Change in Profit-Sharing Ratio Among the Existing Partners

Question 1.

A and B are sharing profits and losses equally. With effect from 1st April, 2016, they agree to share profits in the ratio of 4:3. Calculate individual partner's gain or sacrifice due to change in ratio.

Solution:

Old Ratio (A and B)=1:1
New Ratio (A and B)=4:3
Sacrificing (or Gaining) Ratio=Old Ratio-New Ratio

$$A\text{'s Share} = \frac{1}{2} - \frac{4}{7} = \frac{7-8}{14} = \frac{-1}{14}\text{(Gain)}$$

$$B\text{'s Share} = \frac{1}{2} - \frac{3}{7} = \frac{7-6}{14} = \frac{1}{14}\text{(Sacrifice)}$$

∴ A's Gain=1/14
B's Sacrifice= 1/14

Question 2.

X, Y and Z are sharing profits and losses in the ratio of 5:3:2. With effect from 1st April, 2016, they e future profits and losses in the ratio of 5:2:3. Calculate each partner's gain or sacrifice due to the change in ratio.

Solution:

Old Ratio(X, Y and Z)=5 : 3 : 2
New Ratio(X, Y and Z)=5 : 2 : 3
Sacrificing(or Gaining)Ratio=Old Ratio – New Ratio

$$X\text{'s Share} = \frac{5}{5} - \frac{5}{10} = \text{Nil}$$

$$Y\text{'s Share} = \frac{3}{10} - \frac{2}{10} = \frac{1}{10}\text{(Sacrifice)}$$

$$Z\text{'s Share} = \frac{2}{10} - \frac{3}{10} = -\frac{1}{10}\text{(Gain)}$$

∴ Z's Gain = 1 / 10
Y's Sacrifice = 1 / 10

Question 3.

X, Y and Z are sharing profits and losses in the ratio of 5:3:2. With effect from 1st April, 2016, they decide to share future profits and losses equally. Calculate each partners gain or sacrifice due to the change in ratio.

Solution:

Old Ratio(X, Y and Z)=5 : 3 : 2
New Ratio(X, Y and Z)=1 : 1 : 1
Sacrificing(or Gaining)Ratio=Old Ratio – New Ratio

$$X\text{'s Share} = \frac{5}{10} - \frac{1}{3} = \frac{15-10}{30} = \frac{5}{30}\text{(Sacrifice)}$$

$$Y\text{'s Share} = \frac{3}{10} - \frac{1}{3} = \frac{9-10}{30} = \frac{-1}{30}\text{(Gain)}$$

$$Z\text{'s Share} = \frac{2}{10} - \frac{1}{3} = \frac{6-10}{30} = \frac{-4}{30}\text{(Gain)}$$

∴ Y's Gain = 1 / 30
Z's Gain = 4 / 30
X's Sacrifice = 5 / 30

Question 4.

A, B and C shared profit and losses in the ratio of 3:2:1 respectively. With effect from 1st April, 2016, they agreed to share profit equally. The goodwill of the firm was valued at Rs.18,000. Pass necessary journal entry.

Solution:

Journal

Date	Particulars	L.F.	Debit ₹	Credit ₹
	C's Capital A/c Dr.		3,000	
	To A's capital A/c			3,000
	(Being adjustment of goodwill made on change in profit sharing ratio)			

Working Note:

Old Ratio (A,B and C)= 3:2:1

New Ratio (A,B and C)=1:1:1

Sacrificing (or Gaining) Ratio = Old Ratio - New Ratio

$$A's\,Share = \frac{3}{6} - \frac{1}{3} = \frac{3-2}{6} = \frac{1}{6} (Sacrifice)$$

$$B's\,Share = \frac{2}{6} - \frac{1}{3} = \frac{2-2}{6} = Nil$$

$$C's\,Share = \frac{1}{6} - \frac{1}{3} = \frac{1-2}{6} = \frac{-1}{6} = (Gain)$$

Goodwill of the firm = ₹18, 000

$$A\text{ will receive for goodwill} = 18,000 \times \frac{1}{6} = ₹3,000$$

$$C\text{ will give for goodwill} = 18,000 \times \frac{1}{6} = ₹3,000$$

Question 5.

X, Y and Z are partners sharing profits and losses in the ratio of 5:3:2. From 1st April, 2016, they decided to share profits and losses equally. The Partnership Deed provides that in the event of any change in the profit-sharing ratio, the goodwill should be valued at two years' purchase of the average profit of the preceding five years. The profits and losses of the preceding years are:

Year	2011-12	2012-13	2013-14	2014-15	2015-16
Profit (₹)	70,000	85,000	45,000	35,000	10,000 (Loss)

It is the practice of the firm not to show goodwill in the books.

