

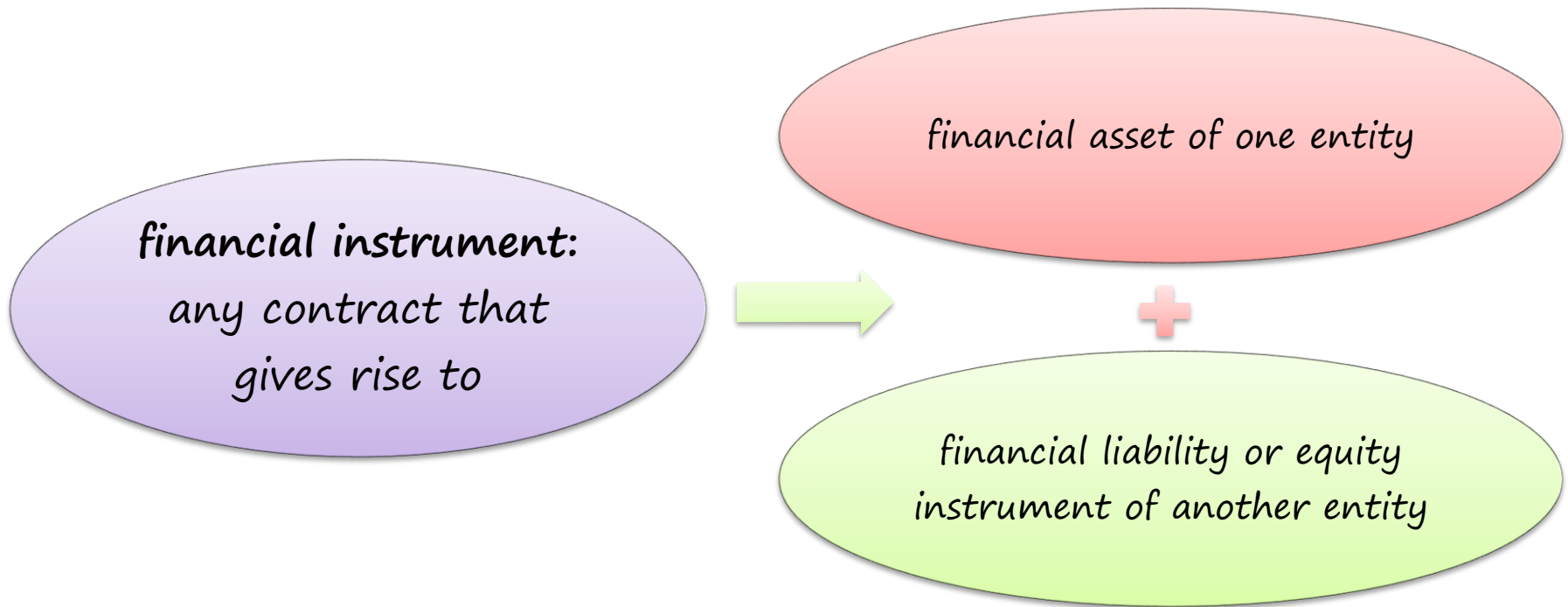
Financial Instruments

- CA. Sumit L. Sarda

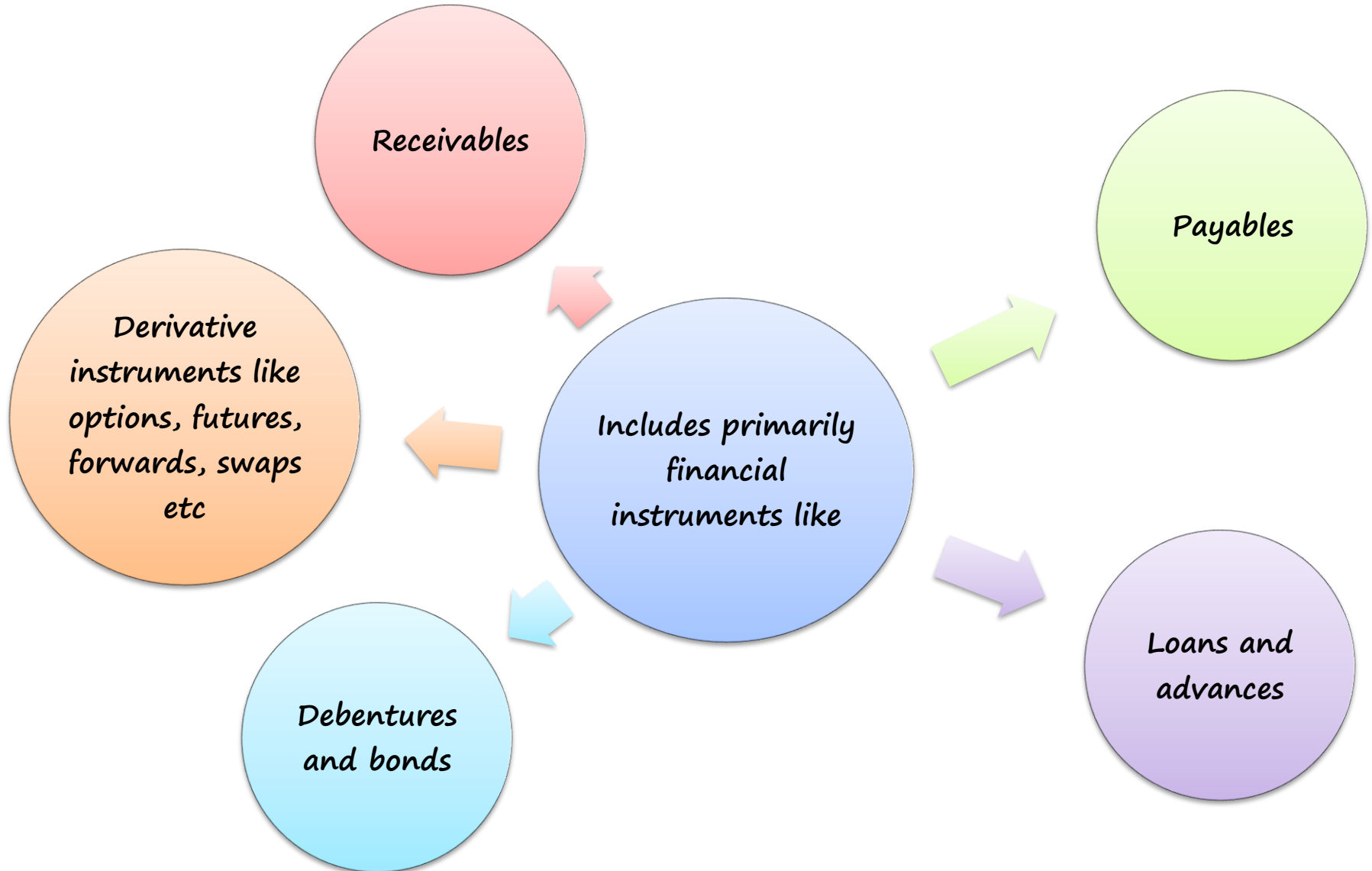
Scope



Definition



Definition





Bank

Gave Rs.1 lakh



Mr. A

- Mr. A borrows a sum of Rs.1 lakh from Bank
- Is this a financial instrument for Bank?
- Is this a financial instrument for Mr.A?
- What if JCB was borrowed?

Financial Assets

• Cash Equivalent

- Short term highly liquid
- Cash in hand
- investment that can be readily converted into cash
- Cash at Bank
- Cash Equivalent generally of Short Term maturities.



Notes: Gold is a cash equivalent
 6 months are assessed up to reporting date

Buy shares for trading



it is
 y

1/12/2015

31/03/2016

31/03/2016

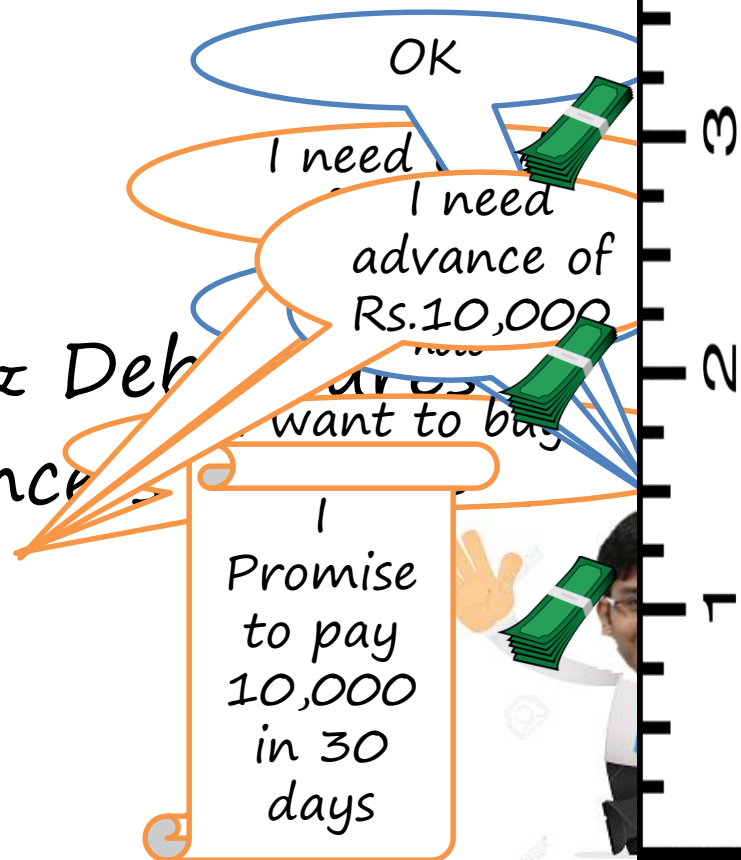
6 month bond

Reporting date



Financial Assets

- Equity Instrument of another entity
- Contractual Right of receiving cash
 - Debtors
 - Bills Receivables
 - Loans & Advances
 - Investments in Bonds & Deb
 - Investments in Preference



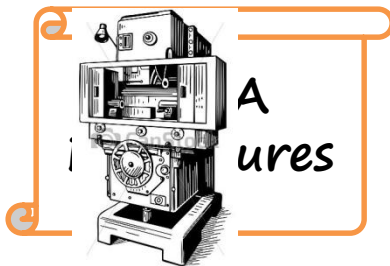
Financial Assets

- Contractual Right of Receiving Financial Assets other than cash
 - Repurchase agreement
 - Securitization contract
- Contract of exchanging Financial



Financial Assets

- Contract that shall be settled in equity shares of another but is not a derivative contract.
 - Issuing Debentures against Equity share issued by another entity.
 - Selling Fixed Assets or Inventory and receiving payment in form of equity shares of another entity.



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Financial Assets

- Derivative Contract settled in cash (not fixed amount of cash)
- Derivative Contract settled by delivery in Financial Assets (other than entity's fixed number of own equity)

Financial Asset

- To be settled in entity's own variable number of equity and is non derivative

Financial Asset

Cash	Equity of another entity	Contractual right of receiving cash	Contractual right of receiving financial asset	Exchanging Financial Asset with financial liability	Contract settled in equity of another	Derivatives	Contract settled in own equity

Financial Asset

Cash	Equity of another entity	Contractual right of receiving cash	Contractual right of receiving financial asset	Exchanging Financial Asset with financial liability	Contract settled in equity of another	Derivatives	Contract settled in own equity
Cash in hand							
Cash at bank							
Cash equivalent							

Financial Asset

Cash	Equity of another entity	Contractual right of receiving cash	Contractual right of receiving financial asset	Exchanging Financial Asset with financial liability	Contract settled in equity of another	Derivatives	Contract settled in own equity
		Debtors					
		Bills Receivable					
Cash in hand		Loans and Advances					
Cash at bank							
Cash equivalent		Investment in bonds					
	Investment in Pref. shares						

Financial Asset

Cash	Equity of another entity	Contractual right of receiving cash	Contractual right of receiving financial asset	Exchanging Financial Asset with financial liability	Contract settled in equity of another	Derivatives	Contract settled in own equity
		Debtors					
Cash in hand		Bills Receivable					
Cash at bank		Loans and Advances					
Cash equivalent		Investment in bonds	Repurchase agreement				
	Investment in Pref. shares	Securitization agreement					

Financial Asset

Cash	Equity of another entity	Contractual right of receiving cash	Contractual right of receiving financial asset	Exchanging Financial Asset with financial liability	Contract settled in equity of another	Derivatives	Contract settled in own equity	
		Debtors						
		Bills Receivable						
Cash in hand					Fixed Asset against equity			
Cash at bank			Loans and Advances					
Cash equivalent			Investment in bonds		Repurchase agreement	Issuing Debentures against equity		
			Investment in Pref. shares		Securitization agreement			

Financial Asset

Cash	Equity of another entity	Contractual right of receiving cash	Contractual right of receiving financial asset	Exchanging Financial Asset with financial liability	Contract settled in equity of another	Derivatives	Contract settled in own equity
		Debtors			Fixed Asset against equity	Cash settled	
		Bills Receivable					
Cash in hand		Loans and Advances	Issuing Debentures against equity		Settled by financial asset		
Cash at bank		Investment in bonds	Repurchase agreement				
Cash equivalent		Investment in Pref. shares	Securitization agreement				

Financial Liability

- Contractual obligation to deliver cash or cash equivalent to another entity

- Creditors
- Bills payable
- Loan raised
- Issue of Bond & Debentures
- Issue of Preference shares classified equity



Financial Liability

- Contractual Obligation to deliver Financial Asset other Cash
 - Repurchased Agreement
 - Securitization Contracts
- Contractual Obligation of Exchanging Financial Assets against Financial

Obligation to deliver Financial Instrument



Creditor



Debtor

Financial Liability

- Contract that shall be settled in equity shares against delivery of Financial Assets other than Cash
 - Issuing Equity Shares to settled consideration for Debentures issued by other entity
- Obligation under derivate contract to be settled by delivery of cash
- Obligation under derivate contract to be settled by delivery of Financial Assets other than cash



TATA
Debentures

RIL
Share
Certificate



Financial Liability

No. of shares depends on Market price at the end of year 5

No, You will get 8 shares

• Instrument to

Will I get 10 shares even if
MP is 125?

ON

- No

privativ

You will get 10 sha

or

What if Market Price is
Rs.100

ceiv

is
ble

w

Convertible into Equity shares
of Rs.1000 after 5yrs.

ent

-

ative

ettled

Saba How many shares will I
get for Rs.1000 Debentures?

ge of

umber

of entity's own equity instrument.



Patanjali
Convertible
Debenture
life 5 yrs



Financial Liability

Contractual obligation to deliver cash	Contractual Obligation to deliver Financial Asset	Exchanging Financial Assets against Financial Liabilities	settled in equity shares against delivery of Financial Assets	Derivatives

Financial Liability

Contractual obligation to deliver cash	Contractual Obligation to deliver Financial Asset	Exchanging Financial Assets against Financial Liabilities	settled in equity shares against delivery of Financial Assets	Derivatives
Creditors				
Bills payable				
Loan raised				
Issue of Bond & Debentures				
Issue of Preference shares not classified equity under Ind AS -32				

Financial Liability

Contractual obligation to deliver cash	Contractual Obligation to deliver Financial Asset	Exchanging Financial Assets against Financial Liabilities	settled in equity shares against delivery of Financial Assets	Derivatives
Creditors				
Bills payable				
Loan raised	Repurchased Agreement			
Issue of Bond & Debentures	Securitization Contracts			
Issue of Preference shares not classified equity under Ind AS -32	Advance Received for issuing Bonds or debentures			

Financial Liability

Contractual obligation to deliver cash	Contractual Obligation to deliver Financial Asset	Exchanging Financial Assets against Financial Liabilities	settled in equity shares against delivery of Financial Assets	Derivatives
Creditors				
Bills payable				
Loan raised	Repurchased Agreement		Non derivative variable equity settled	
Issue of Bond & Debentures	Securitization Contracts			
Issue of Preference shares not classified equity under Ind AS -32	Advance Received for issuing Bonds or debentures			Derivative other than fixed share settled

Financial Liability

Contractual obligation to deliver cash	Contractual Obligation to deliver Financial Asset	Exchanging Financial Assets against Financial Liabilities	settled in equity shares against delivery of Financial Assets	Derivatives
Creditors				
Bills payable				
Loan raised	Repurchased Agreement		Non derivative variable equity settled	Cash Settled
Issue of Bond & Debentures	Securitization Contracts			
Issue of Preference shares not classified equity under Ind AS -32	Advance Received for issuing Bonds or debentures		Derivative other than fixed share settled	Financial asset settled

Unconditional Right

- When entity does not have unconditional right to avoid delivery of cash or another financial asset

– For *Within a month..else you can take my bike* *mittance*

restrictions

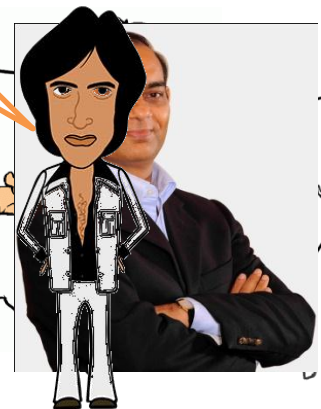
– Write *I, I need Rs.10,000*

When will you return?

Mr. Anjhuwala writes call option to Mr. Oswal which is to expire in one month



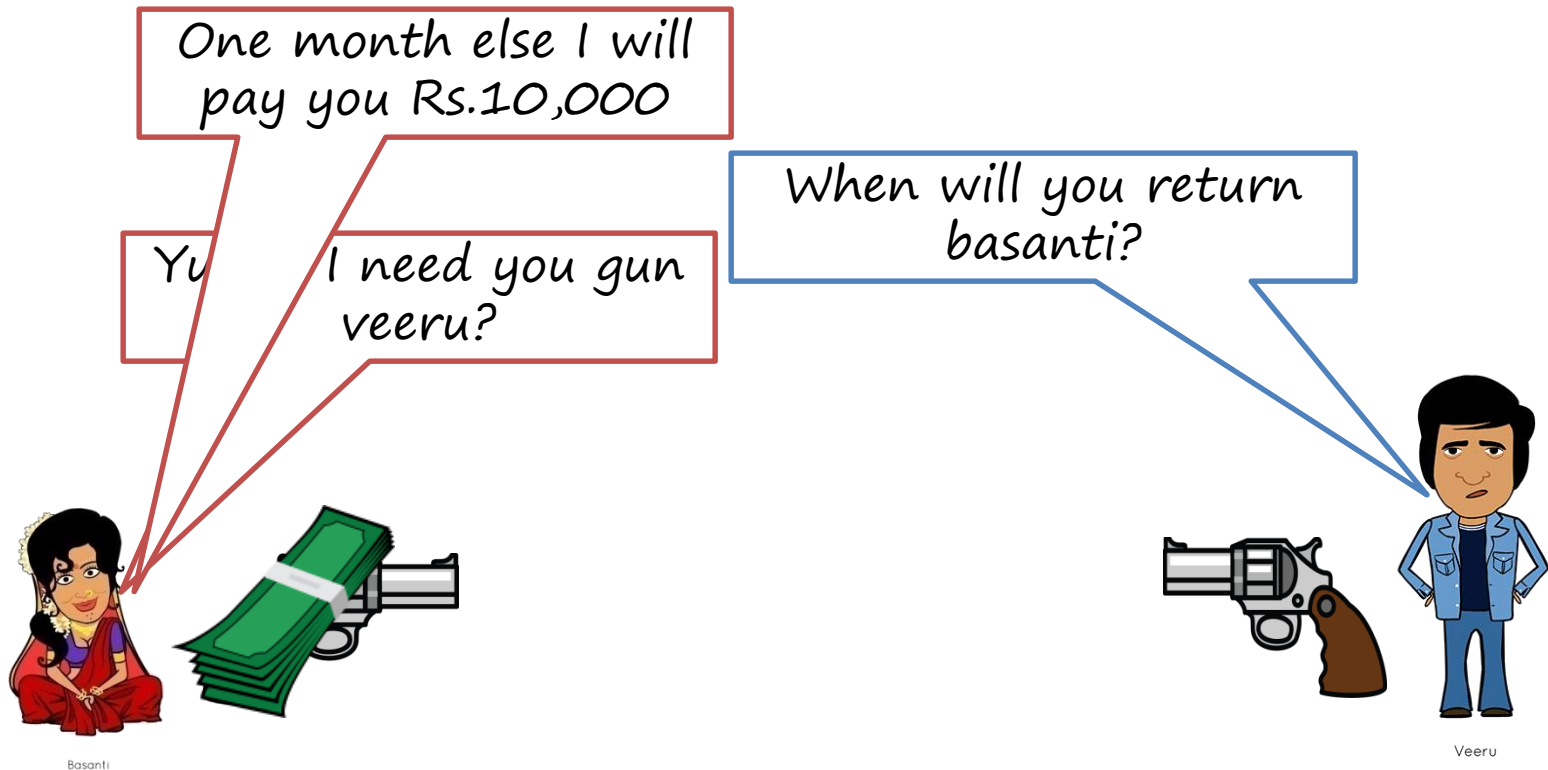
Veeru



Jai

Unconditional Rights

- Non financial liabilities that can be settled by payment of cash or other financial asset.



Contractual

- Constructive obligation are not financial liability

It is known in the market that Mr. Shopkeeper accepts goods returned from customer if not satisfied though not obliged to accept the same. Will this be considered as Financial liability?



Contractual

- A contractual right or contractual obligation to receive, deliver or exchange financial instrument is itself a financial instrument.



Takes loan from Bank



Contractually obliged to
repay in case of default



Gives guarantee to bank

Question 32.1 Page 3

- A Bank securitizes its housing loans amounting to Rs.10 lakhs at 15% having weighted average maturity of 5yrs and interest rate of 20%. Determine financial asset value and financial liability

Present Value Annuity Factor

1,00,000
25,000

5

4

3

2

1

Your market risk is high Gabbar!!

25,000

But market rate is 15%?

25,000

Gabbar, pay Interest @ 25

25,000

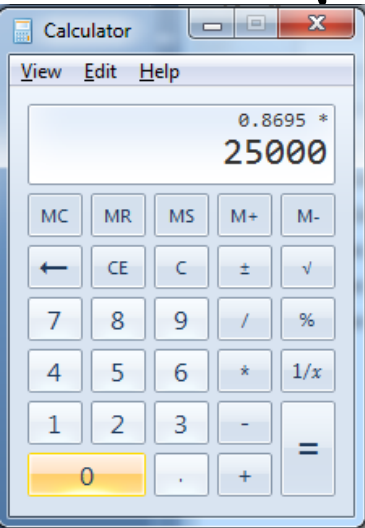
Thakur, Give me loan of Rs.1 lakh for 5yrs

25,000



Thakur

Present Value Annuity Factor



But market rate is 15%?

