

1. How forward rates are determined in the foreign currency market? Explain briefly (Marks:10)

Exercise Date	Exercise Price	Call Price	Put Price
October 2005	45	55	65
	11.45	4.90	1.45
	1.82	5.30	11.90
January 2006	45	55	65
	12.60	6.55	2.78
	2.70	6.55	12.75
January 2007	45	55	65
	16.75	11.35	7.25
	5.40	9.65	15.45

Refer to the above table determine the following:

- What will be proceeds and net profits to an investor who sells the October maturity call options with exercise price of Rs.55 if the stock price at maturity is Rs.40?
- What will be proceeds and net profits to an investor who sells the October maturity call options with exercise price of Rs.55 if the stock price at maturity is Rs.70?
- What will be proceeds and net profits to an investor who sells the October maturity put options with exercise price of Rs.55 if the stock price at maturity is Rs.40?

2. Calculate investment in fixed asset, Company currently earning 2 million, Debt/equity ratio of 30:70 If number of ordinary shares are 600,000

- ☞ Keeping the debt-equity ratio constant, what maximum amount can be invested in fixed assets?
- ☞ If Earnings grow to 3 million / want to debt 3M find dividend per share.

When D/E Ratio is 30:70

earning	investment	debt	RE	Stock	Dividend	equity	D/E Ratio
2,000,000	2,857,143	857,143	2,000,000	-	-	2,000,000	0.42857143

2,000,000 Retained Earnings is added to Equity that is 70% (In other words equity of 2M is 70% of investment and debt is 30% of investment)

Remaining 30% is $(2,000,000 \times 30/70 = 857,143)$

Debt will be raised up to Rs.857,143

Total investment = new Debt taken + new Equity $(857,143 + 2,000,000 = 2,857,143)$

Its mean company has inflow of Rs. 2,857,143 that can be invested in fixed asset

If earning increased by 1M this would be our dividend

So Dividend per share is $1,000,000/600,000=1.67$ per share

When D/E Ratio is 50:50

earning	investment	debt	RE	Stock	Dividend	equity	D/E Ratio
2,000,000	4,000,000	2,000,000	2,000,000	-	-	2,000,000	1.00

2,000,000 Retained Earnings is added to Equity that is 50% (In other words equity of 2M is 50% of investment and debt is also 50% of investment)

Remaining 50% is $(2,000,000*50/50=2,000,000)$

Debt will be raised up to Rs.2,000,000

Total investment = new Debt taken + new Equity $(2,000,000+2,000,000=4,000,000)$

Its mean company has inflow of Rs. 2,000,000 that can be invested in fixed asset

If earning increased by 1M this would be our dividend

So Dividend per share is $1,000,000/600,000=1.67$ per share

D/E Ratio is 50:50 in other words it can be $50/50=(1)$

Question Part No.1

If earning is 2,000,000 then company can maximum invest 4,000,000 in fixed assets

Proof

$$\text{Debt} = 4,000,000 * 50\% = 2,000,000$$

$$\text{Equity} = 4,000,000 * 50\% = 2,000,000$$

$$\text{D/E Ratio } 2,000,000/2,000,000 = 1 \text{ in other words (50:50)}$$

If we would do investment more than 4,000,000 say for Rs.5,000,000

$$\text{Debt} = 5,000,000 * 50\% = 2,500,000$$

If we raise debt of Rs.2,500,000 then to maintain the D/E Ratio up to 1 we have to maintain equity also up to Rs.2,500,000 but as we have Retained Earning only of Rs.2,000,000 therefore remaining Rs.500,000 $(2,500,000-2,000,000)$ would be shortfall... so we can invest maximum up to Rs.4,000,000

If we would do investment less then 4,000,000 say for Rs.3,000,000

$$\text{Debt} = 3,000,000 * 50\% = 1,500,000$$

If we raise debt of Rs.1,500,000 then to maintain the D/E Ratio up to 1 we have to maintain equity also up to Rs.1,500,000 but as we have Retained Earning Rs.2,000,000 and if we add 1,500,000 of its portion to investment then remaining 500,000 we have to issue dividend so we can invest maximum up to Rs.4,000,000

Question Part No.2

If company earn 3M then what will be the dividend per share?

Its mean company earning has been increase up to 3M

First we have to find out dividend

In Part-1 we made maximum investment of Rs.4,000,000 at earning of Rs.2,000,000

But now earning has been increased up to 1,000,000 more

And this more earning of Rs.1,000,000 would be our dividend

Because... for investment we have contributed Debt of Rs.2,000,000 and Equity of Rs.2,000,000 so to maintain D/E Ratio up to 1 we would not add Rs.1,000,000 to the equity otherwise equity would increased to Rs.3,000,000 and in this situation our D/E Ratio would disturb like $(2,000,000/3,000,000=0.7)$

so we would issue dividend of excess earning of Rs.1,000,000

If dividend of Rs.1,000,000 and share are 600,000 then dividend per share is

Rs. $1,000,000/600,000=1.67$ per share

3. Find ROI

a) Current assets $0.3 * 1100,000 = \text{Rs.}330,000$

b) Current Assets = $0.7 * 1100,000 = \text{Rs.}770,000$

ROI= NI/Total Assets

$= 355000/(475000+330000)$

$= 355000/805000 = .44099 * 100 = 44.10\%$

$= 360,000 / (450000+770000)$

$360000 / 1220000 = .29508 * 100 = 29.508\%$

4. Describe in detail the following anti-takeover tools:

- Poison pill
- Pac-man
- Shark repellent
- Targeted Repurchase

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Poison pill:

Poison pill originally meant a *literal* poison pill (often a glass vial of cyanide salts) carried by various spies throughout history, and by Nazi leaders in WWII Spies could take such pills when discovered, eliminating any possibility that they could be interrogated for the enemy's gain. It

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has since become a term referring to any strategy, generally in business or politics, to increase the likelihood of negative results over positive ones for anyone who attempts any kind of takeover.

Pac-Man:

The Pac-Man defense is a defensive option to stave off a hostile takeover. It is when a company that is under a hostile takeover acquires its would-be buyer. The most quoted example in U.S. corporate history is the attempted hostile takeover of Martin Marietta by Bendix Corporation in 1982. In response, Martin Marietta started buying Bendix stock with the aim of assuming control over the company. Bendix persuaded Allied Corporation to act as a "white knight," and the company was sold to Allied the same year. The incident was labeled a "Pac-Man defense" in retrospect. The name refers to when Pac-Man, the star of the videogame of the same name, turns around and devours the ghost that was previously pursuing him (after eating a Power Pill that allows him to do so). The term (though not the technique) was coined by buyout guru Bruce Wasserstein.

Acquisition by the Target:

A targeted repurchase is a technique used to thwart a hostile takeover in which the target firm purchases back its own stock from an unfriendly bidder, usually at a price well above market value.

5. Net Working Capital Policy

Following information pertains to company A and B

Particular	Coy-A	Coy-B
Sales	100,000	100,000
Net Profit	35,000	36,000
Current Asset	30% of sales	70% of sales
Fixed Asset	500,000	480,000

Calculate ROI, and analyze which net working capital policies is followed by each company.

A company = Current Assets = $0.3 \times 100,000 = \text{Rs.} 30,000$

B Company = Current Assets = $0.7 \times 100,000 = \text{Rs.} 70,000$

$\text{ROI} = \text{NI} / \text{Total Assets}$

$A = 35000 / (30,000 + 500,000) = 35000 / 530,000 = 0.06 \times 100 = 6.60 \%$

$B = 36,000 / (70,000 + 480,000) = 36000 / 550,000 = 0.065 \times 100 = 6.5 \%$

Firm A is following conservative while B is following Aggressive Working Capital Policies.

6. An investor buys 10 options on shares of at a price of Rs 100 per share. Each option consists of 100 shares and premium paid is Rs. 5 per share. What would be the net gain n for investor if the share price is Rs. 110 at the expiry of option?

Price of option = $10 \times 100 \times 100 = 100,000$

Premium = $1000 \times 5 = 5000$

Total cost = 105,000

Share price at expiry $1000 \times 110 = 110,000$

Gain = $110,000 - 105,000 = 5000$

7. Taylor Industries needs to raise funds on a short-term basis. One alternative is to borrow from the bank at an 18 percent annual interest rate, while the second involves foregoing cash discounts from a supplier whose trade credit terms are 2/10, net 60. Which alternative has the lower effective interest cost (assume a 360 day year)?

