FINAL EXAMINATION – GROUP-III
(SYLLABUS - 2008)

SUGGESTED ANSWERS TO QUESTIONS

DECEMBER 2009

PAPER FP-12 : FINANCIAL MANAGEMENT AND INTERNATIONAL FINANCE

Answer Question No. 1 from Part A which is compulsory and another five question from Part B

Part A (25 Marks)

Question:

1.(a) In each cases given below, one out of four alternatives is correct, Indicate the correct answer (= 1 mark) and give your workings/reasons briefly in support of your answer (= 1 mark) :

(i) The Board of Directors of MOULIN LTD. (ML) is dissatisfied with the last year's ROE of 15%. If the net profit margin and asset turnover ratio remain unchanged at 10% and 1.25 respectively, by how much must the asset to equity increase to achieve 20% of ROE?

A. Must increase by 0.6
B. Must increase by 0.5
C. Must increase by 0.4
D. Insufficient information

(ii) The rates available in the Kolkata market are:

Rs./$ Spot 46.75/78
£ / $ 0.5285/86

If an Indian importer requires pounds, the rate quoted to him is

A. Rs. 88.46 /£
B. Rs. 88.51/£
C. Rs. 88.64/£
D. None of (A), (B), (C)

(iii) The degree of operating leverage of SHEETAL LTD. is increased by 30 per cent. What will be the change in the degree of total leverage, if the degree of financial leverage is decreased by 20 per cent?

A. 2% decrease
B. 3% increase
C. 4% increase
D. Data insufficient

(iv) MARISON LTD. an Indian company is planning to invest in the USA. The rates of inflation are 8% in India and 3% in USA. If the spot rate is currently Rs. 46.50/$, what spot rate can the company expect after 5 years?

A. Rs. 57.93/$
B. Rs. 58.94/$
C. Rs. 59.00/$
D. Rs. 59.13/$

(v) The current price of a share of RONEX LTD. is Rs. 55. The company is planning to issue one right share for every four equity shares. If the company targets that the ex-rights value of a share shall not fall below Rs. 52, the subscription price for one rights share should be more than or equal to

A. Rs. 50
B. Rs. 48
C. Rs. 40
D. None of (A), (B), (C)

(vi) ASHLEEN LTD. is to pay dividend of Rs. 3.00 at the end of the year and expected to grow at 12% per year forever. If the required rate of return on the company stock is 15 per cent per annum, its intrinsic value will be

A. Rs. 100
B. Rs. 110
C. Rs. 115
D. None (A), (B), (C)

(vii) The earning power of SYNTEX LTD. is 0.30.If the average of total assets and interest expenses are Rs. 2,00,000 and Rs. 15,000 respectively, the interest coverage ratio will be

A. 1.5
B. 3.00
C. 4.00
D. None of (A),(B), (C) 2x7=14

(b) Choose the most appropriate one from the stated options and write it down [only indicate A,B,C,D as you think correct (= 1 mark each)]:

(i) Which one of the following would describe commercial paper most appropriately?

A. Unsecured long –term notes as loan
B. Unsecured short – term loan notes
C. Secured short – term loan notes
D. Secured long – term loan notes

(ii) Hedging through forward, futures, swaps, etc. is an example of
A. Risk avoidance
B. Risk sharing
C. Risk transfer
D. None of the above

(iii) In which of the following appraisals by the financial institutions, is the schedule of implementing the whole project critically studied?
A. Market appraisal
B. Technical appraisal
C. Financial appraisal
D. Economical appraisal

(iv) Which of the following is a correct sequence of life cycle of a project?
A. Planning, selection, scheduling, termination
B. Planning, implementation, control, evaluation
C. Selection, scheduling, implementation, evaluation, control
D. Planning, implementation, control, evaluation

(v) When cost of capital of a project is equal to its Internal Rate of Return (IRR)
A. The NPV will be zero
B. The NPV will be +ve
C. The NPV will be –ve
D. Benefit cost ratio will be zero

(vi) A transaction where two currencies are exchanged by the parties involved, only to be exchanged back later is termed as
A. Forward contract
B. Option contract
C. Currency swap
D. Future contract

1x6=6

(c) Mention whether the following statements are True (T) or False (F):
(i) TRIPS is an international agreement on intellectual property rights.
(ii) In the Bank's parlance, net working capital represents margin money.
(iii) GDR may be converted into underlying shares and vice – versa.
(iv) The changes in foreign exchange reserves and reserves of monetary gold held by the monetary authority will be recorded in Capital account of the BOP statement.
(v) Portfolio Balance Approach assumes that the Purchasing Power Parity (PPP) holds good.

