Introduction & New profit Sharing Ratio/Gaining Ratio

1 Mark Questions

1. X, Y and Z are partners sharing profits in the ratio of 1/2, 2/5 and 1/10. Find the new ratio of remaining partners, if Z retires. (Delhi 2014)

Ans. Old ratio of X: V : Z = 1/2: 2/5: 1/10 or 5/10: 4/10: 1/10 or 5:4:1
Z retires, after striking of the retiring partner's ratio, remaining ratio will be new profit sharing ratio, i.e. 5 :4.

2. Why heirs of a retiring/deceased partner are entitled to a share of goodwill of the firm? (Delhi 2014)

Ans. The retiring or deceased partner is entitled to his share of goodwill at the time of retirement/death because the goodwill has been earned by the firm at the time when he was a partner.

3. X, Y and Z were partners sharing profits in the ratio of 1/2, 3/10, and 1/5. X retired from the firm. Calculate the gaining ratio of the remaining partners. (All India 2014)

Ans. Old ratio of X:Y:Z =1/2: 3/10 :1/5 or 5/10 : 3/10 : 2/10= 5:3:2
X retired, after striking of the retiring partner's ratio, remaining ratio will be new profit sharing ratio,i.e. 3:2
New profit sharing ratio = Y : Z = 3:2
Gaining Ratio = New Ratio – Old Ratio
Y = 3/5-3/10 = 6-3/10=3/10; Z=2/5-2/10 =4-2/10 =2/10
Gaining ratio = 3:2

4. Ram, Mohan and Sohan were partners in a firm sharing profits in the ratio of 4:3:2. Mohan retired. His share was taken over equally by Ram and Sohan. In which ratio will the profit or loss on revaluation of assets and liabilities on the retirement of Mohan be transferred to the capital accounts of the partners? (Delhi 2010C)

Ans. The profit or loss on revaluation of assets and liabilities on the retirement of Mohan will be transferred to the capital accounts of the partners in their old ratio, i.e. 4:3:2.

5. How can a partner retire from a firm? (Foreign 2009)
Ans. A partner can retire
(i) With the consent of all the partners.
(ii) By giving notice in writing, in case of partnership at will.

6. A, B and C were partners in a firm sharing profits in the ratio of 8 : 4 :3. B retires and his share is taken up equally by A and C. Find the new profit sharing ratio. (Delhi 2009)

Ans. B's share of profit = $\frac{4}{15}$th, to taken by A and C equally.

$$\therefore \quad \text{A gains} = \frac{4}{15} \times \frac{1}{2} = \frac{4}{30} \qquad \text{C gains} = \frac{4}{15} \times \frac{1}{2} = \frac{4}{30}$$

$$\text{New share of A} = \frac{8}{15} + \frac{4}{30} = \frac{16+4}{30} = \frac{20}{30}$$

$$\text{New share of C} = \frac{3}{15} + \frac{4}{30} = \frac{6+4}{30} = \frac{10}{30}$$

New profit sharing ratio of A and C = 20 :10 or 2 : 1.

7. Define gaining ratio. (Delhi 2008)

Ans. The ratio in which the continuing partners have acquired the share from the retiring partner's share of the profit is termed as gaining ratio.
Gaining Ratio = New Ratio – Old Ratio

8. A, B and C are partners sharing profits in the ratio of 3 : 2 :1. B retires and new profit sharing ratio between A and C is 3 : 1. State the gaining ratio. (All India 2008)

Ans. Old ratio among A, B and C = 3 : 2 : 1

New profit sharing ratio between A and C = 3 : 1

Gaining Ratio = New Ratio – Old Ratio

$$\text{A gains} = \frac{3}{4} - \frac{3}{6} = \frac{9-6}{12} = \frac{3}{12},$$

$$\text{C gains} = \frac{1}{4} - \frac{1}{6} = \frac{3-2}{12} = \frac{1}{12}$$

Gaining ratio of A and C = 3 :1

2 Marks Questions

9. (i) K, L and Z are partners sharing profits in the ratio of 4 : 3 : 2 respectively. L retired and surrendered 1/9 of his share of profit to K and remaining in favour of Z. Calculate the new profit sharing ratio of K and Z.
(ii) Arun, Varun and Charan are partners sharing profits in the ratio of 1/2, 3/10 and 1/5 respectively. Varun retired from the firm and Arun and Charan decided to share future profits in 3 : 2 ratio. Calculate gaining ratio of Arun and Charan. (Compartment 2014)

Ans. (i) Old ratio between K, L and Z = 4 : 3 : 2.

