THE INSTITUTE OF CERTIFIED PUBLIC ACCOUNTANTS OF PAKISTAN (ICPAP)

Stage	**Specialization**	Course Code	**SP-603**
Examination	**Summer-2011**	Course Name	**Advanced Financial Management**
Time Allowed	**03 Hours**	Maximum Marks	**100**

NOTES:
1. All questions are to be attempted.
2. Answers are expected to the precise, to the point and well written.
3. Neatness and style will be taken into account in marking the papers.

Question No 1

You are the chief financial officer of AIR FRANCE a large company in the airline and travel business whose principal market base is in Europe and the Middle East. Its principal hub is a major Northern European airport and AIR FRANCE has a small holiday business through its partnership with a number of independent tour operators. It has a good reputation as a business carrier within its European market, earned through very high standards of punctuality and service. Following the recent disinvestment of associated interests and a joint venture, it has cash reserves of Rs860 million.

Emirates are a smaller airline which also has its centre of operations at the same airport as AIR FRANCE. It has, since it was founded in 1988, developed a strong transatlantic business as well as a substantial position in the long and medium haul holiday market. In the year to 31 December 2005 its reported turnover was in Rs1.7 billion and its profit after tax for the financial year was Rs50 million. The company's net assets are Rs120 million and it has Rs150 millions of long term loans on its balance sheet. It has recently expanded its fleet of wide bodied jets suitable for its expanding holiday business and has orders placed for the new Airbus 380 super-Jumbo to supplement its long haul fleet. Emirates have route licenses to New York and six other major US cities.

Emirates cash flow statement for the current and preceding year is as follows:

Emirates Consolidated Cash Flow Statement (extract)
For the year ended 31 December 2005

	31 December 2005		31 December 2004	
	Rs m	**Rs m**	**Rs m**	**Rs m**
Net cash inflow from operating activities		210.0		95.0
Return on investment and servicing of finance				
Interest received	12.0		6.0	

Interest paid	(4.0)		(3.0)	
Interest element on finance leases	(6.5)		(4.0)	
		1.5		(1.0)
Taxation		(4.1)		(0.2)
Capital Expenditure		(120.2)		(75.0)
Acquisitions and disposals				
Proceeds from the sale of interest in joint ventures		10.0		15.0
Cash inflow before management of Liquid resources and financing		97.2		33.8
Management of liquid resources				
Decrease/(increase) in short term deposits		35.5		(32.2)
Financing				
Repayment of secured loans		(31.0)		(25.0)
Increase/(decrease) in cash for the year		101.7		(23.4)

There is no other airline of comparable size and business mix to AIR FRANCE although analysts regard Rover Airways as a useful comparator. The statement below contains market data relating to Rover Airways:

Key Fundamentals

Forward P/E*	11.00	Dividend Yield	0.00
Price to Book value of equity	1.25	1Yr Total Return (%)**	25.07
Price To Cash Flow	3.00	Beta**	2.00
1Yr Sales Growth	-1.67	1Yr EPS Growth	80.50

** Equity Market Cap £3bn

You also note the following:

The current risk-free rate is 4.5 per cent and the equity risk premium is estimated at 3.5 percent. The prevailing share price for Rover Airways is 290¢ per share and its P/E ratio is 10. The corporation tax rate for both companies is 30 per cent.

The gearing ratio for Rover Airways, expressed as total debt to total capital (debt plus equity), is 60 per cent and as total debt to equity is 150 per cent.

You may assume that:

1 Emirates has undertaken a consistent programme of reinvestment
2 The debt in both companies is not expected to be sensitive to market risk.

There has been considerable consolidation in the airline industry and you are advising your board of directors of AIR FRANCE on the value of Emirates as a potential target for acquisition. It is anticipated that over the longer term the domestic airline industry will settle down to a rate of growth in line with GDP growth in the European economy which stands at 4 per cent per annum (nominal). However, the current rates of growth for this company are likely to be sustained for the next five years before reverting to the GDP growth rate from the sixth year forward.