1,00,000
25,000

25,000

25,000

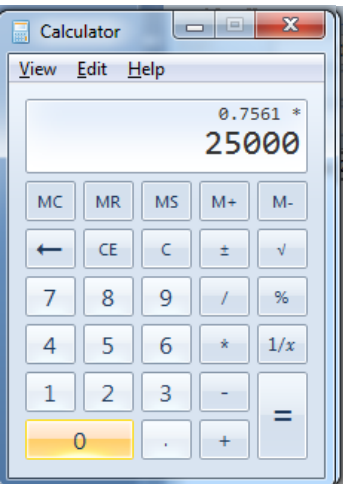
25,000

0.8695

25,000

21737.50

Present Value Annuity Factor



1,00,000
25,000

25,000

25,000

25,000

25,000

0.7561

0.8695

18902.50

21737.50

5

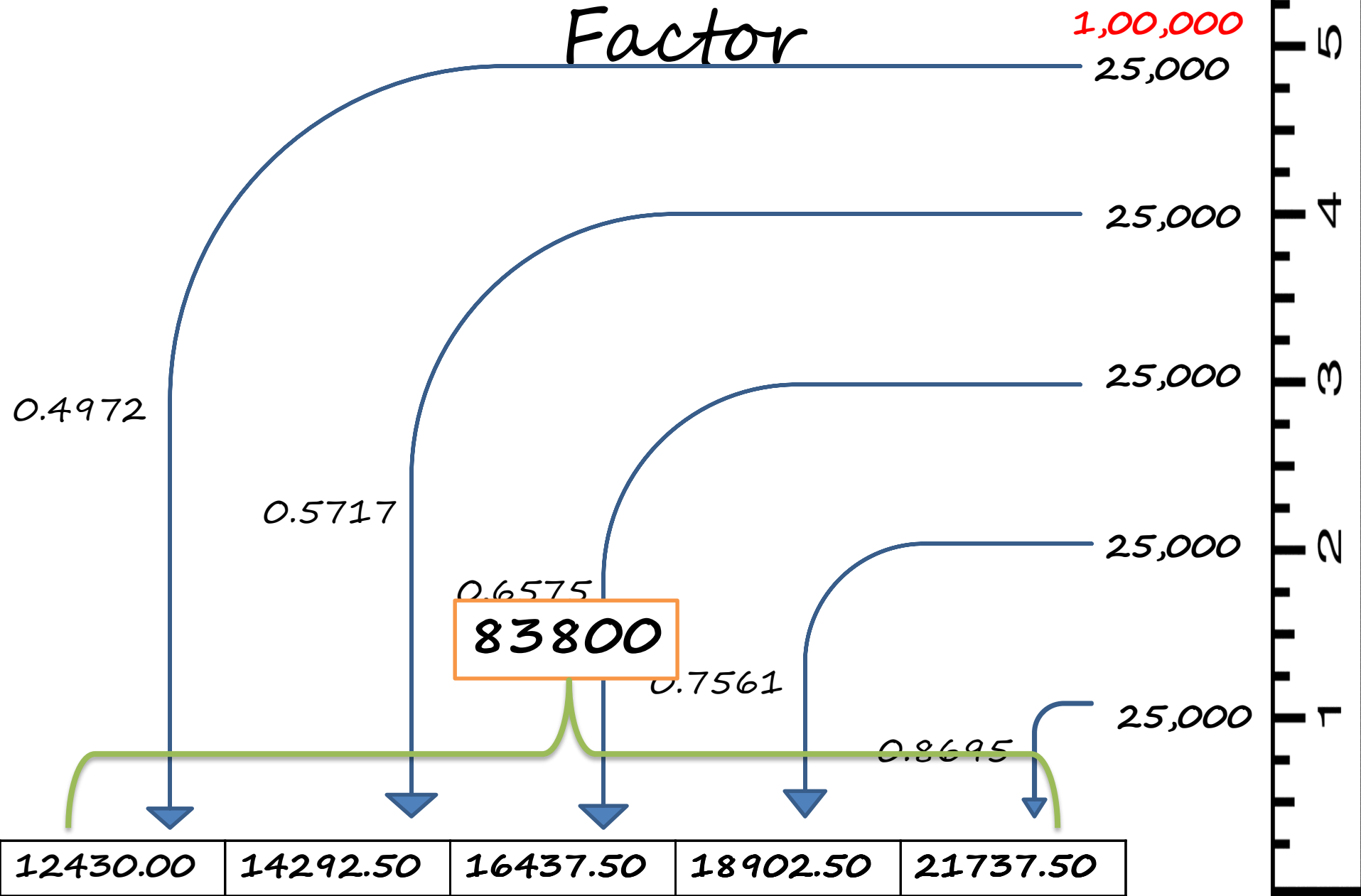
4

3

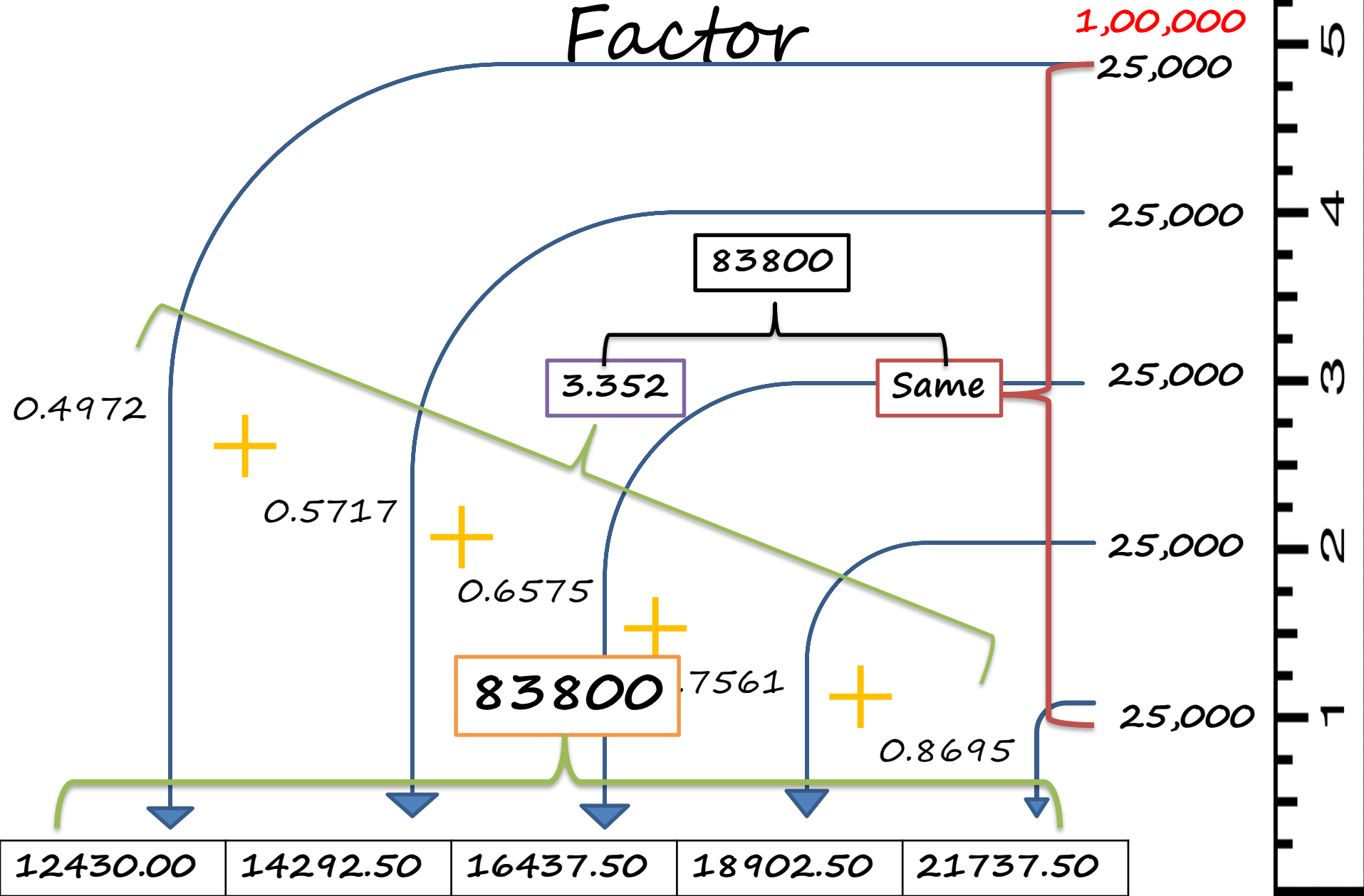
2

1

Present Value Annuity Factor



Present Value Annuity Factor



Present Value Annuity Factor

1,00,000

5

4

3

2

1

0.4972

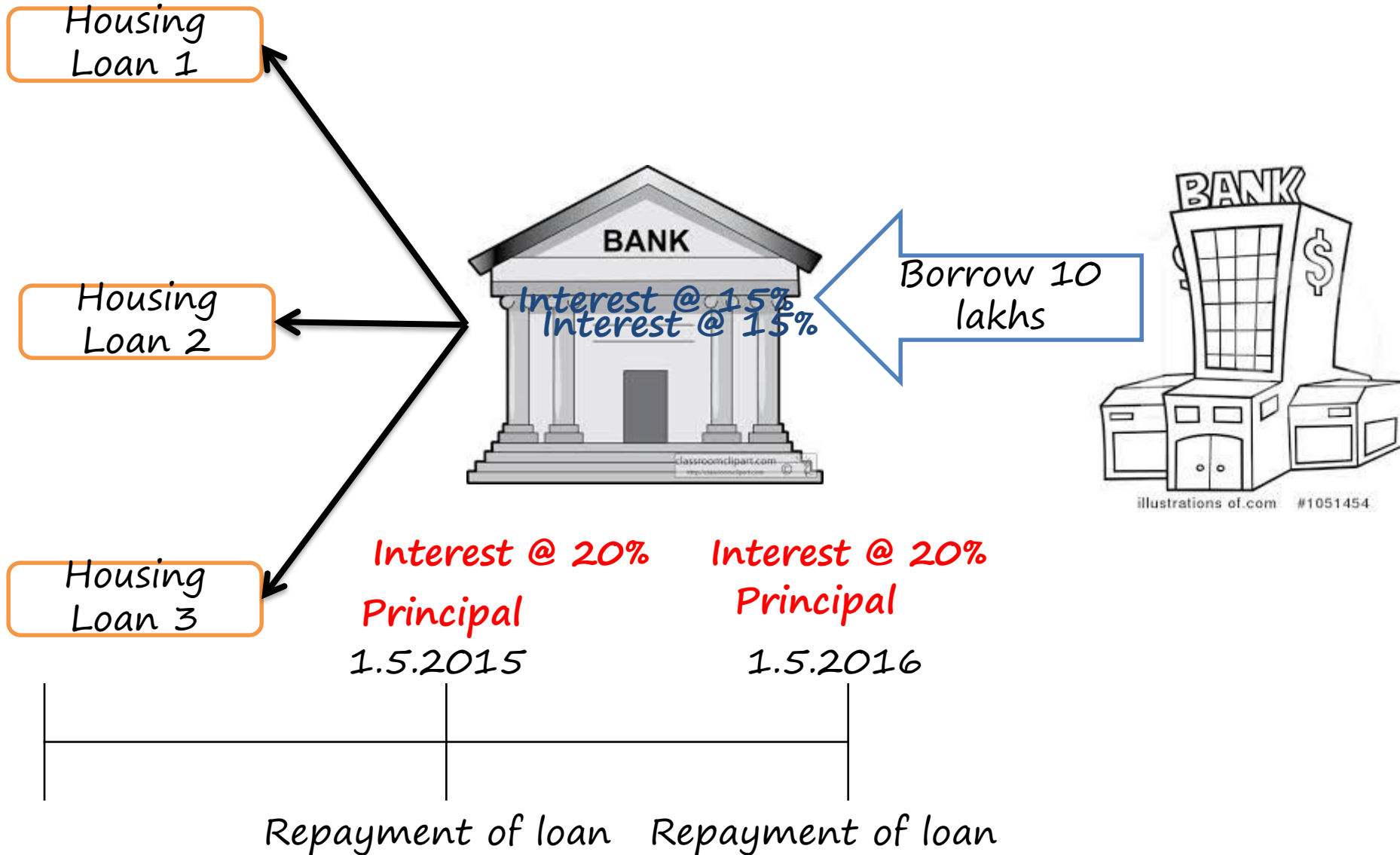
49,720



Question 32.1 Page 3

- A Bank securitizes its housing loans amounting to Rs.10 lakhs at 15% having weighted average maturity of 5yrs and interest rate of 20%. Determine financial asset value and financial liability

Question



Answer

- Since the loan has weighted average life of 5yrs, we need to calculate the Annual repayment value of loan
- Period: 5yrs
- Discount rate: 20%
- PVAF: 2.9906
- Annual Repayment amount
- $= 10,00,000 / 2.9906$
- $= 3,34,381/-$

Cash flow analysis of housing loan

Year	EMI	Interest @ 20%	Principal Repayment	Loan Balance
0				10,00,000
1	3,34,381			
2	3,34,381			
3	3,34,381			
4	3,34,381			
5	3,34,381			

Cash flow analysis of housing loan

Year	EMI	Interest @ 20%	Principal Repayment	Loan Balance
0				10,00,000
1	3,34,381	2,00,000		
2	3,34,381			
3	3,34,381			
4	3,34,381			
5	3,34,381			

Cash flow analysis of housing loan

Year	EMI	Interest @ 20%	Principal Repayment	Loan Balance
0				10,00,000
1	3,34,381	2,00,000	1,34,381	
2	3,34,381			
3	3,34,381			
4	3,34,381			
5	3,34,381			

Cash flow analysis of housing loan

Year	EMI	Interest @ 20%	Principal Repayment	Loan Balance
0				10,00,000
1	3,34,381	2,00,000	1,34,381	8,65,619
2	3,34,381			
3	3,34,381			
4	3,34,381			
5	3,34,381			

Cash flow analysis of housing loan

Year	EMI	Interest @ 20%	Principal Repayment	Loan Balance
0				10,00,000
1	3,34,381	2,00,000	1,34,381	8,65,619
2	3,34,381	1,73,124		
3	3,34,381			
4	3,34,381			
5	3,34,381			

Cash flow analysis of housing loan

Year	EMI	Interest @ 20%	Principal Repayment	Loan Balance
0				10,00,000
1	3,34,381	2,00,000	1,34,381	8,65,619
2	3,34,381	1,73,124	1,61,257	7,04,362
3	3,34,381			
4	3,34,381			
5	3,34,381			

Cash flow analysis of housing loan

Year	EMI	Interest @ 20%	Principal Repayment	Loan Balance
0				10,00,000
1	3,34,381	2,00,000	1,34,381	8,65,619
2	3,34,381	1,73,124	1,61,257	7,04,362
3	3,34,381	1,40,872	1,93,509	5,10,853
4	3,34,381			
5	3,34,381			

Cash flow analysis of housing loan

Year	EMI	Interest @ 20%	Principal Repayment	Loan Balance
0				10,00,000
1	3,34,381	2,00,000	1,34,381	8,65,619
2	3,34,381	1,73,124	1,61,257	7,04,362
3	3,34,381	1,40,872	1,93,509	5,10,853
4	3,34,381	1,02,171	2,32,210	2,78,643
5	3,34,381			

Cash flow analysis of housing loan

Year	EMI	Interest @ 20%	Principal Repayment	Loan Balance
0				10,00,000
1	3,34,381	2,00,000	1,34,381	8,65,619
2	3,34,381	1,73,124	1,61,257	7,04,362
3	3,34,381	1,40,872	1,93,509	5,10,853
4	3,34,381	1,02,171	2,32,210	2,78,643
5	3,34,381		2,78,643	0

Cash flow analysis of housing loan

Year	EMI	Interest @ 20%	Principal Repayment	Loan Balance
0				10,00,000
1	3,34,381	2,00,000	1,34,381	8,65,619
2	3,34,381	1,73,124	1,61,257	7,04,362
3	3,34,381	1,40,872	1,93,509	5,10,853
4	3,34,381	1,02,171	2,32,210	2,78,643
5	3,34,381	55,738	2,78,643	0
		TOTAL	10,00,000	

Cash flow of securitized borrowing

Year	Amount Repaid	Interest @ 15%	Principal Repayment	Loan Balance
0				10,00,000
1				
2				
3				
4				
5				

Cash flow of securitized borrowing

Year	Amount Repaid	Interest @ 15%	Principal Repayment	Loan Balance
0				10,00,000
1			1,34,381	8,65,619
2			1,61,257	7,04,362
3			1,93,509	5,10,853
4			2,32,210	2,78,643
5			2,78,643	0

Cash flow of securitized borrowing

Year	Amount Repaid	Interest @ 15%	Principal Repayment	Loan Balance
0				10,00,000
1		1,50,000	1,34,381	8,65,619
2			1,61,257	7,04,362
3			1,93,509	5,10,853
4			2,32,210	2,78,643
5			2,78,643	0

Cash flow of securitized borrowing

Year	Amount Repaid	Interest @ 15%	Principal Repayment	Loan Balance
0				10,00,000
1	2,84,381	1,50,000	1,34,381	8,65,619
2			1,61,257	7,04,362
3			1,93,509	5,10,853
4			2,32,210	2,78,643
5			2,78,643	0

Cash flow of securitized borrowing

Year	Amount Repaid	Interest @ 15%	Principal Repayment	Loan Balance
0				10,00,000
1	2,84,381	1,50,000	1,34,381	8,65,619
2	2,91,100	1,29,843	1,61,257	7,04,362
3			1,93,509	5,10,853
4			2,32,210	2,78,643
5			2,78,643	0

Cash flow of securitized borrowing

Year	Amount Repaid	Interest @ 15%	Principal Repayment	Loan Balance
0				10,00,000
1	2,84,381	1,50,000	1,34,381	8,65,619
2	2,91,100	1,29,843	1,61,257	7,04,362
3	2,99,163	1,05,654	1,93,509	5,10,853
4			2,32,210	2,78,643
5			2,78,643	0

Cash flow of securitized borrowing

Year	Amount Repaid	Interest @ 15%	Principal Repayment	Loan Balance
0				10,00,000
1	2,84,381	1,50,000	1,34,381	8,65,619
2	2,91,100	1,29,843	1,61,257	7,04,362
3	2,99,163	1,05,654	1,93,509	5,10,853
4	3,08,838	76,628	2,32,210	2,78,643
5			2,78,643	0

Cash flow of securitized borrowing

Year	Amount Repaid	Interest @ 15%	Principal Repayment	Loan Balance
0				10,00,000
1	2,84,381	1,50,000	1,34,381	8,65,619
2	2,91,100	1,29,843	1,61,257	7,04,362
3	2,99,163	1,05,654	1,93,509	5,10,853
4	3,08,838	76,628	2,32,210	2,78,643
5	3,20,439	41,796	2,78,643	0

Valuation of asset arising from securitization

Year	Interest received from Housing loan	Interest paid under securitization	Difference of benefit	Present Value factor @ 15%	Present Value
0					
1					
2					
3					
4					
5					

Valuation of asset arising from securitization

Year	Interest received from Housing loan	Interest paid under securitization	Difference of benefit	Present Value factor @ 15%	Present Value
0					
1	2,00,000				
2	1,73,124				
3	1,40,872				
4	1,02,171				
5	55,738				

Valuation of asset arising from securitization

Year	Interest received from Housing loan	Interest paid under securitization	Difference of benefit	Present Value factor @ 15%	Present Value
0					
1	2,00,000	1,50,000			
2	1,73,124	1,29,843			
3	1,40,872	1,05,654			
4	1,02,171	76,628			
5	55,738	41,796			

Valuation of asset arising from securitization

Year	Interest received from Housing loan	Interest paid under securitization	Difference of benefit	Present Value factor @ 15%	Present Value
0					
1	2,00,000	1,50,000	50,000		
2	1,73,124	1,29,843	43,281		
3	1,40,872	1,05,654	35,218		
4	1,02,171	76,628	25,543		
5	55,738	41,796	13,942		

Valuation of asset arising from securitization

Year	Interest received from Housing loan	Interest paid under securitization	Difference of benefit	Present Value factor @ 15%	Present Value
0					
1	2,00,000	1,50,000	50,000	0.8696	
2	1,73,124	1,29,843	43,281		
3	1,40,872	1,05,654	35,218		
4	1,02,171	76,628	25,543		
5	55,738	41,796	13,942		

Valuation of asset arising from securitization

Year	Interest received from Housing loan	Interest paid under securitization	Difference of benefit	Present Value factor @ 15%	Present Value
0					
1	2,00,000	1,50,000	50,000	0.8696	
2	1,73,124	1,29,843	43,281	0.7561	
3	1,40,872	1,05,654	35,218	0.6575	
4	1,02,171	76,628	25,543	0.5717	
5	55,738	41,796	13,942	0.4972	

Valuation of asset arising from securitization

Year	Interest received from Housing loan	Interest paid under securitization	Difference of benefit	Present Value factor @ 15%	Present Value
0					
1	2,00,000	1,50,000	50,000	0.8696	43,480
2	1,73,124	1,29,843	43,281	0.7561	32,725
3	1,40,872	1,05,654	35,218	0.6575	23,156
4	1,02,171	76,628	25,543	0.5717	14,603
5	55,738	41,796	13,942	0.4972	6,932
				TOTAL	1,20,896

Realization of securitization asset

Year	Interest income at 15%	Interest Difference	Realization from securitized asset	Securitized Asset
0				1,20,896
1				
2				
3				
4				
5				

Realization of securitization asset

Year	Interest income at 15%	Interest Difference	Realization from securitized asset	Securitized Asset
0				1,20,896
1		50,000		
2		43,281		
3		35,218		
4		25,543		
5		13,942		

	TOTAL	1,67,984		
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Realization of securitization asset

Year	Interest income at 15%	Interest Difference	Realization from securitized asset	Securitized Asset
0				1,20,896
1	18,134	50,000		
2		43,281		
3		35,218		
4		25,543		
5		13,942		

	TOTAL	1,67,984		
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Realization of securitization asset

Year	Interest income at 15%	Interest Difference	Realization from securitized asset	Securitized Asset
0				1,20,896
1	18,134	50,000	31,866	89,030
2		43,281		
3		35,218		
4		25,543		
5		13,942		

	TOTAL	1,67,984		
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Realization of securitization asset

Year	Interest income at 15%	Interest Difference	Realization from securitized asset	Securitized Asset
0				1,20,896
1	18,134	50,000	31,866	89,030
2	13,355	43,281	29,926	59,104
3		35,218		
4		25,543		
5		13,942		

	TOTAL	1,67,984		
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Realization of securitization asset

Year	Interest income at 15%	Interest Difference	Realization from securitized asset	Securitized Asset
0				1,20,896
1	18,134	50,000	31,866	89,030
2	13,355	43,281	29,926	59,104
3	8,866	35,218	26,352	32,752
4		25,543		
5		13,942		

	TOTAL	1,67,984		
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Realization of securitization asset

Year	Interest income at 15%	Interest Difference	Realization from securitized asset	Securitized Asset
0				1,20,896
1	18,134	50,000	31,866	89,030
2	13,355	43,281	29,926	59,104
3	8,866	35,218	26,352	32,752
4	4,913	25,543	20,630	12,122
5		13,942		

	TOTAL	1,67,984		
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Realization of securitization asset

Year	Interest income at 15%	Interest Difference	Realization from securitized asset	Securitized Asset
0				1,20,896
1	18,134	50,000	31,866	89,030
2	13,355	43,281	29,926	59,104
3	8,866	35,218	26,352	32,752
4	4,913	25,543	20,630	12,122
5	1,820	13,942	12,122	0

	TOTAL	1,67,984		
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Question 32.2 Page 3

- X Ltd. borrowed Rs.10 lakh @ 12% p.a. repayable in 5yrs. X Ltd. failed to pay interest in year 3rd and 4th and thus the loan was rescheduled in the start of fifth year to repay a sum of Rs.18 lakhs at the end of 8th year. Show accounting treatment. Incremental interest rate at the beginning of 5th year is 14%

Answer

- Amount of loan = 10 lakh
- Interest rate = 12%
- Repayment period = 5yrs
- PVAF for 5 yrs will be 3.6047
- Annual Repayment amount will be 2,77,415/-

Repayment schedule by X Ltd.

Year	EMI	Interest @ 12%	Principal Repayment	Balance
0				10,00,000
1				
2				
3				
4				

Repayment schedule by X Ltd.

Year	EMI	Interest @ 12%	Principal Repayment	Balance
0				10,00,000
1	2,77,415			
2	2,77,415			
3	-			
4	-			

Repayment schedule by X Ltd.

