1. Details of Module and its structure

Module Detail	
Subject Name	Accountancy
Course Name	Accountancy 03 (Class XII, Semester - 1)
Module Name/Title	Distribution of Profits among Partners – Part 3
Module Id	leac_10203
Pre-requisites	Knowledge about preparation of Profit and loss A/c , Accounting treatment in the absence of the Partnership Deed
Objectives	After going through this lesson, the learners will be able to understand the following: • Method of preparing Profit and Loss Appropriation Account • Calculation of various Appropriation like, Interest on Capital, Salary to partners, Commission to partners etc. and Interest on Drawings. • Treatment of exceptional items like, Interest on Partner's Loan and Rent to a Partner.
Keywords	Profit and Loss Appropriation A/c, Interest on Capital, Interest on Drawings

2. Development Team

Role	Name	Affiliation
National MOOC Coordinator	Prof. Amarendra P. Behera	CIET, NCERT, New Delhi
Program Coordinator	Dr. Rejaul Karim Barbhuiya	CIET, NCERT, New Delhi
Course Coordinator (CC) / PI	Prof. Shipra Vaidya	DESS, NCERT New Delhi
Course Co-Coordinator / Co-PI	Dr. Nidhi Gusain	CIET, NCERT, New Delhi
Subject Matter Expert (SME)	Mr. Vinay Setia	Indraprasth Global School, New Delhi.
Review Team	Ms. Preeti Sharma	Kendirya Vidyalaya, Sec 24, Noida
Technical Team	Mr. Shobit Saxena Ms. Khushboo Sharma	CIET, NCERT, New Delhi CIET, NCERT, New Delhi

Table of Contents:

1. Distribution of Profits or Losses among Partners

In case of sole partnership, net profit or net loss ascertained by the Profit and Loss Account is transferred to capital account of the proprietor. In case of a Partnership firm, profits or losses are distributed among partners in the agreed ratio. However, certain adjustments such as Interest on capital, Salary to partners, Commission to partners and Interest on drawings etc. are required to be made before distribution of profits.

2. Profit and Loss Appropriation Account

Profit and Loss Appropriation Account is merely an extension of the Profit and Loss Account of the firm. It shows how profits are distributed among the partners after making appropriations. Itis credited with net profit or debited with net loss as Profit and Loss Account. All adjustments in respect of partner's salary, partner's commission, interest on capital, interest on drawings, etc. are made and then final profit/loss is distributed among partners.

2.1 Journal Entries relating to the Profit and Loss Appropriation Account

1. Transfer of the balance of Profit and Loss Account to Profit and Loss Appropriation Account	(a) If Profit and Loss Account shows a credit balance (Net Profit): Profit and Loss A/c Dr. To Profit and Loss Appropriation A/c (Being net profit transferred to P & L App. A/c) (b) If Profit and Loss Account shows a debit balance (Net Loss): Profit and Loss Appropriation A/c Dr. To Profit and Loss, A/c (Being net loss transferred to P & L App. A/c)

2. Interest on Capital	(a) For allowing interest on capital to partners' capital account: Interest on Capital A/c Dr. To Partner's Capital/Current A/c (b) For transferring interest on capital to Profit and Loss Appropriation Account: Profit and Loss Appropriation A/c Dr. To Interest on Capital A/c
3.Interest on Drawings	(a) For charging interest on drawings: Partner's Capital/Current A/c Dr. To Interest on Drawings A/c (b) For transferring interest on drawings to Profit and Loss Appropriation Account: Interest on Drawings A/c Dr. To Profit and Loss Appropriation A/c
4.Partners' Salaries/ Commission	(a) For crediting partner's salary or commission to partner's capital account: Partners' Salaries/ Commission A/c Dr. To Partner's Capital/Current A/c's (b) For transferring partner's salary to Profit and Loss Appropriation Profit and Loss Appropriation A/c Dr. To Partners' Salaries/Commission A/c
5.Transfer to General Reserve	Profit and loss Appropriation A/c Dr. To General Reserve A/c
6.Share of Profit or Loss after Appropriations	To distribute Profits among partners: Profit and Loss Appropriation A/c Dr. To Partner's Capital/Current A/c (individually) To distribute Losses among partners: Partner's Capital/Current A/c's (individually) Dr. To Profit and Loss Appropriation A/c

2.2 The Performa of Profit and Loss Appropriation Account:

Profit and Loss Appropriation Account
for the year ending 31st March ……

Dr. Cr.