1x5 =5

Answer to Question No 1(a)

(i) → C: Must increase by 0.4
ROE = N.P. Margin x Asset – Turnover Ratio x Asset to Equity Ratio

0.15 = 0.10 x 1.25 x Asset to equity Ratio
∴Asset to Equity Ratio = 0.15 / 0.125 = 1.20
Again 0.20 = NP Margin x Asset – Turnover Ratio x Asset to equity Ratio.
∴Asset to Equity Ratio = 0.20 / (0.10 x 1.25) = 1.60
Increase in Asset to Equity = 1.60 – 1.20 = 0.40.

(ii) → B: Rs. 88.51/£
The rate to be quoted to the importer is the Ask rate.
$= (Rs/\$)_{Ask} \times (\$/£)_{Ask}$
$= (Rs/\$)_{Ask} \times (1/(£/\$))_{Bid}$
= 46.78 x 1/0.5285 = Rs. 88.51/£.

(iii) → C: 4% increase
The Degree of Total Leverage (DTL) is defined as the product between the Degree of financial leverage (DFL) and the Degree of Operating Leverage (DOL). The resultant DTL = 1.30 DOL x 0.8 DFL = 1.04 DTL .
Hence DTL = 1.04 DTL;
∴ Degree of Total leverage will increase by 4% (1.04 – 1.00).

(iv) → B: Rs. 58.94/$

$$E\ (Rs./\$) = 46.50 \times \frac{(1.08)^5}{(1.03)^5} = 46.5 \times \left(\frac{1.08}{1.03}\right)^5 = 46.50 \times 1.267455 = Rs.\ 58.94$$

Hence, expected rate: Rs 58/$

(v) → C: Rs 40

$$\text{Ex – rights value of a share} = \frac{NP_o + S}{N+1}$$

Where N = 4, P_o = Rs. 55, S = Subscription Price = ?

$$\frac{4 \times 55 + 8}{4+1} \geq 52 \rightarrow S \geq 52x\ 5 - 220 \quad \therefore Se \geq Rs.\ 40.$$

(vi) → A: Rs. 100
$P = D/(K_e - g)$ = Rs. 3.00/(0.15 – 0.12)
= Rs. 3.00/0.03 = Rs. 100.00

(vii) → C: 4
EBIT = Total assets x Earning power
= 200000 x 0.30 = Rs. 60000
Interest = Rs. 15000
Interest Coverage Ratio = 60000 / 15000 = 4

Answer to Question No: 1(b):

(i)→ B (ii) →C (iii)→ B (iv) →C (v)→ A (vi) → C

Answer to Question No: 1(c):

(i)→ True (ii) → True (iii)→ True (iv) → False (v)→ False

PART B (75 Marks)

Question:

2 (a) Explain how the combined effect of operating and financial leverages provide the risk profile of an organization. 5

(b) The Balance Sheet of MAGNAVISION LTD. as on 31.03.2008 and 31.03.2009 are given below:

Assets	**31.03.2008**	**31.03.2009**
Land & Buildings	8,00,000	6,40,000
Investments	1,00,000	1,20,000
Inventory	4,80,000	4,20,000
Accounts Receivables	4,20,000	9,10,000
Cash & Bank Balances	2,98,000	3,94,000
Total Assets	**20,98,000**	**24,84,000**
Liabilities		
Share Capital	9,00,000	9,00,000
Reserves	6,00,000	6,20,000
P&L Account	1,12,000	1,36,000
Term Loan	Nil	5,40,000
Current Liabilities	4,86,000	2,88,000
Total Liabilities	**20,98,000**	**24,84,000**

The following details are provided:

(i) Dividend paid during the year 2008 – 09 was Rs. 80,000.

(ii) Net profit for the year 2008 – 09 was Rs. 1,24,000 after charging depreciation on fixed assets amounting to Rs. 1,40,000.