You are required to calculate goodwill and pass Journal entry.

Solution:

Journal

Date	Particulars	L.F.	Debit ₹	Credit ₹
	Y's Capital A/c Dr.		3,000	
	Z's Capital A/c		12,000	15,000
	To X's Capital A/c			
	(Being amount of goodwill adjusted on change in profit sharing ratio)			

Working Notes:

1 Calculation of Sacrificing (or Gaining) Ratio

Old Ratio (X,Y and Z) = 5:3:2

New Ratio (X,Y and Z) = 1:1:1

Sacrificing (or Gaining) Ratio = Old Ratio - New Ratio

$$X's\ Share = \frac{5}{10} - \frac{1}{3} = \frac{15-10}{30} = \frac{5}{30}(\text{Sacrifice})$$

$$Y's\ Share = \frac{3}{10} - \frac{1}{3} = \frac{9-10}{30} = \frac{-1}{30}(\text{Gain})$$

$$Z's\ Share = \frac{2}{10} - \frac{1}{3} = \frac{6-10}{30} = \frac{-4}{30}(\text{Gain})$$

2 Calculation of Goodwill

$$\text{Goodwill} = \text{Average Profit} \times \text{No. of Year's Purchased}$$

$$\text{Average Profit} = \frac{70,000+85,000+45,000+35,000-10,000}{5} = ₹45,000$$

$$\therefore \text{Goodwill} = 45,000 \times 2$$

$$= ₹90,000$$

3 Adjustment of Goodwill

$$\text{Amount to be credited to X's Capital A/c} = 90,000 \times \frac{5}{30}(\text{Share of sacrifice})$$

$$= ₹15,000$$

$$\text{Amount to be debited to Y's Capital A/c} = 90,000 \times \frac{1}{30}(\text{Share of gain})$$

$$= ₹3,000$$

$$\text{Amount to be debited to Z's Capital A/c} = 90,000 \times \frac{4}{30}(\text{Share of gain})$$

$$= ₹12,000$$

Question 6.

X, Y and Z are partners sharing profits and losses in the ratio of 5:3:2, decided to share future profits and losses equally with effect from 1st April, 2016. On that date, the goodwill appeared in the books at Rs.12,000. But it was revealed at Rs.30,000. Pass Journal entries assuming that no goodwill will appear the books of accounts.

Solution:

Journal

Date	Particulars	L.F.	Debit ₹	Credit ₹
	X's Capital A/c Dr.		6,000	
	Y's Capital A/c Dr.		3,600	
	Z's Capital A/c Dr.		2,400	
	To Goodwill A/c			12,000
	(Being goodwill written off)			
	Y's Capital A/c Dr.		1,000	
	Z's Capital A/c Dr.		4,000	
	To X's Capital A/c			5,000
	(Being amount of goodwill adjusted on change in profit sharing ratio)			

Working Notes:

1 Calculation of Sacrificing (or Gaining) Ratio

Old Ratio (X, Y and Z)=5:3:2

New Raito (X,Y and Z)= 1:1:1

Sacrificing (or Gaining) Ratio = Old Ratio- New Ratio

$$X's\ Share = \frac{5}{10} - \frac{1}{3} = \frac{15-10}{30} = \frac{5}{30}(\text{Sacrifice})$$

$$Y's\ Share = \frac{3}{10} - \frac{1}{3} = \frac{9-10}{30} = \frac{-1}{30}(\text{Gain})$$

$$Z's\ Share = \frac{2}{10} - \frac{1}{3} = \frac{6-10}{30} = \frac{-4}{30}(\text{Gain})$$

2 Writing off of Old Goodwill

$$X's\ Share = 12,000 \times \frac{5}{10} = ₹6,000$$

$$Y's\ Share = 12,000 \times \frac{3}{10} = ₹3,600$$

$$Z's\ Share = 12,000 \times \frac{2}{10} = ₹2,400$$

3 Adjustment of Goodwill

$$\text{Amount to be credited to X's Capital A/c} = 30,000 \times \frac{5}{30}(\text{Share of sacrifice}) = ₹\ 5,000$$

$$\text{Amount to be debited to Y's Capital A/c} = 30,000 \times \frac{1}{30}(\text{Share of gain}) = ₹\ 1,000$$

$$\text{Amount to be debited to Z's Capital A/c} = 30,000 \times \frac{4}{30}(\text{Share of gain}) = ₹\ 4,000$$

Question 7.