8. Find ROCE

Asset cost = PKR 775,000/-

Hurdle rate = 18%

Current earning rate of asset = 11%

Current earning in amount = PKR 775,000 x 11/100 = 85,250

(a) If the asset is sold for 415,000

ROCE = 85,250/415,000 x 100 = 20.54% approximately

The asset should not be sold as it is yielding 20.54% return which is above than the hurdle rate of 18%

(b) If the asset is sold for 550,000

ROCE = 85,250/550,000 x 100 = 15.50%

The asset should not be sold as it is yielding 15.50% return which is below than the hurdle rate of 18%

9. **Cash conversion Cycle and operating cycles** are valued as 75 days and 65 days respectively for earlier period. For current period, if receivables turnover ratio increases and account payable days decrease then what will be the effect on both cash conversion and operating cycle. Explain with reason. Both increase & decrease are favourable which cz dec in CCC & OpC
10. Assume that a bookstore uses up cash at a steady rate of Rs.300,000 per year. The interest rate is 3% and each sale of securities costs Rs.20. Determine the optimal cash balance for the bookstore. (Marks: 5)

11. $Q = \sqrt{2FS / i}$ Where: S = is the amount of cash to be used in each period F = fixed cost of obtaining new funds i = interest cost of holding cash Q = quantity of cash to be held per period.

$$Q = \sqrt{2FS / i} = \sqrt{[2 \times 20 \times 300,000] / 0.03}$$

$$= \sqrt{[12000000 / 0.03]}$$

$$= \sqrt{400000000}$$

$$= \text{Rs. } 20000$$

$$\text{Optimal level of cash} = \sqrt{(2FT / I)}$$

$$= \sqrt{[2 \times 20 \times 300,000] / 0.03}$$

$$= \sqrt{[12000000 / 0.03]}$$

$$= \sqrt{400000000} = \text{Rs. } 20000$$

12. How a hedge could be established with a currency option? Briefly explain. (Marks:5)
13. Briefly describe the role of “white knight” as an anti-takeover tool? (Marks: 5)

14. Calculate ROCE Sales A 465000 Sales B 625000 Group hurdle rate 20% Earning rate 12% Cost 950000

$$\text{ROCE} = (465000 \times 12\% + 625000 \times 12\%) / 950000$$

$$\text{ROCE} = (55800 + 75000) / 950000$$

$$\text{ROCE} = 130800 / 950000 = .13768 \text{ or } 13.77\%$$

15. Average inventory turnover ratio = 3.4 times, Average receivable turnover and average payable turnover are 6.8 and 7.3 respectively. Calculate cash cycle from given data.

CASH CYCLE = OPERATING CYCLE – A/P PERIOD

$$\text{C. Cycle} = 160.98 - 50 = 111 \text{ days}$$

OPERATING CYCLE = Inventory Period + AR Period

$$\text{Op. Cycle} = 107.35 + 53.63 = 160.98 \text{ days}$$

$$\text{AP Period} = 365 \text{ days} / \text{AP Turnover} = 365 / 7.3 = 50 \text{ days}$$

$$\text{AR Period} = 365 \text{ days} / \text{AR Turnover} = 365 / 6.8 = 53.63 \text{ Days}$$

$$\text{Invtry T.O period} = 365 / \text{inventory Turnover} = 365 / 3.4 = 107.35$$

16. If you deposit Rs. 12,000 per year for 16 years (each deposit is made at the beginning of each year) in an account that pays an annual interest rate of 15%, what will your account be worth at the end of 16 years?

$$\text{Fv} = p * (((1 + i)^n - 1) / i) * (1 + i)$$

$$P = 12000$$

$$i = 15\%$$

$$n = 16$$

$$\begin{aligned} \text{Fv} &= p * (1 + 0.15)^n - 1 / 0.15 * (1 + 0.15) \\ &= 12000 * (1.15)^{16} - 1 / 0.15 * (1.15) \\ &= 12000 * (9.357620873 - 1) / 0.15 * (1.15) \\ &= 12000 * (8.357620873) / 0.15 * (1.15) \\ &= 12000 * (55.71747249) * (1.15) \\ &= 12000 * (64.07509336) \end{aligned}$$

$$\blacktriangleright \text{Rs. } 768,901.12$$

17. Asset costing Rs 100,000 is earning 13% or 13000 and could be sold for 60,000. The group hurdle rate is 15%. Calculate ROCE.

$$\text{ROCE} = 13000 / 60000 = 21.66\% \text{ don't Sell}$$

18. Firm A wants to acquire a private limited company operating in the same industry. What procedure would be followed by the Firm A to acquire the target company?

Horizontal Combination:

to reduce cost. Increase Profit / value due to economies of scale

Direct Competition, same product line, have same markets or dif Mkt

Process (buy shares or buy asset & trade)

- Limited consultancy services from expert are required. Internal evaluation is normally enough.
- Detailed investigation is conducted before the transaction.
- Offer price is negotiated by both parties.
- Finalization of deal By entering into a contract.
- Payment of price finishes the deal.

19. Annual usage rate 50000 Units, Order cost 100, Holding cost 8% of sale price, Cost/Sale price 70 per unit Calculate EOQ? Number of orders? Order cycle? Length of order? Total cost of inventory?

$$EOQ \sqrt{2DC_o/C_H}$$

$$EOQ \sqrt{2 \times 50000 \times 100 / 70 \times 8\%}$$

$$EOQ = 1336$$

Number of Order size or Order Cycle

$$\text{Order Size} = D/EOQ$$

$$\text{Order Size} = 50000/1336 = 37$$

Length of order cycle

$$\text{Length} = EOQ/D \times 365 \text{ or } 365/\text{Order Size}$$

$$\text{Length } 1336/50000 \times 365 \text{ or } 365/37 = 10$$

Total Cost = Ordering Cost + Holding Cost

$$\text{Total Cost} = C_o \times D/EOQ + C_H \times EOQ/2$$

$$\text{Total Cost} = 100 \times 50000/1336 + 5.6 \times 1336/2$$

$$\text{Total Cost} = 3742 + 3740 = 7484$$

- 20.** Thermo Products, a manufacturer of solar heating panels, is currently selling Rs.6 million annually to dealers on 30-day credit terms. Management believes that sales could be increased by changing its credit policy. The firm's present collection period is 30 days and it is presently considering the following credit policies:

Policy Average Collection Period Expected Annual Sales

A 45 days Rs.6.6 million

B 60 days 7.0 million

C 90 days 7.2 million

Requirement:

If the firm's variable costs average 75 percent and its opportunity cost of funds is 20 percent, which policy should be adopted? (Assume a 360-day year.) Marks: 10

21. Find Current Liability and net working capital

$$C.A = 410000 \text{ sale} = 1500000$$

$$\text{Direct material} = 35\% \text{ of sale } 2.5 \text{ months}$$

$$\text{Direct labour} = 25\% \text{ of sale } 1 \text{ month}$$

$$v.f.o.h = 20\% \text{ of sale } 2 \text{ Months}$$

$$F.o.h = 15\% \text{ of sale } 1 \text{ months}$$

$$\text{Selling and admin exp} = 7\% \text{ for } 1 \text{ month}$$

$$\text{Find C.L and Net working capital Current Asset} = 410,000$$

Current Liability

$$\text{Direct Material} = 1,500,000 \times 35\% / 12 \times 2.5 = 109,375$$

$$\text{Direct Labor} = 1,500,000 \times 25\% / 12 = 31,250$$

$$\text{Variable FOH} = 1,500,000 \times 20\% / 12 \times 2 = 50,000$$

$$\text{Fixed FOH} = 1,500,000 \times 15\% / 12 = 18,750$$

$$\text{Selling \& Admin} = 1,500,000 \times 7\% / 12 \times = 8,750$$

Total Current Liabilities = 218,125

Net Working Capital = Total Current Asset – Total Current Liabilities

Net Working Capital = 410,000 – 218,125 = 191,875

22. Last year ABC Company had a 9.00% net profit margin based on Rs.22,000,000 in sales and Rs.15,000,000 of total assets. During the coming year, the president has set a goal of attaining a 14% return on total assets. How much must firm sales equal, other things being the same, for the goal to be achieved?

ROA = NI/TA

0.14 = (NI)/(15,000,000)

(0.14)(15,000,000) = NI

NI = 2,100,000

NPM = NI/Sales

0.09 = (2,100,000)/Sales

0.09Sales = 2,100,000

Sales = (2,100,000)/(0.09) = 23,333,333

23. Felton Farm Supplies, Inc., has an 8 percent return on total assets of Rs.300,000 and a net profit margin of 5%. What are its sales?

ROI / NPM = TAT

0.08 / 0.05 = 1.6

TAT * TA = SALES

1.6 * 300,000 = 480,000

24. Collection period and which is better for company,

(a) 3/15 net 30 and 40% customers will avail the discount

Average collection period = 15 days x .4 + 30 day x .6

Average collection period = 4 + 18 = 22 days

(b) 5/10 net 40 and 30% customers will avail the discount

Average collection period = 10 days x .3 + 40 days x .7

Average collection period = 3 + 28 = 31 days

Option (a) is better for the company than option (b) because it has the lower average collection period.