(iii) Investments worth Rs. 16,000 were sold during the year 2008 – 09 for Rs. 17,000. No revaluation of the investments was carried out at the year – end.

(iv) Fixed assets were sold at a profit of Rs. 4,000 during the year and the profit is included in the net profit for the year ending 31.03.2009.

You are required to prepare the Statement of Changes in Working Capital and the Funds Flow Statement for the year ended 31st March, 2009. 3+4+3 =10

Answer to Question No. 2 (a):

The total risk involved in a firm can be determined by combining the operating and financial leverages. The Degree of combined leverage is calculated by multiplying the two leverages. As a rule, a firm having a high operating leverage should have a low financial leverage and vise versa. If a firm has both the leverages at a high level, it will be a very risky proposition because the combined effect of the two is a multiple of these two leverages. As such if a firm has a high operating leverage the financial leverage should be kept low. Thus it will be necessary to have a proper balance between operating and financial leverage to keep the risk profile of a firm within a reasonable limit. Such a situation would also maximize return to shareholders.

Answer to Question No. 2 (b):

MAGNAVISION LTD

(a) Statement of Changes in Working Capital

Particulars	**31.03.2008**	**31.03.2009**	**Increase in WC**	**Decrease in WC**
Current Assets				
Inventory	4,80,000	4,20,000		60,000
Accounts Receivable	4,20,000	9,10,000	4,90,000	
Cash & Bank Balances	2,98,000	3,94,000	96,000	
Current Liabilities	4,86,000	2,88,000	1,98,000	
Net Increase in WC				**7,24,000**
		7,84,000	**7,84,000**	

(b) Fund Flow Statement:

Sources of Funds		
Funds from Operations	Note I	2,59,000
Term Loan raised		5,40,000
Sales of Fixed Assets	Note II	24,000
Sale of Investments		17,000
Total Sources		**8,40,000**
APPLICATION OF FUNDS		
Purchase of Investments	Note III	36,000
Dividend paid		80,000
Total application		1,16,000
Net Increase in WC		7,24,000
		8,40,000

Notes:

I. Funds from Operations:

Net Profit	Rs. 1,24,000
Less: Non Operating Profits	
Profit on sale of Fixed Assets	Rs. 4,000
Profit on sale on Investments	Rs. 1,000
Profit from Operating Activities	Rs. 1,19,000
Add: Non Cash Expenses- Depreciation	Rs. 1,40,000
Funds from Operations	Rs. 2,59,000

II. Sale of Fixed Assets:

Decrease in the value of Fixed Assets	Rs. 1,60,000
Less: Decrease due to Depreciation	Rs. 1,40,000
Book Value of Fixed Assets sold	Rs. 20,000
Add: Profit on Sale of Assets	Rs. 4,000
Net Sales Price	Rs. 24,000

III. Purchase of Investments:

Increase in the value of Investments:	Rs. 20,000
Add: Book Value of Investments sold	Rs. 16,000
Net Purchase Price	Rs. 36,000

Question:

3.(a) Explain briefly the functions performed by the Securities & Exchange Board of India (SEBI). 5

(b) ANKIT LTD. a manufacturing company produces 25,000 litres of special lubricants in its plant. The existing plant is not fully depreciated for tax purposes and has a book value of Rs. 3 lakh (it was bought for Rs. 6 lakh six years ago). The cost of the product is as under:

	Cost/Litre (Rs.)
Variable Costs	60.00
Fixed Overheads	15.00
	75.00

It is expected that the old machine can be used for further period of 10 years by carrying out suitable repairs at a cost of Rs. 2 lakh annually.

A manufacturer of machinery is offering a new machine with the latest technology at Rs. 10 lakh after trading off the old plant (machine) for Rs. 1 lakh. The projected cost of the product will then be:

	Cost/litre (Rs.)
Variable Costs	45.00
Fixed Overheads	20.00
	65.00

The fixed overheads are allocations from other department plus the depreciation of plant and machinery.

The old machine can be sold for Rs. 2 lakh in the open market. The new machine is expected to last for 10 years at the end of which, its salvage value will be Rs.1 lakh. Rate of corporate taxation is 50%. For tax purposes, the cost of the new machine and that of the old one may be depreciated in 10 years. The minimum rate of return expected is 10%.