A and B are partners in a firm sharing profits in the ratio of 2: 1. They decided with effect from 1st April, 2016, that they would share profits in the ratio of 3:2. But, this decision was taken after the profit for the year 2016-17 amounted to Rs.90,000 has been distributed in the old ratio.

Value of firm’s goodwill was estimated on the basis of aggregate of two years’ profits preceding the date decision became effective.

The profits for 2014-15 and 2015-16 were Rs.60,000 and Rs.75,000 respectively. It was decided that Goodwill Account will be opened in the books of the firm and necessary adjustment be made through Capital Accounts which, on 31st March stood, at Rs.1,50,000 for A and Rs.90,000 for B.

Pass necessary Journal entries and prepare Capital Accounts.

Solution:

Journal

Date	Particulars		L.F.	Debit ₹	Credit ₹
	A's Capital A/c	Dr.		6,000	
	To B's Capital A/c				6,000
	(Being adjustment of profit for 2016-17 on change in profit sharing ratio)				
	B's Capital A/c	Dr.		9,000	
	To A's Capital A/c				9,000
	(Being adjustment of goodwill made on change in profit sharing ratio)				

Partner's Capital Accounts

Dr **Cr**

Particulars	A	B	**Particulars**	A	B
To B's Capital A/c	6,000	-	By Balance b/d	1,50,000	90,000
(Adjustment of profit)			By A's Capital A/c		6,000
To A's Capital A/c		9,000	(Adjustment Profit)		
(Adjustment of Goodwill)			By B's Capital A/c	9,000	-
To Balance c/d	1,53,000	87,000	(Adjustment of Goodwill)		
	1,53,000	96,000		1,59,000	96,000

Working Notes:

1 Calculation of Sacrificing (or Gaining) Ratio
Old Ratio (A and B)=2:1
New Ratio (A and B)=3:2
Sacrificing (or Gaining) Ratio=Old Ratio-New Ratio

$$\text{A's Ratio} = \frac{2}{3} - \frac{3}{5} = \frac{10-9}{15} = \frac{1}{15}(\text{Sacrifice})$$

$$\text{B's Ratio} = \frac{1}{3} - \frac{2}{5} = \frac{5-9}{15} = \frac{-1}{15}(\text{Gain})$$

2 Adjustment of Profit for 2016-17

$$\text{Profit to be debited to A's Capital A/c} = 90{,}000 \times \frac{1}{15}(\text{Share of sacrifice})$$
$$= ₹6{,}000$$

$$\text{Profit to be credited to B's Capital A/c} = 90{,}000 \times \frac{1}{15}(\text{Share of gain})$$
$$= ₹6{,}000$$

3 Calculation of New Goodwill
= Profit of 2014-15+ Profit of 2015-16
= 60,000+75,000
= ₹1,35,000

4 Adjustment of Goodwill

$$\text{Goodwill to be debited to A's Capital A/c} = 1{,}35{,}000 \times \frac{1}{15}(\text{Share of sacrifice})$$
$$= ₹9{,}000$$

$$\text{Goodwill to be debited to B's Capital A/c} = 1{,}35{,}000 \times \frac{1}{15}(\text{Share of gain})$$
$$= ₹9{,}000$$

Question 8.

X and Y are partners in a firm sharing profits and losses in the ratio of 3:2. With effect from 1st April, 2016, they decided to share future profits equally. On the date of change in the profit-sharing ratio, the Profit and Loss Account showed a credit balance of Rs.1,50,000. Record the necessary Journal entry for the distribution of the balance in the Profit and Loss Account immediately before the change in the profit-sharing ratio.

Solution:

Journal

Date	Particulars	L.F.	Debit ₹	Credit ₹
	Profit and Loss A/c Dr.		1,50,000	
	To X's Capital A/c			90,000
	To Y's Capital A/c			60,000
	(Being adjustment of balance in PandL A/c in old ratio)			

Working Notes:
1 Calculation of Share of Profit and Loss A/c

$$X's\ share = 1,50,000 \times \frac{3}{5} = ₹90,000$$

$$Y's\ share = 1,50,000 \times \frac{2}{5} = ₹60,000$$

Question 9.

X and Yare partners sharing profits in the ratio of 2:1. On 31st March, 2016, their Balance Sheet shot General Reserve of Rs.60,000. It was decided that in future they will share profits and losses in the ratio of 3:2. Pass necessary Journal entry in each of the following alternative cases:

(i) If they do not want to show General Reserve in the new Balance Sheet.

(ii) If they want to show General Reserve in the new Balance Sheet.

