**Profit and Loss**

**Introduction**

**Cost Price:** The price, at which an article is purchased, is called its **cost price (C.P)**

**Selling Price:** The price, at which an article is sold, is called its **selling price (S.P)**

**Profit or Gain:** If S.P. is greater than C.P., the seller is said to have a **profit** or **gain**.

**Loss:** If S.P. is less than C.P., the seller is said to have incurred a **loss**.

**IMPORTANT FORMULAE**

1. Gain = (S.P.) - (C.P.)
2. Loss = (C.P.) - (S.P.)
3. Loss% or gain% is always calculated on C.P. Discount% is always calculated on M.P
4. If an article is sold at a gain of say 15%, then S.P. = 115% of C.P.
5. If an article is sold at a loss of say, 15% then S.P. = 85% of C.P.
6. When a person sells two similar items, one at a gain of say *x*%, and the other at a loss of *x*%, then the seller always incurs a loss given by:

|  |  |  |  |  |  |  |  |  |  |  |
| --- | --- | --- | --- | --- | --- | --- | --- | --- | --- | --- |
| Loss % = | http://www.indiabix.com/_files/images/aptitude/1-sym-oparen-h1.gif | Common Loss and Gain % | http://www.indiabix.com/_files/images/aptitude/1-sym-cparen-h1.gif | 2 | = | http://www.indiabix.com/_files/images/aptitude/1-sym-oparen-h1.gif | *x* | http://www.indiabix.com/_files/images/aptitude/1-sym-cparen-h1.gif | 2 | . |
| 10 | 10 |

1. If a trader professes to sell his goods at cost price, but uses false weights, then

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
| Gain % = | http://www.indiabix.com/_files/images/aptitude/1-sym-obracket-h1.gif | Error | x 100 | http://www.indiabix.com/_files/images/aptitude/1-sym-cbracket-h1.gif%. |
| (True Value) - (Error) |
|  |  |  |  |  |

8. If a% and b% are two successive changes, then the overall change =

9. If CP of x articles = SP of y articles, profit or loss = (

**Questions:**

1. A shopkeeper buys an article for Rs 500 and sells it at Rs 600. Find the gain%.

2. An article is bought for Rs 1200 and sold it a gain of 20%. Find the SP.

3. The profit obtained when an article is sold for Rs 300 is same as the loss obtained when the same article is sold for Rs 200. Find the CP.

4. The SP of 20 articles to be equal to the CP of 25 articles. Then profit percent is?

5. Srikar purchases two buildings each Rs 20 lakhs. One he sells at a profit of 10% and another at a loss of 10%. Find the gain or loss percentage in the transaction.

6. A trader sells two articles for Rs 4800 each. On one he gains 20% and on another he suffers a loss of 20%. Find his gain or loss percent.

7. By selling a pen drive for Rs 350, a dealer suffers a loss of 30%. For how much should he sell it to gain 30%?

8. A man purchases 6 articles at Rs 5 and sells 5 articles at Rs 6. Find the overall loss or gain%?

9. Successive discounts of 20% and 20% are equivalent to a single discount of \_\_\_?

10. The marked price of a table is Rs 1000 and two successive discounts of 30% and 20% are allowed. Find the SP.

11. By what % should list price be marked above the cost price in order to make a profit of 8% after giving 10% discount?

12. Suresh bought two bags for Rs 900. He sold one bag at a gain of 20% and the other at a loss of 4% and he found each bag was sold at the same value. What is the cost of the bag sold at a gain?

13. A retailer marks all his goods at 50% above the cost price, thinking that he will still make a profit of 25%, offering a discount of 25% on the marked price. What is his actual profit percentage on sales?

14. A retailer buys 40 pens at the marked price of 36 pens from a wholesaler. If he sells these pens giving a discount of 1%, what is his profit percent?

15. After successive discounts of x% and y%, an article worth Rs 240 is available for Rs 170. If y = 15 then x =?