ of } k$$

$$\Rightarrow 40\% \text{ of } k = 84 \Rightarrow k = 210$$

2. A sells a box to B at a profit of 10%. B sells the same to C for Rs. 924 and makes a profit of 5%. A's cost price must be

- a. Rs. 840 b. Rs. 800 c. Rs. 820 d. Rs. 780

**Ans: b**

**Let A's cost price be Rs.K**

**B's cost price =  $k + 10\%$  of  $k = 11k/10$**

$$\Rightarrow 11k/10 + 5\% \text{ of } 11k/10 = 924$$

$$\Rightarrow 220k + 11k = 924 \times 200$$

$$\Rightarrow 231k = 924 \times 200$$

$$\Rightarrow k = 800$$

3. By selling 4 articles per rupee, a man loses 4%. If he sells 3 articles per rupee, then the profit percent must be  
a. 28% b. 21% c. 14% d. 7%

**Ans: a**

**S.P. per article = Re.  $\frac{1}{4}$**

**Loss = 4%**

$$\text{C.P.} = 100 \times \frac{1}{4} / 100 - 4 = 25/96$$

**New S.P. =  $\frac{1}{3}$**

$$\text{Gain \%} = \frac{1/3 - 25/96}{25/96} \times 100 = 28$$

4. The difference between the selling price and cost price of an article is #210. If the profit percent is 25, then the selling price of the article is

- a. # 950 b. # 1,050 c. # 1,150 d. # 1,250

**Ans. b**

$$\text{S.P.} - \text{C.P.} / \text{C.P} \times 100 = 25$$

$$\Rightarrow 210/\text{C.P.} \times 100 = 25$$

$$\Rightarrow \text{CP} = 100 \times 210 / 25 = 840$$

$$\text{S.P.} = 125/100 \text{ of } 840$$

$$= 840 \times 125/100 = \text{Rs. } 1050$$

5. If the ratio of the cost price and the sale price of an article be 5:6, the percentage of gain is  
a. 25 b. 20 c. 18 d. 15

**Ans. b**

**C.P. = Rs.  $5x$  (let)**

**S.P. = Rs.  $6x$  (let)**

$$\text{Gain percent} = \frac{6x - 5x}{5x} \times 100 = 20\%$$

6. A tradesman marks his goods 10% above his cost price. If he allows the customers 10% discount on the marked price, how much profit or loss does he make, if any?

- a. 1% gain b. 1% loss c. 5% gain d. No gain, no loss

**Ans. b**

**Required loss**

$$= (10 \times 10 / 100)\% = 1\%$$

**EXP: Let cost price be 100. Mkd price = 110. SP = 90% of 110 = 99, hence loss = 1%**

7. Oranges are bought at 7 for Rs. 3. At what rate per hundred must they be sold to gain 33%?

- a. Rs. 56 b. Rs. 60 c. Rs. 58 d. Rs. 57

**Ans. d**

**Cost price of 7 oranges = Rs.  $\frac{3}{7}$**

**Cost price of 100 oranges**

$$= \frac{3}{7} \times 100 = \text{Rs. } \frac{300}{7}$$

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$$133\% = 300/7 \times 133/100 = \text{Rs. } 57$$

8. The cost price of 36 books is equal to the selling price of 30 books. The gain is:  
a. 20% b.  $16 \frac{4}{6}\%$  c. 18% d.  $82 \frac{2}{6}\%$

**Ans. a**

$$\text{Required profit} = 36 - 30 / 30 \times 100 = 20\%$$

9. A man wanted to sell an article with 20% profit; but he actually sold at 20% loss for Rs. 480. At what price he wanted to sell it to earn the profit?  
a. Rs. 720 b. Rs. 840 c. Rs. 600 d. Rs. 750

**Ans. a**

**According to question.**

$$80\% \Rightarrow 480$$

$$120\% = 480 \times 120/80 = \text{Rs. } 720$$

**Therefore, for 20% profit**

**The S.P. of article be Rs. 720**

10. A person sells two machines at Rs. 396 each. On one he gains 10% and on the other he loses 10%. His profit or loss in the whole transaction is:  
a. No gain no loss b. 1% loss c. 1% profit d. 8% profit

**Ans. b**

$$\text{Required loss} = 10 \times 10 / 100 = 1\%$$

$$\text{EXP: Loss \%} = \{(\text{common loss or gain}) / 10\}^2 = 1\%$$

11. By selling an article for Rs. 450, a man loses 20%. In order to make a profit of 20%, he must sell it for  
a. Rs. 675 b. Rs. 600 c. Rs. 625 d. Rs. 680