Solution:

(i) If they do not want to show General Reserve in the new Balance Sheet

Journal

Date	Particulars	L.F.	Debit ₹	Credit ₹
	General Reserve A/c Dr.		60,000	
	To X's Capital A/c			40,000
	To Y's Capital A/c			20,000
	(Being adjustment of general reserve A/c in old ratio)			

WN1 Calculation of Share of General Reserve

$$X's\ share = 60,000 \times \frac{2}{3} = ₹40,000$$

$$Y's\ share = 60,000 \times \frac{1}{3} = ₹20,000$$

(ii) If they want to show General Reserve in the new Balance Sheet

Journal

Date	Particulars	L.F.	Debit ₹	Credit ₹
	Y's Capital A/c Dr.		4,000	
	To X's Capital A/c			4,000
	(Being adjustment of balance in General Reserve A/c in sacrificing/gaining ratio)			

Working Notes:
1 Calculation of Gain/Sacrifice
Sacrificing Ratio = Old Ratio-New Ratio

$$X = \frac{2}{3} - \frac{3}{5} = \frac{1}{15}(\text{sacrifice})$$

$$Y = \frac{1}{3} - \frac{2}{5} = \frac{1}{15}(\text{gain})$$

2 Calculation of Compensation by Y to X

$$\text{Amount to be compensated} = 60,000 \times \frac{1}{15} = 4,000$$

Question 10.

X and Y are in partnership sharing profits in the ratio of 2: 3. With effect from 1st April, 2016 they agreed to share profits in the ratio of 1: 2. For this purpose, the goodwill of the firm to be valued at two years' purchase of the average profit of last three years, which were Rs.1,50,000; Rs.1,60,000 and Rs.2,00,000 respectively. The reserves appear in the book Rs.1,10,000. Partners neither want to show the goodwill in the books nor want to distribute reserves. You are required to give effect to the change by passing a single Journal entry

Solution:

Journal

Date	Particulars	L.F.	Debit ₹	Credit ₹
	Y's Capital A/c Dr.		30,000	
	To X's Capital A/c			30,000
	(Being adjustment mode for goodwill and General Reserve)			

Working Notes:

1 Calculation of Goodwill

Goodwill=Average Profit × Number of year's purchase

$$\text{Average Profit} = \frac{1,50,000 + 1,60,000 + 2,00,000}{3} = ₹\,1,70,000 \therefore \text{Goodwill} = 1,70,000 \times 2 = ₹\,3,40,000$$

2 Calculation of Sacrificing (or Gaining) Ratio

Old Ratio (X and Y) =2:3

New Ratio (X and Y) = 1:2

Sacrificing (or Gaining) Ratio = Old Ratio-New Ratio

$$\text{X's ratio} = \frac{2}{5} - \frac{1}{3} = \frac{6-5}{15} = \frac{1}{15}\text{(Sacrifice)}$$

$$\text{Y's ratio} = \frac{3}{5} - \frac{2}{3} = \frac{9-10}{15} = \frac{-1}{15}\text{(Gain)}$$

3 Adjustment of Goodwill

$$\text{Amount to be credited to X's Capital} = 3,40,000 \times \frac{1}{15} = ₹\,22,667$$

$$\text{Amount to be credited to Y's Capital} = 3,40,000 \times \frac{1}{15} = ₹\,22,667$$

4 Adjustment of General Reserve

$$\text{Amount to be credited to X's Capital} = 1,10,000 \times \frac{1}{15} = ₹\,7,333$$

$$\text{Amount to be credited to Y's Capital} = 1,10,000 \times \frac{1}{15} = ₹\,7,333$$

5 Net Adjustment of Goodwill and General Reserve

Particulars	X	Y
Adjustment of Goodwill	22,667(Cr.)	22,667(Dr.)
Adjustment of General Reserve	7,333(Cr.)	7,333(Dr.)
Net Amount	30,000(Cr.)	30,000(Dr)

Question 11.

X, Y and Z are sharing profits and losses in the ratio of 5:3:2. They decide to share future profits and losses in the ratio of 2:3:5 with effect from 1st April, 2016. They also decide to record the effect of the following accumulated profits, losses and reserves without affecting their book figures by passing a single entry.

	Book Figure (₹)
General Reserve	6,000
Profit and Loss A/c (Credit)	24,000
Advertisement Suspense A/c	12,000

Pass necessary Single Adjustment Entry.