Year	EMI	Interest @ 12%	Principal Repayment	Balance
0				10,00,000
1	2,77,415	1,20,000		
2	2,77,415			
3	-			
4	-			

Repayment schedule by X Ltd.

Year	EMI	Interest @ 12%	Principal Repayment	Balance
0				10,00,000
1	2,77,415	1,20,000	1,57,415	8,42,585
2	2,77,415			6,66,280
3	-			
4	-			

Repayment schedule by X Ltd.

Year	EMI	Interest @ 12%	Principal Repayment	Balance
0				10,00,000
1	2,77,415	1,20,000	1,57,415	8,42,585
2	2,77,415	1,01,110	1,76,305	6,66,280
3	-			
4	-			

Repayment schedule by X Ltd.

Year	EMI	Interest @ 12%	Principal Repayment	Balance
0				10,00,000
1	2,77,415	1,20,000	1,57,415	8,42,585
2	2,77,415	1,01,110	1,76,305	6,66,280
3	-	79,954	-	7,46,234
4				

Repayment schedule by X Ltd.

Year	EMI	Interest @ 12%	Principal Repayment	Balance
0				10,00,000
1	2,77,415	1,20,000	1,57,415	8,42,585
2	2,77,415	1,01,110	1,76,305	6,66,280
3	-	79,954	-	7,46,234
4	-	89,548	-	8,35,782

Repayment schedule by X Ltd.

Year	EMI	Interest @ 12%	Principal Repayment	Balance
0				10,00,000
1	2,77,415	1,20,000	1,57,415	8,42,585
2	2,77,415	1,01,110	1,76,305	6,66,280
3	-	79,954	-	7,46,234
4	-	89,548	-	8,35,782

5	-			
6	-			
7	-			
8	-			

Repayment schedule by X Ltd.

Year	EMI	Interest @ 12%	Principal Repayment	Balance
0				10,00,000
1	2,77,415	1,20,000	1,57,415	8,42,585
2	2,77,415	1,01,110	1,76,305	6,66,280
3	-	79,954	-	7,46,234
4	-	89,548	-	8,35,782

5	-	1,00,294	-	936076
6	-			
7	-			
8	-			

Repayment schedule by X Ltd.

Year	EMI	Interest @ 12%	Principal Repayment	Balance
0				10,00,000
1	2,77,415	1,20,000	1,57,415	8,42,585
2	2,77,415	1,01,110	1,76,305	6,66,280
3	-	79,954	-	7,46,234
4	-	89,548	-	8,35,782

5	-	1,00,294	-	936076
6	-	1,12,329	-	1048405
7	-			
8	-			

Repayment schedule by X Ltd.

Year	EMI	Interest @ 12%	Principal Repayment	Balance
0				10,00,000
1	2,77,415	1,20,000	1,57,415	8,42,585
2	2,77,415	1,01,110	1,76,305	6,66,280
3	-	79,954	-	7,46,234
4	-	89,548	-	8,35,782

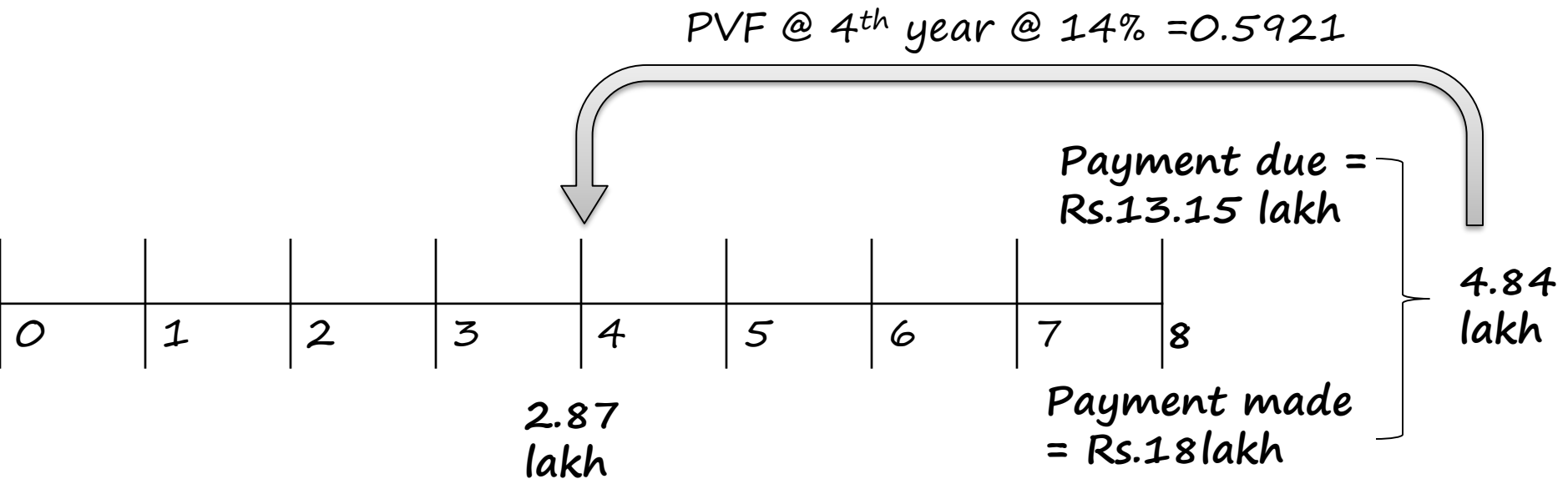
5	-	1,00,294	-	936076
6	-	1,12,329	-	1048405
7	-	1,25,808	-	1174213
8	-			

Repayment schedule by X Ltd.

Year	EMI	Interest @ 12%	Principal Repayment	Balance
0				10,00,000
1	2,77,415	1,20,000	1,57,415	8,42,585
2	2,77,415	1,01,110	1,76,305	6,66,280
3	-	79,954	-	7,46,234
4	-	89,548	-	8,35,782

5	-	1,00,294	-	936076
6	-	1,12,329	-	1048405
7	-	1,25,808	-	1174213
8	-	1,40,906		13,15,119

Loss due to rescheduling of loan



Loss due to rescheduling of loan

- Amount payable including interest and principal = Rs.13,15,119
- Amount to be paid at the end of 8th year Rs.18,00,000
- Loss = $18000000 - 1315119$
- = Rs.4,84,881
- PV of loss at the beginning of 5th year
- = PVF of 4th year, 14% = 0.5921
- = Rs.2,87,090

Annual loss amount to be recognized

Year	Discount @ 14%	Rescheduling loss
5 beginning		2,87,090
5 end		
6		
7		
8		

Annual loss amount to be recognized

Year	Discount @ 14%	Rescheduling loss
5 beginning		2,87,090
5 end		
6		
7		
8		4,84,881

Annual loss amount to be recognized

Year	Discount @ 14%	Rescheduling loss
5 beginning		2,87,090
5 end	40,193	
6		
7		
8		4,84,881

Annual loss amount to be recognized

Year	Discount @ 14%	Rescheduling loss
5 beginning		2,87,090
5 end	40,193	3,27,283
6		
7		
8		4,84,881

Annual loss amount to be recognized

Year	Discount @ 14%	Rescheduling loss
5 beginning		2,87,090
5 end	40,193	3,27,283
6	45,819	3,73,102
7		
8		4,84,881

Annual loss amount to be recognized

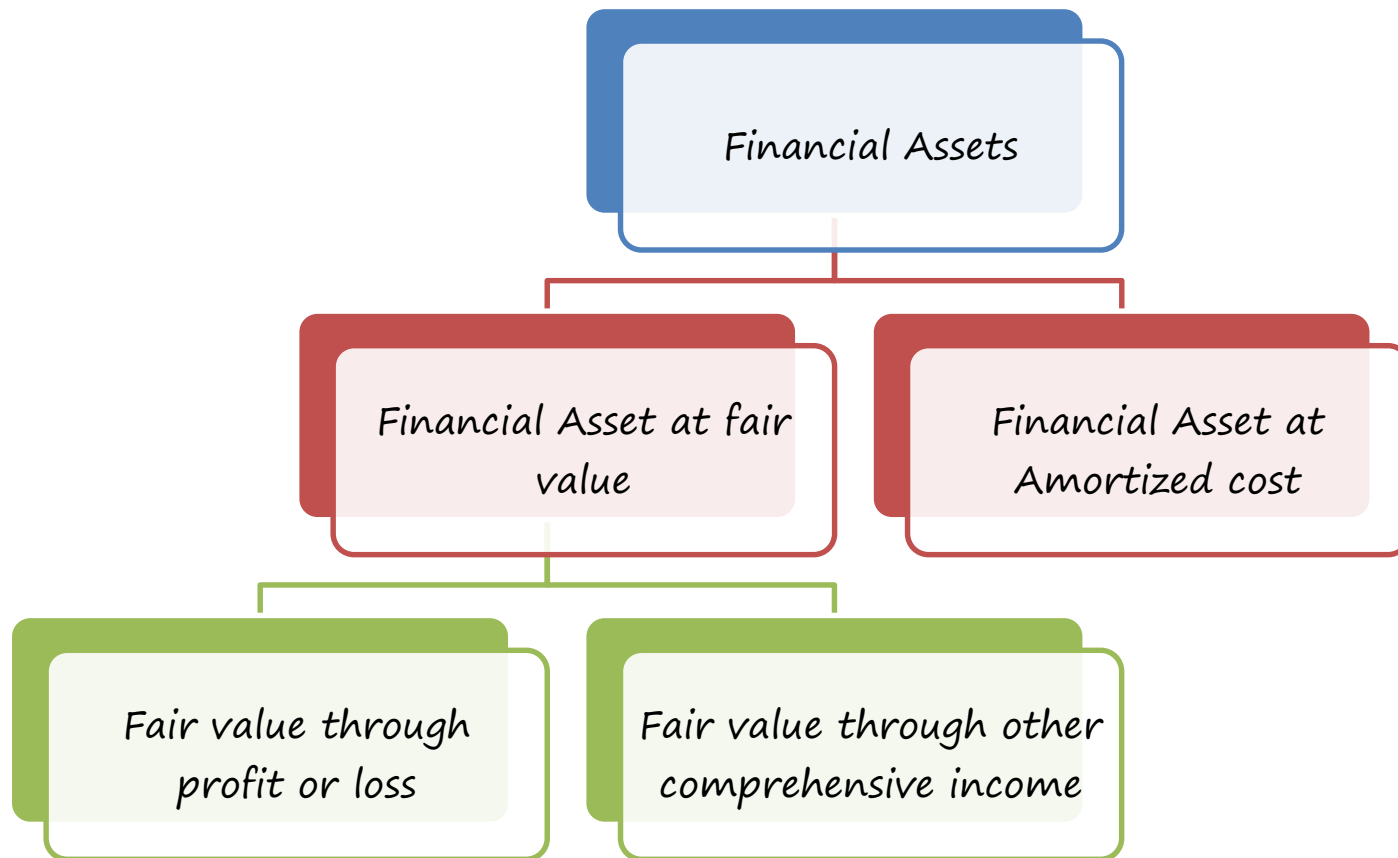
Year	Discount @ 14%	Rescheduling loss
5 beginning		2,87,090
5 end	40,193	3,27,283
6	45,819	3,73,102
7	52,234	4,25,336
8		4,84,881

Annual loss amount to be recognized

Year	Discount @ 14%	Rescheduling loss
5 beginning		2,87,090
5 end	40,193	3,27,283
6	45,819	3,73,102
7	52,234	4,25,336
8	59,545	4,84,881

Recognition, classification and measurement

- Classification of Financial Assets



Basis of classification

- Entities business model for managing the financial asset
- Contractual cash flow characteristics of the financial asset

Business Model



Incentive based on
Collecting contractual
cash flows

Incentive based on
Sales

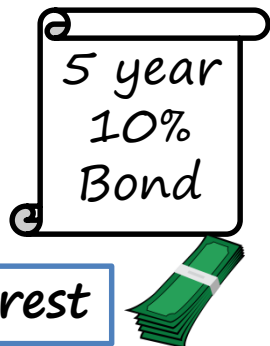
These are
not incentive
based sales

Financial asset which does not meet the investment policy of company like credit risk

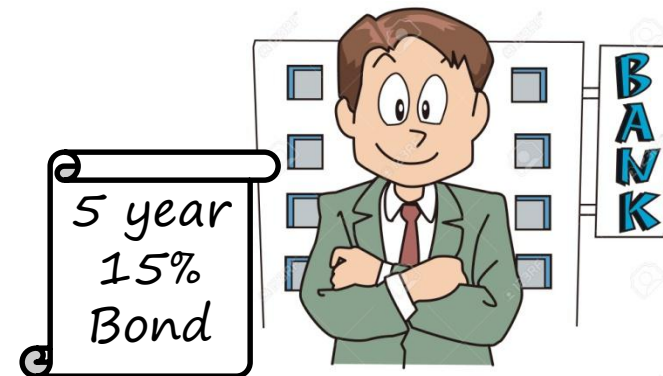
Insurer adjusts investment portfolio to reflect change in expected duration

Entity needs to fund capital expenditure

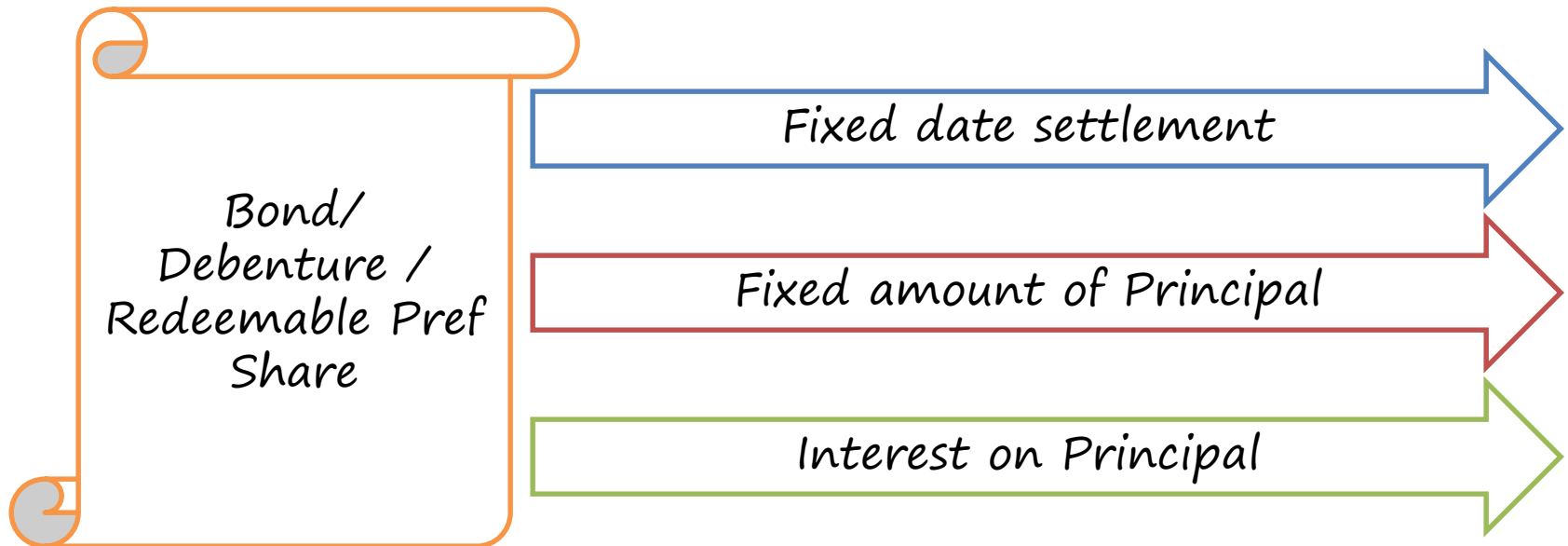
Business Model



Interest

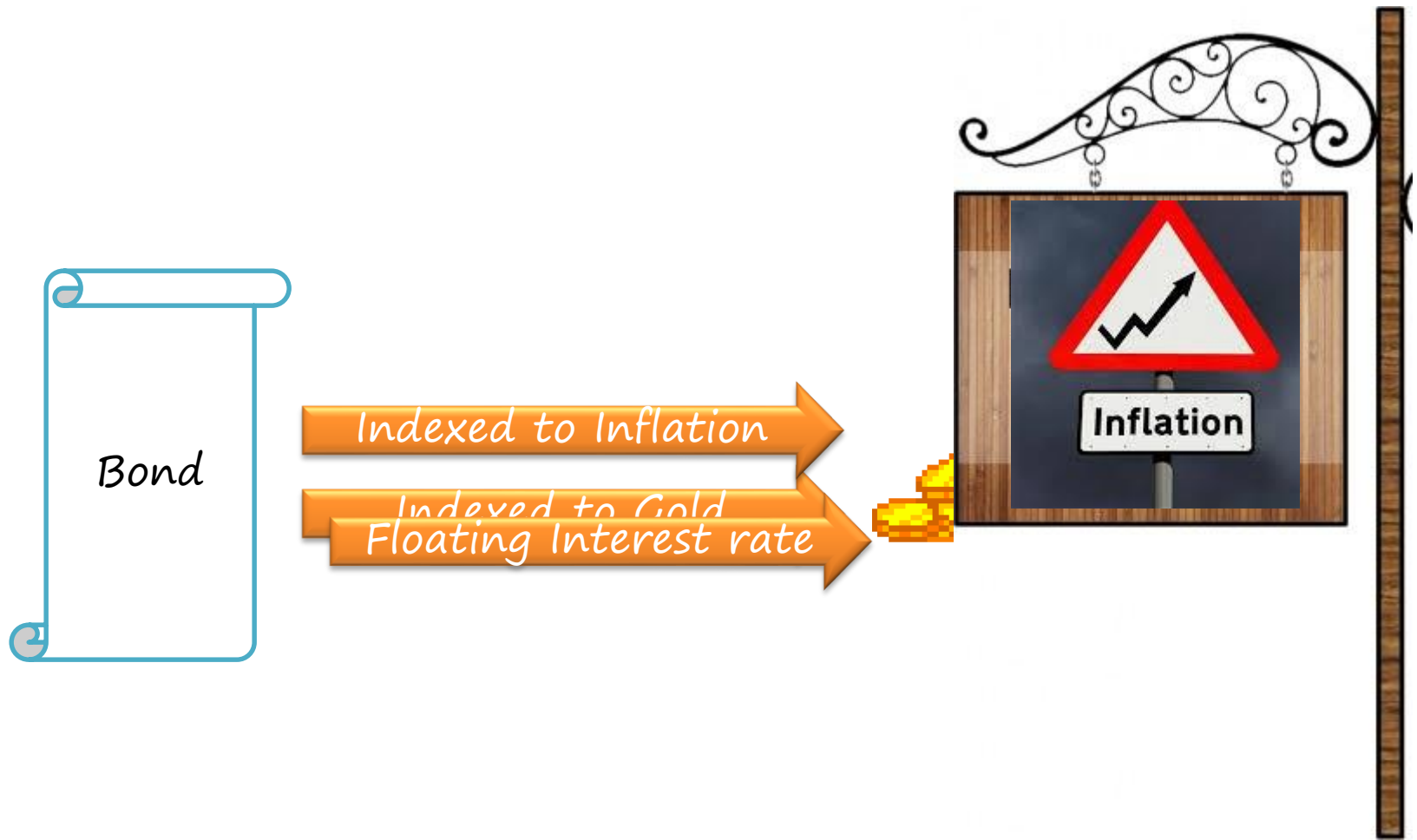


Nature of Contractual Cash flows



Nature of Contractual Cash flows

- Leverage test



Nature of Contractual Cash flows

- Prepayment options

Exclusions

Prepayment option is contingent on future events to protect holder and

Prepayment amount substantially represents unpaid amounts of principal and interest with additional compensation for early termination

Nature of Contractual Cash flows

- Extension option

Exclusions

Extension option is contingent on future events to protect holder and

Extension option leads to contractual cash flows during the extension period that are solely payment of interest and principal outstanding

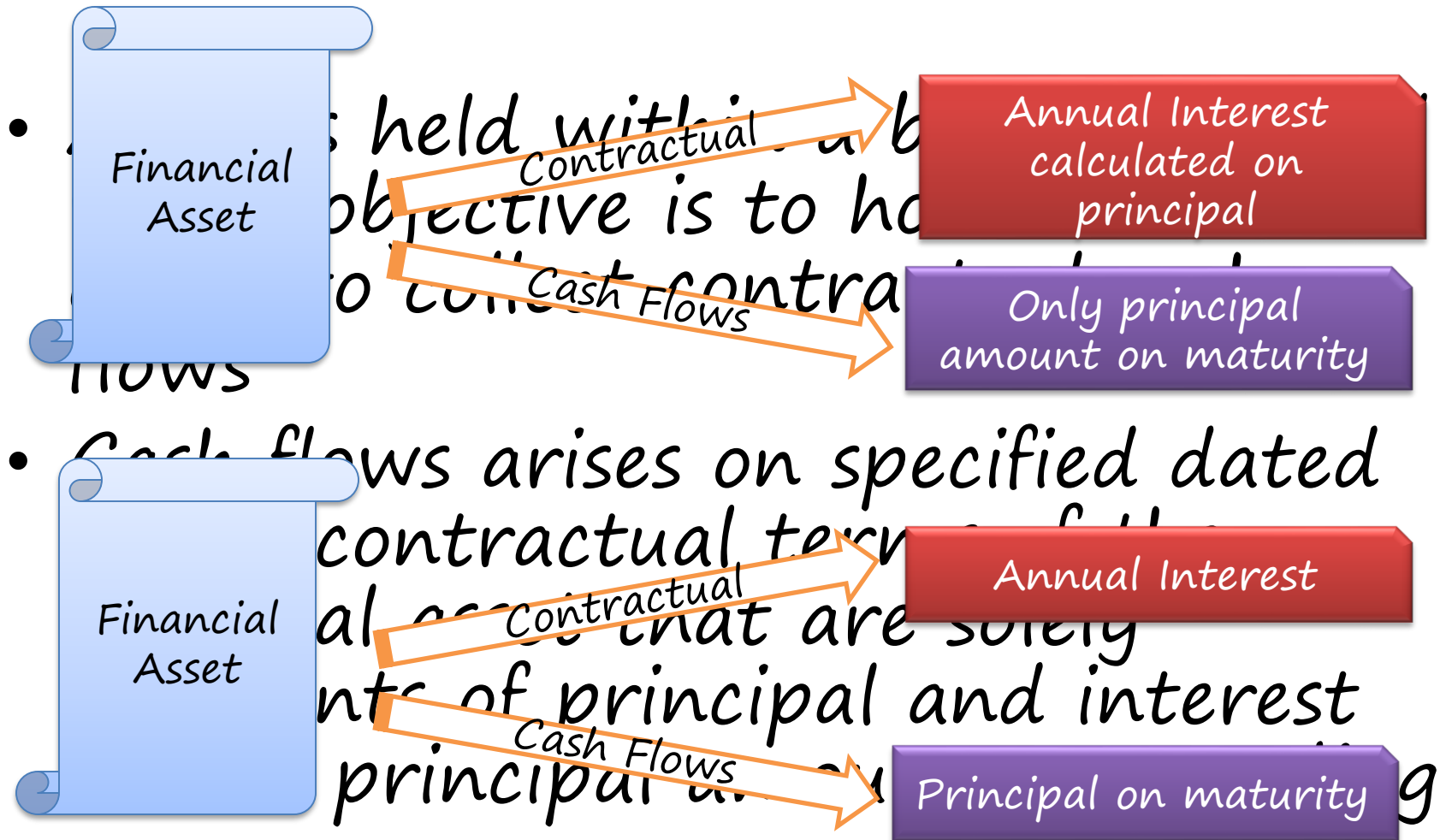
Questions- Pg.12

- X Ltd. holds 5yr inflation linked bonds
- X Ltd. holds 5yr equity linked bonds
- X Ltd. holds bond that pay 6 month LIBOR + 200 basis points
- X Ltd. holds bond that pay 6 month LIBOR + 200 basis points with interest capped at 9%
- X Ltd. holds 10% Convertible debentures into equity
- X Ltd. holds 12% Perpetual bonds

Questions- Pg 12

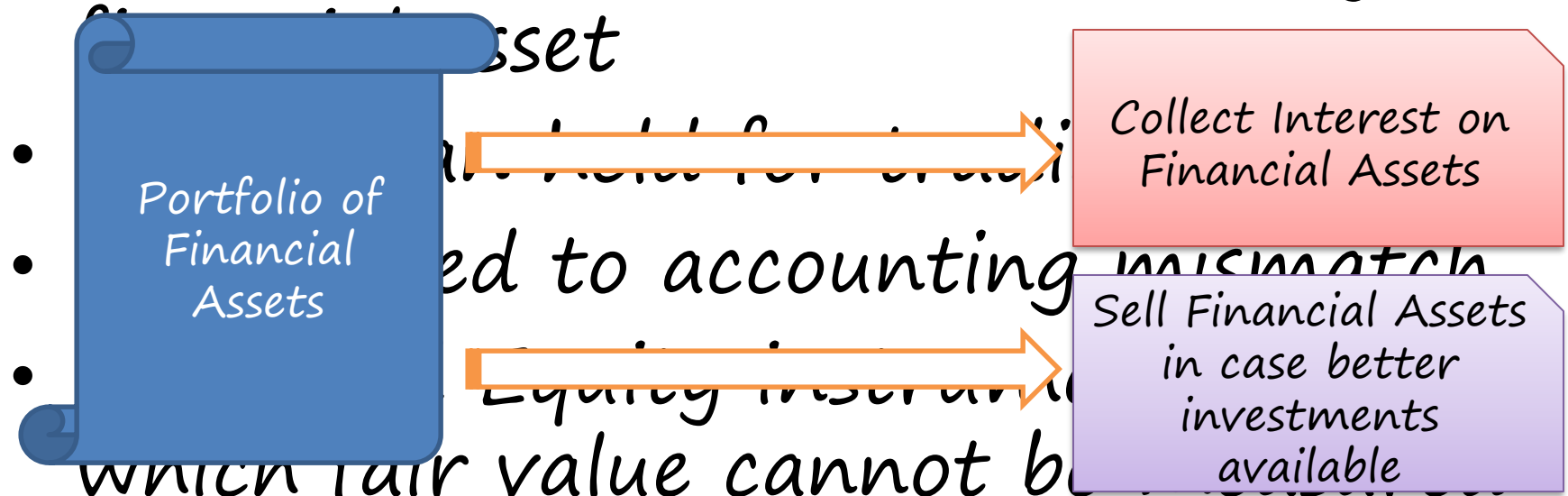
- X Ltd. invested in 5yr 10% Debenture which will repay principal in 5yrs and will pay interest for 7yrs
- 5yr constant maturity bond pays variable interest periodically but always reflects 5year period.

