FINAL EXAMINATION

GROUP III

(SYLLABUS 2008)

SUGGESTED ANSWERS TO QUESTIONS

JUNE 2014

Paper- 12 : FINANCIAL MANAGEMENT & INTERNATIONAL FINANCE

Time Allowed : 3 Hours **Full Marks : 100**

The figures in the margin on the right side indicate full marks.

Please: (i) Answer all bits of a question at one place.
(ii) Open a new page for answer to a new question.
(iii) Tick the question number answered on the front sheet of the answer-book.

Answer Question No. 1 from Part A which is compulsory and any five questions from Part B.

Part A (25 Marks)

1. (a) In each of the cases given below, one out of four answers is correct. Indicate the correct answer (= 1 mark) and give workings/reasons briefly in support of your answer (= 1 mark): 2×8=16

(i) X Ltd. issued ₹ 100, 12% Debentures 5 years ago. Interest rates have risen since then, so that debentures of the company are now selling at 15% yield basis. What is the current expected market price of the debentures?
(A) ₹ 75
(B) ₹ 80
(C) ₹ 90
(D) ₹ 85

(ii)

Given:	Last year	Current year
Sales unit	2,000	2,800
Selling price per unit	₹ 10	₹ 10
EPS	₹ 9.60	₹ 38.40

What is the Degree of Combined Leverage?
(A) 6.5
(B) 5.6
(C) 7.5
(D) 5.7

(iii) MI Ltd. has annual sales of ₹ 365 lakhs. The company has investment opportunities in the money market to earn a return of 15% per annum. If the company could reduce its float by 3 days, what would be the increase in company's total return? (Assume 1 year = 365 days)
(A) ₹ 45,000
(B) ₹ 40,000
(C) ₹ 54,000

(D) ₹ 46,000

(iv) In the inter-bank market, the DM is quoting ₹ 21.50. If the bank charges 0.125% commission for TT selling, what is the TT selling rate?
(A) ₹ 21.47/DM
(B) ₹ 21.53/DM
(C) ₹ 22.78/DM
(D) ₹ 23.45/DM

(v) The required rate of return on equity is 24% and cost of debt is 12%. The company has a capital structure mix of 80% of equity and 20% debt. What is the overall rate of return, the company should earn? Assume no tax.
(A) 21.6%
(B) 14.4%
(C) 18.6%
(D) 17.22%

(vi) Consider the following quotes:
Spot (Euro/Pound) = 1.6543/1.6557
Spot (Pound/NZ's) = 0.2786/0.2800
Calculate the % spread on the Euro/Pound Rate.
(A) 0.0805%
(B) 0.0080%
(C) 0.8501%
(D) 0.0850%

(vii) Initial Investment ₹ 20 lakh. Expected annual cash flows ₹ 6 lakh for 10 years. Cost of capital @ 15%. What is the Profitability Index? The cumulative discounting factor @ 15% for 10 years = 5.019.
(A) 1.51
(B) 1.15
(C) 5.15
(D) 0.151

(viii) The following details relate to an investment proposal of XYZ Ltd.
Investment outlay— ₹ 100 lakhs
Lease Rentals are payable at ₹ 180 per ₹ 1,000
Term of lease—8 years
Cost of capital—12%
What is the present value of lease rentals, if lease rentals are payable at the end of the year? [Given PV factors at 12% for years (1-8) is 4.9676.]
(A) ₹ 98,14,680
(B) ₹ 89,41,680
(C) ₹ 94,18,860
(D) ₹ 96,84,190

(b) State if each of the following sentences is T (= true) or F (= false): 1×9=9
(i) Fixed capital is a financial lubricant which keeps business operation going.
(ii) Forward Exchange Rate contract is for the purchase or sale of a specified quantity of a specified currency price as agreed today.
(iii) Stochastic (irregular) Model is developed to avoid the problems associated with the EOQ model.
(iv) TRIPS sets down minimum standards for many forms of Intellectual Property (IP) regulations.
(v) Risk Adjusted Discount Rate (RADR) = Risk Free Return × Premium for facing the risk.