Solution:

Journal

Date	Particulars	L.F.	Debit ₹	Credit ₹
	Z's Capital A/c Dr.		5,400	
	To X's Capital A/c			5,400
	(Being adjustment for general reserve, Profit and Loss A/c and advertisement suspense account is made on change in profit sharing ratio)			

Working Notes :

1 Net Amount to be adjustment
= General Reserve + Profit and Loss A/c(Credit) - Advertisement Suspense A/c
= 6,000+24,000-12,000
= ₹18,000

2 Calculation of Sacrificing (or Gaining) Ratio
Old Ratio (X,Y and Z)=5:3:2
New Ratio (X,Y and Z) = 2:3:5
Sacrificing (or Gaining) Ratio= Old Ratio-New Ratio

$$X's\ Share = \frac{5}{10} - \frac{2}{10} - \frac{3}{10} (\text{Sacrifice})$$

$$Y's\ Share = \frac{3}{10} - \frac{3}{10} = \text{Nil}$$

$$Z's\ Share = \frac{2}{10} - \frac{5}{10} = \frac{-3}{10} (\text{Gain})$$

$$\text{Amount to be credited to X's Capital} = 18,000 \times \frac{3}{10} = ₹5,400$$

$$\text{Amount to be debited to Z's Capital} = 18,000 \times \frac{3}{10} = ₹5,400$$

Question 12.

X, Y and Z who are presently sharing profits and losses in the ratio of 5:3:2 decide to share future profits and losses in the ratio of 2:3:5. Give the Journal entry to distribute 'Workmen Compensation Reserve of 1,20,000 at the time of change in profit-sharing ratio, when there is no claim against it.

Solution:

Journal

Date	Particulars	L.F.	Debit ₹	Credit ₹
	Workmen Compensation Reserve A/c Dr.		1,20,000	
	To X's Capital A/s			60,000
	To Y's Capital A/c			36,000
	To Z's Capital A/c			24,000
	(Being adjustment of balance in Workmen Compensation Reserve A/c in old ratio)			

Working Notes:

1 Calculation of Share of Workmen Compensation Reserve

$$X's\ share = 1,20,000 \times \frac{5}{10} = 60,000$$

$$Y's\ share = 1,20,000 \times \frac{3}{10} = 36,000$$

$$Z's\ share = 1,20,000 \times \frac{2}{10} = 24,000$$

Question 13.

X, Y and Z who are presently sharing profits and losses in the ratio of 5: 3: 2 decide to share future profits and losses in the ratio of 2:3:5. Give the Journal entry to distribute 'Workmen Compensation Reserve' of Rs.1,20,000 at the time of change in profit-sharing ratio, when there is a claim of Rs.80,000 against it.

Solution:

Journal

Date	Particulars		L.F.	Debit ₹	Credit ₹
	Workmen Compensation Reserve A/c	Dr.		80,000	
	To Provision for Workmen Compensation Reserve A/c				80,000
	(Being adjustment for claim against WCR)				
	Workmen Compensation Reserve A/c			40,000	
	To X's Capital A/c				20,000
	To Y's Capital A/c				12,000
	To Z's Capital A/c				8,000
	(Being adjustment of balance in workmen composition reserve A/c in old ratio)				

Working Notes:
1 Calculation of Share of Workmen Compensation Reserve

$$X\text{'s share} = 40,000 \times \frac{5}{10} = ₹20,000$$

$$Y\text{'s share} = 40,000 \times \frac{3}{10} = ₹12,000$$

$$Z\text{'s share} = 40,000 \times \frac{2}{10} = ₹8,000$$

Question 14.

A, B and C who are presently sharing profits and losses in the ratio of 5:3:2 decide to share future profits and losses in the ratio of 2:3:5. Give the Journal entry to distribute 'Investment Fluctuation Reserve' of Rs.20,000 at the time of change in profit-sharing ratio, when investment (market value Rs.95,000) appears at Rs.1, 00,000.

Solution:

Journal

Date	Particulars		L.F.	Debit ₹	Credit ₹
	Investment Fluctuation Reserve A/c	Dr.		5,000	
	To Investment A/c				5,000
	(Being adjustment for decrease in the value of investments)				
	Investment Fluctuation Reserve A/c	Dr.		15,000	
	To A's Capital A/c				7,000
	To B's Capital A/c				4,500
	To C's Capital A/c				3,000
	(Being adjustment of balance in Investment Fluctuation Reserve A/c in old ratio)				

Working Notes:
1 Calculation of Share of Investment Fluctuation Reserve

$$A\text{'s share} = 15,000 \times \frac{5}{10} = ₹7,500$$

$$B\text{'s share} = 15,000 \times \frac{3}{10} = ₹4,500$$

$$C\text{'s share} = 15,000 \times \frac{2}{10} = ₹3,000$$