Amortized cost



Fair value through other comprehensive income

- Financial asset is held within a business model whose objective is achieved by both collecting contractual cash flows and selling



Fair Value through profit or loss

- Designated so if it eliminates or significantly reduces a measurement or recognition inconsistency
- Hybrid instruments with embedded

Financial
Liability
recorded at
fair value

Used to finance

Financial
Asset
intended to
be held till
maturity

Assets held for trading
not satisfy business model
contractual cash flow mo-
characteristics

Financial Liability

- Financial Liability at amortized cost
- Financial Liability at fair value through profit or loss

Questions 32.1 Pg.14

- A has a basket of corporate bonds that have different maturity periods. Company's policy is to explore opportunity for booking profits , whenever there is any . Although the company has been able to trade in a few short duration bonds during reporting period, many a number of bonds that had long terms maturity were not sold during

Questions 32.2 Pg. 15

- 6 year 10% debentures with put option after 1 year were purchased, put premium being 2%. Repayment amount varies up on exercising the option, depending up on the time of exercise. Investing company has classified it as Amortized and valued at amortized cost . Instrument is quoted and traded. Auditors are of the view that it has to be under loans and receivables.
Comment

Accounting for Amortized Cost

Initial Recognition

- Fair value on acquisition date
- Includes Transaction Cost

Subsequent measurement

- Amortized cost method
- Calculate IRR

Income/ Expense

- Transfer Interest calculated at IRR to P&L
- Transfer interest paid/ received to Loan

Accounting for FVTOCI

Initial Recognition

At fair value

Includes transaction cost

Subsequent Recognition

At fair value

Transfer difference to OCI

Retransfer from OCI to FVOCI Reserve

On sale

Transfer OCI Reserve to P&L

Accounting for FVTPL

Initial Recognition

Fair value

Excludes
Transaction cost

Subsequent
Measurement

At Fair value

Difference
transfer to P&L

Question 32.5 Pg.15

- Zero coupon bonds repayable at face value Rs 100.00 after 5 years is traded at Rs.80.00. An instrument with same tenure and credit rating gives a five yearly average return of 6% per year

Answer

Rs.100

- Zero coupon bond means no interest will be paid over the period of 5yrs
- Thus fair value on date of issue will be
- $PVF\ 6\%,\ 5^{th}\ year = 0.7472 * 100$
- $= Rs.74.72$
- Difference of $Rs.80 - 74.72 = 5.28$ to be transferred to P&L

How will the accounting for Zero Coupon bond be done?

Year	Interest @ 6%	Investment
0		74.72
1		
2		
3		
4		
5		

How will the accounting for Zero Coupon bond be done?

Year	Interest @ 6%	Investment
0		74.72
1	4.48	
2		
3		
4		
5		

How will the accounting for Zero Coupon bond be done?

Year	Interest @ 6%	Investment
0		74.72
1	4.48	79.20
2		
3		
4		
5		

How will the accounting for Zero Coupon bond be done?

Year	Interest @ 6%	Investment
0		74.72
1	4.48	79.20
2	4.75	83.95
3		
4		
5		

How will the accounting for Zero Coupon bond be done?

Year	Interest @ 6%	Investment
0		74.72
1	4.48	79.20
2	4.75	83.95
3	5.04	88.99
4		
5		

How will the accounting for Zero Coupon bond be done?

Year	Interest @ 6%	Investment
0		74.72
1	4.48	79.20
2	4.75	83.95
3	5.04	88.99
4	5.33	94.32
5		

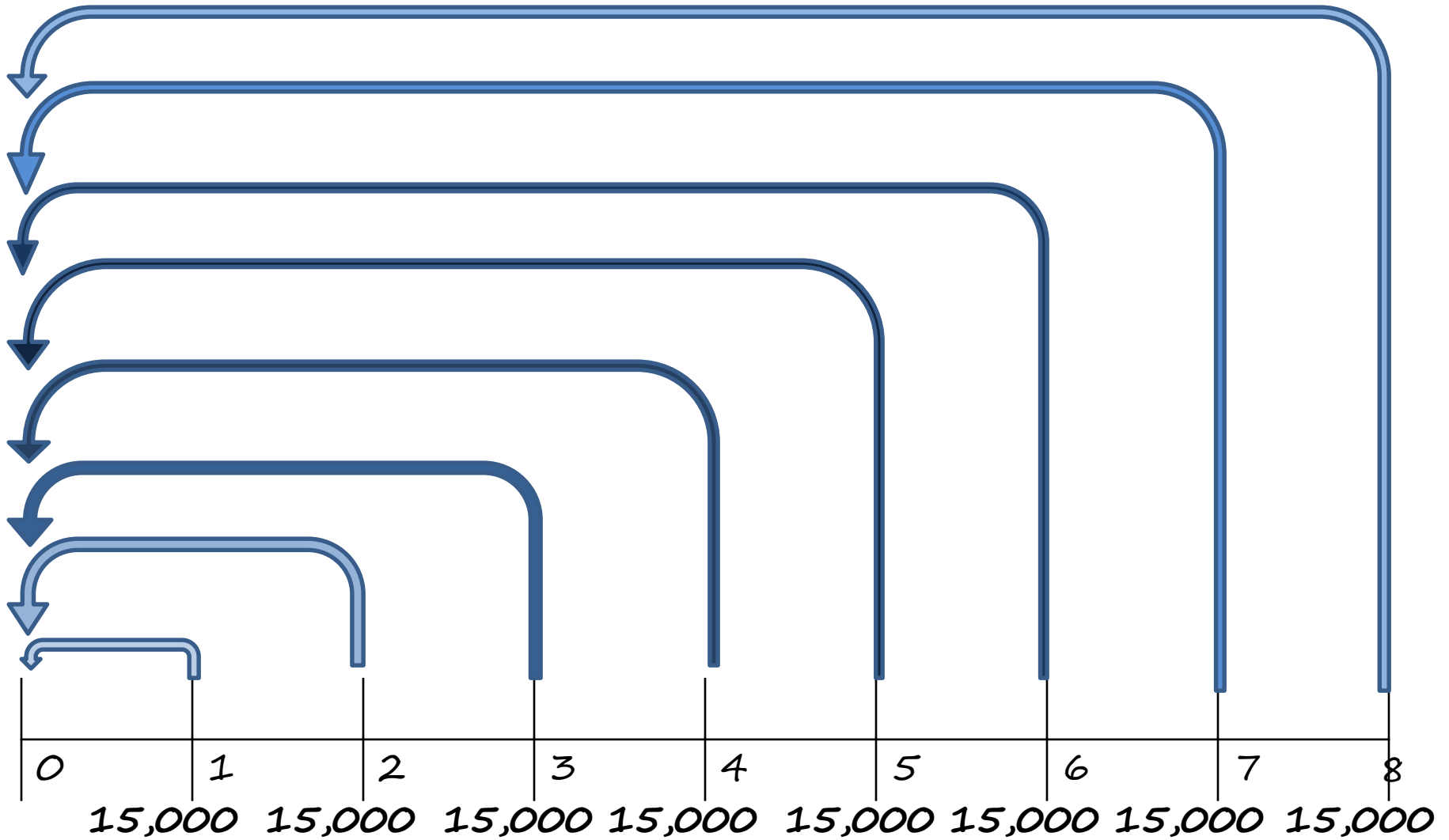
How will the accounting for Zero Coupon bond be done?

Year	Interest @ 6%	Investment
0		74.72
1	4.48	79.20
2	4.75	83.95
3	5.04	88.99
4	5.33	94.32
5	5.68	100

Question 32.6 Pg.15

- An interest free loan, say, Rs 1.20 L was given recoverable in 8 quarterly installments . Rate of interest in market is, say, 10%. How would the loan be initially recognized

Discount rate will be = $10\%/4 \text{ Quarters} = 2.5\%$



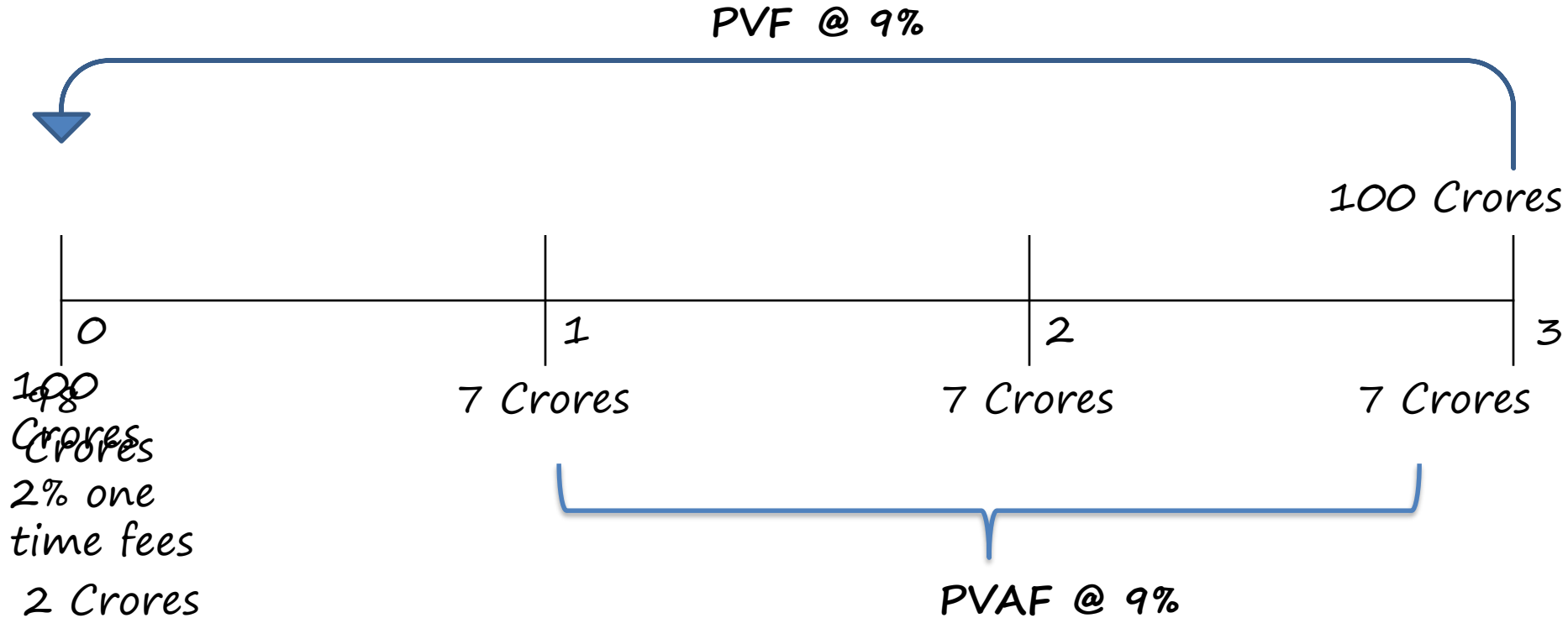
Answer

- Eight Quarterly installment means
- $= 120000 / 8 = 15000$ per quarter
- Similar loan interest rate = 10%p.a.
- Per quarter will be $10 / 4 = 2.5\%$
- So fair value of loan will be
- $PVAF\ 2.5\%, 8\ \text{years} = 7.17$
- $\text{Fair value} = 15000 * 7.17 = 107,552$
- $\text{Difference to be charged to P\&L} = 120,000 - 107,552 = 12,448$

Question 32.7 Pg.15

- Rs 100 crores , Loan, repayable after 3 years, was raised at 7% interest against the market rate of 9%. But a one time fee of 2% was to be additionally paid in advance

Timeline



Answer

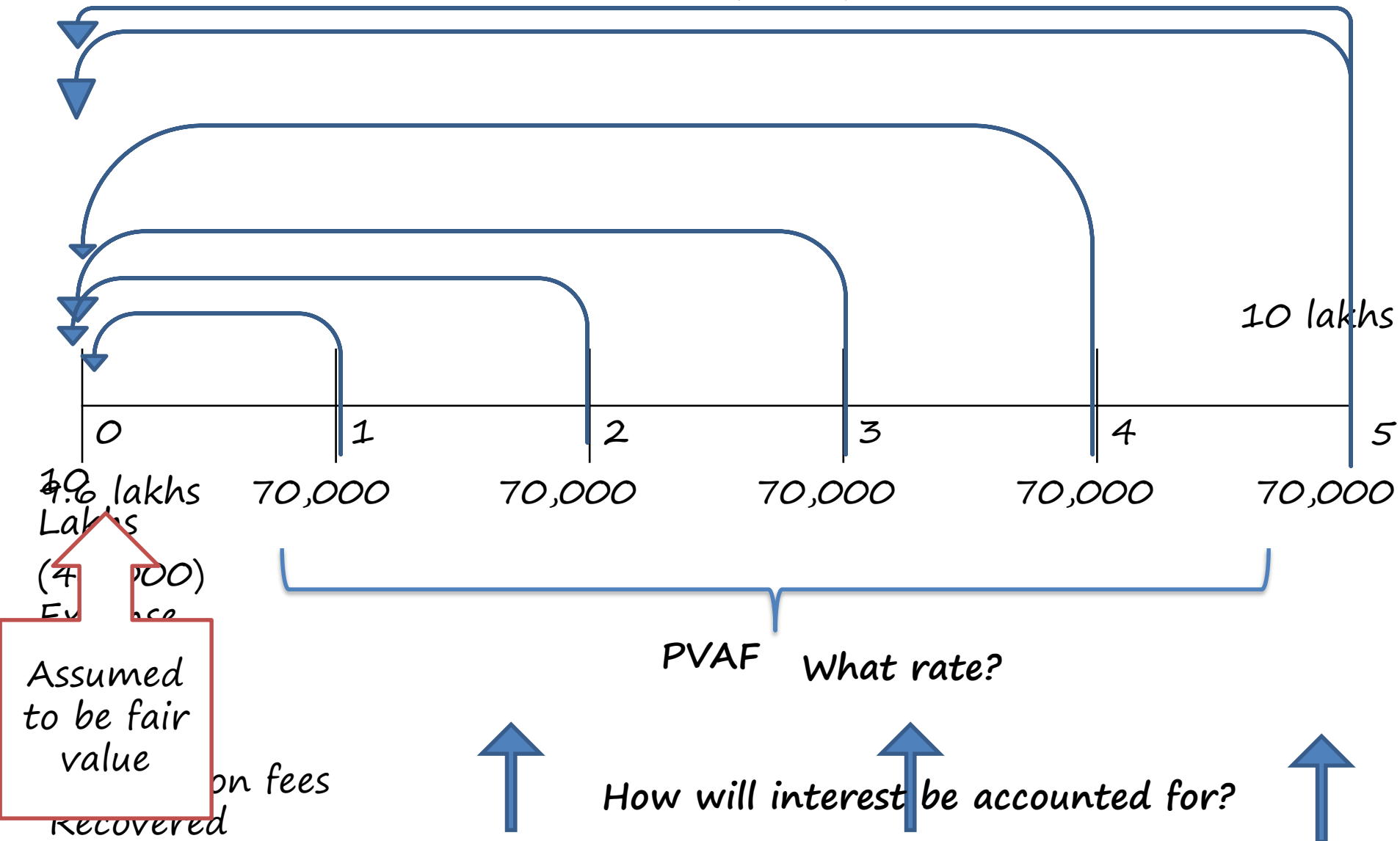
Year	Interest and loan repayable	PVF @ 9%	Present value
0	-	1	-
1	7	0.9174	6.4218
2	7	0.8416	5.8912
3	107	0.7722	82.6254
		TOTAL	94.9384

- Loan amount received = 98 crore
- Difference to be charged to P&L
- $= 98 - 94.94 = 3.06$ crore

Question 32.10 Pg.16

- Suppose an amount of Rs 10.00 lakhs raised as debt with 7% annual interest had expenses incurred were Rs. 50000.00 and a recovery of Rs 10000.00 was made towards application fee from lenders. Loan is repayable after the end of 5 years

We need to Find Internal Rate of Return having Present Value of Rs. 90 lakhs What rate?



Answer

- Loan amount = 10 lakhs
- Expense incurred = 50,000
- Expense recovered = 10,000
- Net amount received = 9.6 lakhs
- Interest payable each year = 7% = 70,000
- Fair value of loan = 9.6 lakhs
- For interest to be charged we need to calculate IRR

IRR

- Lets say 8%

Year	Interest and Principal	PVF @ 8%	Present value
0	-	1	-
1	70,000	0.9259	64813
2	70,000	0.8573	60011
3	70,000	0.7938	55566
4	70,000	0.7350	51450
5	10,70,000	0.6806	728242
		TOTAL	960082

- Almost 10,00,000, thus IRR is 8%

Questions 32.14 Pg.17

- On 31st March 2012, entity A acquires a bond denominated in dollars for a fair value of \$1000. Bond has a term of 5 years and principal amount of \$1250 carries fixed interest rate of 4.7% paid annually (i.e. $1250 \times 4.7\% = \$59$) effective interest rate being 10%. Entity classifies the bond as FVTOCI. Exchange rate is Rs.45. On 30th April 2013, exchange rate is Rs.50. fair value of bond \$1060, amortised cost \$1041. Journalise

31st March
2012

30th April
2013

4.7% Bond
Face Value =
\$1250

Interest recd =
 $1250 * 4.7\%$

\$59

Rs.2950

Bought for
\$1000

Effective
Rate = 10%

Effective Interest =
 $1000 * 10\%$

\$100

Rs.45

Rs.50

Rs.5000

Foreign Exchange Fluctuation =
 $(50 - 45) * 1000$

Rs.5000



Answer

- Initial Recognition = $1,000 * 45 = 45,000$
- Interest received = $\$59 * 50 = 2950$
- Effective interest = $\$1000 * 10\% * 50 = 5,000$
- Foreign exchange gain = $(50-45) * \$1000 = 5000$
- After above entries Fair value will be $45000 + 5000 - 2950 + 5000$
- $= 52050$

Answer

- Fair value on closing date = \$1060
- Conversion rate = 50
- = 53,000
- Thus FVTOCI Reserve
- = 53,000 - 52050
- = 950

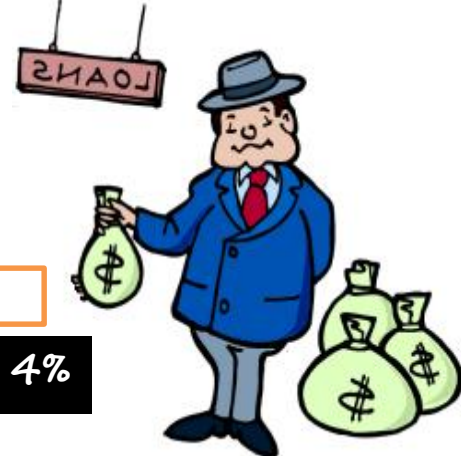
Question 32.18 Pg.17

- XYZ Ltd. grants loans to its employees at 4% amounting to Rs.10 lacs at the beginning of 2015-16. The principal amount is repaid over a period of 5yrs. Whereas the accumulated interest computed on reducing balance at simple interest is collected in 2 equal annual installments after collection of the principal amount. Assume the benchmark interest rate is 8%. Show accounting entry on 1.4.2015 and 31.3.2016



Rs.10 lakhs

Interest @ 4% simple interest



Principal

		Outstanding	Interest @ 4%
	0	10,00,000	40,000
Rs.2 lakhs	1	8,00,000	32,000
Rs.2 lakhs	2	6,00,000	24,000
Rs.2 lakhs	3	4,00,000	16,000
Rs.2 lakhs	4	2,00,000	8,000
Rs.2 lakhs	5	0	
Rs.60,000	6		
Rs.60,000	7		
		Total = 120,000	

@ 8%



Answer

- Principal installment to be repaid

Year	Amount
1	2,00,000
2	2,00,000
3	2,00,000
4	2,00,000
5	2,00,000

- Simple Interest to be charged

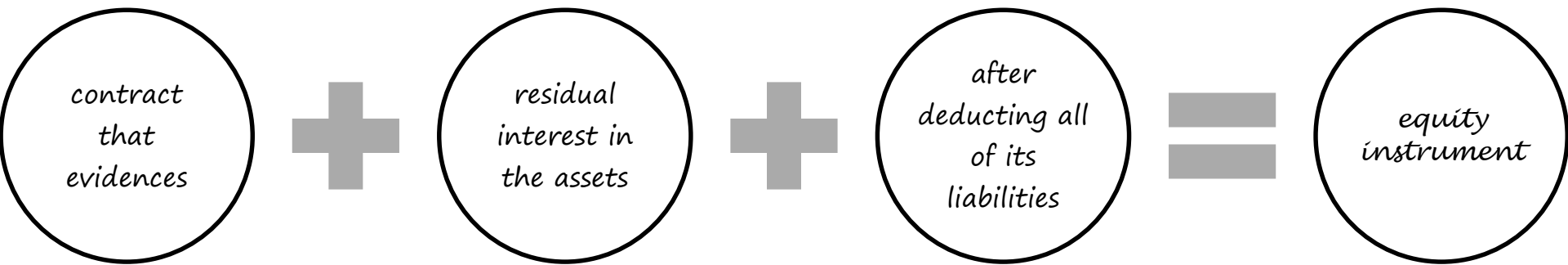
Year	Interest	Principal Repaid	Closing Principal Outstanding
0			10,00,000
1	40,000	2,00,000	8,00,000
2	32,000	2,00,000	6,00,000
3	24,000	2,00,000	4,00,000
4	16,000	2,00,000	2,00,000
5	8,000	2,00,000	-
TOTAL	1,20,000		

Year	Amount repaid
6	60,000
7	60,000

Present Value of Cash flow

Year	Principal and Interest	PVF @ 8%	Present Value
0	-	1	-
1	2,00,000	0.9259	185,180
2	2,00,000	0.8573	171,460
3	2,00,000	0.7938	158,760
4	2,00,000	0.7350	147,000
5	2,00,000	0.6806	136,120
6	60,000	0.6302	37,812
7	60,000	0.5835	35,010
		TOTAL	8,71,342

Equity instrument



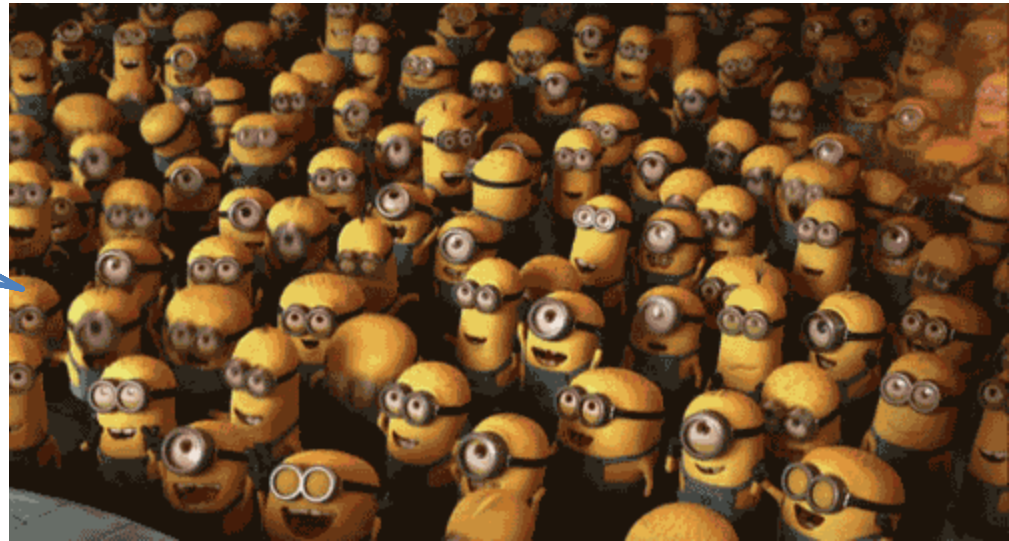
- It must satisfy two conditions
 - No contractual obligation
 - Settlement of fixed number of equity criteria

Equity instrument



What can you ask for?