Particulars	Amount ₹	Particulars	Amount ₹
To Interest on Capital:		By Profit and Loss, A/c	
A xxx		(Net Profit)	xxx
B xxx	xxx		
To Partners' Salary	xxxx	By Interest on Drawings:	
To Partners' Commission	xx	A xxx	
To General Reserve	xxx	B xxx	xxx
To Profit transferred to:			
*A's Capital A/or			
**A's Current A/c xxx	xxx		xxx

*In case of Fluctuating Capital Method; **In case of Fixed Capital Method

2.3 Difference between Profit and Loss Account and Profit and Loss Appropriation

	Profit and Loss Account	Profit and Loss Appropriation Account
1.	It is prepared after Trading Account.	It is prepared after Profit and Loss Account.
2	It shows the profit earned or loss incurred.	It shows appropriation of net profit.
3.	This account has neither opening nor closing balance.	This account may have both opening and Closing balance.
4.	Items debited to this account are all expenses (charge against profit).	Items debited to this account are appropriations of profit.
5.	Preparation of this account is not based on the partnership agreement, except for interest on loan from partners.	Preparation of this account is based on Partnership agreement.
6.	While preparing this account, matching principle is followed.	While preparing this account, matching principle is not followed.

3. Interest on Partners' Drawings

Partnership agreement may also provide for charging interest on drawings. As stated earlier, Interest on Drawings is not charged if there is no express agreement regarding it. However, if partnership deed provides, then interest is charged at an agreed rate, for the period money remained outstanding from the partners during an accounting year. Charging interest on drawings discourages excessive amounts of drawings by the partners.

Depending upon the availability of information, interest on drawings in different cases is calculated as follows:

3.a. When a Fixed Amount is Withdrawn at Regular Intervals -

When a fixed amount is with withdrawn for a fixed period of time, then Simple Interest Method is used

Under this method, interest on drawing is computed using the following formula:

$$\text{Interest on Drawings} = \text{Total Amount of Drawn} \times \frac{\text{Rate of Interest}}{100} \times \frac{\text{Average Period in months)}}{12}$$

Note:

Simple Interest Method is used only if both the following conditions are satisfied:

1. **Same Amount is withdrawn throughout the given period;**
2. **Drawings are made at regular interval.**

3.a.1. When amount is withdrawn in the BEGINNING of each MONTH:

$$\textbf{Interest on Drawings} = \frac{\textbf{Total Amount Withdrawn x Rate of Interest}}{\textbf{100}} \textbf{ x } \frac{\textbf{Average Period}}{\textbf{12}}$$

$$\text{Average Period} = \frac{\text{Months left after First Drawing} + \text{Months left after Last Drawing}}{2}$$

$$= \frac{12\text{months} + 1\text{month}}{2} = \quad 6.5 \text{ months}$$

$$\text{Interest on Drawings} = \frac{\text{Total Amount Withdrawn x Rate of Interest}}{100} \text{ x } \frac{6.5}{12}$$

3.a.2. When the amount is withdrawn at the MIDDLE of each MONTH:

$$\text{Interest on Drawings} = \frac{\text{Total Amount Withdrawn x Rate of Interest}}{100} \text{ x } \frac{6}{12}$$

$$\text{Average Period} = \frac{\text{Months left after First Drawings} + \text{Months left after Last Drawings}}{2}$$

$$= \frac{11.5\text{months} + 0.5\text{month}}{2} = \quad 6 \text{ months}$$

3.a.3. When the amount is withdrawn at the END of each MONTH:

$$\text{Interest on Drawings} = \frac{\text{Total Amount Withdrawn} \times \text{Rate of Interest}}{100} \times \frac{5.5}{12}$$

$$\text{Average Period} = \frac{\text{Months left after First Drawings} + \text{Months left after Last Drawings}}{2}$$

$$= \frac{11\text{months} + 0\text{month}}{2} = 5.5 \text{ months}$$

3.a.4. Average period under the various conditions will be as follows:

Conditions	Monthly Drawings for 12 Months	Quarterly Drawings for 12 Months	Half yearly Drawings for 12 Months	Monthly Drawings for the last 6 Months
When Drawings are made at the **BEGINNING** of each period	6.5 months	7.5 months	9 months	3.5 months
When Drawings are made at the **MIDDLE** of each period	6 months	6 months	6 months	3 months
When Drawings are made at the **END** of each period	5.5 months	4.5 months	3 months	2.5 months

Formulate Compute Average Period:

$$\text{Average Period} = \frac{\text{Months left after First Drawings} + \text{Months left after Last Drawings}}{2}$$

Example 1

A partner withdrew ₹ 2,000 per month. Under the partnership deed, interest is to be charged @ 15% p.a. Calculate the interest that should be charged to the partner if the drawings are made

i) In the beginning of the month;

ii) In the middle of the month; or

iii) At the end of the month.

Solution:

Total Amount Drawn =2,000x12= ₹ 24,000

i) When drawings are made in the BEGINNING of the MONTH

Interest on Drawings= $\frac{\text{Total Amount Withdrawn } \times \text{Rate of Interest}}{100} \times \frac{\text{Average Period}}{12}$

$= 24,000 \times \frac{15}{100} \times \frac{6.5}{12}$ or ₹ 1,950

ii) When drawings are made in the MIDDLE of the MONTH

Interest on Drawings= $\frac{\text{Total Amount Withdrawn } \times \text{Rate of Interest}}{100} \times \frac{\text{Average Period}}{12}$

$=24,000 \times \frac{15}{100} \times \frac{6}{12}$ or ₹ 1,800

iii) When drawings are made in the END of the MONTH

Interest on Drawings= $\frac{\text{Total Amount Withdrawn } \times \text{Rate of Interest}}{100} \times \frac{\text{Average Period}}{12}$

$= 24,000 \times \frac{15}{100} \times \frac{5.5}{12}$ or ₹ 1,650

Example 2

Calculate interest on drawing of Vimal if he withdrew ₹ 48000 in year withdrawn evenly **(i)** at beginning of each Quarter **(ii)** in the middle of Quarter **(iii)** at end of each Quarter. Rate of interest is 10% p.a.

Solution:

i) Drawing made on BEGINNING of each QUARTER

Interest on Drawings= $\frac{\text{Total Amount Withdrawn } \times \text{Rate of Interest}}{100} \times \frac{\text{Average Period}}{12}$

Interest on Drawing= $48,000 \times \frac{10}{100} \times \frac{7.5}{12}$ or ₹ 3,000

ii) Drawing made in MIDDLE of each QUARTER

Interest on Drawing $=48,000 \times \frac{10}{100} \times \frac{6}{12}$ or ₹ 2,400

iii) Drawings made at END of each QUARTER

Interest on Drawing $=48,000 \times \frac{10}{100} \times \frac{4.5}{12}$ or ₹ 1,800

3.b. When Unequal Amounts are Withdrawn at Irregular Intervals

Sometimes, partners may withdraw different amounts or and at different intervals of time. In that case 'Interest on Drawings 'is computed by any one of the following methods:

i. Simple Method (P x R x T) -In this method, interest on drawings is calculated for each amount of drawing individually on the basis of periods for which it remained withdrawn.

ii. Product Method- Under this method each amount of drawings is multiplied by its duration. Then all the products are added up and the interest is calculated on the total of products for one month.

$$\text{Interest on Drawings} = \text{Total of Products} \times \frac{\text{Rate of Interest}}{100} \times \frac{1}{12}$$

Let's understand the Simple Method and the Product method with the help of an example.