(vi) Buyout refers to the transfer of management control by creating a separate business by separate business by separating it from their existing owners.

(vii) Feasibility study is included in implementation phase of project development cycle.

(viii) Price of contract changes every day in Futures.

(ix) Interest Rate Guarantees (IRG) is an option contract.

Answer:

1. (a)

(i) ₹80 [B]: Market value of Debentures = $\frac{\text{Interest on Debenture}}{\text{Current Yield Rate}} = \frac{12}{0.15} = ₹80$

(ii) ₹7.5 [C]: Degree of Combined leverage =

$$\frac{\Delta EPS/EPS}{\Delta Sales/Sales} = \frac{(38.40-9.60)/9.60}{(28,000-20,000)/20,000} = \frac{3}{40} = 7.5$$

(iii) ₹45,000 [A]:
Average sales per day = ₹ 3.65 lakhs/365 days
Increase in Total Returns = ₹ 1 lakhs @ 3days × 15% = ₹45,000.

(iv) ₹21.47/DM [A]: TT selling rate = 21.50 (1 – 0.00125) = ₹21.47/DM

(v) 21.6% [A]:

Rate of return on equity fund	= 24% × 0.80 = 19.2%
Cost of debt is	= 12% × 0.20 = 2.4%
Overall rate of return Co. should earn	21.6%

(vi) 0.0850% [D]:

% spread on Euro/Pound rate = $\frac{1.6557-1.6543}{1.6543} \times 100 = 0.0850\%$

(vii) 1.51 [A]:
P.V. of inflows = 6.00 × 5.019 = ₹ 30.114 lakhs
Profitability Index = $\frac{\text{P.V. of inflows}}{\text{P.V. of outflows}} = \frac{30.114}{20} = 1.51$

(viii) ₹ 89,41,680 [B]:
P. V. of lease rentals = ₹18 lakhs × PVI FA(12%, 8)
= ₹18 lakhs × 4.9676
= ₹ 89,41,680

(b) (i) False
(ii) True
(iii) True
(iv) True
(v) False
(vi) True
(vii) False
(viii) True
(ix) True

Part B
(75 Marks for any five questions.)

2. (a) XYZ Ltd. sells its products on a gross profit of 20% of sales. The following information is extracted from its annual accounts for the year ending 31st March, 2014.

	₹
Sales (at 3 months credit)	**40,00,000**
Raw materials	**12,00,000**
Wages (15 days in arrears)	**9,60,000**
Manufacturing expenses and general expenses (One month in arrears)	**12,00,000**
Administration expenses (one month in arrears)	**4,80,000**
Sales promotion expenses (payable half yearly in advance)	**2,00,000**

The company enjoys one month credit from the suppliers and maintains 2 months stock of raw materials and 1½ months stock of finished goods. Cash balance is maintained at ₹ 1,00,000 as a precautionary balance. Assuming a 10% margin, find out the working capital requirement of XYZ Ltd. 10

(b) The beta co-efficient of a security 'X' is 1.4. The risk free rate of return is 10% and the required rate of return is 14% on the market portfolio. If the dividend expected during the coming year is ₹ 3.50 per share and the growth rate of dividend and earning is 8%, at what price should the security 'X' be sold, based on the CAPM? 5

Answer:

2. (a) Statement of working capital requirement:

	₹	₹
Current Assets:		
Debtors (40,00,000 × 3/12 × 80%) (@ CGS)		8,00,000
Raw material stock (12,00,000 × 2/12)		2,00,000
Finished goods stock (1 ½ months of cost Production – cost of production is 80% on 40,00,000)		4,00,000
Advance payment of sales promotion		1,00,000
Cash		1,00,000
Total		16,00,000
(-) Current Liabilities:		
Sundry creditors (1/12 of 12,00,000)	1,00,000	
Wages (arrear for 15 days) (1/24 of 9,60,000)	40,000	
Manufacturing and general expense (Arrears for 1 month) (1/12 of 12,00,000)	1,00,000	
Administrative expenses (Arrears for 1 month) (1/12 of 4,80,000)	40,000	2,80,000
		13,20,000
(+) 10% Margin		1,32,000
Net working capital requirement		14,52,000