Residue after
paying all
liabilities if any



Contractual obligation

- Deliver cash or financial asset to another entity
- Exchange financial asset or financial liability with another entity under conditions that are potentially unfavorable to the issuer

What if the holder expects
What share price will it all
What's there up to 100 days
if the company is a dividend
paid and then the price?
dividend and future?
else he will sell his share?



Preference shares

- Redeemable Preference shares
- Irredeemable cumulative preference shares
- Irredeemable non cumulative preference shares
- Irredeemable preference shares

Debentures

- Redeemable debentures
- Irredeemable debentures
- Irredeemable debentures with discretionary interest rights

Settlement of fixed number of equity

- A non derivative that includes a contractual obligation for the issuer to deliver fixed number of own equity instruments

No. of shares does not depends on Market price at the end of year 5

Yes

Will I get 100 shares even if
MP is 125?

You will get 100 shares

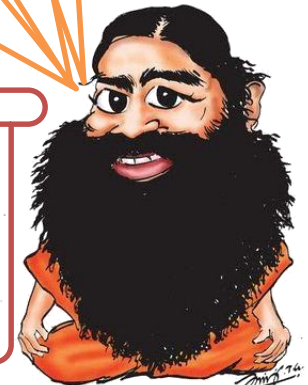
What if Market Price is
Rs.100

Convertible into 100 Eq
shares after 5yrs.

Saba How many shares will I
get for Rs.1000 Debentures?



Patanjali
Convertible
Debenture
life 5 yrs



5

4

3

2

1

Settlement of fixed number of equity

- A non derivative that includes a contractual obligation for the issuer to deliver fixed number of own equity instruments
- A derivative that will be settled only by the issuer exchanging a fixed amount of cash or another financial asset for a fixed number of own equity instrument

Question 32.3 Page 7

- X Ltd. issued debentures amounting to Rs.10 lacs on 1.4.2015. As per the terms, it has been agreed that equity shares worth Rs.15 lakhs will be issued at the end of third year to redeem such debentures. Determine whether equity or liability? Discount rate is 10%

Answer

- As the number of equity shares to be issued are not fixed but the amount for which the shares are to be issued is fixed, it shall be considered as Financial Liability

Debentures

Redeemable on maturity date
at market value existing on that
date

Shares of
Rs.15 lakhs as
on 31.3.2018

- Since discount rate is 10%, considering PVF @ 10% at the end of third year
- $15,00,000 * 0.7513$
- Rs.11,26,950
- So debentures will be accounted for at Rs.11,26,950 and corresponding loss of Rs.1,26,950 debited to P&L in year 1 itself

Question 32.4 Page 7

- X Ltd. issued debentures amounting to Rs.10 lacs on 1.4.2015. As per the terms, it has been agreed that equity shares worth Rs.15 lakhs will be issued at the end of third year to redeem such debentures. Determine whether equity or liability? Discount rate is 10% in year 0, 10.5% in year 1 and 11% in year 2

Loss = Rs.1.26
Lakh

PVF @ 11%- 1yr

0.9009

PVF @ 10.5%- 2yrs

0.8189

PVF @ 10%- 3yrs

0.7513

Rs.15 lakh
~~received~~

Rs.12.28
lakh

Rs.13.51
lakh

Rs.15 lakh
Equity issued

10%

10.5%

11%

1.4.2015

31.3.2016

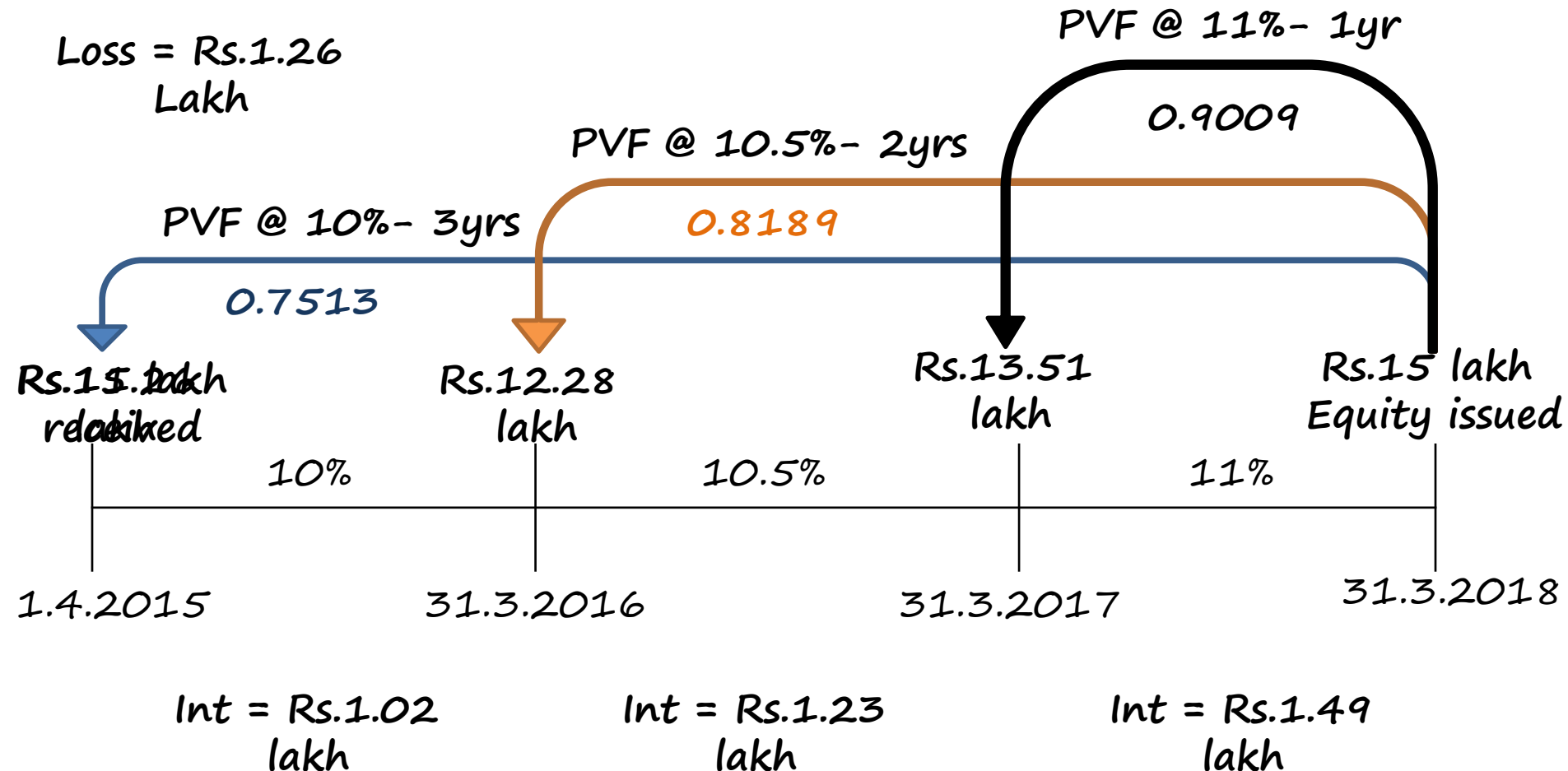
31.3.2017

31.3.2018

Int = Rs.1.02
lakh

Int = Rs.1.23
lakh

Int = Rs.1.49
lakh



Answer

Year	Discount rate	Period remaining for maturity	PVF	P.V.	Interest to be charged
0	10%	3	0.7513	11,26,950	-
1					
2					
3					

Answer

Year	Discount rate	Period remaining for maturity	PVF	P.V.	Interest to be charged
0	10%	3	0.7513	11,26,950	-
1	10.5%				
2					
3	-				

Answer

Year	Discount rate	Period remaining for maturity	PVF	P.V.	Interest to be charged
0	10%	3	0.7513	11,26,950	-
1	10.5%	2			
2					
3					

Answer

Year	Discount rate	Period remaining for maturity	PVF	P.V.	Interest to be charged
0	10%	3	0.7513	11,26,950	-
1	10.5%	2	0.8189	12,28,350	

Answer

Year	Discount rate	Period remaining for maturity	PVF	P.V.	Interest to be charged
0	10%	3	0.7513	11,26,950	-
1	10.5%	2	0.8189	12,28,350	1,01,400

Answer

Year	Discount rate	Period remaining for maturity	PVF	P.V.	Interest to be charged
0	10%	3	0.7513	11,26,950	-
1	10.5%	2	0.8189	12,28,350	1,01,400
2	11%	1	0.9009	13,51,350	1,23,000
3					

Answer

Year	Discount rate	Period remaining for maturity	PVF	P.V.	Interest to be charged
0	10%	3	0.7513	11,26,950	-
1	10.5%	2	0.8189	12,28,350	1,01,400
2	11%	1	0.9009	13,51,350	1,23,000
3	-	0	1	15,00,000	1,48,650

- X Ltd. issued debentures amounting to Rs.10 lakhs on 31.3.2015. Debentures will be redeemed by issue of equity shares as are equal to 1kg Gold bar after three years. Benchmark interest rate are

0 year	1 year	2 year
11.5%	11.25%	11%

- Fair value of gold as per gold futures are as follows

1.4.2014	3 year gold futures	1855574
31.3.2015	2 year gold futures	1900000
31.3.2016	1 year gold futures	1920000
31.3.2017	Spot rate	1910000

- Assume equity shares issued to be of face value Rs.10 each at par

Answer

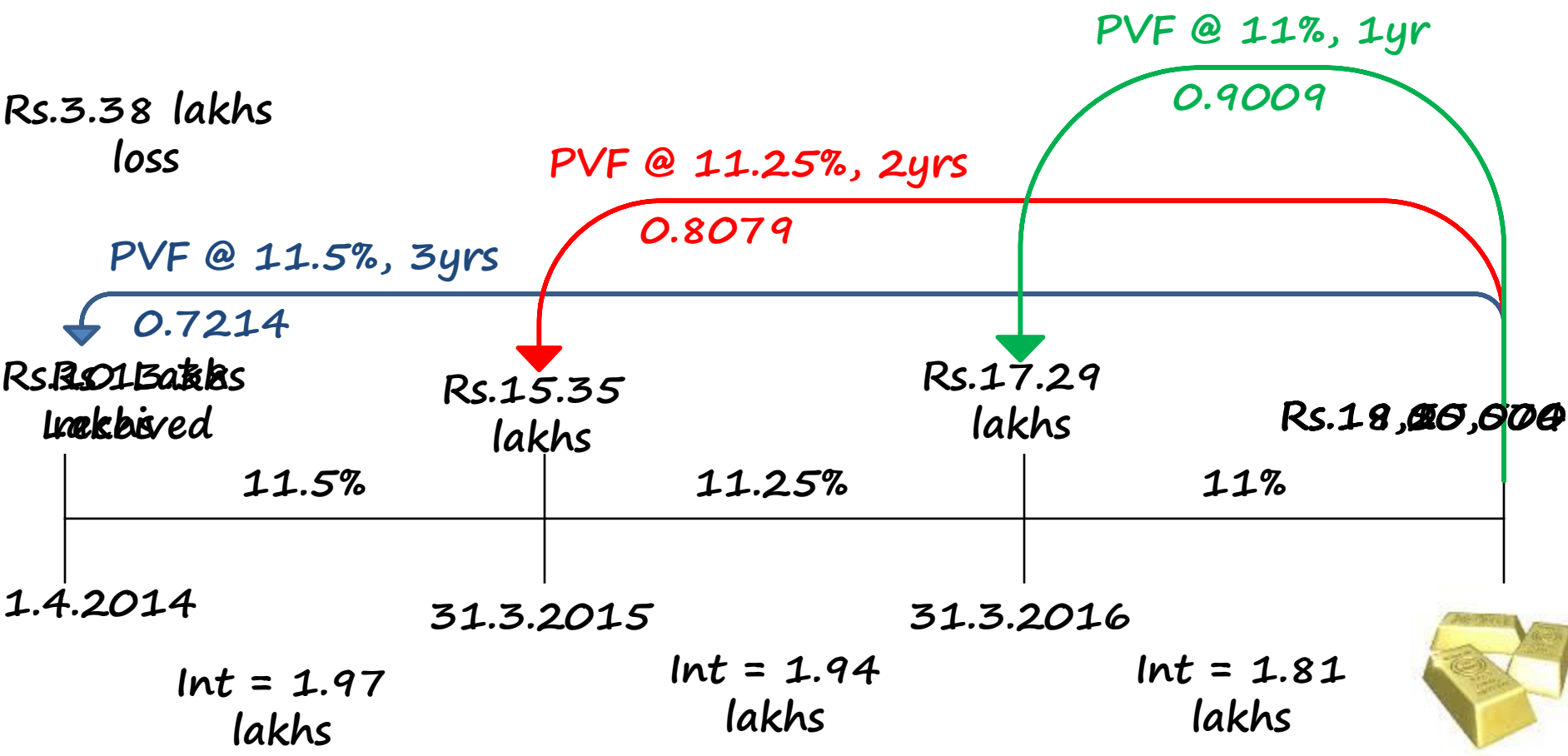
- Since the transaction does not involve fixed number of shares, it is to be considered as Financial liability

Debentures

Redeemable on maturity date
at market value existing on that
date

Shares value
equal to MV
of 1kg. Gold
as on
31.3.2018

Rs.3.38 lakhs
loss



1 year future
18,05,604



Will you
get this
on
1.4.2014



Valuation of Debentures

Year	Value of Gold	Discount rate	Remaining period	PVF	PV	Interest to be charged	Fair Value loss
0	1855574						
1							
2							
3							

Valuation of Debentures

Year	Value of Gold	Discount rate	Remaining period	PVF	PV	Interest to be charged	Fair Value loss
0	1855574	11.5	3	0.7214	1338611		
1							
2							
3							

Valuation of Debentures

Year	Value of Gold	Discount rate	Remaining period	PVF	PV	Interest to be charged	Fair Value loss
0	1855574	11.5	3	0.7214	1338611		338611
1							
2							
3							

Valuation of Debentures

Year	Value of Gold	Discount rate	Remaining period	PVF	PV	Interest to be charged	Fair Value loss
0	1855574	11.5	3	0.7214	1338611		338611
1	1900000						
2							
3							

Valuation of Debentures

Year	Value of Gold	Discount rate	Remaining period	PVF	PV	Interest to be charged	Fair Value loss
0	1855574	11.5	3	0.7214	1338611		338611
1	1900000	11.25					
2							
3							

Valuation of Debentures

Year	Value of Gold	Discount rate	Remaining period	PVF	PV	Interest to be charged	Fair Value loss
0	1855574	11.5	3	0.7214	1338611		338611
1	1900000	11.25	2	0.8079	1535010	196399	
2							
3							

Valuation of Debentures

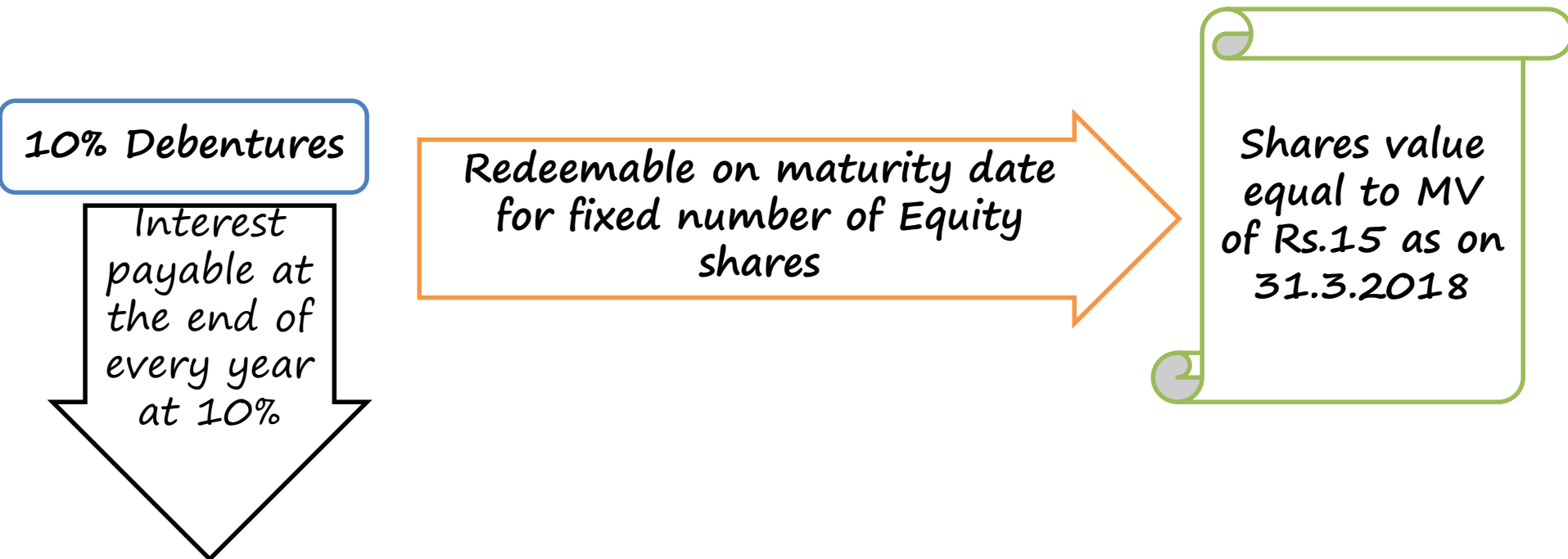
Year	Value of Gold	Discount rate	Remaining period	PVF	PV	Interest to be charged	Fair Value loss
0	1855574	11.5	3	0.7214	1338611		338611
1	1900000	11.25	2	0.8079	1535010	196399	
2	1920000	11	1	0.9009	1729728	194718	
3	1910000	-	0	1	1910000	180272	

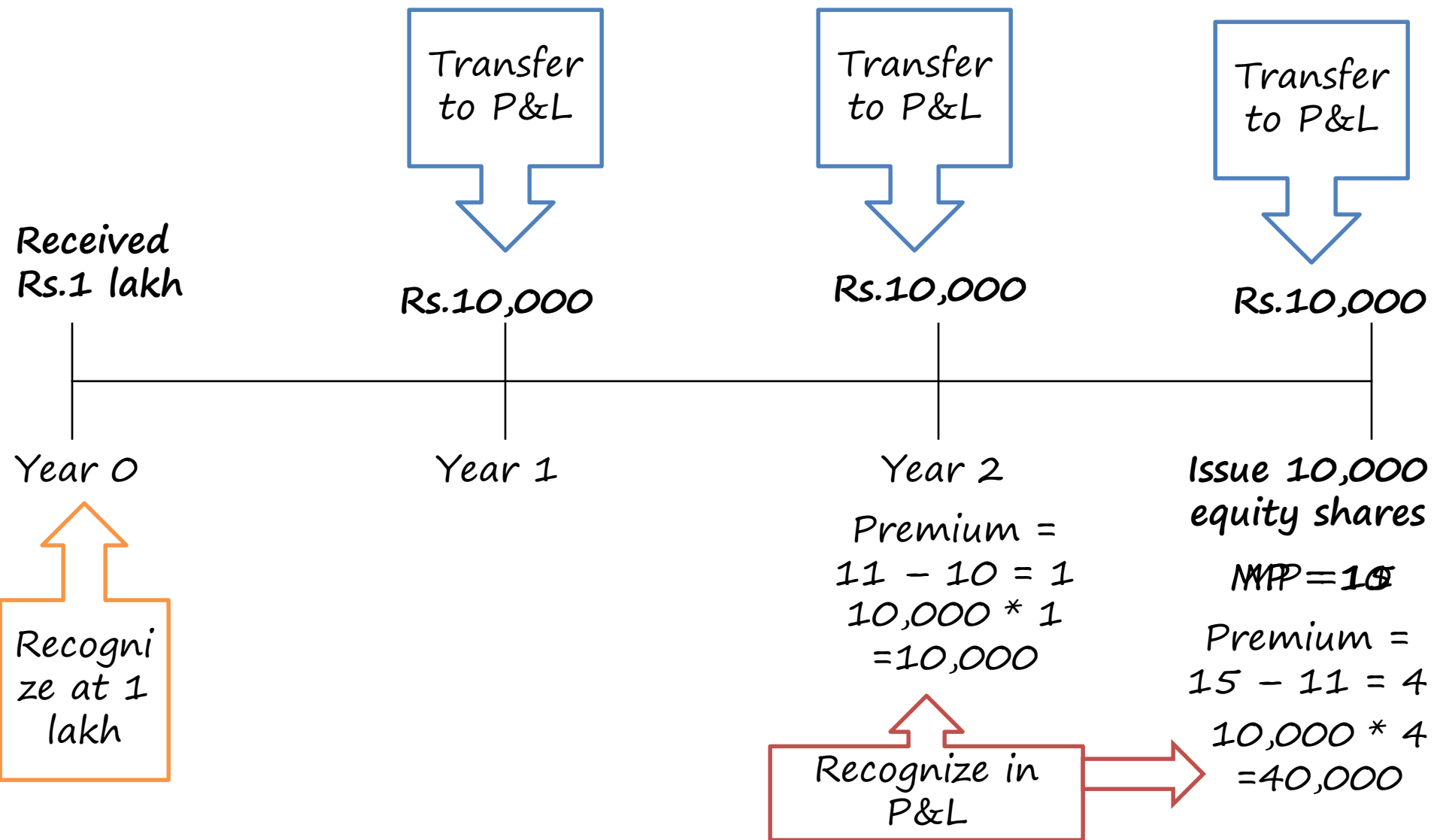
Question 32.6 Pg.7

- X Ltd. issued 10% Debentures of rs.1 lakh convertible into 10000 equity shares at the end of 3rd year. Should they be classified as equity or liability?
- Assume market price of share to be Rs.10, Rs.11 and Rs.15 at the end of year 1,2 and 3 respectively

Answer

- It fails to satisfy no contractual obligation test as interest is payable on debentures, hence to be classified as Financial Liability





Debenture account

Year	Debenture account opening	Interest paid	Debenture redemption premium account	Debenture closing account
0	–	–	–	1,00,000
1	1,00,000	10,000		
2	1,00,000	10,000		
3	1,10,000	10,000		

Debenture account

Year	Debenture account opening	Interest paid	Debenture redemption premium account	Debenture closing account
0	–	–	–	1,00,000
1	1,00,000	10,000	–	1,00,000
2	1,00,000	10,000		
3	1,10,000	10,000		

Debenture account

Year	Debenture account opening	Interest paid	Debenture redemption premium account	Debenture closing account
0	–	–	–	1,00,000
1	1,00,000	10,000	–	1,00,000
2	1,00,000	10,000	10,000	1,10,000
3	1,10,000	10,000		

Debenture account

Year	Debenture account opening	Interest paid	Debenture redemption premium account	Debenture closing account
0	–	–	–	1,00,000
1	1,00,000	10,000	–	1,00,000
2	1,00,000	10,000	10,000	1,10,000
3	1,10,000	10,000	40,000	1,50,000

Question 32.7 Pg 7

- X Ltd. issued zero coupon bonds on 31.3.2015 of Rs.1 lakh convertible into 1 lacs equity shares of Rs.10 each at the end of third year, should they be classified as equity or liability?