Example 3

M and O are partners in a firm with a profit sharing ratio of 7:5. During the year ended 31st December, 2019. 'M' makes following drawings:

Date	1st Feb	1st May	30th June	31st Oct	31st Dec
Amount (₹)	14,000	10,000	5,000	12,000	4,000

Partnership deed provides that the partners are to be charged interest on drawings @10% p.a. Calculate the interest chargeable to 'M'.

Solution:

i) Simple Method: (P x R x T)

$$\text{Interest on Drawings} = \text{Amount Withdrawn} \times \frac{\text{Rate of Interest}}{100} \times \frac{\text{Time Period}}{12}$$

Date	Amount (₹)	No. of Months up to 31st March	Interest @ 10%p.a (₹)
1st Feb	14,000	11	1,283.33*
1st May	10,000	8	666.67
30th June	5,000	6	250

31st Oct 31st Dec	12,000 4,000	2 0	200 0
			2,400

* Interest on Drawings= **14,000 x $\frac{10}{100}$ x $\frac{11}{12}$ = ₹ 1283.33**

ii) Product Method

A Date of Drawing	B Amount Drawn ₹	C No. of Months up to 31stDecember (End of the year)	D = B x C Product ₹
1st Feb 1st May 30th June 31st Oct 31st Dec	14,000 10,000 5,000 12,000 4,000	11 8 6 2 0	1,54,000 80,000 30,000 24,000 0
	45,000		2,88,000

Under this method, interest will be computed on ₹ 2,88,000@ 10% p.a. for one month.

Interest on Drawings = Total of Products × $\frac{\text{Rate of Interest}}{100}$ x $\frac{1}{12}$

$= 45,000 \times \frac{10}{100} \times \frac{1}{12}$

= ₹ 2,400

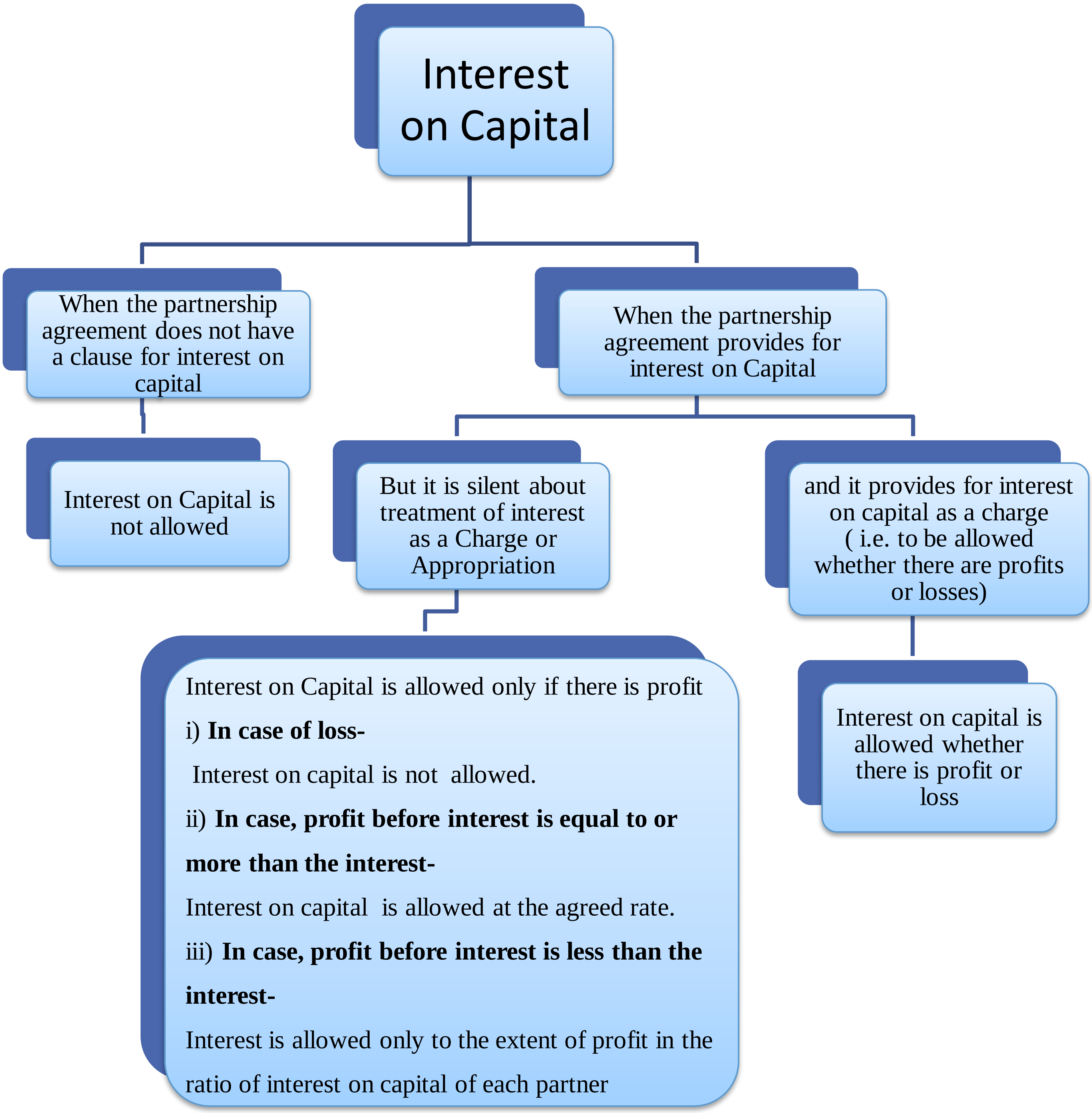
3.c. If the date of withdrawal is not given, then the interest on total drawings for the year is calculated for six months on the average basis.