(b) Expected rate of Return by applying CAPM Formula:

$E(R_i) = R_f + B_i (R_m - R_f)$

$= 10\% + 1.4 (14\% - 10\%) = 10\% + 5.6\% = 15.6\%$

Price of security X is calculated with the use of dividend growth model formula.

$$R_e = \frac{D_1}{P_0} + g$$

$$0.156 = \frac{3.50}{P_0} + 0.08$$

Or

$$0.156 = \frac{3.50}{P_0} + \frac{0.08}{1}$$

Or

$$0.156 = \frac{3.50 + 0.08P_0}{P_0}$$

$0.156P_0 = 3.50 + 0.08P_0$

$0.156P_0 - 0.08P_0 = 3.50$

$0.076P_0 = 3.50$

$$P_0 = \frac{3.50}{0.076} = ₹46.05$$

3. (a) The credit terms of a firm currently is Net 30. It is considering to change it to Net 60. This will have the effect of increasing the firm's sales. As the firm will not relax credit standard, the bad debts losses are expected to remain at the same percentage, i.e., 3 per cent of sales. Incremental production, selling and collection costs are 80 per cent of sales and expected to remain constant over the range of anticipated sales increase. The relevant opportunity cost of receivables is 15 per cent. Current annual credit sales are ₹ 600 crore and current level of receivables is ₹ 60 crore. If the credit terms are changed, the current sales are expected to change to ₹ 720 crore and the firm's receivables level will also increase. The firm's financial manager estimates that the new credit terms, will cause the firm's collection period to increase by 30 days.

Required:

(i) Determine the present collection period and the collection period after the proposed change in credit terms.

(ii) What level of receivables is implied by the new collection period?

(iii) Determine the increased investment in receivables, if the new credit terms are adopted.

(iv) Are the new credit terms desirable? (Assume 360 days in a year) 2+1+2+5=10

(b) Explain the steps to be adopted in Money market hedge. 5

Answer:

3. (a)

(i) **Present collection period** = 360 days × current level receivables/Current Annual credit sales
= 360 days × ₹60 Crore/ ₹600 Crore
= 36 days

New collection period = 36+30
= 66 days.

(ii) **New Level of receivables** = New Sales × New Collection period/360 days
= ₹ 720 Crores × 66 days /360 days
= ₹ 132 Crores.

(iii) **Increase in investment in Receivables** = New level of receivables – Old level of Receivables
= ₹132 Crore – ₹60 Crore
= ₹ 72 Crore.

(iv) **Statement showing the evaluation of Credit Policies**:

		Present Policy ₹ [in crore]	Proposed Policy ₹ [in crore]
A.	Expected Profit:		
	(a) Credit sales	600.00	720.00
	(b) Variable Cost of credit sales	480.00	576.00

	(c) Bad debts	18.00	21.60
	(d) Expected Profit [(a) – (b) – (c)]	102.00	122.40
B.	Opportunity cost of Investment In receivables: Present – ₹480 × 36/360 × 15% Proposed – ₹576 × 66/360 × 15%	7.2	15.84
C.	Net gain [A-B]	94.8	106.56

(b) Steps to be adopted in Money market Hedge:

i. Indentify whether Foreign Currency (FC) is asset or liability
ii. Create the opposite position either by borrowing or depositing the amount equal to present value of FC liability
iii. Convert the borrowed funds in to required currency
iv. Invest the borrowed funds
v. Settle the payment by withdrawing deposited amounts along with interest.

4. (a) Relax Ltd. is a manufacturer of high quality product. The management of company is considering computerising the company's ordering, inventory and billing procedures.

The Management estimates that the annual savings from computerising include a reduction of 10 clerical employees with annual salaries of ₹ 60,000 each, ₹ 32,000 from reduced production delays caused by raw material inventory problems, ₹ 48,000 from lost sales due to inventory stock-outs and ₹ 12,000 associated with timely billing procedures.
The purchase price of the computer system is ₹ 8,00,000 and installation costs are ₹ 2,00,000. These outlays will be capitalized (depreciated) on a straight line basis to a zero book salvage value, which is also its market value at the end of five years. The operation of the new system requires two computer specialists with annual salaries of ₹ 1,60,000 per person and annual maintenance cash costs of ₹ 48,000. The company's tax rate is 40% and its required rate of return for this project is 10%. Present value of annuity of ₹ 1 at 10% rate of discount for 5 years is 3.791 and at the end of 5 years is 0.621.