It is also anticipated that in future the demand for the demand for the product will remain at 25,000 litres.

Advise whether the new machine can be purchased. Ignore capital gain taxes.

[Given: PVIFA (10%, 10 years) = 6.145, PVIF (10%, 10 years) = 0.386.] 5+3+2 = 10

Answer to Question No. 3.(a):

The functions performed by the **Securities and Exchange Board of India (SEBI)** are enumerated below:

- Regulate the business in stock exchanges and other securities markets;
- Registering and regulating the working of stock brokers, sub–brokers, share transfer agents, bankers to an issue, merchant bankers, underwriters, portfolio managers, investment advisor and such other intermediaries, who are associated with the securities market in any manner;
- Registering and regulating the working of depositories, custodians of securities, FIIs, credit rating schemes, including mutual funds;
- Promoting and regulating Self – Regulatory Organizations (SROs);
- Prohibiting fraudulent and unfair trade practices relating to the securities market;
- Providing investors' education and training of intermediaries in securities market;
- Prohibiting & Regulating substantial acquisition of shares and takeovers of companies;
- Calling for information from, undertaking inspection, conducing inquiries and audits of the stock exchanges and intermediaries and self –regulatory organizations in the securities market;
- Performing such functions and exercising such powers under the Securities Contract (Regulation) Act, (SCRA) 1956 as may be delegated to it by the Central Government;
- Levying fees & other charges for carrying out its work;
- Conducing research for the above purposes;
- Performing such other functions that may be prescribed

Under the SEBI Act, some of the powers exercised by the Central Government under SCRA Powers to prohibit contracts in certain cases.

They relate to the –

- Powers to call for periodical returns, direct enquires to be made from any recognized stock exchange;
- Grant approval to any recognized stock exchange & to make bye-laws for the regulation and control of contracts;
- Powers to make & amend bye-laws of recognized stock exchanges;
- Licensing of dealers in securities, in certain areas;
- Powers to compel listing of securities by public companies;
- Granting approval to amendment to the rules of a recognized stock exchange;
- Powers to ask every recognized stock exchange, to furnish to the SEBI, a copy of the annual report containing particulars that may be prescribed;
- Powers to super cede the governing body of a recognized stock exchange;
- Powers to suspend business of any recognized stock exchange;

Answer to Question No 3 (b):

ANKIT LTD

Comparative Analysis:

	Old Machine	New Machine	Differential Cash Flow on new machine (Rs) Saving/ (Extra Cost) Rs
Production Ltrs	25,000	25,000	
Variable Cost per Ltr (Rs.)	60	45	
Total Variable Cost (Rs.)	15,00,000	11,25,000	3,75,000
Annual Cost of Repair (Rs.)	2,00,000	——	2,00,000
Depreciation (Rs.)	30,000	1,00,000	(70,000)
(10.00 + 1.00 - 1.00) / 10			
Total Saving			505,000
Less: Tax Saving (50%)			(2,52,500)
Add : Depreciation (not being cast outflow)			70,000
			3,22,500

Present Value of Cash flow if new machine is taken:

Year		Cash Flow (Rs.)	PV Factor (at 10%)	Present Value (Rs.)
0	Outflow on new Machine (Rs.10 Lakhs)	10,00,000	1.000	(10,00,000)
1 -10	Annual Saving (as above)	3,22,500	6.145 (Cum)	1981762
10	Salvage value of new machine	1,00,000	0.386	38,600
				10,20,362

Recommendation: Since NPV is positive, the new plant is to be acquired.

Note : Fixed overhead are allocations from other department and therefore, not relevant for the replacement decision.

Question:

4. The key information pertaining to the proposed new financing plans of ADVENTURE LTD. is given below:

Sources of Funds	Financing Plan I	Financing Plan II
Equity	15,000 shares of Rs. 100 each	30,000 shares of Rs. 100 each
Preference shares	12%, 25,000 shares of Rs. 100 each	-
Debentures	Rs. 5,00,000 at a coupon rate of 10%	Rs.15,00,000 coupon rate 11%

The corporate tax rate is 35 per cent.

Required:

(a) Determine the two EBIT – EPS coordinates of each financial plan.

(b) Determine the

(i) Indifference point; and

(ii) Financial break – even point for each financial plan.