3.d. When the rate of interest is given <u>without the word 'per annum'</u>(p.a.), interest is charged on drawings without considering the time period.

4. Interest on Partners 'Capital

Interest on partners' capitalist allowed to compensate a partner for contributing capital to the firm.

The Provision relating to interest on capital are given below:



Example 4

X and Y invested ₹ 20,000 & ₹ 10,000. Interest on capital is allowed @ 6% per annum. Profits are shared in the ratio of 2:3. Profits for year ending31st March, 2020 is ₹ 1,500. Show allocation of profits in the following cases:

(a) If partnership deed is silent about the treatment of interest on capital as charge.

(b) If interest on capital is a charge against profit as per the partnership deed.

Solution:

(a) When partnership deed is silent on treating interest as a charge.

Profit & Loss Appropriation Account

for the year ending 31St March 2020

Dr. **Cr.**

Particulars	₹	Particulars	₹
To Interest on Capital X 1,000 Y 500	1,500	By Profit & Loss A/c (Net Profits)	1,500
	1,500		1,500

Working Notes:

Interest on X's Capital = ₹ $20,000 \times \frac{6}{100}$ = ₹ 1,200

Interest on Y's Capital = ₹ $10,000 \times \frac{6}{100}$ = ₹ 600

Total Interest on Capital is ₹ 1800 whereas available Net Profit is only ₹1,500. So, we need to reduce interest on capital to the extent of available profits.

Ratio of Interest on Capital = 1200: 600 or 2:1

Reduced/Adjusted Interest on X's Capital = $1,500 \times \frac{2}{3}$ = ₹ 1,000

Reduced/Adjusted Interest on Y's Capital to Y= $1,500 \times \frac{1}{3}$ = ₹ 500

(b) **When Interest is on capital is treated as a charge against profit** – In this case full interest will be given and resultant loss (if any) is transferred to Partners Capital Accounts.

In this case, Profit & Loss Account is prepared instead of Profit & Loss Appropriation A/c

Profit & Loss Account

for the year ending on 31st March, 2020

Dr. **Cr.**

Particulars	₹	Particulars	₹
To Interest on Capital: X 1,200 Y 600	1,800	By Profit & Loss A/c (Net Profit) By Partners' Capital A/c (Loss): X 120 Y 180	1,500 300
	1,800		1,800

Note: Interest on Capital is always calculated on the OPENING CAPITAL.