Answer

- Fixed number of equity shares are to be given on maturity and no contractual cash obligation during the period of the bond, hence to be classified as equity.

Zero Coupon
bonds

Redeemable on maturity date
for fixed number of Equity
shares

Shares value
equal to MV
as on
31.3.2015

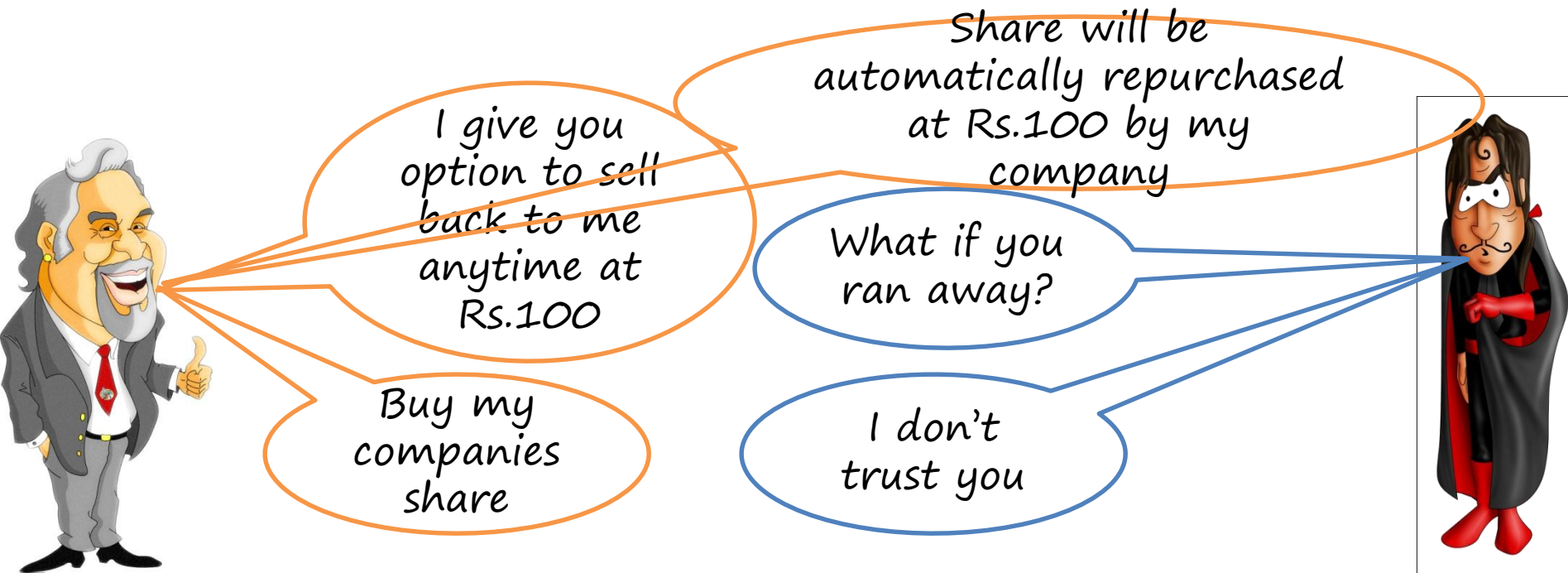
Journal Entry

Date	Particulars	Dr.	Cr.
1.4.2015	Bank account	1,00,000	
	Redemption premium account	9,00,000	
	To Equity settled Bonds account		10,00,000

Date	Particulars	Dr.	Cr.
31.3.2018	To Equity settled Bonds account	10,00,000	
	To Equity Share Capital account		10,00,000

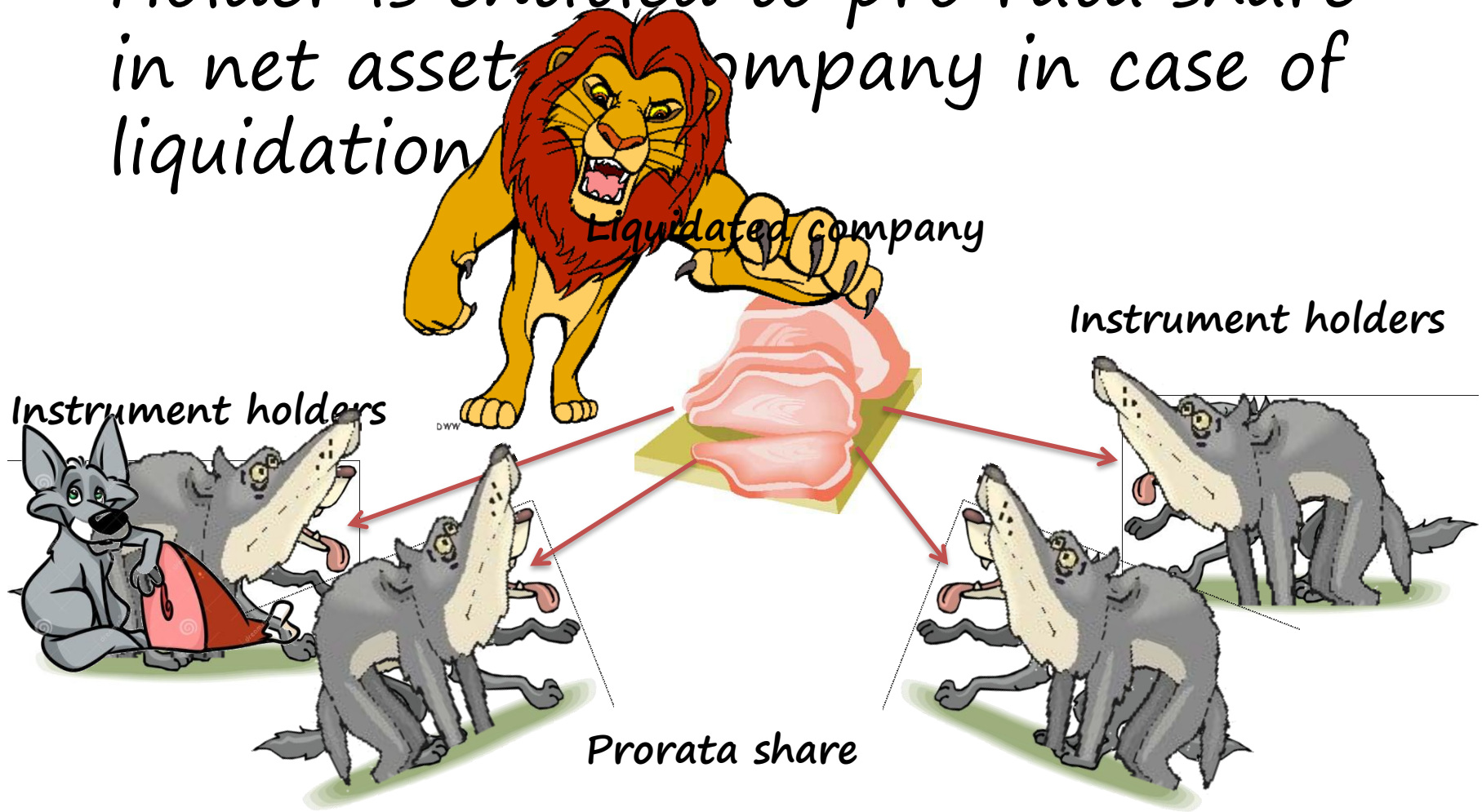
Deemed Equity

- Puttable instruments
 - Financial instrument that gives the holder the right to put back the instrument to the issuer for cash or another financial asset or is automatically put back on occurrence of future uncertain event or death or retirement of instrument holder.



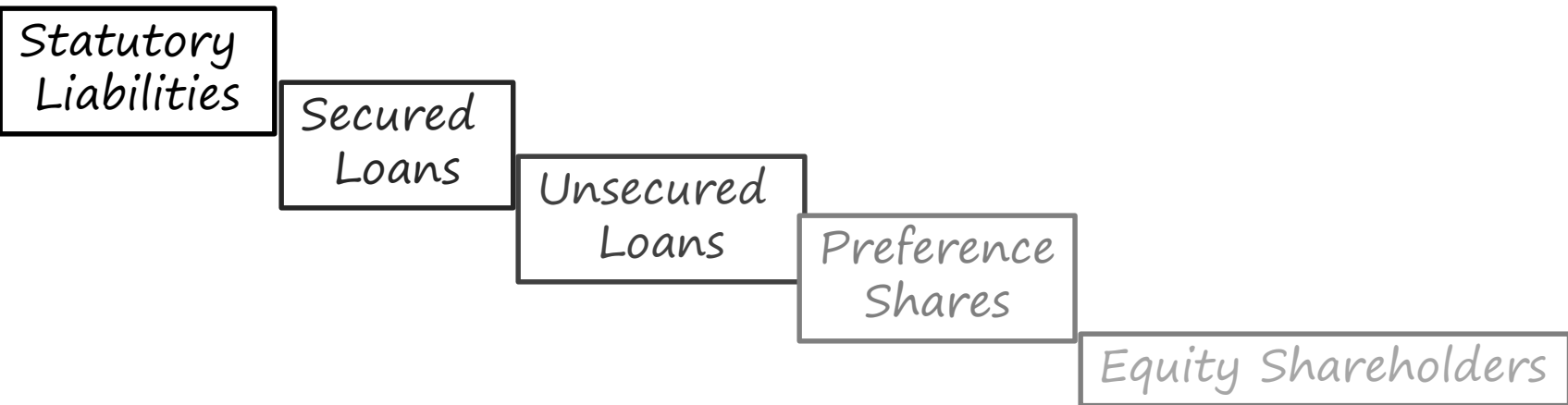
Instrument specific condition

- Holder is entitled to pro rata share in net assets of company in case of liquidation



Instrument specific condition

- Holder is entitled to pro rata share in net assets of company in case of liquidation
- It is subordinated to all other class of instruments.



Instrument specific condition

- Holder is entitled to proportionate share in share assets of company in case of liquidation
- It is subordinated to all other class of liquidation
- All instrument in this class have same features
- It is subordinated to all other class of

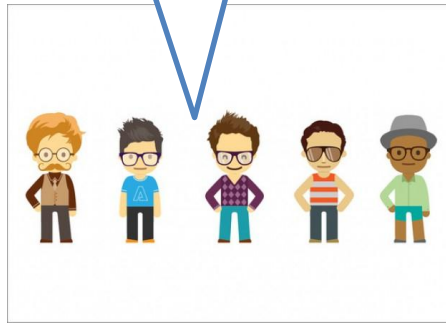
We have preferred dividend rights

We have twice voting rights compared to other class

We preferred repayment rights compared to other class

same features

class may



Instrument specific condition

- Holder is entitled to pro rata share in net assets of company in case of liquidation
- It is subordinated to all other class of instruments.
- All instrument in this class have same features
- Issuer has only repurchase obligation

Issuer specific condition

- The issuer has no other financial instrument which has effect of substantially restricting or fixing the residual return to the puttable instrument

Questions

- X Ltd. issues equity shares with put options that can be exercised after one year and within 5 years. Its shareholders cum directors provide a guarantee to the company and are paid a fees for this. Are shares of shareholders subordinated to those of directors?

Questions

- X Ltd. issues equity shares with put options that can be exercised after one year and within 5 years. These are classified into Class A shares with non voting rights and 2% more dividend than those of Class B and Class B with voting rights and normal dividend. Should Class B be categorized as subordinated to Class A

Questions

- An open ended mutual fund issues units to the unit holders which contains a repurchase feature, i.e the unit holders can offer their units for repurchase. Can they be classified as equity?

Compound financial instruments

- Non derivative financial instrument which contains
 - Liability component
 - Equity component

Convertible Debenture
Compound Financial Instrument



Compulsory
Liability
component

Optional
Equity
component



Steps

- The issuer shall identify a comparable bond or benchmark yield of comparable non convertible bond
- The issuer measures the fair value of the convertible bond based on cash flows applying benchmark yield
- Issue price minus fair value debt component is taken as fair value



Convertible
Debentures

Non -Convertible
Debentures

Principal+ Int.

Interest rate



Questions 32.21 Pg.18

- A Ltd. Issued 10,000 convertible debentures of Rs.100 each on 31.3.2012. Interest rate is 12%. Market interest rate for similar debenture without convertible option is 15%. Period for conversion after 5yrs. Determine equity and liability component

NCB
available at
15%
interest

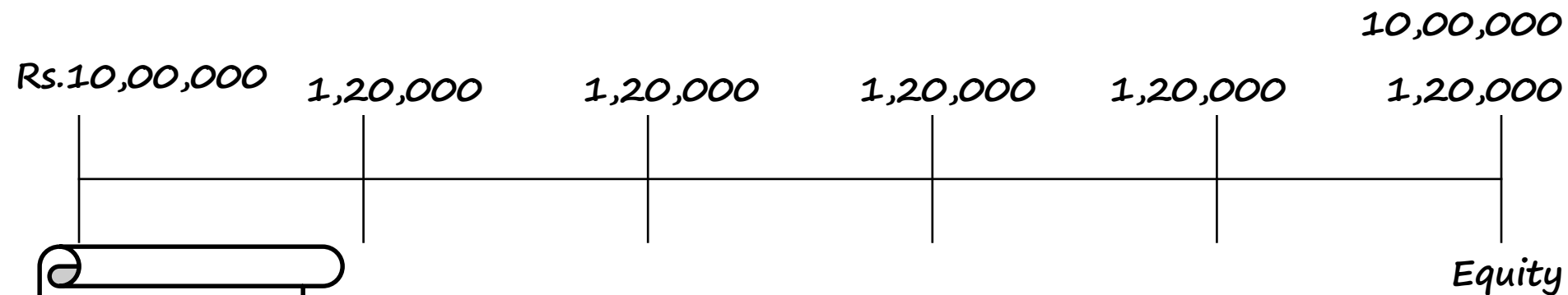


Answer

Why will I buy 12%
Debenture if others
are offering 15%

Determine Fair Value

Discounted @ 15%



Issued
Convertible
Debentures
@ **12%**
interest

Because we give Option
to get fixed no. of
equity at the end



Answer

- Interest on debenture = 12%
- Period = 5yrs
- Interest on non convertible bond = 15%
- Debt component is present value of interest and principal receivable at the end of term at 15%
- Equity component = Amount received less debt component

Debt component

Year	Interest and Principal	PVF @ 15%	Present Value
0	-	1	-
1	120,000	0.8695	1,04,340
2	120,000	0.7561	90,732
3	120,000	0.6575	78,900
4	120,000	0.5717	68,604
5	11,20,000	0.4972	5,56,864
		TOTAL	8,99,440

Equity Component

- Amount received = 10,00,000
- Debt component = 8,99,440
- Thus Equity Component
- = 1,00,560

Accounting for Debt component

Year	Opening Balance of Debenture	Interest charged to P&L @ 15%	Repayment	Closing balance of Debenture
0		-	-	8,99,440
1	8,99,440	1,34,916	1,20,000	9,14,356
2	9,14,356	137,153	1,20,000	9,31,509
3	9,31,509	139,726	1,20,000	9,51,235
4	9,51,235	142,685	1,20,000	9,73,920
5	9,73,920	146,080	1,20,000	10,00,000

Question

- 10% Debenture is issued which is convertible. Interest on non convertible debenture is 15%. The amount of equity component is Rs.168,000, Term of debenture is 5yrs. Calculate amount of liability portion

$$\text{Equity} = X - 0.8324X$$

$$= 0.1676X$$



$$X = 168,000 / 0.1676 = \text{Rs.}10,02,387$$

Rs.168,000

Interest $0.1x$ PVAF @ 15%, 5yrs 3.3520 $0.3352x$

Equity Component Principal x PVF @ 15%, 5th yr 0.4972 $0.4972x$

X - Debt Component

TOTAL = 0.8324x



Debt

Component

Discounted
value

Fair Value
Discounted @ 15%

X

10%

10%

10%

10%

10%

"x" value
debenture
issued

Answer

- Reverse Question
- Equity component is known as Rs.168,000
- We need to find liability and debt component
- Lets assume a convertible debenture of Rs.100
- Interest rate is 10%
- Discount rate is 15%

Debt component

Year	Interest and Principal	PVF @ 15%	Present Value
0	-	1	-
1	10	0.8695	8.695
2	10	0.7561	7.561
3	10	0.6575	6.575
4	10	0.5717	5.717
5	110	0.4972	54.692
		TOTAL	83.24

Equity Component

- Total liability = Rs.100
- Total Debt component = Rs.83.24
- Equity component = Rs.16.76
- Actual Equity component = Rs.168,000
- Thus Actual liability=
- $\frac{100 * 168,000}{16.76} = 10,02,386/-$

Question

- Term of debt is 10 years. Issue 10% convertible debt of Rs.10,00,000. Repayment 30% at end of 3rd year, another 20% at end of 6th year and balance at the end of 10th year. Fair interest rate is 20%.

20%
NCD

Fair Value

Discounted @ 20%

Principal

3

2

5

Interest

1

1

1

0.7

0.7

0.7

0.5

0.5

0.5

0.5

1

2

3

4

5

6

7

8

9

10

10% C.
Debentu
re

Answer

- Term 10yrs
- Amount Rs.10,00,000
- Interest rate = 10%
- Convertible portion = 50% = 5,00,000
- Discount rate = 20%

Debt component

Year	Interest	Principal	PVF @ 20%	Present Value
0	-	-	1	-
1	1,00,000		0.8333	83,330
2	1,00,000		0.6944	69,440
3	1,00,000		0.5787	
4				
5				
6				
7				
8				
9				
10				

Debt component

Year	Interest	Principal	PVF @ 20%	Present Value
0	-	-	1	-
1	1,00,000		0.8333	83,330
2	1,00,000		0.6944	69,440
3	1,00,000	3,00,000	0.5787	2,31,480
4				
5				
6				
7				
8				
9				
10				

Debt component

Year	Interest	Principal	PVF @ 20%	Present Value
0	-	-	1	-
1	1,00,000		0.8333	83,330
2	1,00,000		0.6944	69,440
3	1,00,000	3,00,000	0.5787	2,31,480
4	70,000		0.4822	33,754
5	70,000		0.4018	28,126
6	70,000	2,00,000	0.3349	90,423
7	50,000		0.2791	13,955
8	50,000		0.2325	11,625
9	50,000		0.1938	9,690
10	50,000	5,00,000	0.1615	88,825
			TOTAL	6,60,648

Equity Component

- Total liability = Rs.10,00,000
- Debt component = Rs.6,60,648
- Equity component = Rs.3,39,352

Question 32.24 Page 19

- On 1st April 2009, ALtd. Issued a 10% convertible debenture with a face value of Rs.1,000 maturing on 31st March 2019. The debenture is convertible into equity shares of A Ltd. At a conversion price of Rs.25 per share. Interest is payable half yearly in cash. At the date of issue, A Ltd. Could have issued non convertible debt at interest rate of 11%. On 1st April 2014, convertible debenture has a fair value of Rs.1700. A Ltd. Makes a tender offer to the holders of debentures to repurchase the debenture for Rs.1700 which the holders accept. Coupon interest rate existing is 8%. How should entity account for equity and liability at inception and repurchase of convertible instrument

Split question

- On 1st April 2009, ALtd. Issued a 10% convertible debenture with a face value of Rs.1,000 maturing on 31st March 2019. The debenture is convertible into equity shares of A Ltd. At a conversion price of Rs.25 per share. Interest is payable half yearly in cash. At the date of issue, A Ltd. Could have issued non convertible debt at interest rate of 11%. How should entity account for equity and liability at inception convertible instrument

Debt & Equity component

- Interest payable every half year = 50
- Period = 10 yrs half yearly = 20
- Discount rate = $11\%/2 = 5.5\%$
- PVAF for 5.5%, 20yrs = 11.95
- Interest amount = Rs.597.5
- Principal component =
- PVF, 20th year, 5.5% =
- $0.3427 * 1000$
- = 342.7
- TOTAL = 940.2
- Equity component = Rs.59.8

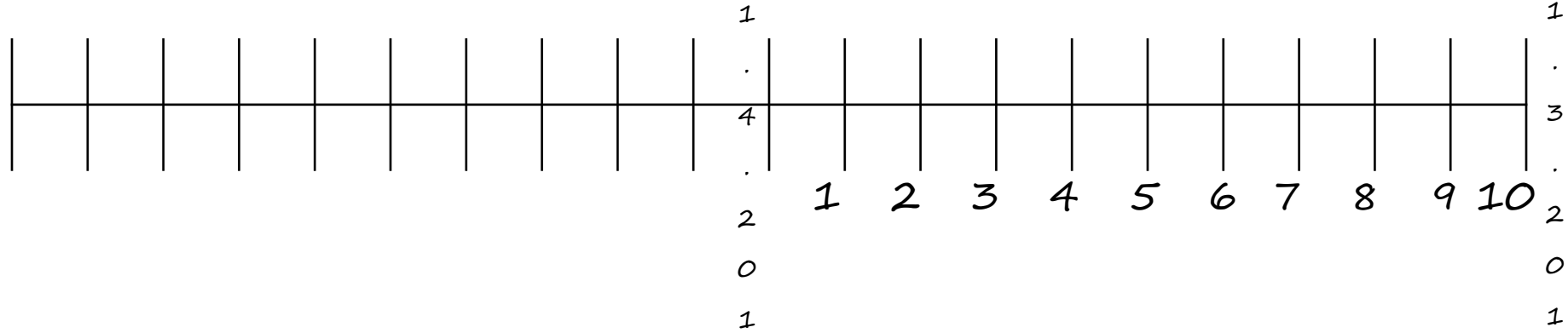
Split question part 2

- On 1st April 2014, convertible debenture has a fair value of Rs.1700. A Ltd. Makes a tender offer to the holders of debentures to repurchase the debenture for Rs.1700 which the holders accept. Coupon interest rate existing is 8%. How should entity account for equity and liability at repurchase of convertible instrument

Value of Debt component

Date	Interest @ 5.5%	Repayment	Closing balance
1.4.2009	-	-	940.2
30.9.2009	51.71	50.00	941.91
31.3.2010	51.81	50.00	943.72
30.9.2010	51.90	50.00	945.62
31.3.2011	52.01	50.00	947.63
30.9.2011	52.12	50.00	949.75
31.3.2012	52.24	50.00	951.99
30.9.2012	52.36	50.00	954.34
31.3.2013	52.49	50.00	956.83
30.9.2013	52.63	50.00	959.46
31.3.2014	52.77	50.00	962.23

Alternatively



- Present value of debt component as on 31.3.2014
- Interest component = PVAF 5.5%, 10yrs = 7.5376
- $= 7.5376 * 50 = 376.88$
- Principal component = PVF 5.5%, 10th year
- $= 0.5854 * 1000 = 585.4$
- TOTAL Debt component = 962.28

Equity component

- Remains the same....
- Equity component = Rs.59.8

Bit change in question

- On 1st April 2014, convertible debenture has a fair value of Rs.1700. A Ltd. Makes a tender offer to the holders of debentures to repurchase the debenture for Rs.1700 which the holders accept. Coupon interest rate existing is 8%. Find the fair value of equity and liability at repurchase of convertible instrument

Answer

- Discount rate in 2014 = $8\%/2 = 4\%$
- So Present value of future cash flows of 10 interest installments discounted at new discount rate gives fair value of the debt
- So PVAF 4%, 10yrs = 8.11
- Interest component = $50 * 8.11 = 405.5$
- Principal component = $0.6755 * 1000 = 675.5$
- Debt component = $405.5 + 675.5 = 1081$

Equity component

- Market Value = Rs.1700
- Equity component = $1700 - 1081$
- = 619

Question 32.25 Page 19

- On 1 April 2009, Entity A issued a 10 per cent convertible debenture with a face value of Rs.1,000 with the same terms as described in above example. On 1 April 2014, to induce the holder to convert the convertible debenture promptly, Entity A reduces the conversion price to Rs.20 if the debenture is converted before 1 July 2014 (i.e. within 60 days). Assume the market price of Entity A's equity shares on the date the terms are amended is Rs.40 per share. How does Entity A account for the additional consideration paid when the terms of a convertible instrument are amended to induce early conversion?