**Ans. a**

$$\text{Exp: S.P} = 450, \text{ Loss} = 20\%$$

$$\text{C.P.} = \text{S.P.} \times 100 / 100 - \text{Loss \%}$$

$$450 \times 100 / 100 - 20 = 562.50$$

$$\text{Profit} = 20\%$$

$$\text{S.P.} = 562.50 + 20\% = 675$$

12. Ranjeet purchased an item for Rs. 3,500 and sold it at the loss of 25%. From that amount he purchased another item and sold it at the gain of 20%. What is his overall gain/loss?  
a. Loss of Rs. 240  
b. Gain of Rs. 120  
c. Loss of Rs. 350  
d. Neither gain nor loss

**Ans.c**

$$\text{First S.P.} = 3500 \times 75 / 100$$

$$= \text{Rs. } 2625$$

$$\text{Second S.P.} = 2625 \times 120 / 100$$

$$= \text{Rs. } 3150$$

$$\text{Loss} = 3500 - 3150 = \text{Rs. } 350$$

13. The price of two tables and three chairs is Rs. 5,600. What will be the price of six tables and nine chairs?

- a. Rs. 16,800 b. Rs. 11,200 c. Rs. 22,400 d. Data inadequate

**Ans. a**

$$2T + 3C = \text{Rs. } 5600$$

$$= 6T + 9C = 3(2T + 3C)$$

$$= 3 \times 5600 = \text{Rs. } 16800$$

14. If the cost price of 15 articles is equal to the selling price of 12 articles, find gain %.  
a. 20 b. 25 c. 18 d. 21

**Answer is b**

**Selling price of 12 articles**

**Cost price of 15 articles**

$$\text{Profit} = 3/12 \times 100 = 25\%$$

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15. The cost price of an article is 64% of the marked price. The gain percentage after allowing a discount of 12% on the marked price is  
a. 37.5% b. 48% c. 50.5% d. 52%

**Answer is a**

**Let marked price = Rs. 100**

**Cost price = Rs. 64**

**Selling price = Rs. 88**

**Profit =  $88 - 64 / 64 \times 100 = 37.5\%$**

16. A man purchased some eggs at 3 for Rs. 5 and sold them at 5 for Rs. 12. Thus he gained Rs. 143 in all. The number of eggs he bought is  
a. 210 b. 200 c. 195 d. 190

**Answer is c**

**Cost price of one egg = Rs.  $5/3$**

**Selling price of one egg = Rs.  $12/5$**

**Profit per egg. =  $12/5 - 5/3$**

**=  $36 - 25 / 15 = 11/15$**

**Number of eggs =  $143 \times 15 / 11 = 195$**

17. X sells two articles for Rs. 4,000 each with no loss and no gain in the interaction. If one was sold at a gain of 25% the others is sold at a loss of  
a. 25% b.  $18 \frac{2}{9}\%$  c.  $16 \frac{2}{3}\%$  d. 20%

**Answer is c**

**Selling price = Rs. 4000**

**Gain = 25%**

**Cost price =  $100 / 125 \times 4000 = Rs. 3200$**

**Cost price of other articles =  $8000 - 3200 = Rs. 4,800$**

**Loss =  $4800 - 4000 / 4800 \times 100$**

**=  $16 \frac{2}{3}\%$**

18. A reduction of 20% in the price of sugar enables me to purchase 5 kg more for Rs. 600. Find the price of sugar per kg before reduction of price.  
a. Rs. 24 b. Rs. 30 c. Rs. 32 d. Rs. 36

**Answer is b**

**Let the price before reduction be Rs.  $x / kg$**

**$600 / 0.8x - 600 / x = 5$**

**$\Rightarrow 600 - 480 = 0.8x \times 5 = 4x$**

**$\Rightarrow x = 30$**

19. A profit of 25% is made by selling an article for Rs. 30. If the article was sold for Rs. 33.60, the profit would have been-  
a. 30% b. 35% c. 40% d. 45%