Share surrendered in favour of K by L = 3/9 x 1/9 = 3/81
Share surrendered in favour of Z by L = 3/9-3/81 = 27-3/81 = 24/81

$$\text{New share of K} = \frac{4}{9} + \frac{3}{81} = \frac{36+3}{81} = \frac{39}{81}$$

$$\text{New share of Z} = \frac{2}{9} + \frac{24}{81} = \frac{18+24}{81} = \frac{42}{81}$$

$\therefore$ New ratio = 39 : 42 or 13 : 14

(*ii*) Old ratio between Arun, Varun and Charan $= \frac{1}{2} : \frac{3}{10} : \frac{1}{5}$ or 5 : 3 : 2.

New ratio between Arun and Charan = 3 : 2

Gaining Ratio = New Ratio – Old Ratio

$$\text{Arun} = \frac{3}{5} - \frac{5}{10} = \frac{6-5}{10} = \frac{1}{10}$$

$$\text{Charan} = \frac{2}{5} - \frac{2}{10} = \frac{4-2}{10} = \frac{2}{10}$$

$\therefore$ Gaining ratio = 1 : 2

10. R, S and M are partners sharing profits in the ratio of 2/5, 2/5 and 1/5. M decides to retire from business, and his share is taken by R and S in the ratio of 2: 1. Calculate the new profit sharing ratio. (All India 2011)

Ans. Old ratio of R, S and M = 2 : 2 : 1

M's share of profit = $\frac{1}{5}$th, to be taken over by R and S in the ratio 2 : 1

i.e. $\text{R took} = \frac{1}{5} \times \frac{2}{3} = \frac{2}{15}$; $\text{S took} = \frac{1}{5} \times \frac{1}{3} = \frac{1}{15}$

Therefore, the new ratio will be

$$\text{R} = \frac{2}{5} + \frac{2}{15} = \frac{6+2}{15} = \frac{8}{15}; \qquad \text{S} = \frac{2}{5} + \frac{1}{15} = \frac{6+1}{15} = \frac{7}{15}$$

New ratio of R and S will be 8 : 7.

11. A, B and C were partners in a firm sharing profits in the ratio of 5 : 4:3. B retires and his share is taken up equally by A and C. Find the new profit sharing ratio. (All India 2009)

Ans. Old ratio of A, B and C = 5 : 4 : 3

B's share of profit = $\frac{4}{12}$th

To be taken by A and C equally.

i.e. A took = $\frac{4}{12} \times \frac{1}{2} = \frac{4}{24}$; C took = $\frac{4}{12} \times \frac{1}{2} = \frac{4}{24}$

Therefore, the new ratio will be

$$A = \frac{5}{12} + \frac{4}{24} = \frac{10+4}{24} = \frac{14}{24} \quad ; \qquad C = \frac{3}{12} + \frac{4}{24} = \frac{6+4}{24} = \frac{10}{24}$$

New ratio of A and C will be 14 : 10 or 7 : 5.

12. A, B and C were partners in a firm sharing profits in the ratio of 6 : 5:4. C retires and his share is taken up equally by A and B. Find the new profit sharing ratio. (Foreign 2009)

Ans. Old ratio of A, B and C = 6 : 5 : 4

C's share = $\frac{4}{15}$ th

To be taken by A and B equally.

i.e. A took = $\frac{4}{15} \times \frac{1}{2} = \frac{4}{30}$;

B took = $\frac{4}{15} \times \frac{1}{2} = \frac{4}{30}$

Therefore, the new ratio will be

$$A = \frac{6}{15} + \frac{4}{30} = \frac{12+4}{30} = \frac{16}{30};$$

$$B = \frac{5}{15} + \frac{4}{30} = \frac{10+4}{30} = \frac{14}{30}$$

New ratio of A and B will be 16 : 14 or 8 : 7.