If Opening Capital is not given in the question, it should be ascertained as follows:

Particulars	₹
Capital at the End	Xxx
Add: 1. Drawings	xxx
2. Interest on Drawings	xxx
3. Share in Loss debited during the year *	xxx
Less: 1. Additional Capital Introduced	xxx
2. Share in Profit credited during the year*	xxx
	xxx
Capital in the beginning of the year	xxx

- **Either Loss or Profit will appear at a time.**

Example 5

Radha and Bimla are partners in business. Their capitals at the end of the year were ₹ 48,000 & ₹ 36,000 respectively. During the year ended 31st March, 2020their drawings were ₹ 8,000 & ₹ 12,000 respectively. Profits before charging interest on capital during the year were ₹ 32,000. Calculate Interest on partners' capitals @ 10% p.a.

Solution:

Statement showing Calculation of Capital in the Beginning

Particulars	Radha ₹	Bimla ₹
Capitals at the end ***Add***: Drawings already debited ***Less*** : Profits already credited	48,000 8,000 16,000	36,000 12,000 16,000
Capitals in the beginning	40,000	32,000

Interest on Capital @ 10% p.a	4,000	3,200

Example 6

Rajiv and Ashu are partners in a firm. Their capitals as on 1st April, 2019 were ₹ 60,000 and ₹ 40,000.On 30th September, 2019, Rajiv introduced an additional capital of ₹ 10,000. The rate of interest on capital is 6 % p.a. The accounting year closes on 31st March. Calculate the amount of interest on capital.

Rajiv- **Amt. (in ₹)**

i) On 60,000 for full year = $60{,}000 \times \frac{6}{100}$ = 3,600

ii) On 10,000 for 6 months = $10{,}000 \times \frac{6}{100} \times \frac{6}{12}$ = 300

Total Interest on Rajiv's Capital 3,900

Ashu-

On 40,000 for full year = $40{,}000 \times \frac{6}{100}$ = 2,400

5. <u>Salary or Commission to partners</u>

Salary or Commission to partners is allowed if the Partnership Deed has provision for these.

Just like Interest on Capital, Salary &commission to a partner can also be a charge or an appropriation.

Commission may be allowed to the partner either:

i) As a percentage of net profit before charging commission; or

ii) As a percentage of net profit after charging commission.

Formula to compute commission under the above situations:

i) **As a percentage of net profit Before Charging Such Commission:**

$$\frac{\text{Net profit before commission} \times \text{Rate of commission}}{100}$$

ii) **As a percentage of net profit After Charging Such Commission:**

$$\frac{\text{Net profit before charging commission} \times \text{Rate of commission}}{100 + \text{Rate of Commission}}$$

Example 7

Rahul and Vijay are partners in a firm. Rahul is to get a commission of 10% of net profit before charging any commission. Vijay is to get a commission of 10% on net profit after charging all commissions. Net profit for the year ended 31st March, 2020, before charging any commission was

₹ 55,000. Prepare relevant account/statement to show the above appropriations.

Profit and Loss Appropriation Account
for the year ending on 31st March, 2020

Dr. Cr.

Particulars	₹	Particulars	₹
To Commission to Rahul	5,500	By Profit and Loss, A/c	55,000
To Commission to Vijay	4,500	(Net Profit)	
To Partner's Capital A/c (Profit):			
Manoj 22,500			
Santosh 22,500	45,000		
	55,000		55,000

Working Notes:

Rahul's Commission= $(55,000) \times \frac{10}{100}$ = ₹ 5,500

Vijay's Commission = $(55,000 - 5,500) = 49,500 \times \frac{10}{110}$ = ₹ 4,500

6. <u>Interest on Partner's Loan and Rent paid to a Partner</u>

It is a charge against profits. It is provided irrespective of profits or loss. In the absence of a Partnership Debit is allowed @ 6% per annum.

Following entries are passed to record Interest on Partner's Loan:

i) For allowing Interest on loan:

Interest on Partner's Loan A/c Dr.