Required:
(a) Estimate the current cost of equity capital for Emirates using the Capital Asset Pricing Model, making notes on any assumptions that you have made.

(b) Estimate the expected growth rate of Emirates using the current rate of retention of free cash flow and your estimate of the required rate of return on equity for each of the next six years. Make notes on any assumptions you have made.

(c) Estimate the value of Emirates on the basis of its expected free cash flow to equity, explaining the limitations of the methods you have used.

(d) Write a brief report outlining the considerations your colleagues on the board of AIR FRANCE might bear in mind when contemplating this acquisition.

Question No 2

You are the finance director of Sydonics Engineering and expect that a bid to build a new plant in Southern France may be accepted in three months time. If the contract is accepted, an immediate capital spend of €150million will be required in three months and the company will receive a €75million grant from the European Development Fund in nine months time. The current Euro/sterling exchange rate is EUR 0.6900 to the pound.

Three month and nine month Euro LIBOR is 2.76563 per cent and 3.05194 per cent respectively. The three and nine month sterling LIBOR is 4.62313 per cent and 4.73031 per cent respectively. You have decided to hedge the exchange rate risk by the purchase of EUR/STERLING at-the-money options which have a contract size of 100,000 Euros. The monthly volatility of the Euro against sterling is 6.35 per cent. At the current exchange rate, the project has a net present value of £25 million at the company's cost of capital of 8.5 per cent.

The board of directors is concerned about the use of derivatives in managing the firm's treasury operations. They argue that the diversity of the firm's interests in Europe, the UK and the United States means that such hedging transactions are unnecessary.

Required:

(a) Prepare a memorandum, to be considered at the next board meeting, which summarises the arguments for and against foreign currency risk hedging and recommends a general policy concerning the hedging of foreign exchange risk.

(b) Prepare a short report justifying your use of derivatives to minimize the firm's exposure to foreign exchange risk. Your report should contain:

(i) The likely option price for an at-the-money option, stating the circumstances in which the option would be exercised. You should use the Grabbe variant of the Black-Scholes model for both transactions, adjusted on the basis that deposits generate a rate of return of LIBOR.

(ii) A calculation of the number of contracts that would be required to eliminate the exchange rate risk and the cost of establishing a hedge to cover the likely foreign currency exposure.

(iii) A summary of the issues the board should bear in mind when reviewing a hedging proposal such as this, taking into account the limitations of the modelling methods employed and the balance of risk to which the firm will still be exposed to when the position is hedged.

Question No 3

The board of directoRs of Jonas Chemical Systems Limited has used payback for many years as an initial selection tool to identify projects for subsequent and more detailed analysis by its financial investment team. The firm's capital projects are characterised by relatively long investment periods and even longer recovery phases. Unfortunately, for a variety of reasons, the cash flows towards the end of each project tend to be very low or indeed sometimes negative. As the company's new chief financial officer (CFO), you are concerned about the use of payback in this context and would favour a more thorough pre-evaluation of each capital investment proposal before it is submitted for detailed planning and approval. You recognise that many board members like the provision of a payback figure as this, they argue, gives them a clear idea as to when the project can be expected to recover its initial capital investment.

All capital projects must be submitted to the board for initial approval before the financial investment team begins its detailed review. At the initial stage the board sees the project's summarised cash flows, a supporting business case and an assessment of the project payback and accounting rate of return.

A recent capital investment proposal, which has passed to the implementation stage after much discussion at board level, had summarised cash flows and other information as follows:

Distillation Plant at the Gulf Refining Centre

	Investment Phase		Recovery Phase	
	Cash flow (tax Adjusted, nominal) Rs m	Cumulative Cash Flow Rs m	Cash flow (tax adjusted, nominal) Rs m	Cumulative Cash Flow Rs m
01 January 2006	(9.50)	(9.50)		
31 December 2006	(5.75)	(15.25)		
31 December 2007	(3.00)	(18.25)		
31 December 2008			4.5	(13.75)
31 December 2009			6.40	(7.35)
31 December 2010			7.25	(0.10)
31 December 2011			6.50	6.40
31 December 2012			5.50	11.90
31 December 2013			4.00	15.90
31 December 2014			(2.00)	13.90
31 December 2015			(5.00)	8.90