**Ans. c**

**Exp: Here, P = 25%, S.P. = Rs. 30**

**Cost Price =  $30 \times 100 / 125$**

**= Rs.24**

**Profit % =  $S.P. - C.P./C.P.$**

**=  $(33.60 - 24) / 24 \times 100\%$**

**=  $9.6 \times 100 / 24 = 40\%$**

20. If 3 mangoes are sold for the cost price of Rs. 4, the profit is -  
a.  $16 \frac{1}{3}\%$  b.  $33 \frac{1}{4}\%$  c.  $33 \frac{1}{3}\%$  d.  $40 \frac{1}{2}\%$

**Ans.c**

**Required profit %**

**=  $4 - 3/3 \times 100\% = 100/3\% = 33 \frac{1}{3}\%$**

21. A dealer marks his goods at 40% above the cost price and allows a discount of 20% on the marked price. The dealer has a  
a. loss of 20% b. gain of 25% c. loss of 12% d. gain of 12%

**Ans.d**

**Let the cost price be Rs. 100**

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**Market price = Rs. 140**

**Selling price =  $80/100 \times 140 = \text{Rs. } 112$**

**=> Gain = 12%**

22. The cost price : selling price of an article is a : b. If b is 200% of a then the percentage of profit on cost price is

a. 75%    b. 125%    c. 100%    d. 200%

**Ans.c**

**Cost price = a**

**Selling price = b = 2a**

**=> Profit = 100%**

23. A person sells 400 mangoes at the cost price of 320 mangoes. His percentage of loss is

a. 10    b. 15    c. 20    d. 25

**Ans.c**

**Let the cost price of one mango be x.**

**Cost price of 400 mangoes =  $400x$**

**Selling price of 400 mangoes =  $320x$**

**Loss =  $400x - 320x / 400x \times 100$**

**= 20%**

24. A customer wanted 30% discount on his purchase. The dealer gave him successive discounts of 20% and 12%. The customer got the discount

a. More than what he wanted    b. exactly what he wanted  
c. Less than what he wanted    d. None of these

**Ans.c**

**$100 - 20\% = 80$**

**$80 - 12\% = 70.4$**

25. A washing machine is sold at a discount of 30%. If a man buys it for Rs. 6,580, its list price is

a. Rs. 7,500    b. Rs. 8,600    c. Rs. 9,400    d. Rs. 6,990

**Ans.c**

**Marked price =  $6580 \times 100 / 70 = \text{Rs. } 9400$**

26. A man bought a certain quantity of rice at the rate of Rs. 650 per quintal. 20% of the rice was spoiled. At what rate should he sell the remaining rice to gain 20% on the outlay?

a. Rs. 775    b. Rs. 850    c. Rs. 890    d. Rs. 975

**Ans.d**

**Let 10 quintals of rice be bought.**

**Actual C.P. of 8 kg of rice**

**=  $650 \times 10 = \text{Rs. } 6,500$**

**Required S.P. =  $6500 \times 120 / 100 = \text{Rs. } 7800$**

**Rate of selling =  $7800 / 8$**

**= Rs. 975**

27. The price of an article has been reduced by 25%. In order to restore the original price, the reduced price must be increased by

a. 25%    b. 30%    c. 33%    d.  $33 \frac{1}{3}\%$

**Ans.d**

**Required percentage =  $25 / 100 - 25 \times 100$**

**=  $25/75 \times 100 = 33 \frac{1}{3}\%$**

28. A man bought a certain number of similar articles for Rs. 380. If he had paid rupee one more for each article, then he would have got one article less for the same price. What was the original price of each article?

a. Rs. 25    b. Rs. 19    c. Rs. 35    d. Rs. 18

**Ans. b**

**Exp. Suppose number of articles purchased for Rs. 380 = x**

**Price of each article =  $380 / x$**

**$(380 / x + 1) (x-1) = 380$**

**$\Rightarrow 380 - (380 / x + x - 1) = 380$**

**$\Rightarrow x^2 - x - 380 = 0$**

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⇒  $(x - 20)(x + 19) = 0$

⇒  $x = 20$

⇒ **Original price of each article = Rs. 19**

29. A sells an article, which costs him Rs. 400, to B at a profit of 20%. B then sells it to C, making a profit of 10% on the price he paid to A. How much does C pay to B?