(c) Which plan has more financial risk and why?

(d) Indicate over what EBIT range, if any, one plan is better than the other.

(e) If the firm is fairly certain that its EBIT will be Rs. 12,50,000, which plan would you recommend, and why? (3+4)+3+2+(1 x 3) = 15

Answer to Question No. 4:

ADVENTURE LTD

(a) Two EBIT – EPS coordinates for each financial plan

	Financial plan 1	Financial plan 2
Interest on debentures	50,000	1,65,000
Dividend on preference share before taxes (Rs. 3,00,000/(1-0.35)	4,61,538	—
(a)	5,11,538	1,65,000
Expected EBIT	12,50,000	12,50,000
Less: Interest on debentures	50,000	1,65,000
EBT	12,00,000	10,85,000
Less : Taxes (35%)	4,20,000	3,79,750
EAT	7,80,000	7,05,250
Less: Preference shares dividend	3,00,000	—
Earnings from equity holders	4,80,000	7,05,250
Number of shares	15,000	30,000
EPS (b)	32	23.51

	EBIT Financial plan		EPS Financial plan	
Coordinate 1	2	1	2	
Lower (one)5,11,538	1,65,000	Zero	Zero	
Higher (two)	12,50,000	12,50,000	Rs. 32	Rs. 23.51

(b) Indifference point : [(X-I)(1-t)- Dp]/N1 = [(X-I)(1-t)]/N2 = [(X – 50,000)(1-.35) – 3,00,000]/15000

(i) = [(X-1,65,000) (1-.35)]/30000

Multiplying both sides of the equation by 30,000, we have

→ 2(0.65X – 3,32,500) = 0.65X – 1,07,250

→ 1.3X – 6,65,000 = 0.65X – 1,07,250

→ 0.65X = 5,57,750

→ X = 8,58,077

(ii) Financial break even points: 1 + Dp/(1-t)

For Plan 1-> Rs. 50,000 + (3,00,000)/0.65 = Rs. 5,11,538

For Plan 2 -> Rs. 1,65,000 + 0 = Rs. 1,65,000

(c) Financial risk is measured by the DFL. Plan 1 has more financial risk as its DFL is likely to be higher.

(d) Plan – 2 is better for EBIT level of less than Rs. 8,58,077; Plan 1 is better for EBIT range beyond that level.

(e) Plan – 1 should be preferred, as EPS will be higher (as determined in (a) above).

Question:

5.(a) What are the differences between warrants and convertible debentures? 5

(b) The equity share of AMTREX LTD. is quoted at Rs. 210. A 3-month call option is available at a premium of Rs. 6 per share and a 3-month put option is available at a premium of Rs. 5 per share.

(i) Ascertain the next pays-offs to the option holder of a call option and a put option, given that:

(1) The strike price in both cases is Rs. 220; and

(2) The share price on the exercise day is Rs. 200, Rs. 210, Rs. 220, Rs. 230 and Rs. 240 respectively.

(ii) Also indicate the price range at which the call and the put options may be gainfully exercised. 4+4+2 = 10

Answer to Question No. 5 (a):

The essential feature of warrants and convertible Debentures is the same. They give the holder a call option on the equity stock of the company. There are however some differences between the two.

- In a convertible debenture, the debenture and the option are inseparable. A warrant however, is detachable.
- Warrants can be issued independently. They need not be tied to some other instrument.
- Warrants are typically exercisable for cash.
- Warrants bring in new capital, while convertible debentures do not.
- Most convertibles are callable while warrants are not.
- Warrants typically have shorter maturities than convertibles and expire before the accompany debt.
- Warrants usually provide for fewer common shares than do convertibles.
- Bonds with warrant typically have much higher flotation costs than do convertible issues.
- Bonds with warrants are often used by small start – up firms.

Answer to Question No 5 (b)

AMTREX LTD.