25. One bank acquires another bank. b. Fast food restaurant acquires Beverages Company. What type of mergers are these. Explain with logical reasoning.

A.Horizontal merger - Two companies that are in direct competition and share the same product lines and markets.

B. Fast food rstrnt acquire bvrge cmpny

Vertical merger - A customer and company or a supplier and company. Think of a cone supplier merging with an ice cream maker. **Product-extension merger** - Two companies selling different but related products in the same market.

26. Find optimal (EOQ), where total usage of the inventory item is 100,000 units for the planning period, the cost per order is Rs.180 and the carrying costs per unit for each period is Rs.1?

TAKING UNDER ROOT OF $2 \times AR \times CO / CC$

TAKING UNDER ROOT OF $2 \times 100,000 \times 180 / 1 = 6000$

27.

Question No.3: Bovey Corporation has earnings before interest and taxes of \$500,000, total assets of \$4,500,000, and current liabilities of \$200,000. Calculate Bovey's return on capital employed.

Solution: Return on Capital Employed (ROCE) = $EBIT / (Current Assets - Current Liabilities) \times 100$ OR $ROI = EBIT / Capital Employed$

Where Capital Employed = Current Assets - Current Liabilities

$$= 500000 / (4500000 - 200000) \times 100$$

$$= 11.6279\%$$

28. Credit term 3/15 net 60 for amount of 125000 market interest rate 25% whether we avail discount or reject discount calculation of benefit in above two options required and decision??

Discount = $125000 \times 3\% = 3750$

Interest = $125000 \times 25\% \times 45 / 365 = 3852.73$

Benefit of Rejection is > Discount

It is better to Decline the Discount.

Interest cost = $(D / 100 - D) \times 365 / T$

D = Days in terms when Discount is valid

T = Reduction in days if Discount availed

= $(3/100 - 3) \times 365/45 = 0.25085$ or 25.085%

29. Calculation of ROCE for the details mentioned in the question

Cost of unit = 1,050,000

Current earning = 12% of cost

Group current rate or Hurdle rate or Group required rate = 20%

a) Sale price = 500,000

b) Sale price 700,000

Find Return on capital Employed

Solution:-

(a) Earning = $1,050,000 \times 12\% = 126,000$

ROCE = $126,000 / 500,000$

ROCE = 25.2%

Group required rate is 20% but this asset is earning 25.2% more than that of group so this asset must not be disposed off

$$(b) \quad ROCE = 126,000 / 700,000$$

$$ROCE = 18\%$$

In this case group required rate is 20% but this asset is earning only 18% that is less than group hurdle rate so this asset must be disposed off

30. A paper manufacturing company purchases a paper publishing company and paid asset worth 60 million so which type of merger this is and which method of merger is used?

Vertical: In the scenario the paper company is the acquiring company and the publishing company is the target company for cash.

Vertical forward integration (Method transfer Assets)

Paper company acquires trade and assets of publishing company for cash. paper company stands liquidated, proceeds are received by shareholders of old paper company.

31. Company purchased goods on credit for Rs.250000. Company is offered a discount by its customer at 3/15 net 60. On the other hand it has a short term investment opportunity also at 25%. What should company do? Avail discount or not?

If company refuses discount then cost of interest

$$(3/100-3)*365/45 = 25.1\%$$

25.1% cost whereas 25% return so cost is more

Other method

In case of taking Discount for 45 days

$$250000*3\% = 7500$$

In case of making Investment for 45 days

$$250000*25\%/365*45 = 7705$$

So in investment more return can be enjoyed

32. Multinational company will face what type of foreign exchange risk?

Transaction Risk: This exchange rate risk is associated with the cash flow risk and can be related to any kind of transactions like, receivables, payables or dividends. These are also the most common types of risks in exchange rate, which are faced by the multinational companies.

Economic Risk: Economic types of exchange rate risk focus on how exchange rate moves change the real economic value of a company, keeping an eye on the present value of future operating cash flows and how this changes in line with exchange rate changes. Like with the translation risk in risks in exchange rate, calculating economic risk is also complex. It is important to calculate economic risk in exchange rate to be able to assess how exchange rate changes can affect the present value of foreign subsidiaries.

Translation Risk: These types of risks in exchange rate exist because of the integration of parent company and foreign subsidiary financial statements. This combination means that exchange rate impact on the balance sheet of the foreign subsidiaries is translated to the parent company's balance. The three most common methods used by large companies for translating balance sheet risk in currency exchange, how they separate assets and liabilities between those that need to be translated at the current exchange rate at the time of integration and those that are translated at the historical exchange rate are- the all current method, the monetary/non-monetary method and the temporal method.

33. Financial data for three firms is presented below. Each differs only with respect to philosophy on an aggressive vs. a conservative approach to current asset management.

FIRM A	FIRM B	FIRM C
Sales Rs.2,000,000	Rs.2,000,000	Rs.2,000,000
EBIT 200,000	200,000	200,000
Current Assets 600,000	500,000	400,000
Fixed Assets 500,000	500,000	500,000
Total Assets 1,100,000	1,000,000	900,000

What will be the rate for the firm with the most aggressive philosophy?

Answer:- 22.2 percent

34. Briefly explain the role of planning in achieving corporate objectives.(Marks: 5)

35. You are required to value business using dividend yield method, Annual dividend was paid Rs.200,000, Outstanding share 100,000 @ Rs.10 traded at market Rs.20

Dividend per share = $200,000 / 100,000 = 2$

Dividend yield = $2/20 * 100 = 10\%$

Dividend Yield

Dividend Yield = Annual Dividend / share price * 100

Share price = Annual Dividend / dividend yield

36. If a firm is facing cash flow problems, what steps would you suggest to the firm to overcome its cash flow problems? 5 marks

37. How aggressive working capital policy effect liquidity, profitability and risk discuss with logic.

Low level of investment

- ☞ More short-term financing is used to finance current assets.
- ☞ Support low level of production & sales
- ☞ borrow short-term is considered more risky than borrowing long term.
- ☞ Firm risk increases, due to fluctuating interest rates but potential for higher returns increase bcz of generally low cost of financing.

- ☞ This approach involves the use of short-term debt to finance temp assets some or all of its permanent current assets, and possibly some of its long-term fixed assets. (Heavy reliance on short term debt)
- ☞ The firm has very little net working capital. It is more risky. May be a negative net working capital. It is very risk

38. Find Exchange Rate

Exports (Receipt)

100 Dollar Receipts

Spot rate 60 – 61

	Deposit	Loan
PKR	4%	5%
US	3%	4%

Borrow Loan @ US 4%

Quarterly = $4/4 = 1\%$ or $(1+r) 1.1$

$100/1.1 = 90.90 \$$

If loan used in business

$90.90 * 61 = 5545Rs$

If loan is not used in business

Deposit @ PK 4%

Quarterly = $4/4 = 1\%$ or $(1+r) 1.1$

$5545 * 1.1 = 6100Rs$

Exchange rate hedge = $6100/100 = 61$

Import (Payment)

100 Rupee payments

Spot rate 0.01639 – 0.01667

	Deposit	Loan
PKR	4%	5%
US	3%	4%

Borrow Loan @ PK 5%

Quarterly = $5/4 = 1.25\%$ or $(1+r) 1.0125$

$100/1.0125 = 98.77 Rs$

If loan used in business

$98.77 * 0.01667 = 1.7 \$$

If loan is not used in business

Deposit @ US 3%

Quarterly = $3/4 = 0.75\%$ or $(1+r) 1.0075$

$1.7 \times 1.0075 = 1.71 \$$

Exchange rate hedge = $1.71/100 = 0.01713$

39. Use the following data

Min cash balance 125000

Spread 40150

Interest rate 15%

a) calculate upper limit and return point

b) what should company do in case of cash bal reaches to upper limit

Solution:-

Upper limit = min cash bal + spread

Upper limit = $125000 + 40150 = 165150$

Return point = min cash bal + $1/3 \times$ spread

Return point = $125000 + (40150 \times 1/3)$

Return Point = 138383.33

If cash balance reaches 165k buy securities worth of $(165 - 138 = 27k)$ And if cash balance fall to 125k, sell securities worth 13k to get back to Return Point

Spread = $3\{(3 \times TC \times V)/4 \times i\}^{1/3}$ $i=9\%$ $i=0.09/365$

TC = Transaction Cost, V = Cash Flow Variance, I = Interest

40. What do you understand by leverage buy outs? Explain briefly

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Leveraged Buyout – LBO

The acquisition of another company using a significant amount of borrowed money (bonds or loans) to meet the cost of acquisition. Often, the assets of the company being acquired are used as collateral for the loans in addition to the assets of the acquiring company. The purpose of leveraged buyouts is to allow companies to make large acquisitions without having to commit a lot of capital. In an LBO, there is usually a ratio of 90% debt to 10% equity. Because of this high debt/equity ratio, the bonds usually are not investment grade and are referred to as junk bonds. Leveraged buyouts have had a notorious history, especially in the 1980s when several prominent buyouts led to the eventual bankruptcy of the acquired companies. This was mainly due to the fact that the leverage ratio was nearly 100% and the interest payments were so large that the company's operating cash flows were unable to meet the obligation. It can be considered ironic that a company's success (in the form of assets on the balance sheet) can be used against it as collateral by a hostile company that acquires it. For this reason, some regard LBOs as an especially ruthless, predatory tactic.