a. Rs. 528      b. Rs. 476      c. Rs. 532      d. Rs. 472

**Ans. a**

**Exp. A sells the article to B for Rs. (400 + 20% of 40), i.e. Rs. 480**

**B sells the article to C for Rs. (480 + 10% of 480) i.e. Rs. 528**

30. What price should a shopkeeper mark on an article costing him Rs. 200 to gain 35% after allowing a discount of 25%?

a. Rs. 270      b. Rs. 300      c. Rs. 330      d. Rs. 360

**Ans.d**

**Selling price =  $135 / 100 \times 200 = \text{Rs. } 270$**

**Marked price =  $100 / 75 \times 270 = \text{Rs. } 360$**

31. A single discount equivalent to three successive discounts of 20%, 25% and 10% is

a. 55%      b. 50%      c. 48%      d. 46%

**Ans.d**

**Single equivalent discount for the successive discounts of 20% and 25%.**

**=  $\{(20 + 25) - (20 \times 25 / 100)\}\% = 40\%$**

**Single equivalent discount for the successive discounts of 40% and 10%.**

**=  $\{(40 + 10) - (40 \times 10 / 100)\}\% = 46\%$**

32. The marked price of an article is 20% more than its cost price. A discount of 20% is given on the marked price. In this kind of sales, the seller bears

a. No gain, no loss      b. a loss of 4%      c. A gain of 4%      d. a gain of 8%

**Ans.b**

**Let the cost price of the article be Rs. 100**

**Marked price = Rs. 120**

**After a discount of 20%**

**Selling price =  $120 \times 80 / 100 = \text{Rs. } 96$**

**Clearly there will be a loss of 4%.**

33. When an article is sold at a gain of 20%, it yields Rs. 60 more than when it is sold at a loss of 20%. The cost price of the article is

a. Rs. 200      b. Rs. 150      c. Rs. 140      d. Rs. 120

**Ans.b**

**Let the CP of the article of Rs. x**

**=  $120x / 100 - 80x / 100 = 60$**

⇒  **$40x = 60 \times 100$**

⇒  **$x = 60 \times 100 / 40 = \text{Rs. } 150$**

34. The profit earned by a shopkeeper by selling an article at a gain of 8% is Rs. 28 more than when he sells it at a loss of 8%. The cost price of the article is

a. Rs. 170      b. Rs. 190      c. Rs. 175      d. Rs. 165

**Ans. c**

**C.P. of article = Rs. x (let)**

**$x \times 108 / 100 - x \times 92 / 100 = 28$**

⇒  **$16x / 100 = 28$**

⇒  **$x = 28 \times 100 / 16 = \text{Rs. } 175$**

35. A reduction of 10% in the price of sugar enables a shopkeeper to obtain 25 kg more for Rs. 2250. The original price per kg was:

a. Rs. 8      b. Rs. 9      c. Rs. 10      d. Rs. 11

**Ans. c**

**Let original price of sugar be Rs. x per kg**

**New price = Rs.  $9x / 10$  per kg**

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$$2250 / 9x/10 - 2250/x = 25$$

$$\Rightarrow 2250 (10 / 9x - 1/x) = 25$$

$$\Rightarrow 2250 (10-9)/9x = 25$$

$$\Rightarrow 2250 = 25 \times 9x$$

$$\Rightarrow x = \text{Rs. } 10 \text{ per kg.}$$

36. The cost price of 19 mangoes is equal to the selling price of 16 mangoes. The gain per cent is:  
 a. 3 9/17%    b. 15 15/19%    c. 18 3/4 %    d. 2%

**Ans. c**

**Gain per cent**  
 $= 19 - 16/16 \times 100$   
 $= 300 / 16 = 75/4 = 18 \frac{3}{4}\%$

**EXP: Pft of selling 16 mangoes = CP of 19 mangoes - CP of 16 mangoes = CP of 3 mangoes. Therefore, profit of selling 100 mangoes = 100 X 3/16 = 18 3/4 %**

37. Gudia purchased a watch at 9/10<sup>th</sup> of its selling price and sold it at 8% more than its selling price. Her gain is  
 a. 18%    b. 20%    c. 10%    d. none of these

**Ans. b**

**Let the original S.P. of watch be Rs. 100**

**C.P. for Gudia == Rs. 90**

**S.P. = Rs. 108**

**Gain = Rs. 18**

**Gain percent = 20**

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
STD	STD	STD	STD	MOD	MOD	STD	STD	MOD	STD	STD	MOD	SIM	SIM	MOD

16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
STD	STD	STD	STD	SIM	MOD	SIM	MOD	MOD	MOD	STD	MOD	STD	STD	STD

31	32	33	34	35	36	37
STD	STD	MOD	STD	STD	STD	MOD