Answer

- This is the case of early conversion
- In such case, the difference at the date the terms are amended between fair value of consideration the holder receives on conversion of the instrument under the revised terms and fair value of original terms accounted for is transferred to P&L account

Answer

- Original shares receivable = $1000/25 = 40$ shares
- Fair value = $40 * \text{Rs.}40 = 1600$
- Revised shares receivable = $1000/20 = 50$ shares
- Fair value = $50 * \text{Rs.}40 = 2000$
- Thus difference of Rs.400 to be transferred to P&L account

Question 32.26 Page 19

- K Ltd. issued 5 lakh 6% Convertible Debentures of Rs.10 each on 1/4/15. The debentures are due for redemption on 31.3.2019 at a premium of 10% convertible into equity shares to the extent of 50% and the balance to be settled in cash to the debenture holders. The interest rate on equivalent debentures without conversion rate was 10%. You are required to separate the debt and equity components at the time of issue and show accounting entry in the company's books at initial recognition

Debt component

- Debenture amount = Rs.50,00,000
- Term = 4 yrs
- Amount of interest = 3,00,000
- Amount to be redeemed in cash at the end of the term = 50,00,000 * 50% + 10% premium = 27,50,000

Debt component

- $PVAF \text{ for } 4\text{yrs}, 10\% = 3.1698$
- $PVF \text{ for } 4^{\text{th}} \text{ year}, 10\% = 0.6830$
- $\text{Interest component} = 3,00,000 * 3.1698 = 950,940$
- $\text{Principal component} = 18,78,250$
- $\text{Debt component} = 28,29,190$

- Amount received = 50,00,000
- Equity component = 21,70,810

Method of Accounting

- Trade date accounting
 - Financial Asset is recognized on trade date with simultaneous recognition of liability
- Settlement date accounting
 - Financial asset is recognized on settlement date along with simultaneous recognition of liability

Question

- 1000 bonds were bought on 28-3-2008 for Rs 120000.00 Fair value at year end (on 31-3-08) Rs 121000.00 . Fair value on settlement date (2-4-08) Rs 123500.00. Transaction cost was Rs.5000

Answer

- Trade Date Accounting- Amortized Cost

Date	Amortized Cost	Debit	Credit
28.3.2008	Investment a/c	120,000	
	To Financial Liability		120,000
	Investment a/c	5,000	
	To Bank		5,000

Date	Amortized Cost	Debit	Credit
31.3.2008	No Entry		

Date	Amortized Cost	Debit	Credit
02.4.2008	Financial Liability	120,000	
	To Bank		120,000

- Trade Date – FVTOCI

Date	Amortized Cost	Debit	Credit
28.3.2008	Investment a/c	120,000	
	To Financial Liability		120,000
	Investment a/c	5,000	
	To Bank		5,000

Date	Amortized Cost	Debit	Credit
31.3.2008	OCI	4,000	
	To Investment		4,000
	Fair Value Reserve	4,000	
	To OCI		4,000

Date	Amortized Cost	Debit	Credit
2.4.2008	Investment	2,500	
	To OCI		2,500
	OCI	2,500	
	To Fair Value Reserve		2,500

- Trade Date – FVTPL

Date	Amortized Cost	Debit	Credit
28.3.2008	Investment a/c	120,000	
	To Financial Liability		120,000
	Profit and Loss a/c.	5,000	
	To Bank		5,000

Date	Amortized Cost	Debit	Credit
31.3.2008	Investment	1,000	
	To P&L		1,000

Date	Amortized Cost	Debit	Credit
2.4.2008	Investment	2,500	
	To P&L		2,500

Answer

- Settlement Date Accounting- Amortized Cost

Date	Amortized Cost	Debit	Credit
28.3.2008	No entry		

Date	Amortized Cost	Debit	Credit
31.3.2008	No Entry		

Date	Amortized Cost	Debit	Credit
02.4.2008	Investment a/c	125,000	
	To Bank		125,000

- *Settlement Date – FVTOCI*

<i>Date</i>	<i>Amortized Cost</i>	<i>Debit</i>	<i>Credit</i>
<i>28.3.2008</i>	<i>No entry</i>		

<i>Date</i>	<i>Amortized Cost</i>	<i>Debit</i>	<i>Credit</i>
<i>31.3.2008</i>	<i>OCI</i>	<i>4,000</i>	
	<i>To Receivable</i>		<i>4,000</i>
	<i>Fair Value Reserve</i>	<i>4,000</i>	
	<i>To OCI</i>		<i>4,000</i>

<i>Date</i>	<i>Amortized Cost</i>	<i>Debit</i>	<i>Credit</i>
<i>2.4.2008</i>	<i>Investment</i>	<i>123,500</i>	
	<i>Receivable</i>	<i>4,000</i>	
	<i>To Bank</i>		<i>125,000</i>
	<i>To OCI</i>		<i>2,500</i>
	<i>OCI dr.</i>	<i>2,500</i>	
	<i>To FVTOCI Res</i>		<i>2,500</i>

- *Settlement Date – FVTPL*

<i>Date</i>	<i>Amortized Cost</i>	<i>Debit</i>	<i>Credit</i>
<i>28.3.2008</i>	<i>No entry</i>		

<i>Date</i>	<i>Amortized Cost</i>	<i>Debit</i>	<i>Credit</i>
<i>31.3.2008</i>	<i>Receivable</i>	<i>1,000</i>	
	<i>To P&L</i>		<i>1,000</i>

<i>Date</i>	<i>Amortized Cost</i>	<i>Debit</i>	<i>Credit</i>
<i>31.3.2008</i>	<i>Investment</i>	<i>123,500</i>	
	<i>P&L</i>	<i>2,500</i>	
	<i>To Bank</i>		<i>125,000</i>
	<i>To Receivable</i>		<i>1,000</i>

Derecognition of Financial Assets

- An entity should derecognize a financial asset when, and only when
 - the contractual rights to the cash flows from the financial asset expire
 - it transfers the financial asset and the transfer qualifies for derecognition



Holder

31.3.2015

3 yr 10%
Rs.100
Bond

Derecognize?

31.3.2018

An entity transfers a financial asset if, and only if it

- transfers the contractual rights to receive the cash flows of the financial asset
- assumes a contractual obligation to pay the cash flows to one or more recipients in an arrangement that meets the conditions



If sold before 31.3.2018 to Munnabhai?



When an entity assumes a contractual obligation to pay those cash flows to one or more entities, the entity treats the transaction as a transfer of a financial asset if, and only if

- The entity has no obligation to pay amounts to the eventual recipients unless it collects equivalent amounts from the original asset.
- The entity is prohibited by the terms of the transfer contract from selling or pledging the original asset other than as security to the eventual recipients for the obligation to pay them cash flows
- The entity has an obligation to remit any cash flows it collects on behalf of the eventual recipients without material delay.

~~Sumit Not obliged
to Pay You~~

You give Sumit Rs. 1 lakh

~~What if friend
doesn't pay Sumit?
Rebays Rs. 1 lakh~~

Sumit Gives Friend Rs.1 lakh

Sumit, my friend needs money, I will
give you Rs. 1 lakh. If you give it to him, he
should think that you have given
him!



Friend..I need Rs.1 lakh, please help,
I will pay you in 2 months for sure

What if he doesn't
repay in 2 months
how will I ask him



Question 32.36 Page 25

- In an agreement to raise money against loan receivables from B Ltd, A Ltd has retained the right to cash flow from those receivables, but assumed an obligation to pay those cash flows to B Ltd without material delay. Contract also says that A Ltd has no obligation to pay those cash flows to B Ltd unless collected, and that the asset will not be sold or pledged to any one other than to B Ltd as security. Should the asset be derecognized.

Question

- Bank accepted certain shares as collateral against loan granted to a customer. It can dispose off the shares in case the borrower fails to pay interest, but has to take the concurrence of borrower before doing so. The borrower has failed to pay the loan. Should he derecognise the asset?

Question 32.37 Page 25

- Entity A holds a portfolio of receivables with a carrying value of Rs.10 lacs. It transfers the same to Entity B by entering into a factoring arrangement for Rs.9 lacs. Now debtors will directly pay to Entity B. Entity A has no obligation to repay the sums received from factor and has no right to additional sum regardless of timing or level of collection from the underlying debts. Comment

Question 32.38 Page 26

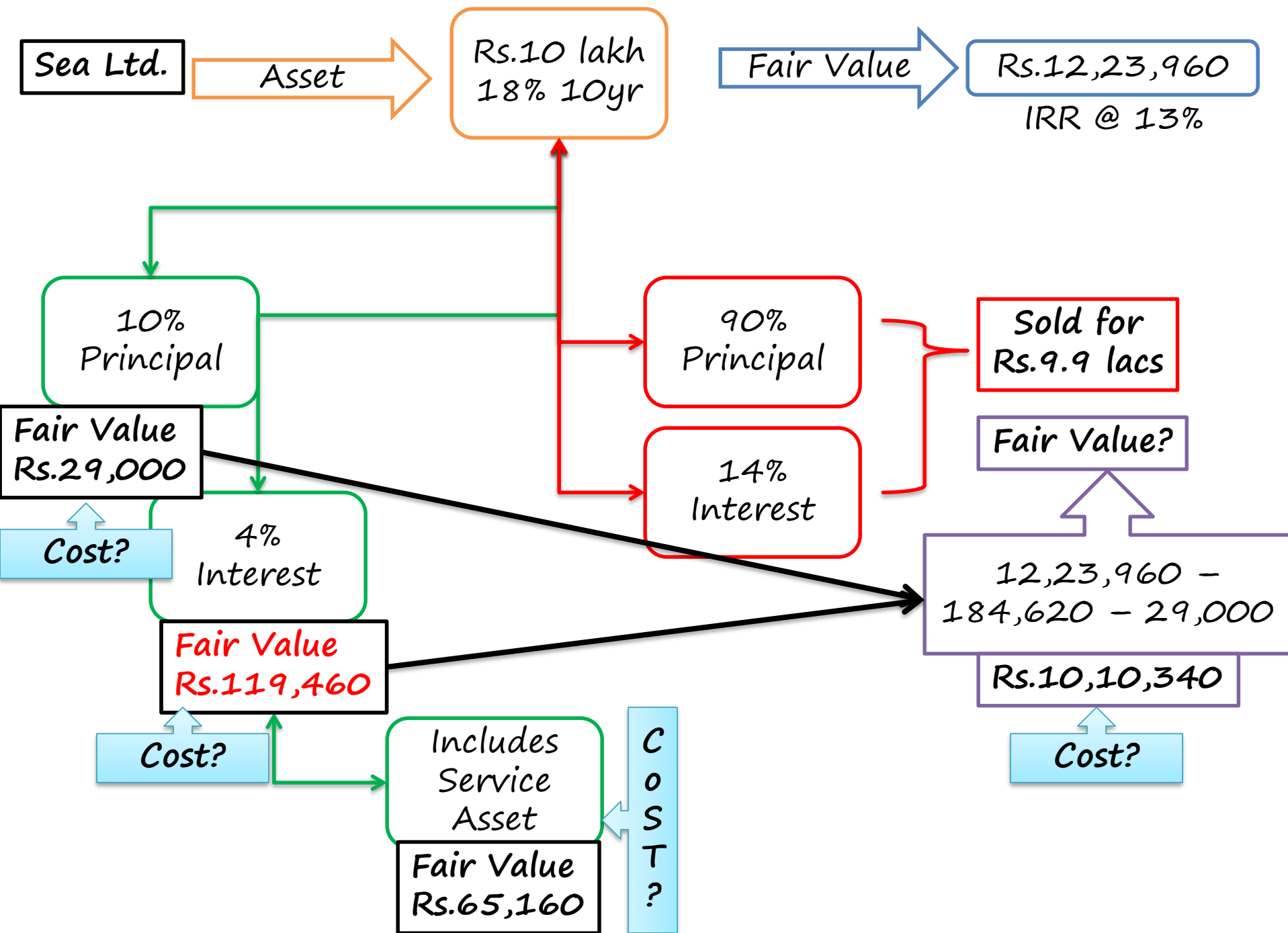
- A Bank Ltd transferred a pool of loan assets to B Bank Ltd. The agreement provides for a call option by A bank Ltd or a Put option by B bank Ltd. Should the asset be recognized? How would the options be accounted

Question 32.40 Page 26

- 1000 shares in A Ltd having a fair value of Rs 30000.00 , held by B Ltd , was replaced by 500 shares with fair value Rs 32000.00 in C Ltd consequent to C Ltd taking over A Ltd. The assets were held as AFS by B Ltd and the cumulative fair value loss recognised OCI was Rs 2500.00

Question 32.41 Page 26

- Sea Ltd. has lent a sum of Rs.10 lacs @ 18% per annum for 10 years. The loan had a fair value of Rs.12,23,960 at the effective interest rate of 13%. To mitigate prepayment risks but at the same time retaining control over the loan, Sea Ltd. transferred its rights to receive the Principal amount of the loan on its maturity with interest after retaining right over 10% of principal and 4% interest that carries a fair value of Rs.29000 and Rs.184620 respectively. The consideration for the transaction was Rs.990000. The interest component retained included a 2% fee towards collection of principal; and interest that has a fair value of Rs.65160. Defaults if any are deductible to a maximum extent of the companies claim on principal portion. You are required to show journal entries to record de recognition of the loan.



Answer

Particulars	Percentage	Amount
Principal Strip Retained	10%	1,00,000
Interest Strip Retained	4%	40,000 p.a.
Principal Strip Sold	90%	9,00,000
Interest Strip sold	14%	140,000

<i>Particulars</i>	<i>Percentage</i>	<i>Cost</i>	<i>Fair Value</i>
<i>Principal Strip Retained</i>	<i>10%</i>	<i>1,00,000</i>	<i>29,000</i>
<i>Interest Strip Retained</i>	<i>4%</i>	<i>40,000 p.a.</i>	<i>184,620</i>
<i>Principal Strip Sold</i>	<i>90%</i>	<i>9,00,000</i>	<i>10,10,340</i>
<i>Interest Strip sold</i>	<i>14%</i>	<i>140,000</i>	
		TOTAL	12,23,960

Service Asset

- Included in interest strip retained as specified in the question
- Fair value of Interest strip = 184,620
- Fair value of Service Asset = 65,160
- Thus fair value of interest strip excluding service asset = $184,620 - 65,160 = 119,460$

Particulars	Percentage	Cost	Fair Value
Principal Strip Retained	10%	1,00,000	29,000
Interest Strip Retained	4%	40,000 p.a.	119,460
Service Asset			65,160
Principal Strip Sold	90%	9,00,000	10,10,340
Interest Strip sold	14%	140,000	
		TOTAL	12,23,960

Cost Determination

Particulars	Fair Value	Ratio	Cost
Principal Strip Retained	29,000		
Interest Strip Retained	119,460		
Service Asset	65,160		
Principal Strip sold	10,10,340		
Interest Strip sold			
TOTAL	12,23,960		10,00,000

Cost Determination

Particulars	Fair Value	Ratio	Cost
Principal Strip Retained	29,000		
Interest Strip Retained	119,460		
Service Asset	65,160		
Principal Strip sold	10,10,340		
Interest Strip sold			
TOTAL	12,23,960	$\frac{1000000}{1223960}$ $=0.8170$	10,00,000

Cost Determination

Particulars	Fair Value	Ratio	Cost
Principal Strip Retained	29,000	$29000 \div 0.817$	
Interest Strip Retained	119,460		
Service Asset	65,160		
Principal Strip sold	10,10,340		
Interest Strip sold			
TOTAL	12,23,960	$1000000 / 1223960 = 0.8170$	10,00,000

Cost Determination

Particulars	Fair Value	Ratio	Cost
Principal Strip Retained	29,000	$29000 * 0.817$	23,693
Interest Strip Retained	119,460		
Service Asset	65,160		
Principal Strip sold	10,10,340		
Interest Strip sold			
TOTAL	12,23,960	$1000000 / 1223960 = 0.8170$	10,00,000

Cost Determination

Particulars	Fair Value	Ratio	Cost
Principal Strip Retained	29,000	29000×0.817	23,693
Interest Strip Retained	119,460	119460×0.817	97,599
Service Asset	65,160	65160×0.817	53,236
Principal Strip sold	10,10,340	1010340×0.817	825,472
Interest Strip sold			
TOTAL	12,23,960	$1000000 / 1223960 = 0.8170$	10,00,000

Journal Entry

- De recognition

Particulars	Debit	Credit
Bank	9,90,000	
To Investments		8,25,472
To P&L		164,528

Particulars	Debit	Credit
Principal Strip	23,693	
Interest Strip	97,599	
Service Asset	53,236	
To Investment		1,74,528

De recognition of Financial Liability

- Discharged
- Cancelled
- Expired

Questions 32.44 page 27

- A loan of carrying value Rs 10.00 L was settled under OTS by transfer of the collateral asset that had a fair value Rs 8.00 L and had a carrying value Rs 8.50 L
- A loan of 100 lakhs for 9 years , carrying 10% interest has a remaining term of 5 years.It is restructured to be paid after 7 years and the interest rate is 9%.cost of restructure is 50000.00

Reclassification

- Amortized cost to FVTPL
 - Fair value measured on reclassification date
 - Difference between fair value and amortized cost charged to P&L

- FVTPL to Amortized cost
 - Fair value on reclassification date to be considered as carrying amount
 - Revised effective interest rate to be calculated
- Amortized cost to FVTOCI
 - Fair value measured on the reclassification date
 - Difference recognized in other comprehensive income
 - Interest will continue to be charged on effective interest method

- FVTOCI to Amortized cost
 - Fair value reserve adjusted against fair value of financial asset on reclassification date
 - Financial asset measured at amortized cost retrospectively
 - adjustment made in other comprehensive income

- FVTPL to FVTOCI
 - Change to be recognized in OCI
- FVTOCI to FVTPL
 - Fair value reserve transferred to P&L

Example

- Purchased a 10% debenture in the year 2010 maturity in 10yrs face value 1000 purchased for Rs.960. Benchmark interest rate was 11%. In the year 2015 debenture has amortized cost of Rs.962, fair value 1081 and benchmark interest rate of 8%. Determine accounting effect

Amortized cost to FVTPL

- Assets value as reflected in Balance sheet = 962
- Fair Value = 1081
- Revised value of Asset = 1081
- Difference charged to P&L = $1081 - 962 = 119$

FVTPL to Amortized cost

- Assets value as reflected in Balance sheet = 1081
- Under amortized cost asset will continue to be reflected as 1081
- Effective interest rate will be 8%

Amortized cost to FVTOCI

- Assets value as reflected in Balance sheet = 962
- Fair Value = 1081
- Revised value of Asset = 1081
- Difference charged to OCI = $1081 - 962 = 119$

FVTOCI to Amortized Cost

- Assets value as reflected in Balance sheet = 1081
- Revised value as per amortized cost = 962
- Difference to be transferred from OCI to Financial Asset value = $1081 - 962 = 119$

FVTPL to FVTOCI

- Assets value as reflected in Balance sheet = 1081
- Revised value = 1081
- All future change in value to be reflected in OCI

FVOCI to FVTPL

- Assets value as reflected in Balance sheet = 1081
- Revised value = 1081
- OCI reserve to be transferred to P&L

Impairment

- Significant Financial Difficulties of their issuer
- Default on interest or principal
- Loss of active market
- High probability of bankruptcy of issuer or debtors
- Granting of concession to a borrowed which would not be offer under business conditions

Question

- As on 31.3.2015, the carrying amount of X Ltd. trade receivables is Rs.75 lakhs of which 20% are overdue. These debtors have negotiated with X Ltd. to pay 80% of the same after one year. Incremental borrowing rate is 12%. Find credit loss.

Answer

- Debtors Value = 75 lakhs
- Overdue amount = $20\% * 75 = 15$ lakhs
- Payment to be made after one year
- Present value of the same = $0.8928 * 15$ lakhs $* 80\%$
- = 10.71
- Thus Impairment loss = $15 - 10.71$
- = 4.29 lakhs

Derivatives

- Its value changes in response to change in specific underlying
- Requires no initial net investment or initial investment smaller than other contracts of similar nature
- Settled on future date

What is the underlying?

Is its value constant?

What is my investment today?

When will contract be settled?

Babubhai let me stay in your house and I will give you 1kg gold when I get my remote



Question

- On 30 June, the CFO of A Ltd. calls his broker and buys 200 shares of Cadbury. The settlement date of this trade is on 3 July
- On 1 January, B Ltd. purchased a EUR 10 million bond from C Corp. B Ltd. was worried about the credit risk of C resulting in default of the bond payments. Therefore, B purchased a contract with a local bank for EUR 500k that requires the bank to pay B EUR 10 million should the credit rating of Black fall below BBB (i.e. junk status).