41. Calculate the FRA and given that company want to borrow 2 million and settlement were $2^5 7.50$ & $2^3 7.4-n r$ ($3v6 8.5-8.25$ & $3v3 8.4-8.3$)

at the date of settlement KIBOR was 8.25 evaluate and tell which one will pay at settlement date?

Notional amount * (reference rate – fixed rate * days) / 1+reference rate*days

Payment to buyer = $10,000,000 * (9.05\% - 8.69\%) * 6/12 / 1 + (9.05\%) * 6/12 = 17221$

Interest on loan @ = $9.05 = 0.75 = 9.80\%$

Interest amount = $10,000,000 * 9.80\% * 6/12 = 490,000$

Net cost = $490,000 - 17221 = 472,779$

42. WHY COMPANIES OFFER DISCOUNT TO ITS CUSTOMERS 5 MARKS

43. A Company had the following data, extracted from its financial statements for the year ending June 30, 2008:

- a) Current Ratio = 2
- b) Acid Ratio = 1.5
- c) Current Liabilities = \$500,000
- d) Inventory Turnover = 5
- e) Gross Profit Margin = 20 percent

What were its sales for the year?

Current ratio = current asset / current liabilities

$2 = \text{current asset} / 500,000$

Current asset = 1000,000

Acid Ratio = (current asset – inventory) / current liabilities

$1.5 = (1000,000 - \text{inventory}) / 500,000$

Inventory = 250,000

Inventory Turnover = CGS / inventory

$5 = \text{CGS} / 250,000$

CGS = 1250,000

Sales 100% 1562,500 ($1250,000 / 0.8$)

CGS 80% 1250,000

GP 20%

44. Differentiate between Management Buyout and Management Buy-In.

Page#123,124 &125

Management Buyouts

Management buyouts are similar in all major legal aspects to any other acquisition of a company. The particular nature of the MBO lies in the position of the buyers as managers of the company and the practical consequences that follow from that. In particular, the due diligence process is likely to be limited as the buyers already have full knowledge of the company available to them. The seller is also unlikely to give any but the most basic warranties to the management, on the basis that the management knows more about the company than the sellers do and therefore the sellers should not have to warrant the state of the company. In many cases, the company will already be a private company, but if it is public then the management will take it private.

Management Buy In (MBI):

Not Solution but Compilation by Hina Saleem Butt

Management Buy in (MBI) occurs when a manager or a management team from outside the company raises the necessary finance buys it and becomes the company's new management. A management buy-in team often competes with other purchasers in the search for a suitable business. Usually, a manager will lead the team with significant experience at managing director level. The difference to a management buy-out is in the position of the purchaser: in the case of a buy-out, they are already working for the company. In the case of a buy-in, however, the manager or management team is from another source.

Lecture# 36 PP Slides

Management Buyouts: Buyout is defined as the purchase of a company or a controlling interest of a corporation's shares or product line or some business. A leveraged buyout is accomplished with borrowed money or by issuing more stock. Executives of the firm with the help of institutional financing buy the business from the current owner. Significant sources are pooled by the executives

Management Buy In (MBI): Management Buy in (MBI) occurs when a manager or a management team from outside the company raises the necessary finance buys it and becomes the company's new management. A management buy-in team often competes with other purchasers in the search for a suitable business. The executives from outside business acquire the business

45. CEO has decided to approach the international market through extended business operation. For this purpose he is looking different ways to launch company operation internationality.

1.Export from Home Country:

-No office in foreign country -Low risk -Low capital requirement

Demerits: -Un-known Foreign market -difficult fr custmrs 2 contact

2.Set up an Overseas Branch:

-Quickest way to start overseas operations. -Simple and less expensive.

Demerits: Tax Consequences: Branch income is taxable

3. To Established A Subsidiary:

-Separate entity -long term commitment to local market

-Tax Advantage -Local knowledge for market or markt culture

Demerits -Heavy investment /upfront cost & Significant risk involved.

4. Joint Venture:

-jointly controlled entity by two or more venturer having a joint motive

-Normally one venturer comes of local market & markt expert

Demerits: Power to Control or Lack of Trust

-Each venturer seek maximum control

Power struggle De-motivates employees -Fragile: break quickly.

5. Licensing Agreements:

-does not require capital expenditure

-Payment = A fixed % of sales -Not risky.

Demerits: parent firm cannot exercise any managerial control

46. Firm A wants to acquire a private limited company operating in the same industry. What procedure would be followed by the Firm A to acquire the target company? 5 marks

47.

- A. Question No.4: Calculate the FRA and given that company want to borrow 2 million and settlement were 2 v 5 (7.50%) and 2 v 3 (7.4%)
And at the date of settlement KIBOR was 8.25 so evaluate and tell which one will pay at settlement date?

Solution: The Company can fix the borrowing rate by buying a FRA on notional amount of Rs 2 million. The FRA rate falling under:
2 v 3=7.4% is applicable.

As KIBOR is 8.25% so on settlement date bank shall make a payment to the buyer (company) in the amount of

$$\text{FRA} = 2,000,000 \times (8.25\% - 7.40\%) \times 1/12 \times 1 / (1 + (8.25\% \times 1/12)) = 83951$$

The company will borrow Rs 2 million for one month at KIBOR rate:

Interest on loan will be:

$$\text{Cost of Int. on Loan} = 2,000,000 \times 8.25\% \times 1/12 = \text{Rs. } 1375000$$

$$\text{Profit on FRA (Paid by Bank)} = \text{Rs. } 83951$$

$$\text{Net Cost} = \text{Rs. } \underline{1291049}$$

48. Why exchange rates of two currencies fluctuate? Explain briefly

Following are some factors for fluctuation:

Relative interest rates: One factor that affects exchange rates is the size of the differential between the real interest rates available to investors in the respective countries. The real interest rate is simply the nominal interest rate available to an investor in a high quality short-term investment subtracted by the country's inflation rate.

Trade imbalances: The size of any trade deficit between two countries will also affect those countries' currency exchange rates. This is because they result in an imbalance of currency reserves among the trading partners.

Political stability: If a country's government becomes unstable due to political gridlock, votes of no confidence, revolution or civil war, confidence can quickly be lost. People become less willing to accept paper currency in exchange for their goods and services, primarily because they're unsure whether they'll be able to pass the paper along to the next person.

Government involvement: The relative value of a country's currency is of great importance to its government. The value of a country's currency affects the wealth of its citizens, the competitiveness of domestically produced goods, the relative cost of the country's labor, and the country's ability to compete. As a result, governments often try to influence the relative value of their country's currencies in a number of different ways, including altering their monetary and fiscal policies, and by directly intervening in the currency markets.

Investors: Perhaps the most powerful factor that can influence exchange rates over short time frames is the role that speculators play. Investors typically have tremendous amounts of capital that they can use to either buy or sell any

49. How firms analyze their credit policies? Explain briefly.

Page#103&104

Analyzing Credit Policy:

First, allowing credit to customers means that the revenues to the firm will be delayed. A firm may charge higher prices to the customers for allowing them on credit and this will result in increased sales. Total revenues may increase but still the company will receive it late. Secondly, if the company allows credit to customers and then offers cash discounts for early payment from

debtors it will incur cost of discount. In other words, it is reducing its profits. After allowing credit to parties the firm must arrange some loans to finance its short term operations. Such finances do carry a handsome interest rate and this need to be considered. Increasing sales by allowing generous credit to customers also increased the probability of default and thus may incur bad debts.

50. How Economic Order Quantity (EOQ) Model is helpful in the reduction of total inventory costs?

P#99

EOQ The amount of orders that minimizes total variable costs required to order and hold inventory. Re-order quantity is the quantity for which order is placed when the stock reached re-orders level. By fixing this quantity the purchaser has not to be to re-calculate the quantity to be purchased each time he orders for material.