You are required to:
(i) Calculate the project's initial net cash outlay.
(ii) Calculate the project's operating cash flows over its 5 years life.
(iii) Calculate the project's payback period.
(iv) Evaluate the project using NPV method. **2+3+2+3=10**

(b) Describe the marketable securities, which are available in India to invest surplus cash. 5

Answer:

4. (a)

	₹
Purchase price of the system	8,00,000
Net cash outlay project	2,00,000
	10,00,000

(i) Calculation of Project's operating and terminal value cash flows over 5 year life

Savings:

	₹
Reduction in salaries (10 × 60,000)	6,00,000
Reduction in Production delay	32,000

Reduction in cost of sales		48,000
Saving from timely billing procedure		12,000
		6,92,000

Cost

Depreciation $\frac{10,00,000}{5}$ = 2, 00,000

Salaries of computer specialist
1, 60,000 × 2 = 3, 20,000

Maintenance Cost	48,000	5, 68,000
Profit Before Tax		1, 24,000
Less: Tax 40%		49,600
Profit after tax		74,400
Add: Depreciation		2, 00,000
Net cash inflow p.a. for 5 years		2, 74,400

(ii) **Calculation of Project payback period.**

Year	Net Cash Inflow	Cumulative cash in flow
1	2,74,400	2,74,400
2	2,74,400	5,48,800
3	2,74,400	8,23,200
4	2,74,400	10,97,600
5	2,74,400	13,72,000

The payback period is 3 years and fraction of the 4th years.

$$\frac{₹1,76,800}{₹2,74,400} \times 12 = 7.73 \text{ months}$$

Thus = 3.8 years

(iii) **Evaluation of project using NPV method:**

Year	Cash Flow	P.V. at 10%	Total P.V.
0	-10,00,000	1.000	-10,00,000
1-5	2,74,400	3.791	10,40,250
			NPV = 40,250

Since NPV is positive the project can be accepted.

(b) Types of marketable securities available in India to invest surplus cash:

	Issued by	Safety	Maturity	Marketability
TB (Treasury Bill)	Government	No Default risk	Short term	Highly marketable
CPs (Commercial Papers	Creditworthy large companies	Low Default risk	Short term	Highly marketable
CDs (Certificate of Deposits)	Banks	Low Default risk	Short term	Highly marketable

ICD (Inter Corporate Deposits)	Companies	High Default risk	Short term	Less marketable
MMMF (Money Market Mutual Funds)	Mutual Funds	Low Default risk	Short term	High marketable

5. (a) PCT Ltd. is in the process of raising ₹ 15 lakhs as additional capital. For this purpose, two mutually exclusive alternative financial plans have been identified. The current level of EBIT is ₹ 51 lakhs which is likely to remain unchanged. The relevant information is as under:

Present capital structure	**9,00,000 Equity shares of ₹ 10 each and 10% Bonds of ₹ 60 lakh**
Current EBIT	**₹ 51,00,000**
Current EPS	**₹ 2.50**
Current market price	**₹ 50 per share**
Tax Rate	**50%**
Financial Plan I	**60,000 Equity shares @ ₹ 25 per share**
Financial Plan II	**12% Debentures of ₹ 15,00,000**

Required:
(i) Calculate the indifference level of EBIT between the two plans.
(ii) Calculate the financial BEP under both the plans.
(iii) Which alternative financial plan is better? **4+4+2=10**

(b) Explain the features of Venture Capital. **5**

Answer:

5. (a)
(i) Indifference Point:

	Plan -I	**Plan-II**
EBIT	X	X
Less : Interest	6,00,000	7,80,000
EBT	X - 6,00,000	x-7,80,000
Less : Tax 50%	0.5 (x-6,00,000)	0.5 (x-7,80,000)
EAT	0.5x - 3,00,000	0.5x- 3,90,000
No. of Equity Share	9,60,000	9,00,000
EPS	$\frac{0.5x - 3,00,000}{9,60,000}$	$\frac{0.5x - 3,90,000}{9,00,000}$

Equal EPS under plan

$$\frac{0.5x - 3,00,000}{9,60,000} = \frac{0.5x - 3,90,000}{9,00,000}$$

$9,00,000 (0.5x – 3,00,000) = 9,60,000 (0.5x – 3,90,000)$

$x = 34,80,000$

The indifference Level of EBIT = ₹ 34,80,000

(ii) Financial BEP

Plan – I $\quad \frac{0.5x - 3,00,000}{9,60,000} = 0$

$x = \frac{3,00,000}{0.5} = ₹\ 6,00,000$

Plan – II $\quad \frac{0.5x - 3,90,000}{9,00,000} = 0$

$x = \frac{3,90,000}{0.5} = ₹\ 7,80,000$

(iii) Selection of Financial Plan

EPS (Plan I) $\quad \frac{(51,00,000 - 6,00,000)(1 - 0.5)}{9,60,000 \text{shares}} = ₹\ 2.34$ per Share

EPS (Plan II) $\quad \frac{(51,00,000 - 6,00,000 - 1,80,000)(1 - 0.5)}{9,00,000} = ₹\ 2.4$ per Share

Plan II is better.

(b) Features of Venture Capital:

(i) High Degree of risk - Venture capital financing is, invariably, an investment in a highly risky project with the objective of earning a high rate of return.

(ii) Equity participation - Venture capital financing is, invariably, an actual or potential equity participation wherein the object of venture capital is to make capital gain by selling the share once the project become profitable.

(iii) Long-term investments - Venture capital financing is a long term investment. It generally takes a long period to encash the investment in securities made by the venture capitalists.

(iv) Participation in management - In addition to provide capital, venture capital funds take an active interest in the management of the form that of a traditional lender or banker. It is also different from that of accompany stock market investor who merely trades in the shares of a company without participating in their management. It has been rightly said, "Venture capital combines the qualities of banker, stock market investor and entrepreneur in one".

(v) Achieve social objectives - It is different from the development capital provided by several central and state level government bodies in that the profit objective is the motive behind the financing. But venture capital profits generate employment, and balanced regional growth indirectly due to setting up successful new business.

(vi) Investment is illiquid - A venture capital is not subject to repayment on demand as with an overdraft or following a loan repayment schedule. The investment is realized only when the company is sold or achieves a stock market listing. It is lost when the company goes into liquidation.

6. (a) An Indian customer who has imported equipment from Germany has approached a bank for booking a forward Euro contract. The delivery is expected in six months from now. The following rates are quoted:

($/Euro) spot	**0.8453/0.8457**
6-m swap	**15/20**
₹/$ spot	**46.47/46.57**
6-m swap	**20/30**

What rate the bank will quote, if it needs a margin of 0.5%? 5

(b) As a dealer in the bank, you observed the following quotes in the market.

₹/$	**42.18/42.60**
₹/£	**68.59/69.96**
₹/€	**46.25/47.17**

Compute the cross rates for $/£ and $/€. 5

(c) Why Purchasing Power Parity (PPP) theory does not always work in practice? Explain. 5

Answer:

6. (a) calculation of outright forward rates

$/€ 6m forward rates:

Bid rate = 0.8453 + 0.0015 = 0.8468

Offer Rate = 0.8457 + 0.0020 = 0.8477

₹/$ 6m forward Rates:

Bid rate = 46.47 + 0.20 = 46.67

Offer Rate = 46.57 + 0.30 = 46.87

The customer needs € to pay for imports. He would purchase Euros. Therefore he needs a quote of Euro in Rupee terms. We therefore need to find only ask quote.