To Partner's Loan A/c

(Being interest on loan allowed @ % p.a.)

ii) For transferring Interest on Loan to Profit and Loss A/c:

Profit and Loss A/c Dr.

To Interest on Partner's Loan A/c

(Being interest on loan transferred to P&L A/c)

Note:

Interest on Partner's Loan is always debited to Profit and Loss A/c.

Rent paid to a partner is also a charge against profits and it will also be debited to Profit and Loss A/c

Example 8

Manoj and Santosh are into partnership on 1st April, 2019 without any partnership deed. They introduced capitals of ₹ 5,00,000 and ₹ 3,00,000 respectively. On 31stOctober, 2019, Manoj advanced ₹ 2,00,000 by way of loan to the firm without agreement as to interest. The Profit and Loss Account for the year ended 31st March, 2020 showed a profit of ₹ 4, 30,000 but the partners could not agree upon the amount of interest on Loan tobe charged and the basis of division of profits. Pass a Journal Entry for the distribution of the Profits between the partners.

Solution:

JOURNAL

Date	Particulars	L.F	Amt. (in ₹)	Amt. (in ₹)
31st March	Profit and Loss Appropriation A/C Dr.		4,25,000	

2020	To Manoj's Capital A/c To Santosh's Capital A/c (Being profit distributed among the partners)			2,12,500 2,12,500

Working Notes:

Profit and Loss Appropriation Account
For the year ending on 31st March, 2020

Dr. Cr.

Particulars	Amt.(in ₹)	Particulars	Amt.(in ₹)
To Partners Capital A/c (Profit): Manoj 2,12,500 Santosh 2,12,500	4,25,000	By Profit and Loss, A/c (₹ 4,30,000- Interest on Manoj's Loan ₹ 5,000)	4,25,000

Note: Interest on Manoj's Loan = $2,00,000 \times \frac{6}{100} \times \frac{5}{12} =$ ₹ 5,000

Example 9

Meena and Tina are partners sharing profits and losses in the ratio of 3:1. On 1st April, 2019 their capitals were: Meena ₹ 50,000 and Tina ₹ 30,000. During the year ended 31st March, 2020, they earned a net profit of ₹ 74,000. The terms of partnership are:

i) Interest on capital is to be allowed@ 6% p.a.

ii) Meena will get a commission @ 2% on Turnover.

iii) Tina will gets salary of ₹ 500 per month.

iv) Tina will get commission of 5% on profits after charging interest on Capital, salaryand commission to partners (including his own commission).

v) B is entitled to rent of ₹ 2,000 per month for the use of his premises by the firm. It is paid to him by chequeat the end of every month.

Partners' drawings for the year were:Meena- ₹ 8,000 and Tina- ₹ 6,000. Turnover for the year was ₹ 3, 00,000. After considering the above factors, you are required to prepare Profit and Loss Appropriation Account.

Profit and Loss Appropriation Account
For the year ending 31st March, 2020

Dr. **Cr.**

Particulars	Amt. (in ₹)	Particulars	Amt. (in ₹)
To Interest on Capital:		By Profit and Loss, A/c	
Meena 3,000		(Net Profit ₹ 74,000-	
Tina 1,800	4,800	Rent ₹ 24,000)	50,000
To Tina's Salary	6,000		
To Commission A/cs:			
Meena 6,000			
Tina 1,581	7,581		
To Profit transferred to:			
Meena's Capital A/c 23,714			
Tina's Capital A/c 7,905	31,619		
	50,000		50,000

Working Note:

Commission to Tina =

$$\text{(Net Profit – Int. on Capital – Salary to Tina – Commission to Meena)} \times \frac{\text{Rate of Commission to Tina}}{\text{(100 + Rate of Commission to Tina)}}$$

$$\text{Commission to Tina} = (50{,}000 - 4{,}800 - 6{,}000 - 6{,}000) \times \frac{5}{100 + 5}$$

$$= \frac{33{,}200 \times 5}{105}$$

= ₹ 1,581 (approx.)