EOQ only applies where the demand for a product is constant over the year and that each new order is delivered in full when the inventory reaches zero. There is a fixed cost charged for each order placed, regardless of the number of units ordered. There is also a holding or storage cost for each unit held in storage (sometimes expressed as a percentage of the purchase cost of the item). We want to determine the optimal number of units of the product to order so that we minimize the total cost associated with the purchase, delivery and storage of the product. The required parameters to the solution are the total demand for the year, the purchase cost for each item, the fixed cost to place the order and the storage cost for each item per year. Note that the number of times an order is placed will also affect the total cost, however, this number can be determined from the other parameters

51. Five Star Limited consume 100,000/- kg per year. each order is for 5000 kg and stock out is 2000 units. The stock out probability acceptance level is set to 10%. per unit stock out cost is Rs. 5/-. Holding cost is estimated at Rs. 2/- per kg. being an inventory manager, determine stock out cost and amount of safety stock to be kept on hand.

$$\text{STOCKOUT COST} = AC / Q \times S \times Sc \times Ps$$

AC = Annual Consumption

Q = Order Quantity

S = Stock out in Unit

Sc = Stock out Unit Cost

Ps = Accepted Probability of Stock out

$$= 100000/5000 \times 2000 \times 5 \times 0.10$$

$$= 20,000/-$$

SAFETY STOCK LEVEL

Let X = Safety Stock

$$\text{Stock out Cost} = \text{Carrying Cost} \times \text{Safety Stock}$$

$$= 20,000 = 2 \times X$$

$$X = 20,000 / 2$$

$$= 10,000 \text{ UNITS}$$

52. Difference between a Futures Contract and a Forward Contract

Futures and forwards are financial contracts which are very similar in nature but there exist a few important differences:

-Futures contracts are highly standardized whereas the terms of each forward contract can be privately negotiated.

-Futures are traded on an exchange whereas forwards are traded over-the-counter. **Counterparty risk**

-In Futr C exchange clearing house as counterparty for both parties.

Reduce credit risk, Futures positions are marked-to-market daily.

-Frwrdr cntcrts, do not have such mechanisms in place. Forwards are only settled at the time of delivery, the profit or loss on a forward contract is only realized at the time of settlement, so the credit exposure can keep increasing. Hence, a loss resulting from a default is much greater for participants in a forward contract.

53. The Inventory Manager of a firm has given the following data:

Consumption per Period = $S = 4000$ Units

Economic Order Quantity = $EOQ = 80$ Units

Lead Time = $L = 1$ Month

Stock out Acceptance Factor = $F = 1.10$

Requirement:

Determine the Economic Order Point for the firm.

$$EOP = SL + F \sqrt{S \times EOQ \times L}$$

Where

S = Consumption Per Period

L = Lead Time

F = Stock out Acceptance Factor

EOQ = Economic Order Quantity

$S = 4000$ Units

$EOQ = 80$ Units

$L = 1$ Month

$F = 1.10$ (This Represents the Stock out level of say, 10%)

$$\begin{aligned} EOP &= SL + F \sqrt{S \times EOQ \times L} \\ &= 4000 \times 1 + 1.10 \sqrt{4000 \times 80 \times 1} \\ &= 4000 + 1.10 \sqrt{320,000} \\ &= 4000 + 1.10 (565.68) \\ &= 4000 + 622.25 \\ &= 4622.25 \text{ Units} \end{aligned}$$

54. How firms can avoid liquidity by using capital restructuring. Divestment: Dispose of sick units or inefficient assets. Generate less profit or running into loss.

Management buyout: Management buyouts are another type of mergers and takeovers but also, it is an example of divestment

Capital Restructuring: Companies in financial distress (normally) undertake capital Reconstruction/Restructuring schemes to improve capital mix and the timing of availability of funds.

55. Differentiate between Spot Rates and Forward Rates of currencies. Why forward rates are higher than spot rates?

P#129

Spot Rates: Foreign currencies can be traded on either spot or forward. Trading spot means that the settlement will be now – extended to two working days after the transaction is made. Buying or selling forward means that settlement will be made at an agreed future date. Therefore, there will be different rates for spot and forward for an identical pair of currencies. Forward contracts have settlement date up to one year with exception to major currencies where it can be two years.

Forward Rates of currencies: The **exchange rate set** today for a **foreign currency transaction** with **payment** or **delivery** at some **future date**.

http://www.investorwords.com/2065/forward_exchange_rate.html

Forward Rate: The agreed-upon **exchange rate** for a **forward contract** on a **currency** When a forward contract is made, the parties agree to **buy/sell** the underlying currency at a certain point in the future at a certain exchange rate. The rate is negotiated directly between the parties, unlike a **futures contract**, which **trades** on an **exchange**. Partly because there is little **secondary market** for forward contracts, determining the forward foreign exchange rate is a **zero-sum game**: one party will gain on the contract and one will lose, depending on the movements of the relevant currencies between the formation of the contract and its **maturity**.

The current exchange **rate** at which a currency pair can be bought or sold The spot forex rate differs from the forward rate in that it prices the value of currencies compared to foreign currencies today, rather than at some time in the future. The spot rate in forex currency trading, is the rate that most traders use when trading with an online retail forex broker.

56. How a firm can create a money market hedge against transaction exposure, when the firm has to make a payment at some future date? (Marks: 5)

Answer: .Page#133

Money Market Hedge – future FCY payment scenario

A similar approach will be taken to create the hedge when a firm is expecting to pay in FCY in future. In this scenario, a hedge can be created by exchanging local currency for FCY now using spot rates and putting the currency on deposit until the future payment is to be made. The amount borrowed and the interest earned on the deposit should be equal to the FCY. If it is not the case then it will not be a clean hedge. The cash flows are fixed because the cost in local currency is the cost of buying FCY on spot rates that was put under a deposit.

Mechanism:

Step 1: determine the FCY (assume US \$) amount to be put to a deposit that will grow exactly to equalize the future payment in dollars. You need to calculate this using the available spot rates and interest rate on dollar deposit.

Step 2: in order to deposit dollars in interest bearing account, the company will buy dollars at spot rates.

Step 3: the company will borrow local currency for the period of hedge. These steps will ensure that the hedge created a definite cash flow regardless of exchange rate or interest rate fluctuations. The exchange rate has been fixed.

- 57. A Firm sales 200,000 units per year of a particular Product, order size is for 5000 units and stock out is 3000 units. The stock out probability acceptance level is set to 5% and per unit stock out cost is Rs.7/-. Holding cost is estimated at Rs.3/- per unit. Being an inventory manager, determine stock out cost and amount of safety stock to be kept in hand. (Marks: 10)**

Solution:

$$\text{STOCKOUT COST} = AC / Q \times S \times Sc \times Ps$$

Where:

AC = Annual Consumption

Q = Order Quantity

S = Stock out in Unit

Sc = Stock out Unit Cost

Ps = Accepted Probability of Stock out

Plugging values, we get

$$= 200000/5000 \times 3000 \times 7 \times 0.05$$

$$= 42000$$

SAFETY STOCK LEVEL

Let X = Safety Stock

Then,

$$\text{Stock out Cost} = \text{Carrying Cost} \times \text{Safety Stock}$$

$$= 42,000 = 2 \times X$$

$$X = 42,000 / 2$$

$$= 21,000 \text{ UNITS}$$

58. Why firms do business internationally? Explain in detail.

Faster growth: Firms that have operate internationally tend to develop at a much quicker pace than those operating locally

Access to cheaper inputs: Operating internationally may enable the firm to source raw materials or labor at lower prices

Increased quality and efficiency: Exposure to foreign competition will encourage increased efficiency. Doing business in the international market allows firms to improve the quality of their product in order to gain a competitive advantage.

New market opportunities: International business presents firms with new market opportunities. These new markets provide more opportunities for expansion, growth, and income. A bigger market means more customers, increased revenue, a larger profit margin, and allows the business to realize economies of scale.

Diversification: As the firm diversifies its market, it becomes less vulnerable to changes in local demand. This reduces wild swings in a company's sales and profits.

Another solution:-

Today, business is acknowledged to be international and there is a general expectation that this will continue for the foreseeable future. International business may be defined simply as business transactions that take place across national borders. This broad definition includes the very small firm that exports (or imports) a small quantity to only one country, as well as the very large global firm with integrated operations and strategic alliances around the world. Within this broad

array, distinctions are often made among different types of international firms, and these distinctions are helpful in understanding a firm's strategy, organization, and functional decisions (for example, its financial, administrative, marketing, human resource, or operations decisions). One distinction that can be helpful is the distinction between multi-domestic operations, with independent subsidiaries which act essentially as domestic firms, and global operations, with integrated subsidiaries which are closely related and interconnected. These may be thought of as the two ends of a continuum, with many possibilities in between. Firms are unlikely to be at one end of the continuum, though, as they often combine aspects of multi-domestic operations with aspects of global operations.