NET PAY - OFF FOR THE HOLDER OF THE CALL OPTION (Rs.)					
Share price on Exercise Day	200	210	220	230	240
Option Exercise	No	No	No	Yes	Yes
Outflow (Strike Price)	Nil	Nil	Nil	220	220
Outflow (Premium)	6	6	6	6	6
Total Outflow	6	6	6	226	226
Less: Inflow (Sales proceeds)	0	0	0	230	240
NET PAY - OFF [Gain/(Loss)]	(6)	(6)	(6)	4	14

NET PAY - OFF FOR THE HOLDER OF THE PUT OPTION (Rs.)					
Share price on Exercise DAY	200	210	220	230	240
Option Exercise	Yes	Yes	No	No	No
Inflow (Strike Price)	220	220	Nil	Nil	Nil
Less: Outflow (Purchase)	200	210	0	0	0
Less: Outflow (Premium)	5	5	5	5	5
Net Pay - off [Gain/(Loss)]	15	5	(5)	(5)	(5)

COMMENTS: The loss of the option holder is restricted to the amount of Premium paid. The profit (positive pay off) depends on the difference between the strike price and the share price on the exercise day.

In case of call option, the investor will be benefited if the actual price exceeds Rs. 226.

In case of Put option, the investor will be benefited if the actual price is less than Rs. 215.

Question: 5

6.(a) What is meant by Balanced Scorecard?

(b) A financial analyst has been asked to appraise NETWORKS LTD., an IT company in terms of the future cash generating capacity. He has projected the following after-tax cash flows:

Year	1	2	3	4	5
Cash Flows (Rs. In lakh)	352	96	128	172	234

It is further estimated that beyond 5th year, cash flows will perpetuate at a constant growth rate of 7% per annum, mainly on account of inflation. The perpetuate cash flow is estimated to Rs. 2,052 lakh at the end of the 5th year.

Additionally the following information are available:

(1) The cost of capital is 20%.

(2) The company has outstanding debt of Rs. 724 lakh and cash/bank balance of Rs. 542 lakh.

(3) The number of outstanding shares of the company is 30.30 lakh.

Requirements:

(i) What is the value of NETWORKS LTD. in terms of expected future cash flows?

(ii) Calculate the value of shareholders.

(iii) The company has received a take over bid of Rs. 402 per share. Is it good offer?

[Given: (PVIF at 20% for year 1 to 5): 0.833, 0.694, 0.579, 0.482, 0.402.] 6+2+2=10

Answer to Question No 6 (a):

Balanced Scorecard:

Balanced Scorecard is a set of measure that gives top management a fast but comprehensive view of the organizational unit. "It is an approach to the provision of information to management to assist strategic policy formulation and achievement. It emphasizes the need to provide the user with a set of information, which addresses all relevant areas of performance in an objective and unbiased fashion." The need to link financial and non-financial measures of performance and identify key performance measures led to the emergence of the "Balanced Scorecard". The inclusion of non-financial information alongside financial information has become known as the "Balanced Scorecard" approach.

[Kaplan and Norton – (1992)]

It allows manages to look at business from four different perspectives by seeking to provide answers to the following four basic questions:

(1) How do customers see us? (Customer perspective)

(2) What must we excel at? (Internal business perspective)

(3) Can we continue to improve and create value? (Learning and growth perspective)

(4) How do we look to shareholders? (Financial perspective)

The aim of scorecard is to provide a comprehensive framework for translating company's strategic objectives into a coherent set of performance measures.

Answer to Question No. 6 (b):

NET WORKS LTD

(i) Present value of Cash flows for the year 1 to year 5:

352 x 0.833 + 96 x 0.694 + 128 x 0.579 + 172 x 0.482 + 234 x 0.402

= Rs. 610.92 Lakh

Present value of Perpetual Cash flows:

$\left[\frac{2052(1+0.07)}{(0.20-0.07)}\right] \times 0.402 = 16889.54 \times 0.402$

= Rs. 6789.60 Lakh

VALUE OF THE COMPANY:

Rs. (610.92 + 6789.60) = Rs. 7400.52 Lakh

(ii) SHARE HOLDERS' VALUE :

Rs. 7400.52 + 542 (Cash / Bank Balance) – 724 (Outstanding debt)

= Rs. 7218.52 Lakh

(iii) VALUE PER SHARE:

7218.52 / 30.30 = Rs. 238.23

This is much lower than the take over bid value (Rs. 402) Thus, the Bid value is good offer from the point of view of the company.

