

MIB / III Sem.

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Course 533— INTERNATIONAL FINANCIAL MANAGEMENT

(Admissions of 2004 and onwards)

Time : 3 hours

Maximum Marks : 70

(Write your Roll No. on the top immediately on receipt of this question paper.)

Attempt all five questions. All questions carry equal marks.

- Q1. INA Corporation presently has no existing business in Germany but is considering the establishment of a subsidiary there. The following information has been gathered to assess this project:

The initial investment required is DM50 million. Given the existing spot rate of \$.50 per mark, the initial investment in dollars is \$25 million. In addition to the DM50 million initial investment on plant and equipment, DM20 million is needed for working capital and will be borrowed by the subsidiary from a German bank. The German subsidiary of INA Corporation will pay interest only on the loan each year, at an interest rate of 14 per cent. The loan principal is to be paid in 10 years.

The project will be terminated at the end of year 3, when the subsidiary will be sold.

The price, demand and variable cost of the product in West Germany are as follows:

Year	Price	Demand	Variable Cost
1	DM500	40,000 units	DM30
2	DM511	50,000 units	DM35
3	DM530	60,000 units	DM40

The fixed costs, such as overhead expenses, are estimated to be DM6 million per year.

The exchange rate of the mark is expected to be \$.52 at the end of year 1, \$.54 at the end of year 2, and \$.56 at the end of Year 3.

The German government will impose an income tax of 30 per cent on income. In addition, it will impose a withholding tax of 10 per cent on earnings remitted by the subsidiary. The US government will allow a tax credit on remitted earnings and will not impose any additional taxes.

All cash flows received by the subsidiary are to be sent to the parent at the end of each year. The subsidiary will use its working capital to support ongoing operations.

The plant and equipment are depreciated over 10 years using the straight-line depreciation method. Since the plant and equipment are initially valued at DM50 million, the annual depreciation expense is DM5 million.

In three years, the subsidiary is to be sold. INA plans to let the acquiring firm assume the existing German loan. The working capital will not be liquidated, but will be used by the acquiring firm. INA Corporation expects to receive DM52 million after subtracting capital gains taxes when it sells the subsidiary.

INA Corporation requires a 20 per cent rate of return on this project.

Determine the net present value of this project. Should INA Corporation accept this project?

- Q2. A foreign exchange trader gives the following quotes for the Euro spot, one month, 3 months, and six months to a US based treasurer.

\$ 0.025689 / 91 4/6 8/7 12/10

- Calculate the outright quotes for one, three and six months forward.
- If the treasurer wished to buy Euro for six month forward, how much would he pay in dollars?
- If he wished to purchase US dollars one month and three month forward, how much would he have to pay in Euros?
- Assume that the trader buys euros. What is the premium or discount, for the one, three and six month forward rates in annual percentage terms?
- What do the quotations given above imply in respect of the term structure of interest rates in the two countries?

OR

Stoner U.K., the British subsidiary of Stoner U.S. has current assets of £2 million, fixed assets of £3 million, and current liabilities of £2 million. Stoner has no long-term liabilities.

- Calculate Stoner U.K.'s translation exposure under all the four translation methods?
- If the pound is assumed to be the functional currency, and it depreciates from \$1.60 to \$1.50 calculate the FASB-52 translation gain (loss) that will be reflected in the CTA account?
- Included in current assets is inventory of £0.7 million. Assume the historical exchange rates for inventory and fixed assets are \$1.45 and \$1.65 and dollar is the functional currency. Calculate Stoner U.K.'s translation gain or loss.

Q3. a) What is an interest rate swap and list the main factors behind the phenomenal growth in the swap market in recent years? Give an example to illustrate your answer.

b) Discuss the significance and characteristics of the Eurocurrency market. In this context, distinguish between domestic issues and Euro issues.

OR

a) Briefly discuss the various dimensions of International working capital management that MNCs should consider in decision making.

b) Discuss Translation, Transaction and Economic Exposure as foreign exchange hedging tools.

Q4. AV Ltd, is the Indian affiliate of a US sports manufacturer. AV Ltd manufactures items which are sold primarily in the United States and Europe. AV's balance sheet in thousands of rupees as of March 31 is as follows:

Assets		Liabilities and Net Worth	
Cash	Rs 6,000	Accounts payable	Rs. 3,500
Accounts receivable	4,500	Short-term bank loan	1,500
Inventory	4,500	Long-term loan	4,000
Net plant and equipment	10,000	Capital stock	10,000
		Retained earnings	6,000
Total	Rs 25,000		Rs 25,000

Exchange rates for translating the balance sheet into US dollars are

Rs 35/\$: Historic exchange rate, at which plant and equipment, long-term loan and common stock were acquired or issued.

Rs 45/\$: March 31 exchange rate. This was also the rate at which inventory was acquired.

Rs 46/\$: April 1 exchange rate, after devaluation of 20%.

Assuming no change in balance sheet accounts between March 31 and April 1, calculate accounting gain or loss by the current rate method and by monetary/ non-monetary method.

OR

a) Explain the factors MNCs should take into consideration in Multinational Capital Budgeting. Also explain the APV technique of capital Budgeting.

b) Why is country risk analysis important for a MNC? Discuss the various economic and political factors that MNCs should assess in calculating the country risk for a country.

Q5 The direct quote in Tokyo for peso is given as ¥28.8358/NP BID and ¥28.8725/NP Ask. The yen is quoted in direct terms at NP0.04418/¥ Bid and NP0.04422/¥ Ask in Mexico City.

- i. Calculate the bid-ask spread as a percentage of the bid price from the Japanese and from the Mexican perspective.
- ii. Would there exist an opportunity for profitable arbitrage? If yes, describe the necessary transactions assuming a ¥1 million starting amount.

OR

A foreign exchange dealer has \$1 million that he is free to invest in any currency. He can trade at the following prices:

Spot rate, Mexican new pesos per dollar	NP 15/\$
6-month forward rate for Mexican new pesos	NP 16/\$
6-month Mexican interest rate	18%
6-month U.S. interest rate	5%

Is it profitable to go for covered interest arbitrage? If yes, explain the steps assuming an initial investment of \$1 million. Calculate your profit in dollars at time zero.