International business grew over the last half of the twentieth century partly because of liberalization of both trade and investment, and partly because doing business internationally had become easier. In terms of liberalization, the General Agreement on Tariffs and Trade (GATT) negotiation rounds resulted in trade liberalization, and this was continued with the formation of the World Trade Organization (WTO) in 1995. At the same time, worldwide capital movements were liberalized by most governments, particularly with the advent of electronic funds transfers. In addition, the introduction of a new European monetary unit, the euro, into circulation in January 2002 has impacted international business economically. The euro is the currency of the European Union, membership in March 2005 of 25 countries, and the euro replaced each country's previous currency. As of early 2005, the United States dollar continues to struggle against the euro and the impacts are being felt across industries worldwide. In terms of ease of doing business internationally, two major forces are important:

In terms of ease of doing business internationally, two major forces are important:

1. Technological developments which make global communication and transportation relatively quick and convenient; and
2. The disappearance of a substantial part of the communist world, opening many of the world's economies to private business.

Reference:

<http://www.referenceforbusiness.com/management/Gr-Int/International-Business.html>

59. Demand of a raw material is 80,000 kg per year. The ordering cost is Rs. 90 per order. Holding cost per kg is estimated at Rs. 4. Find economic order quantity, order size and how many times he will order in year and order cycle & Total cost of inventory

$$EOQ = \sqrt{2 \times C_0 \times D / C_H}$$

CO= cost of order D=demand of material CH= cost of holding

$$EOQ = \sqrt{2 \times 90 \times 80,000 / 4}$$

$$EOQ = 1897 \text{ or } 1900 \text{ kg}$$

Order Per Year = Annual Demand / Economic Order Size

$$= 80,000 / 1900 = 42.10 \text{ Orders}$$

Stock Cycle will be = 365 / 42 = 9 Days (Rounded Off)

TC = ordering cost + holding cost

$$TC = 42.10 \times 90 + 4 (1900 / 2)$$

$$TC = 3789 + 3800 = 7589$$

60.

Question: Annual usage rate 50000 units order cost 100 holding cost 8% of sale price ,sale price 70 calculate EOQ, numbers of order and total cost of inventory....?

Solution: Holding Cost = $C_H = 70 \times 8\% = 5.6$

Order Cost = 100

$EOQ = \sqrt{2 \times C_D \times D / C_H}$

$EOQ = \sqrt{2 \times 100 \times 50000 / 5.6} = 1336.306$ Units

No of orders in a year = Annual Demand / Economic Order Size
 $= 50000 / 1336.306 = 37.41657$ orders per year

Total cost of Inventory = Holding Cost + Ordering Cost

$= 5.6 \times 50000 + 100 \times 37.4165$

$= 283741.7$

61. An American exporter sold goods worth \$1,000,000 to a Pakistani importer. What type of currency risk would American exporter face, if Pakistani importer promises to pay the amount after three months?

Fluctuating exchange rates.

Currency risk is one of the biggest of these challenges. Fluctuating exchange rates are difficult to budget for – if currency risk is not taken into account, currency moves can swallow profits and threaten your bottom line.

How a firm can create a hedge against interest rate risk? Explain

1. Forward Rate Agreements – FRA This is a contract and a financial instrument that is used has hedge against interest rate adverse fluctuations on deposit or loans starting in near future.

This resembles to forward exchange rate agreements to fix the exchange rates.

2. Interest Rate Future: Hedging with Short Term Interest Rates a company intends to borrow short term in future may be concerned about the rising short-term interest rates. The hedge is to establish a notional position to fix the interest rate in short term.

3. Interest Rate Options: An interest rate option is an option to borrow or lend “Notional” amount for a specified period starting on or before a future date (expiry date) at a fixed rate of interest (exercise price).

4. Interest Rate SWAPS A Swap is a contract where one party exchanges the interest stream for another party's stream.

62. Mr. Irfan has made an agreement (option) with bank that he will purchase stock after 3 months at 36rs and after 3 months stock price is 46, was it profitable? How much he got? What if was 35 after 3 months

Answer:-

- a) It is a Put Option because it allows Mr. Ali (its holder) to sell the underlying asset at Rs.35.
- b) It is $37 - 35 = 2$ Rs. 2 in-the-money.

63. You are considering buying common stock in Sumi Inc. The firm yesterday paid a dividend of Rs.7.80. You have projected that dividends will grow at a rate of 9% per year indefinitely. If you want an annual return of 24, what should you pay for the stock now?

$$P_0 = D_1(1+g) / (r - g)$$

$$P_0 = 7.8(1.09) / (0.24 - 0.09)$$

$$P_0 = 8.502 / 0.15$$

$$P_0 = 56.68$$

64. PRICE BREAKS

Demand of a raw material is 80,000 kg per year. the ordering cost is Rs. 90/- per order. Material is priced at Rs. 100 per kg. Holding cost per kg is estimated at 2% of purchase price. The vendor offer 5% discount if the minimum order size is 5000kg. What do you suggest to the firm?

Solution:

$$EOQ = \sqrt{(2 \times 90 \times 80,000) / 2\% (100)} = 2683 \text{ Units}$$

Solution: A- NO DISCOUNT

$$\text{Purchase Cost} = 80,000 \times 100 = 8,000,000.00$$

$$\text{Holding cost} = 80,000 \times (2\% \times 100) = 160,000.00$$

$$\text{Order Cost} = 29.82 \times 90 = 2683.8$$

$$\text{Total cost} = 8,162,683.8$$

$$\text{Per Kg Cost} = 8,162,683.8 / 80,000 = 102.03 / \text{Kg}$$

B- When Discount is 5% on Qty order of 5000 Units:

$$\text{Total order} = 80,000 / 5000 = 16 \text{ orders}$$

$$\text{Purchase cost} = 80,000 \times 95 = 7,600,000$$

$$\text{Holding cost} = 80,000 \times (2\% \times 95) = 152,000$$

$$\text{Ordering cost} = 16 \times 90 = 1,440$$

$$\text{Total cost} = 7,753,440$$

$$\text{Cost Per Kg} = 7,753,440 / 80,000 = 96.42 / \text{Kg}$$

SAVING UNDER OPTION B:

$$\text{Price per unit before} = 102.03$$

$$\text{Price per unit after dis} = 96.42$$

$$\text{Saving per unit} = 102.03 - 96.42 = 5.61$$

$$\text{Annual saving} = 80,000 \times 5.61 = 448,800$$

65. Average inventory turnover ratio of Styles Limited is 3.4 times while average receivable turnover and the payable turnover ratios are 6.8 times and 7.4 times respectively. You are required to calculate the cash cycle of the company.

Solution:

Cash Conversion Cycle = Average stock holding period (in days) + Average Receivables processing period (in days) - Average Payables Processing

$$\text{Cash Conversion Cycle} = 365 / 3.4 + 365 / 6.8 - 365 / 7.4$$

$$= 107.35 + 53.67 - 49.32$$

$$= 161.02 - 49.32 = 111.70 \text{ days}$$

$$\text{AP Period} = 365 \text{ days} / \text{AP Turnover} = 365/7.4 = 49.32$$

66. Mr. irfan has made an agreement (option) with bank that he will purchase stock after 3 months at 36rs and after 3 months stock price is 46, was it profitable? How much he got? What if were 35 after 3 months? Suppose premium is 5 rupee

This option **in-the-money** & it is **call option**

Gain from option $(46-36) 100 \times 10 = 1000$

Premium cost $5 \times 100 = -500$

Net gain he will got = 500

If current price is 35 then option can't be exercised option is out of money loss will be

$100 \times 5 = 500$ premium cost.

67. A Company's common stock is currently selling at Rs.3.00 per share, its quarterly dividend is Rs.0.07, and the stock is expected to rise to Rs.3.30 in a year. What is its expected rate of return?

Dividend + capital Gain / Old price

$$0.07 \times 4 = 0.28 + 0.30 = 0.58$$

$$0.58/3 = 0.1933 = 19.33\%$$

68. A firm with 60% of sales going to variable costs, \$1.5 million fixed costs, and \$500,000 depreciation would show what accounting profit with sales of \$3 million? (Ignore taxes)

Sales – (Variable cost 60% of sales + fixed cost + Deprecation)

$$3,000,000 - (1,800,000 + 1,500,000 + 500,000)$$

$$\text{Loss} = 800,000$$

69. opening balance 60000, sale of dec 200000 60% cash and debtors pay after 30 days, sale of jan 210000 40% cash and debtors pay after 30 days, expenses 325000 asset sold in jan 70000 prepare cash flow statement and cash budget for January

Solution:-

Particular	Dec	Jan
Inflows		
Sales		
Cash 40%	$200000 \times 40\% =$	$210000 \times 40\% = 84000$
Debtors pays	80000	$200000 \times 60\% = 120000$
Asset sold		70000
Total inflows		274000
Outflows		
Expenses		325000
Net cash flows	-----	- 51000

Opening balance	80000	140000
	60000	
Closing balance	140000	89000

70. Give at least three reasons of merger failure and explain each of them briefly.

Human integration

Lack of involvement by human resources can have a detrimental impact on the merger, since it means that many issues that are directly linked to the success or failure of the merger will have been overlooked.