(₹/€) = (₹/$) × ($/€) = 0.8477 x 46.87 = 39.73

The bank would quote ₹39.73 + 0.5% = ₹39.93/£

(b) To calculate the $/£ bid and offer rates, we calculate

Bid ($/£) = Bid ($/₹) × Bid (₹/£)

Ask ($/£) = Ask ($/₹) × Ask (₹/£)

Substituting Values

Bid ($/£) = 1/Ask (₹/$) × Bid (₹/£) = 1/42.6 × 68.59 = 1.6101

Ask ($/£) = 1/Bid(₹/$) × Ask (₹/£) = 1/42.18 × 69.96 = 1.6586

Now to calculate $/€ bid and offer rates, we calculate

Bid ($/€) = Bid ($/₹) × Bid (₹/€)

Ask ($/€) = Ask ($/₹) × Ask (₹/€)

Substituting,

Bid ($/€) = 1/ Ask (₹/$) × Bid (₹/€) = 1/42.6 × 46.25 = 1.0856

Ask ($/€) = 1/Bid(₹/$) × Ask (₹/€)= 1/42.18 × 47.17 = 1.1183

(c) Why purchasing power parity theory doesn't always work in practice?

Anything which limits the free trade of goods will limit the opportunities people have in taking advantage of these arbitrage opportunities. A few of the larger limits are:

(i) Import and Export Restrictions - Restrictions such as quotas, tariffs and laws will make it difficult to buy goods in one market and sell them in another. If there is a 300% tax on imported cricket bats, then in our first example it is no longer profitable to buy the bat in India instead of the Australia. Australia could also just pass a law make it illegal to import cricket bats.

(ii) Travel costs - If it is very expensive to transport goods from one market to another, we would expect to see a difference in prices in the two markets.

(iii) Perishable goods - It may be simply physically impossible to transfer goods from one market to another. There may be a place which sells cheap sandwiches in Indore, but that doesn't help me if I'm living in Delhi. Of course, this effect is mitigated by the fact that many of the ingredients used in making the sandwiches are transportable, so we'd expect that sandwich makers in Delhi and Indore should have similar material costs.

(iv) Location - You can't buy a piece of property in Indore and move it to New Delhi. Because of that real estate prices in markets can vary wildly. Since the price of land is not the same everywhere, we would expect this to have an impact on prices, as retailers in New Delhi have higher expenses than retailers in Indore.

7. (a) Y Ltd., an Indian company has an export exposure of 6 million (60 lakhs) Yen value at the end of March, 2014. Yen is not directly quoted against Rupee. The current spot rates are:

USD/INR = 61.75
USD/JPY = 185.25
It is estimated that Yen will depreciate against Doller to 210 and Rupee to depreciate against Doller to 65.
Forward rates for March 2014:
USD/YEN = 195.45
and USD/INR = 62.35
(i) Calculate the expected loss, if hedging is not done.
(ii) How the position will change with company taking forward cover? 4+3=7

(b) An importer has to make payment of 1 Million Thai baht to its trading partner in Bangkok. The currency quotes available are:
For Doller in India : ₹ 58.0843/58.0996
For Doller in Thailand: Thai Baht 52.9400/52.9600
What is the amount of bill payable in terms of Indian Rupee? 3

(c) Narrate the assumptions of the Black-scholes Option Pricing Model. 5

Answer:

7.(a) **Calculation of Spot Rate of 100 Yen.**

USD/INR = 61.75
USD/JPY = 185.25
JPY/INR = 61.75/185.25 1 Yen = 0.3333
100 Yen = ₹ 33.33

Calculation of Expected rate of 100 Yens.

USD/INR = 65
USD/JPY = 210
JPY/INR = 65/210 1 Yen = 0.3095
100 Yen = ₹ 30.95

(i) Calculation of Expected loss without forward cover:

Current Exposure = $\frac{60 \text{ Lakh Yens}}{100 \text{ Yens}} \times 33.33$ = 19, 99,800

Expected Exposure = $\frac{60 \text{ Lakh Yens}}{100 \text{ Yens}} \times 30.95$ = 18, 57,000

Expected loss without forward cover = ₹ 1, 42,800

(ii) Calculation of Expected loss with forward cover

Forward Rate
USD/INR = 62.35
USD/JPY = 195.45 1 Yen = 0.3193
JPY/INR = 62.35/195.45 100 Yen = ₹ 31.90

Current exposure without forward cover:

	$\frac{60 \text{ Lakh Yens}}{100 \text{ Yens}} \times 33.33$	=	19, 99,800
Exposure if forward cover is taken	$\frac{60 \text{ Lakh Yens}}{100 \text{ Yens}} \times 31.90$	=	19, 14,000
Expected loss if forward cover is taken		=	₹ 85,800

The loss is minimized when the exposure is hedged with forward cover is suggested to take forward cover.