Question

- A enters in to a forward contract of buying 10000 tonnes of iron ore at a fixed price , the delivery of which will be taken over a period of 12 months in installments according to consumption needs. The contract can be settled through delivery or net in cash, (based on fair value change of iron ore). Is this a derivative

Question

- A owns a building and enters in to a put option with B that permits him to put the building to B for Rs. 100 lakhs. The value of building then is estimated at Rs.130 lakhs. The option expires in 5 years. The option can be settled by physical delivery or through net settlement of cash , at A's discretion. How would A account for this

What if Price turns out to be Rs.150,000 on exercise date?



yr from today for
Rs.120,000/-

Rs.100,000



He will be
at profit
of
Rs.30,000



RS.120,000

Suppose
Market price
is Rs.150,000

Option



Rs.100,000



Pay me
premium
of
Rs.5,000



Rs.120,000 - at my
wish

Rs.150,000



Rs.120,000



Options

Option	Buyer	Writer
Option to buy shares Call Option		

Options

Option	Buyer	Writer
Option to buy shares Call Option	May buy shares	

Options

Option	Buyer	Writer
Option to buy shares Call Option	May buy shares	Obligated to sell shares

Options

Option	Buyer	Writer
Option to buy shares Call Option	May buy shares	Obligated to sell shares
Option to sell shares Put Option		

Options

Option	Buyer	Writer
Option to buy shares Call Option	May buy shares	Obligated to sell shares
Option to sell shares Put Option	May sell shares	

Options

Option	Buyer	Writer
Option to buy shares Call Option	May buy shares	Obligated to sell shares
Option to sell shares Put Option	May sell shares	Obligated to buy shares

Options

- Exercise price = Rs.100
- Call option premium = Rs.10
- Lot size = 200
- Settlement price
 - Rs.90
 - Rs.120

[illegible]

[illegible]

Particulars	Case 1: 90	
In books of buyer		
Option premium	2000	
Settlement date		
Whether exercised or not		

Particulars	Case 1: 90	
In books of buyer		
Option premium	2000	
Settlement date		
Whether exercised or not	No	
Treatment of option premium	Transfer to P&L	

Particulars	Case 1: 90	Case 2: 120
In books of buyer		
Option premium	2000	2000
Settlement date		
Whether exercised or not	No	
Treatment of option premium	Transfer to P&L	

Particulars	Case 1: 90	Case 2: 120
In books of buyer		
Option premium	2000	2000
Settlement date		
Whether exercised or not	No	Yes
If delivery taken	NA	
Treatment of option premium	Transfer to P&L	

Particulars	Case 1: 90	Case 2: 120
In books of buyer		
Option premium	2000	2000
Settlement date		
Whether exercised or not	No	Yes
If delivery taken	NA	$= 100 \times 200$ $= 20000$
Treatment of option premium	Transfer to P&L	

Particulars	Case 1: 90	Case 2: 120
In books of buyer		
Option premium	2000	2000
Settlement date		
Whether exercised or not	No	Yes
If delivery taken	NA	$= 100 \times 200$ $= 20000$
Treatment of option premium	Transfer to P&L	Transfer to P&L

Particulars	Case 1: 90	Case 2: 120
In books of buyer		
Option premium	2000	2000
Settlement date		
Whether exercised or not	No	Yes
If net settled	NA	
Treatment of option premium	Transfer to P&L	

Particulars	Case 1: 90	Case 2: 120
In books of buyer		
Option premium	2000	2000
Settlement date		
Whether exercised or not	No	Yes
If net settled	NA	$=(120-100) * 200$ $=4000$
Treatment of option premium	Transfer to P&L	

Particulars	Case 1: 90	Case 2: 120
In books of buyer		
Option premium	2000	2000
Settlement date		
Whether exercised or not	No	Yes
If net settled	NA	$= (120 - 100) * 200$ $= 4000$
Treatment of option premium	Transfer to P&L	Transfer to P&L

Particulars	Case 1: 90	Case 2: 120
In books of buyer		
Option premium	2000	2000
Settlement date		
Whether exercised or not	No	Yes
It net deliver taken	NA	
Treatment of option premium	Transfer to P&L	

Particulars	Case 1: 90	Case 2: 120
In books of buyer		
Option premium	2000	2000
Settlement date		
Whether exercised or not	No	Yes
It net deliver taken	NA	Shares for Rs.4000 given
Treatment of option premium	Transfer to P&L	Transfer to P&L

Particulars	Case 1: 90	Case 2: 120
In books of buyer		
Option premium	2000	2000
Settlement date		
Whether exercised or not	No	Yes
If net settled	NA	$= (120 - 100) * 200$ $= 4000$
If delivery taken	NA	$= 100 * 200$ $= 20000$
It net deliver taken	NA	Shares for Rs.4000 given
Treatment of option premium	Transfer to P&L	Transfer to P&L

Options

- Exercise price = Rs.100
- Put option premium = Rs.10
- Lot size = 200
- Settlement price
 - Rs.90
 - Rs.120

Particulars	Case 1: 90	
In books of buyer		
Option premium	2000	
Settlement date		
Whether exercised or not		

Particulars	Case 1: 90	
In books of buyer		
Option premium	2000	
Settlement date		
Whether exercised or not	Yes	
If net settled		
If shares sold		
If net deliver taken		
Treatment of option premium	Transfer to P&L	

Particulars	Case 1: 90	
In books of buyer		
Option premium	2000	
Settlement date		
Whether exercised or not	Yes	
If net settled	$=(100-90) * 200$ $=2,000$	
If shares sold		
If net deliver taken		
Treatment of option premium	Transfer to P&L	

Particulars	Case 1: 90	
In books of buyer		
Option premium	2000	
Settlement date		
Whether exercised or not	Yes	
If net settled	$= (100 - 90) * 200$ $= 2,000$	
If shares sold	$= 90 * 200$ $= 18,000$	
It net deliver taken		
Treatment of option premium	Transfer to P&L	

Particulars	Case 1: 90	
In books of buyer		
Option premium	2000	
Settlement date		
Whether exercised or not	Yes	
If net settled	$= (100 - 90) * 200$ $= 2,000$	
If shares sold	$= 100 * 200$ $= 20,000$	
It net deliver taken	Shares for Rs.2000 received	
Treatment of option premium	Transfer to P&L	

Particulars	Case 1: 90	Case 2: 120
In books of buyer		
Option premium	2000	2000
Settlement date		
Whether exercised or not	Yes	
If net settled	$= (100 - 90) * 200$ $= 2,000$	
If shares sold	$= 90 * 200$ $= 18,000$	
It net deliver taken	Shares for Rs.2000 received	
Treatment of option premium	Transfer to P&L	

Particulars	Case 1: 90	Case 2: 120
In books of buyer		
Option premium	2000	2000
Settlement date		
Whether exercised or not	Yes	No
If net settled	$= (100 - 90) * 200$ $= 2,000$	NA
If shares sold	$= 90 * 200$ $= 18,000$	NA
It net deliver taken	Shares for Rs.2000 received	NA
Treatment of option premium	Transfer to P&L	Transfer to P&L

Option on own shares

- Exercise price = 102
- Purchased Call option premium = 5000
- Lot size = 1000
- Settlement date price = 104

[illegible]

[illegible]

Particulars	Debit	Credit
Call option premium	5,000	
To Bank		5,000
Settlement Date: Net Settlement		
Bank $(104 - 102) * 1000 = 2000$	2,000	
P&L	3,000	
To Call option premium account		5,000

Particulars	Debit	Credit
Call option premium	5,000	
To Bank		5,000
Settlement Date: Net Settlement		
Bank $(104 - 102) * 1000 = 2000$	2,000	
P&L	3,000	
To Call option premium account		5,000
Settlement date: Shares settled		

Particulars	Debit	Credit
Call option premium	5,000	
To Bank		5,000
Settlement Date: Net Settlement		
Bank $(104 - 102) * 1000 = 2000$	2,000	
P&L	3,000	
To Call option premium account		5,000
Settlement date: Shares settled		
Treasury stock account	107,000	
To Bank		102,000
To Call option premium		5,000

<i>Particulars</i>	<i>Debit</i>	<i>Credit</i>
<i>Settlement date; Net shares</i>		

<i>Particulars</i>	<i>Debit</i>	<i>Credit</i>
<i>Settlement date; Net shares</i>		
<i>Treasury stock account</i>	<i>2,000</i>	
<i>P&L</i>	<i>3,000</i>	
<i>To Call option premium</i>		<i>5,000</i>

Written call option

- Exercise price = 102
- Written Call option premium = 5000
- Lot size = 1000
- Settlement date price = 104

Particulars	Debit	Credit
Bank	5,000	
To Call option premium account		5,000
Settlement Date: Net Settlement		
Call option premium account	5,000	
To Bank		2,000
To P&L		3,000
Settlement date: Shares settled		

Particulars	Debit	Credit
Bank	5,000	
To Call option premium account		5,000
Settlement Date: Net Settlement		
Call option premium account	5,000	
To Bank		2,000
To P&L		3,000
Settlement date: Shares settled		
Bank account	102,000	
Call option obligation account	5,000	
To Equity share capital		10,000
To Share premium		97,000

<i>Particulars</i>	<i>Debit</i>	<i>Credit</i>
<i>Settlement date; Net shares</i>		

<i>Particulars</i>	<i>Debit</i>	<i>Credit</i>
<i>Settlement date; Net shares</i>		
<i>Call option premium account</i>	<i>5,000</i>	
<i>To share Capital</i>		<i>200</i>
<i>To Share Capital premium</i>		<i>4800</i>

Purchased put option

- Exercise price = 102
- Put option premium = 5000
- Lot size = 1000
- Settlement date price = 100

Particulars	Debit	Credit
Put option premium	5,000	
To Bank		5,000
Settlement Date: Net Settlement		
Bank $(102 - 100) * 1000 = 2000$	2,000	
P&L	3,000	
To Put option premium account		5,000
Settlement date: Shares settled		

Particulars	Debit	Credit
Put option premium	5,000	
To Bank		5,000
Settlement Date: Net Settlement		
Bank $(102 - 100) * 1000 = 2000$	2,000	
P&L	3,000	
To Put option premium account		5,000
Settlement date: Shares settled		
Bank	102,000	
To Share Capital		10,000
To Share Premium		87,000
To Put option premium		5,000

<i>Particulars</i>	<i>Debit</i>	<i>Credit</i>
<i>Settlement date; Net shares</i>		
<i>Treasury stock account</i>	<i>2,000</i>	
<i>P&L</i>	<i>3,000</i>	
<i>To Put option premium</i>		<i>5,000</i>

Written put option

- Exercise price = 102
- Written Put option premium = 5000
- Lot size = 1000
- Settlement date price = 100

Particulars	Debit	Credit
Bank	5,000	
To Put option premium account		5,000
Settlement Date: Net Settlement		
Put option premium account	5,000	
To Bank		2,000
To P&L		3,000
Settlement date: Shares settled		

Particulars	Debit	Credit
Bank	5,000	
To Put option premium account		5,000
Settlement Date: Net Settlement		
Put option premium account	5,000	
To Bank		2,000
To P&L		3,000
Settlement date: Shares settled		
Treasury Stock	102,000	
To Bank		102,000
Put option premium account	5,000	
To Share premium account		5,000

<i>Particulars</i>	<i>Debit</i>	<i>Credit</i>
<i>Settlement date;; Net shares</i>		
<i>Put option premium account</i>	<i>5,000</i>	
<i>To share Capital</i>		<i>200</i>
<i>To Share Capital premium</i>		<i>4800</i>

Forwards

- On February 1, 2011 Omega Ltd enters into a contract with Beta Ltd. to receive the fair value of 1000 Beta's own equity shares outstanding as of 31.1.2012 in exchange for payment of Rs. 1,04,000 in cash i.e., Rs. 104 per share on 31.1.2012. The contract will be settled in net cash-
- (i) fair value of forward on 1.2.2011 - Nil
- (ii) fair value of forward 31.12.2011 Rs. 6,300
- (iii) fair value of forward 31.1.2012 Rs. 2,000.

Net settled

[illegible]

Net settled

Date	Particulars	Debit	Credit
1.2.2011	No entry		
31.12.2011	Forward Asset account	6300	
	To Forward Gain		6300

Net settled

Date	Particulars	Debit	Credit
1.2.2011	No entry		
31.12.2011	Forward Asset account	6300	
	To Forward Gain		6300
31.1.2012	Forward Loss	4300	
	To Forward Asset account		4300

Net settled

Date	Particulars	Debit	Credit
1.2.2011	No entry		
31.12.2011	Forward Asset account	6300	
	To Forward Gain		6300
31.1.2012	Forward Loss	4300	
	To Forward Asset account		4300
	Bank Account	2000	
	To Forward Asset		2000

Net share settled

Date	Particulars	Debit	Credit
1.2.2011	No entry		
31.12.2011	Forward Asset account	6300	
	To Forward Gain		6300
31.1.2012	Forward Loss	4300	
	To Forward Asset account		4300

Net share settled

Date	Particulars	Debit	Credit
1.2.2011	No entry		
31.12.2011	Forward Asset account	6300	
	To Forward Gain		6300
31.1.2012	Forward Loss	4300	
	To Forward Asset account		4300
	Investments account	2000	
	To Forward Asset		2000

Share settled

- Lets assume shares today have a fair value of Rs.1000000

Share settled

- Lets assume shares today have a fair value of Rs.1000000

Date	Particulars	Debit	Credit
1.2.2011	Investment Suspense account	100,000	
	Forward account	4,000	
	To Beta Ltd.		104,000
31.12.2011	P&L	3,667	
	To Forward account		3,667

Share settled

- Lets assume shares today have a fair value of Rs.1000000

Date	Particulars	Debit	Credit
1.2.2011	Investment Suspense account	100,000	
	Forward account	4,000	
	To Beta Ltd.		104,000
31.12.2011	P&L	3,667	
	To Forward account		3,667
31.1.2012	P&L	333	
	To Forward account		333

<i>Date</i>	<i>Particulars</i>	<i>Debit</i>	<i>Credit</i>
31.1.2012	Investment account	100,000	
	To Investment Suspense account		100,000

<i>Date</i>	<i>Particulars</i>	<i>Debit</i>	<i>Credit</i>
31.1.2012	Investment account	100,000	
	To Investment Suspense account		100,000
31.1.2012	Beta Ltd.	104,000	
	To Bank		104,000

- On 1st April 2012, A Ltd. Borrowed Rs.10 lakhs at a fixed interest rate of 7% payable half yearly. Term 4yrs, company entered into IRS, whereby it will pay 6 months LIBOR receive fixed. Following value of swap is available

Date	Value of Swap	Value of Debt
April 2012	+.2 lakhs	10.2lakhs
31 st March 2013	-0.1 lakhs	9.9 lakhs

- Six months LIBOR in April 2012 was 6% and in October was 8%. Journalize

Journal Entry

[illegible]

Journal Entry

[illegible]

Journal Entry

Date	Particulars	Debit	Credit
30.9.2012	Bank Interest $10 \text{ lakh} * 7\% * 6/12$	35,000	
	To Cash/Bank		35,000
	Cash/Bank	5,000	
	To Bank Interest		5,000
	P&L	20,000	
	To Debt		20,000

Journal Entry

Date	Particulars	Debit	Credit
30.9.2012	Bank Interest $10 \text{ lakh} * 7\% * 6/12$	35,000	
	To Cash/Bank		35,000
	Cash/Bank	5,000	
	To Bank Interest		5,000
	P&L	20,000	
	To Debt		20,000
	Swap account	20,000	
	To P&L		20,000

Journal Entry

[illegible]

Journal Entry

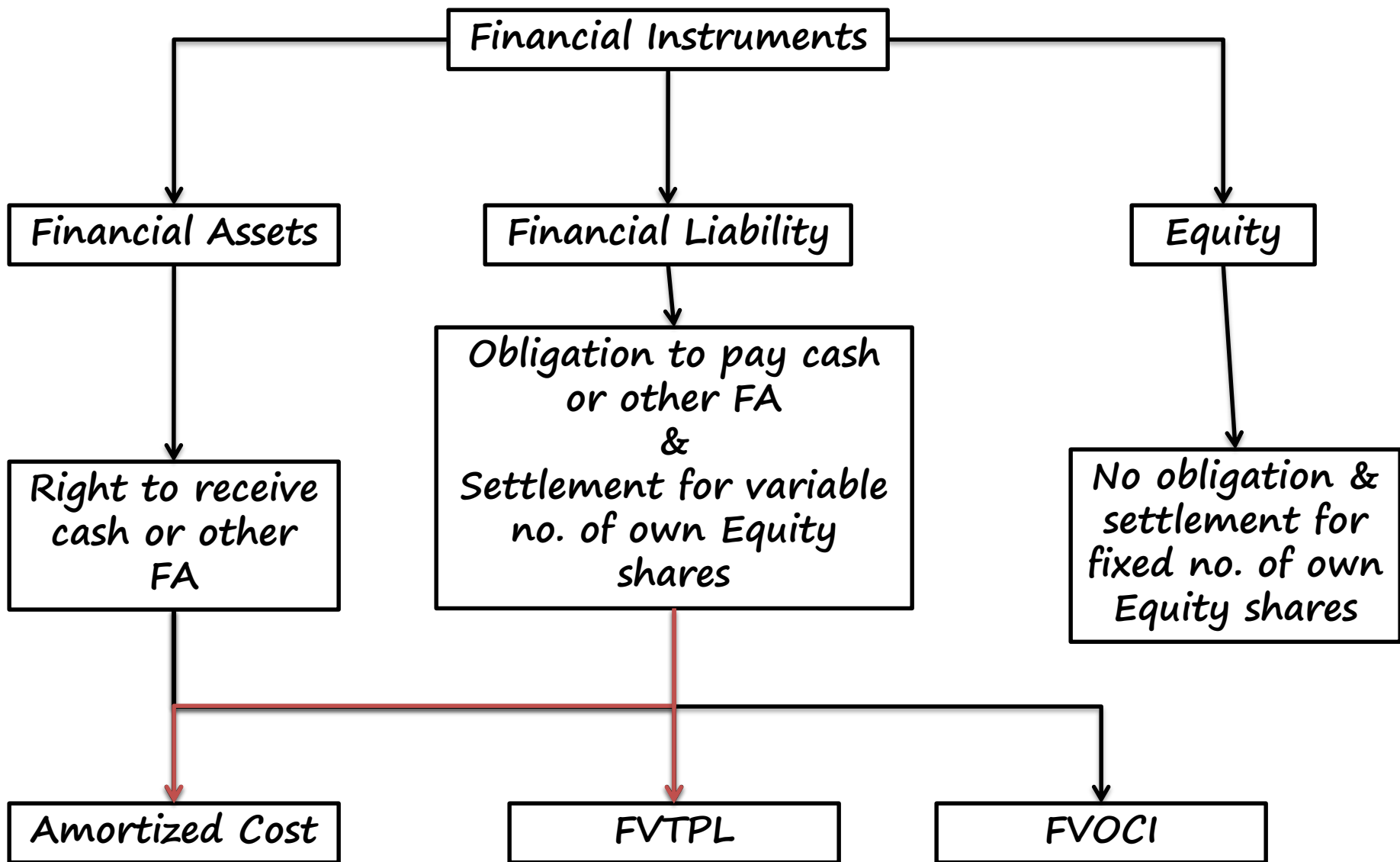
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Journal Entry

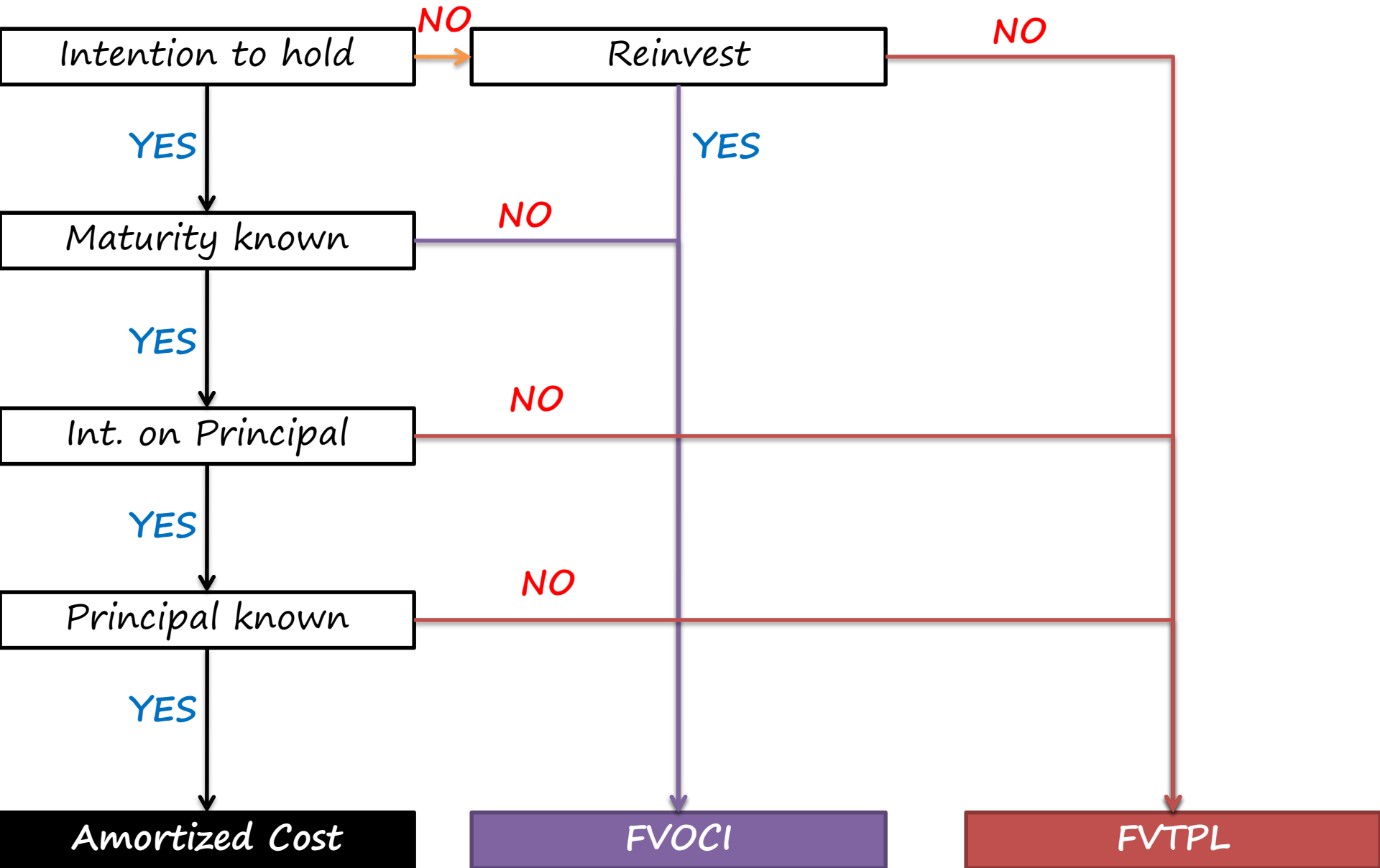
Date	Particulars	Debit	Credit
31.3.2013	Bank Interest $10 \text{ lakh} * 7\% * 6/12$	35,000	
	To Cash/Bank		35,000
	Bank Interest	5,000	
	To Cash/Bank		5,000
	Debt	30,000	
	To P&L		30,000

Journal Entry

Date	Particulars	Debit	Credit
31.3.2013	Bank Interest $10 \text{ lakh} * 7\% * 6/12$	35,000	
	To Cash/Bank		35,000
	Bank Interest	5,000	
	To Cash/Bank		5,000
	Debt	30,000	
	To P&L		30,000
	P&L	30,000	
	To Swap		30,000



Financial Asset



Financial Liability or Equity