Corporate culture

Even if two companies seem to have the entire right ingredient in place for a successful merger, cultural differences can break the deal.

Lack of communications:

Poor communication between people at all levels of the organization, and between the two organizations that are merging, is one of the principal reasons why mergers fail. Following data have been extracted from the accounts of Toddler Limited:

71. Calculate current assets and networking capital of the company.

Particulars Annual Costs (Rs.)

Direct Material 420,000

Direct Labor 300,000

Variable overheads 240,000

Estimated sales are of Rs. 1,200,000.

Raw material and work in process are of Rs.140,000 and 80,000 respectively.

Finished goods represent 2 months production.

Accounts receivables take 2 month of recovery after sale.

Current liabilities of the company are of Rs. 351,000.

Solution/:-

- Opening Raw Material + Purchases – Ending Raw Material Inventory = WIP
- Opening Finished Goods + Finished Goods Produced – Ending Finished Goods = COGS

$$\text{COGS} = 0 + 74000 + 0 = 74000$$

$$\text{Raw Material Consumed} = 0 + 420,000 - 140,000 = 280,000$$

$$\begin{aligned} \text{Finished Goods} &= 280,000 + 300,000 + 240,000 - 80,000 \\ &= 740,000 \end{aligned}$$

$$\text{Inventory Turnover (in days)} = 365 / \text{Inventory Turnover}$$

$$60 = 365 / \text{Inventory Turnover}$$

$$\text{Inventory Turnover} = 365 / 60 = 6.08$$

$$\text{Average Inventory} = \text{COGS} / \text{Inventory Turnover}$$

$$= 740,000 / 6.08 = 121,710$$

$$\text{Net working Capital} = 197,368 + 121,710 - 351,000$$

$$= - 31,921$$

72. Find Current Liability and net working capital

$$\text{C.A} = 410,000 \text{ sale} = 1,500,000$$

$$\text{Direct material} = 35\% \text{ of sale } 2.5 \text{ months}$$

$$\text{Direct labour} = 25\% \text{ of sale } 1 \text{ month}$$

$$\text{v.f.o.h} = 20\% \text{ of sale } 2 \text{ Months}$$

$$\text{F.o.h} = 15\% \text{ of sale } 1 \text{ months}$$

$$\text{Selling and admin exp} = 7\% \text{ for } 1 \text{ month}$$

Solution:-

$$\text{Current Asset} = 410,000$$

Current Liability

Direct Material	$= 1,500,000 * 35\% / 12 * 2.5 =$	109,375
Direct Labor	$= 1,500,000 * 25\% / 12 =$	31,250
Variable FOH	$= 1,500,000 * 20\% / 12 * 2 =$	50,000
Fixed FOH	$= 1,500,000 * 15\% / 12 =$	18,750
Selling & Admin	$= 1,500,000 * 7\% / 12 * =$	8,750
Total Current Liabilities	=	218,125

$$\text{Net Working Capital} = \text{Total Current Asset} - \text{Total Current Liabilities}$$

$$\text{Net Working Capital} = 410,000 - 218,125 = 191,875$$

73. A person purchased stock option for strike price 36 and during option period current value of stock is 45

i- Which option a person purchased (call option)

If company purchased then call option if sell then put option

Not Solution but Compilation by Hina Saleem Butt

- ii-At current prices in which area option fall **in the money** & exercise
 iii-if price of stock 35 then it is what type of option is (**out of money**) cannot exercise

74. Find operating cycle and cash cycle

Opening inventory	1200
Closing Inventory	1500
Opening Debtors	1000
Closing Debtors	500
Opening Creditors	800
Closing Creditors	600
Sales	10000
CGS	8000

Solution:-

$$\text{Average Inventory} = \text{OP} + \text{CP} / 2$$

$$\text{Average Inventory} = 1200 + 1500 / 2 = 1950$$

$$\text{Average Debtors (A/R)} = \text{OD} + \text{CD} / 2$$

$$\text{Average Debtors (A/R)} = 1000 + 500 / 2 = 750$$

$$\text{Average Creditors (A/P)} = \text{OC} + \text{CC} / 2$$

$$\text{Average Creditors (A/P)} = 800 + 600 / 2 = 1100$$

$$\text{Cash cycle} = \text{operating cycle} - \text{Account Payable Period (A/P)}$$

$$\text{Operating cycle} = \text{Inventory Period} + \text{Accounts Receivable Period (A/R)}$$

$$\text{Inventory Period} = 365 / \text{Inventory Turnover}$$

$$\text{Inventory Turnover} = \text{CGS} / \text{Avg Inventory}$$

$$\text{A/R Period} = 365 / \text{A/R Turnover}$$

$$\text{A/R Turnover} = \text{Sales} / \text{Avg A/R}$$

$$\text{A/P Period} = 365 / \text{A/P Turnover}$$

$$\text{A/P Turnover} = \text{CGS} / \text{Avg A/P}$$

$$\text{Operating cycle} = \text{Inventory Period} + \text{Accounts Receivable Period (A/R)}$$

$$\text{Operating cycle} = 365 / 8000 / 1950 + 365 / 10000 / 750$$

$$\text{Operating cycle} = 89 + 27 = 116$$

Cash cycle = operating cycle – Account Payable Period (A/P)

Cash cycle = 116 – 365/8000/1100

Cash cycle = 116 – 50

Cash cycle = 66

75. ANF has to receive 30000 frm forgn cmpny he made agrmnt with bank to buy 30000 dlrs on 101 after 3 months \$ rate was 102 how much ANF lost.

A. he bought agreed price Rs.101

After 3 months \$ price Rs.102

He will loss opportunity to sell at Rs.102

Loss = $102 - 101 = 1 * 30000 = \text{Rs. } 30000 + \text{agreement cost}$

76. Toy cmpny has to pay \$25000 afr 3 months it wnt in an agrmnt with bnk, that bnk will be selling \$ at the rate of 101 and afr 3 mnths \$ rate was 102, what will be the gain. Importer of Toy company Gain bcz increase in \$ value Rs.102

He bought at agreed price Rs.101/\$

Grain from hedging US \$ = $102 - 101 = 1 * 25000 = 25000$

77. Blue (Pvt.) Ltd. Is formulating its current asset policy. The company has an investment of Rs.600.000 in fixed assets. The company is planning to maintain a debt-to-asset ratio of 50% .It is paying 10% interest for the debt it is using. The company expects to earn 20% profit before interest and taxes on projected sales of Rs.4 million while it falls in the tax bracket of 40%. Three alternate current asset policies are under consideration i.e.40, 50 and 60 % of projected sales.

Requirement:

Calculate the expected return on equity under each policy of current assets?

Solution:

$WACC = E/V * RA + D/V * RD (1-TC)$

$= 0.5/1 * 20\% + 0.5/1 * 10(1-0.4)$

$= 10\% + 5\% (0.6)$

$= 10 + 3 = 13\%$

$= 0.6/1 * 20\% + 0.4/1 * 10\%(1-0.4)$

$= 12\% + 4\% * 0.6$

$$\begin{aligned}
 &= 12\% + 2.4 = 14.4\% \\
 &= 0.4/1 * 20\% + 0.6/1 * 10\%(1-0.4) \\
 &= 8\% + 6\% * 0.6 \\
 &= 8\% + 3.6 \\
 &= 11.6\%
 \end{aligned}$$

78. A company needs to borrow Rs. 10 million in 3 months for a period of 3 months. A bank has quoted FRA rates as: 3v6 = 8.50 - 8.25 & 3v3 = 8.40 - 8.30 (3V6 3m duration strtnng in 3m) Assume that relevant KIBOR rate (90 days) at the settlement date of contract is 8.25%.

- a) How the company can set up hedge against interest rate using FRA?
 b) Calculate the cash settlement payment at expiration of contract-- and identify that which party will have to make the payment and why?

Ans: Company has fixed the interest rate by using FRA at 3v6 8.5%

Kibor is 8.25% on settlement date which is less than FRA now company will pay the bank

$$\text{Rs } 10,000,000 \times (8.5\% - 8.25\%) \times 3/12 \times 1/(1 + (8.25\% \times 3/12))$$

$$= 6250 * 1/1.020625 = 6123.69 \text{ LOSS}$$

Compay borrows 10 million for 3 months at kibor 8.25%

$$\text{Interest on loan } 10,000,000 * (0.0825 * 3/12) = 206250$$

$$\text{Total cost} = 206250 + 6124 = 212374$$

$$\text{Effective rate for 3 months } 212374/10,000,000 * 12/3 * 100 = 8.4949\%$$

FRA 8.50% & EIR is also 8.494% is perfect hedge

79. Interest Rate Swap

A company borrowed Rs 10 million on which it pays interest @ KIBOR plus 1% every six months for four years. The company anticipates a surge in interest rates and therefore, intends to use Swap to fix the interest rate. A bank offers four years Swap in which it will receive fixed rate of 6.50% in exchange for paying @ of KIBOR.