Question:

7.(a) VATSAN LTD. is considering a project with the following expected cash flows:

Initial investment: Rs. 1,00,000

Year	1	2	3
Expected Cash Inflow (Rs.)	70,000	60,000	45,000

Due to uncertainty of future cash flows, the management decides to reduce the cash inflows to certainty equivalent (CE) by taking only 80% for 1st year, 70% for 2nd year and 60% for 3rd year respectively.

Required:

Is it worthwhile to take up the project? 5

(b) WILSON LTD. an Indian company has a payable of US $ 1,00,000 due in 3 months. The company is considering to cover the payable through the following alternatives:

(i) Forward Contract;

(ii) Money Market; and

(iii) Option.

The following information is available with the company:

Exchange rate:

Spot	Rs./$ 45.50/45.55
3 – m Forward	40/45

Interest rates (%):	Per Annum
US	4.5/5.0 (Deposit/Borrow)
India	10.0/11.0 (Deposit/Borrow)

Call option on $ with a strike price of Rs. 46.00 is available at a premium of Rs. 0.10/$. Put option on $ with a strike price of Rs. 46.00 is available with a premium of Rs. 0.05/$

Treasury department of the company forecasted the future spot rate after 3 months to be:

Spot rate after 3 - m	Probability
Rs. 45.60/$	0.10
Rs. 46.00/$	0.60
Rs. 46.40/$	0.30

You are required to suggest the best alternative of hedging. (1+3+4)+2 =10

Answer to Question No 7 (a)

VATSAN LTD

Calculation of Certainty Equivalents of Cash Inflow:

1st Year 70,000 x 80/100 = Rs. 56,000

2nd Year 60,000 x 70/100 = Rs. 42,000

3rd Year 45,000 x 60/100 = Rs. 27,000

Calculation of Risk Adjusted NPV of the Project:

Year	Cash flow (Rs.)	P.V. factor (10%)	P.V. (Rs.)
0	(1,00,000)	1.000	(1,00,000)
1	56,000	0.909	50,904
2	42,000	0.826	34,692
3	27,000	0.751	20,277
			NPV = 5,873

Decision : The NPV of the project is positive and therefore, the project can be selected.

Answer to Question No 7 (b)

WILSON LTD.

Exchange rate Rs./$

Spot 45.50/45.55

3-m forward 45.90/46.00

3-m interest rate (%)

US 4.5/5.0

India 10.0/11.0

i. **Forward Hedge**

After 3-m, Rs. outflow for the firm is Rs. (1,00,000 x 46.0) = Rs. 46,00,000.

ii. **Money Market Hedge**

The firm should borrow Rs. convert into $ at the spot rate, invest $ proceeds for 3-m and settle the payable at the maturity out of $ investment.

$ to be invested to get $ 100000 3-m hence is $\dfrac{100000}{(1+\frac{0.045}{4})}$ = $ 98887.52

To get $ 98887.52, required Rs. is 4504326.54 (98887.52 x 45.55)

The firm need to borrow Rs. 45,04,326.54 to get required $.

Rupee repayment after 3-m is

Rs. 45,04,326.54 $(1+\frac{0.11}{4})$ = Rs. 46,28,195.52.

iii. **Option Hedge**

Since the firm has a $ liability, it should go long on call $ option. That is buy $ call option with a strike price of Rs. 46.00 at a premium of Rs. 0.10/$.

∴ Total premium paid is Rs. (1,00,000 x 0.10) = Rs. 10,000

Possible spot rate after 3-m (Rs./$)	Exercise Option?	Total rupee outflow	Probability
45.60	No	4570000	0.10
46.00	No	4610000	0.60
46.40	Yes	4610000	0.30

∴ Expected rupee outflow after 3-months is

(4570000 x 0.10) + 46,10,000 x (0.60 + 0.30) = Rs. 46,06,000

The firm can also go short on the put option, that is sell $ put option with strike price of Rs. 46.00 at a premium of Rs. 0.05/$

∴ Total premium received is Rs. (1,00,000 x 0.05) = Rs. 5,000

Possible spot rate after 3-m (Rs./$)	Exercise option?	Total rupee outflow	Probability
45.60	Yes	4595000	0.10
46.00	No	4595000	0.60
46.40	No	4635000	0.30

Expected rupees outflow after 3-m is

(45, 95,000 x 0.10 + 45, 95,000 x 0.60 + 46, 35,000 x 0.30) = Rs. 46, 07,000

SUGGESTION:

Forward hedge is suggested to cover the payable since the rupee outflow is less than the outflow under money market hedge and less than the expected outflow under option covers.