Cost of Capital	8%
Expected net present value (Rs m)	1.964
Net present value volatility (Rs m) – annualized	1.02
Internal rate of return	11.0%
Payback (years)	5.015

The normal financial rules are that a project should only be considered if it has a payback period of less than five years. In this case the project was passed to detail review by the financial investment team who, on your instruction, have undertaken a financial simulation of the project's net present value to generate the expected value and volatility as shown above. The board minute of the discussion relating to the project's preliminary approval was as follows:

31 May 2005 Agenda Item 6
New capital projects – preliminary approvals
Outline consideration was given to the construction of a new distillation facility at the Gulf Refining Centre which is regarded as a key strategic component of the company's manufacturing capability. The cash flow projections had been prepared in accordance with existing guidelines and there was some uncertainty with respect to capital build and future profitability. MRs Chua (chief financial officer) had given approval for the project to come to the board given its strategic importance and the closeness of the payback estimate to the company's barrier for long term capital investment of five years. Mr Lazar (non-executive director) suggested that they would need more information about the impact of risk upon the project's outcome before giving final approval. Mr Bright (operations director) agreed but asked why the board needed to consider capital proposals twice. The board was of the view that what was needed was clearer information about each proposal and the risks to which they were exposed. The chair requested the CFO to provide a review of the company's capital approval procedures to include better assessment of the firm's financial exposure. The revised guidelines should include procedures for both the preliminary and final approval stages. Approved (Action CFO to report)

Required:
(a) Prepare a paper for the next board meeting, recommending procedures for the assessment of capital investment projects. Your paper should make proposals about the involvement of the board at a preliminary stage and the information that should be provided to inform their decision. You should also provide an assessment of the alternative appraisal methods.

(b) Using the appraisal methods you have recommended in (a), prepare a paper outlining the case for the acceptance of the project to build a distillation facility at the Gulf plant with an assessment of the company's likely value at risk. You are not required to undertake an assessment of the impact of the project upon the firm's financial accounts.

Question No 4

XY Co has annual sales revenue of Rs 6 million and all sales are on 30 days' credit, although customers on average take ten days more than this to pay. Contribution represents 60% of sales and the company currently has no bad debts. Accounts receivable are financed by an overdraft at an annual interest rate of 7%. XY Co plans to offer an early settlement discount of 1.5% for payment within 15 days and to extend the maximum credit offered to 60 days. The company expects that these changes will increase annual credit sales by 5%, while also leading to additional incremental costs equal to 0.5% of turnover. The discount is expected to be taken by 30% of customers, with the remaining customers taking an average of 60 days to pay.

Required:

(a) Evaluate whether the proposed changes in credit policy will increase the profitability of XY Co.

(b) AB Co, a subsidiary of XY Co, has set a minimum cash account balance of Rs 7,500. The average cost to the company of making deposits or selling investments is Rs 18 per transaction and the standard deviation of its cash flows was Rs 1,000 per day during the last year. The average interest rate on investments is 5.11%. Determine the spread, the upper limit and the return point for the cash account of AB & Co using the Miller-Orr model and explain the relevance of these values for the cash management of the company.

(c) Identify and explain the key areas of accounts receivable management.

(d) Discuss the key factors to be considered when formulating a working capital funding policy. **(5x4=20)**

Question No 5

a. Explain the concept of 'Working Capital Leverage' and comment on its usefulness in assessing the operating risk of a firm. **(10)**

b. The following data of Ex. Ltd and EM ltd. Are available:

	(Rs. Thousand)	
	Ex Ltd.	Em Ltd.
Current assets	350	50
Net fixed assets	50	350
EBIT	75	75
Sales	3500	500

a. Calculate the Working Capital Leverage for the two companies for a given percentage change in current assets and comment on the results.
b. Comment on the appropriateness of the investment strategies of the two firms. **(10)**

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