7.(b) As a direct quote of ₹/Thai baht is not available the cross rate will be used by the importer to buy Thai baht.

₹/US$: ₹ 58.0843 – 58.0996
Thai baht / US$: ₹ 52.9400 – 52.9600
For cross rate (₹ / Thai baht)$_{bid}$ = (₹ /US$)$_{bid}$ × (US$/Thai baht)$_{bid}$
= 58.0843 × 1/52.9600
= 1.0968

And (₹ /Thai baht)$_{ask}$ = (₹ /US$)$_{ask}$ × (US$/Thai baht)$_{ask}$
= 58.0996 × 1/52.9400 = 1.0975

So cross Rate of ₹ / Thai baht: 1.0968 – 1.0975

As the importer is to buy 1 million Thai baht; his payment in rupees will be
= 10, 00,000 × 1.0975
= ₹ 10,97,500.

7.(c) The BS model is based on the following assumptions:

(i) It considers only those options which can be exercised at their maturity that is European options.
(ii) The market is efficient and there are no transactions cost and taxes.
(iii) The risk free rate or interest rates are known and constant during the period of option contract.
(iv) No Dividend is paid in shares.
(v) Share prices behave in a manner consistent with a random walk in continuous time.
(vi) The probability distributions of Financial returns on the shares is normal.
(vii) The variance / standard deviation of the return is constant during the life of option contract.

8. Write short notes on (any three): 5×3=15

(a) Social Cost Benefit Analysis (SCBA)
(b) TRIMS
(c) Covered Interest Arbitrage
(d) Leveraged Lease

Answer:

7. (a) Social cost benefit analysis is a systematic evaluation of an organization's social performance as distinguished from its economic performance. It is concerned with the influence on the social quality of life instead of economic quality of life.
It is used to determine:
Which alternative is socially viable or most suitable.
Which alternative is the optional or best. The total benefits expected from a project to the society are composed of the private benefits (internal profit or returns) accruing to owner of the project plus the external benefits (spillovers). Thus social benefits equal to internal benefits to the owner plus the external benefits to the society as

whole. Similarly cost is compared. Social cost and benefits are measured both directly and indirectly on employment, environment, culture and income distribution.

(b) TRIMS – Trade Related Investment Measures.
TRIMs are the rules a country applies to the domestic regulations to promote foreign investment, often as part of an industrial policy- It is one of the four principal legal agreement of the WTO trade treaty- It enables international firms to operate more easily within foreign markets- Example: Local content requirements, manufacturing requirements, trade balancing requirements, domestic sales requirements, technological transfer requirements, export performance requirement, foreign exchange restrictions, remittance restrictions, and licensing requirements etc.,

(c) The process of borrowing in one currency and simultaneously investing in another with the exchange risk hedged in the forward market is referred to Covered Interest Arbitrage. One would first calculate LHS= $(1+ r_h)$ and RHS=$(F/S) \times (1+ r_f)$, i.e. the two parts of IRP equation. If LHS is not equal to RHS, then there exists arbitrage and profit can be made by arbitrageur.

(d) Under a Leveraged Lease arrangement, the lessor borrows a substantial portion of the purchase price of the asset from a lender, which is typically a commercial bank or a financial institution, with full recourse to the lessee and without recourse to it (lessor). The lender obtains an assignment of the lease and the rentals to be paid by the lessee and insists on first mortgage on the asset. The trustee through whom the transaction is rented receives the rentals from the lessee and passes on to lender and the surplus left after satisfying the claims of the lender goes to the less or who as owner of the asset is entitled to the tax benefits.