Question:

8. Write short notes on *any three* out of the following: 5
   (a) Currency Futures; 5
   (b) Measures of Non-Financial Performance; 5
   (c) Foreign Direct Investment; 5
   (d) Balance of Payment.

Answer to Question No 8

SHORT NOTES

(a) Currency Futures:

Financial futures contracts were first introduced by International Monetary Markets Division of Chicago Mercantile Exchange, in order to meet the needs for managing currency risks, promoted by a galloping growth in international business. London International Financial Futures and Options Exchange (LIFFE), set up in 1982 had been dealing in currency futures, but have restricted their activity to interest – rate futures.

A currency futures contract is a derivative financial instrument that acts as a conduct to transfer risks attributable to volatility in prices of currencies. It is a contractual agreement between a buyer and a seller for the purchase and sale of a particular currency at a specific future date, at a predetermined price. A futures contract involves an obligation on both the parties to fulfill the terms of the contract.

The fundamental advantage is hedging risks.

In a currency futures contract, one of the 'paid' of the currencies is invariably the US $. That is, you can buy or sell a futures contract only with reference to the USD. There are six steps involved in the technique of hedging through futures. These are:

i) Estimating target outcome (with reference to spot rate available on a given date)
ii) Deciding on whether Futures Contract should be bought or sold
iii) Determining number of contracts (this is necessary, since contract size is standardized)
iv) Identifying profit or loss on target outcome
v) Closing out futures position and
vi) Evaluating profit or loss on futures

(b) **Measures of Non – financial Performance:**

The measures of non financial performance are enumerated below:

- Customer satisfaction index
- Customer returns
- Market share
- New production introduction
- On – time delivery
- Manufacturing cycle time
- Defects percentage.
- Throughput
- Employee productivity index
- Patents obtained

Non–financial measures are directly traceable to key success factors like customer satisfaction, market leadership, manufacturing excellence, quality and technological competence.

Non – financial measures are actionable

Non- financial measures may predict better future cash flow of the firm.

(c) **Foreign Direct Investment:**

Foreign direct investment is that investment, which is made to serve the business interests of the investor in a company, which is in a different country from the investor's country. FDI flows like the flow in the capital market have been the fastest growing component of long term flows to developing countries as a whole. FDI is considered to be an essential tool for jump-starting economic growth of a country by bolstering domestic capital, productivity and employment. FDI has an impact on country's trade balance. In India, FDI is guided by certain regulatory norms and investments are allowed in specified areas in specified percentage.

(d) **Balance of Payment :**

Balance of payment is a sources and uses of funds statement reflecting changes in assets, liabilities and networth during a specified period arising out of transacting between domestic and foreign residents. The transactions will include exports and imports of goods and services, cash receipts and payments, gifts, loans and investments. The balance of payments position helps business managers and government officials to analyze a country's competitive position and to forecast the direction of pressure on exchange rate. The Export – import policy of the Government mainly depends on this.

FINAL EXAMINATION – GROUP III
(SYLLABUS - 2008)
DECEMBER 2009

SUGGESTED ANSWERS TO QUESTIONS.

PAPER FP-13 : MANAGEMENT ACCOUNTING - STRATEGIC MANAGEMENT

Answer Qn. No. 1 from Part-A, which are COMPULSORY and any three questions from Part-B and another two questions from Part-C.

PART-A

Question 1(a):

In each of the cases/statements given below, one out of the four alternatives is correct. Indicate the correct answer (=1 mark).

i. An anti take-over defense that creates securities that provide their holders with special rights in the event of a take-over is called:
   A. Poison Put
   B. Poison Pill
   C. Bear Hug
   D. Flip Pill.

ii. For an actor in Bollywood, his outstanding performance would be a /an
   A. Asset
   B. Strategic Asset
   C. Core competency
   D. Capability

iii. A Question Mark in BCG Matrix is an investment, which
   A. Yields low current income but has bright growth prospects.
   B. Yields high current income and has bright growth prospects.
   C. Yields high current income and has bleak growth prospects.
   D. Yields low current income and has bleak growth prospects.