SOLUTION

The company is Swapping its variable interest rate with fixed interest rate. This Swap has fixed the interest rate at 7.50%.

Interest Rate Payable = (KIBOR + 1%)

Receive @ floating = KIBOR

Pay @ fixed = (6.50%)

Net Interest = (7.50%)

80. Calculate spread using Miller-Orr Model.

The Miller-Orr model computes the spread between the minimum and maximum cash balance limits as:

$$\text{Spread} = 3(0.75 \times \text{transaction cost} \times \text{variance of daily cash flows} / \text{daily interest rate})^{1/3}$$

A variation on the formula is to use average assets and average current liabilities in the denominator, which avoids any month-end spikes in these figures that might otherwise appear in the calculation.

81. Company has purchased an option contract to sell a stock in future. At the time of maturity exercise price of the stock is Rs.28 and its current market price of same stock is Rs.25.

- Which type of Option is this?
- How much company earns or loss if option is executed?
- What will you suggest the company either to execute the contract?

Solution:

- It is call option. As option holder has right to buy the stock which is called call option.
- It is out the money as company will be at loss of Rs.3
- Company should not take this option

82. The Green Company has developed the following estimates (in millions) of its current and fixed asset investment for each of the next four quarters: QUARTER

	QUARTER 1	QUARTER 2	QUARTER 3	QUARTER 4
FIXED ASSETS	30	24	28	16
CURRENT ASSETS	20	24	28	16

1 Rs.30 Rs.20

2 30 24

3 30 28

4 32 16

Green Co. has found that payables and accruals equal 25 percent of the current assets. It currently has Rs.20 million in equity with the balance of its long-term funds coming from debt. Devise a financing plan for Green based on the hedging approach.

83. A company is considering to take the loan of Rs.5 million on which it has to pay semiannual interest at KIBOR plus 1.5%. Company intends to enter into an option against rise in interest rates by buying a CAP at a strike rate of 8%.

84. There will be two expiry dates within the agreement:

Expiry	Six month KIBOR at expiry	Period
30 - June Year 1	9%	July - Dec. Year 1
31 - Dec. Year 1	6%	Jan - June Year 2

Required:

1. At which expiry date option will be exercised and why?
2. Calculate cash payment if the option is exercised.

85. Delta Limited Company is considering investing in a project which will yield annual cash flows of Rs. 15,000, Rs. 20,000, Rs. 23,500 and Rs. 18,000. Calculate Discounted Payback Period of the project if discount rate is 12% and initial investment is Rs.52,000. Comment on feasibility of project if company has policy to accept project having discounted payback period less than 4 years.

86. Styles Corporation annual consumption is 250,000 units with the holding cost of Rs.3 per unit. Per order quantity is 6,275 units while the stock out is 7000 units. The stock out probability acceptance level and per unit stock out cost is 8% and Rs.9 respectively.

Based upon the above given information, calculate the stock out cost and the amount of safety stock need to maintain in order to avoid stock out situation. (Marks:5)

Solution:-

$$\text{Stock cost} = AC/Q * S * S_s * P_s$$

Where

AC= annual consumption = 250000

Q= per order quantity = 6275 units

S = stock out in units= 70000 units

S_s= stock out unit cost= 9%

P_s = accepted probability of cost = 8%

$$= 250,000 / 6,275 * 7000 * 9 * .08 = 316,26000 = 0.00790$$

$$\text{Stock out cost} = 2007.968$$

Stock out cost = carrying cost * safety stock

Carrying cost = 3 per unit

Safety stock = stock out cost / carrying cost

= $2007.968/3 = 669.322$

87. Give at least three sources of synergies and explain each of them briefly.

88. How would you expect the firm's cash balance to respond to the following changes?

- a) Interest rates increase.
- b) The volatility of daily cash flow decreases
- c) The transaction cost of buying or selling marketable securities goes up

89. The Inventory Manager of a firm has given the following data:

Consumption per Period = $S = 4000$ Units

Economic Order Quantity = $EOQ = 80$ Units

Lead Time = $L = 1$ Month

Stock out Acceptance Factor = $F = 1.10$

Requirement:

Determine the Economic Order Point for the firm.

Solution/:

$EOP = SL + F \sqrt{S \times EOQ \times L}$

Where

S = Consumption Per Period

L = Lead Time

F = Stock out Acceptance Factor

EOQ = Economic Order Quantity

$S = 4000$ Units

$EOQ = 80$ Units

$L = 1$ Month

$F = 1.10$ (This Represents The Stock out level of say, 10%)

$EOP = SL + F \sqrt{S \times EOQ \times L}$

= $4000 \times 1 + 1.10 \sqrt{4000 \times 80 \times 1}$

= 4622.25 Units

90. Describe in detail the major steps in short term financial planning process of a firm.

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The Financial Planning Process consists of the Following five Steps

1. Establishing and defining the client-planner relationship.

The financial planner should clearly explain or document the services to be provided to you and define both his and your responsibilities. The planner should explain fully how he will be paid

and by whom. You and the planner should agree on how long the professional relationship should last and on how decisions will be made.

2. Gathering client data, including goals.

The financial planner should ask for information about your financial situation.

You and the planner should mutually define your personal and financial goals, understand your time frame for results and discuss, if relevant, how you feel about risk. The financial planner should gather all the necessary documents before giving you the advice you need.

3. Analyzing and evaluating your financial status.

The financial planner should analyze your information to assess your current situation and determine what you must do to meet your goals. Depending on what services you have asked for, this could include analyzing your assets, liabilities and cash flow, current insurance coverage, investments or tax strategies.

4. Developing and presenting financial planning recommendations and/or alternatives.

The financial planner should offer financial planning recommendations that address your goals, based on the information you provide. The planner should go over the recommendations with you to help you understand them so that you can make informed decisions. The planner should also listen to your concerns and revise the recommendations as appropriate.

5. Implementing the financial planning recommendations.

You and the planner should agree on how the recommendations will be carried out. The planner may carry out the recommendations or serve as your "coach," coordinating the whole process with you and other professionals such as attorneys or stockbrokers.

91. Explain the process of re-organization of a firm in a financial distress (Marks: 10)

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Financial distress:

A situation in which available cash is insufficient to pay supplier, vendors, employees, banks and creditors is known as financial distress.

Lecture # 37: PP Slide #16

- Assumptions:
 - Company is incurring losses.
 - Needs immediate capital injections.
 - Assets and liabilities are out of line with market value.
- Process:
 - Revaluation of assets (Bring them to market value)
 - Write of the debit balance on profit and loss account.
 - To determine whether new capital / finances are needed?
- if yes, through which source (Shares / Loans)

92. How Discount offers to the customers help in managing the cash by the firms? (Marks:5)

93. Find Stock out Cost

Stock out cost = Number of orders x Stock out units x Stock out per unit cost x Probability of acceptance

Stock out cost = $185,000/4,025 \times 5,000 \times 7.5 \times .05$

Stock out cost = $46 \times 5,000 \times 7.5 \times .05 = 86,250$

Safety stock = Stock out cost / Per unit cost

Safety stock = $86,250 / 7.5 = 11,500$ units

Or

Find stock out cost and safety stock

(AC) Annual consumption = 185000

EOQ = 4025

(S) Stock out = 5000 unit

(Sc) Stock out unit cost = 7.5

(Ps) Accepted probability of stock out = 0.05

Stock out Cost = $AC/EOQ * S * Sc * Ps$

Stock out Cost = $185000/4025 * 5000 * 7.5 * 0.05$

Stock out Cost = 86180

Safety Stock = Stock out Cost / Holding Cost

Safety Stock = $86180 / 7.5$

Safety Stock = 11,491

94. How are dividends paid and how do companies decide on dividend payments?(Marks:5)

95. A Firm sales 200,000 units per year of a particular Product, order size is for 5000 units and stock out is 3000 units. The stock out probability acceptance level is set to 5% and per unit stock out cost is Rs.7/-. Holding cost is estimated at Rs.3/- per unit. Being an inventory manager, determine stock out cost and amount of safety stock to be kept in hand.

Solution:

STOCKOUT COST = $AC / Q \times S \times Sc \times Ps$

Where: AC = Annual Consumption

Q = Order Quantity

S = Stock out in Unit

Sc = Stock out Unit Cost

Ps = Accepted Probability of Stock out Plugging values,

STOCKOUT COST = $AC / Q \times S \times Sc \times Ps$

we get = $200000/5000 \times 3000 \times 7 \times 0.05$

= 42000

SAFETY STOCK LEVEL Let X = Safety Stock Then, Stock out Cost = Carrying Cost x Safety

Stock = $42,000 = 2 * X$ $X = 42,000 / 2 = 21,000$ UNITS