

# INSTITUTE OF COST AND MANAGEMENT ACCOUNTANTS OF PAKISTAN



## September 2011 Extra Attempt Examinations

Tuesday, the 20th September 2011

### STRATEGIC FINANCIAL MANAGEMENT – (S-601)

#### STAGE-6

Extra Reading Time: 15 Minutes

Writing Time: 02 Hours 45 Minutes

Maximum Marks: 90

Roll No.:

- (i) Attempt all questions.
- (ii) Answers must be neat, relevant and brief.
- (iii) In marking the question paper, the examiners take into account clarity of exposition, logic of arguments, effective presentation, language and use of clear diagram/ chart, where appropriate.
- (iv) Read the instructions printed inside the top cover of answer script CAREFULLY before attempting the paper.
- (v) Use of non-programmable scientific calculators of any model is allowed.
- (vi) DO NOT write your Name, Reg. No. or Roll No. anywhere inside the answer script.
- (vii) Question No.1 – “Multiple Choice Question” printed separately, is an integral part of this question paper.
- (viii) **Question Paper must be returned to invigilator after finishing/ writing the exam.**

**Answer Script will be provided after lapse of 15 minutes Extra Reading Time (9:30 a.m. or 2:30 p.m. [PST] as the case may be).**

**Marks**

- Q. 2 (a)** A manufacturing company produces and distributes the range of products. Due to increased demand throughout the country, company is planning to significantly expand its business. The company is currently facing cash flow difficulties. The bank also expressed concern about the increasing level of company's overdraft. The management has decided that immediate action be taken to rectify the problem and advised the finance manager to contact a Factor House for factoring accounts receivables.

Finance manager received the offer on the basis of credit sales for the year just ended which were Rs. 50,000,000 with an average debtors of Rs.20,000,000. Debtors are allowed 120 days credit.

Factor has offered the following terms:

- (i) Advance to the extent of 75% of credit sales will be provided.
- (ii) Service charges @ 1.25% of turnover will be charged.
- (iii) Interest on advances will be charged at 14% per annum.

The finance manager has also collected and presented the following information to the management:

- (i) Sales revenue is expected to be doubled in the coming year and this will remain at this increased level for the foreseeable future.
- (ii) All sales are on credit and as a result of strict control procedures adopted by the factor average age of debtors will remain 120 days.
- (iii) The existing credit control function can be reduced by one member of staff costing Rs. 500,000 per annum.
- (iv) Current overdraft's interest rate is 12% per annum.

**Required:**

Find out whether it is financially beneficial for the company to factor its debtors for coming year. (Assume 365 days in a year).

09

- (b)** A quantity of 2,000 units per week of an item is sold by a firm. The purchase price per unit is Rs.3,000. The estimated holding cost per unit is Rs.300 per annum. The processing cost of an order regardless of size of the order is Rs.2,250.

An alternative supplier has recently been approached offering the price of Rs. 2,994 per unit. As a result of supply schedule processing cost of an order will be Rs.7,500 regardless the size of order and the average holding cost will fall to Rs.276 per unit per annum.

PTO

**Required:**

- (i) Calculate the following assuming that firm continues with the existing supplier:
- (A) Economic Order Quantity (EOQ) 01
- (B) Total cost (ordering & holding) of maintaining the stock for one year 02
- (ii) Calculate the following assuming firm decided to switch to the new supplier:
- (A) Economic Order Quantity (EOQ) 01
- (B) Total cost (ordering & holding) of maintaining the stock for one year 02
- (iii) Comment on switching to new supplier and its impact on financial viability. 03

**Q. 3** The incomplete balance sheet and income statement along with ratios of a company are as under:

Balance Sheet				Rs. in million	
Assets	This year	Last year	Liabilities and shareholders' equity	This year	Last year
Cash and marketable securities	----	60	Accounts payable	75	60
Receivables	----	102	Notes payable	90	105
Inventories	----	78	Total current liabilities	----	165
Total current assets	----	240	Long-term debt	----	60
			Shareholders' equity	----	90
			Total liabilities and shareholders' equity	345	315

Income Statement		Rs. in million
Net sales		-----
Cost of goods sold		-----
Selling and administrative expenses		30
Depreciation		60
Earnings before interest and taxes (EBIT)		-----
Interest expenses		-----
Income before taxes		-----
Taxes		-----
Net income		-----
Current ratio		1.4
Quick ratio		1.0
Cash ratio (cash + marketable securities to current liabilities)		0.2
Long-term debt ratio		0.4
Times interest earned		8.0
Return on assets		18 %
Return on equity		41 %
Inventory turnover		5.0
Average collection period		71.2 days

**Required:**

Complete the balance sheet and income statement using the given ratios and figures provided in the balance sheet and income statement.

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**Q.4** On 1<sup>st</sup> January 2010 the total market value of the Syma Limited was Rs. 17 million. The company's market value capital structure, shown below, is considered to be the optimal. Assume that there is no short-term debt.

	Rs.
Debt	7,000,000
Ordinary shares	10,000,000
<b>Total capital</b>	<b>17,000,000</b>

Syma Limited is considering a project that will result in initial after-tax cash savings of Rs. 1.4 million at the end of the first year and these savings will grow at a rate of 5% per year indefinitely. The firm has a target debt-equity ratio of 0.70, a cost of equity of 13% and an after-tax cost of debt of 5.5%. The cost-saving proposal is comparatively riskier than the usual projects the firm undertakes; management uses the subjective approach and applies an adjustment factor of plus 2% to the cost of capital for such risky projects.

**Required:**

- (a) Should the company take on the project, if the initial investment is Rs. 20 million? What would be the outcome of the project? (show all your computations). 10
- (b) Syma Limited is to raise Rs. 20 million for a new project externally and its flotation costs for selling debt and equity are 2% and 16%, respectively. Considering flotation costs calculate the true initial investment of the new project. Is the project viable considering the flotation cost? Analyse and comment. 05

**Q. 5 (a)** Explain briefly the five major areas of concerns related to financial management of multinational firms. 10

(b) M/s BB Corporation is considering the acquisition of Three-Zee Limited which is also in a related line of business. Three-Zee, an all equity financed company, presently has an after-tax cash flow of Rs. 80 million per year. With a merger, synergy would be expected to result in a growth rate of this cash flow by 15% per year for the first 10 years and thereafter cash flow is expected to remain at that level for indefinite period. However, M/s BB Corporation will need to invest Rs. 40 million annually to maintain the cash flow stream. For the purpose of analysis and to be conservative, M/s BB limits its calculations of cash flows to 25 years.

**Required:**

- (i) Calculate annual cash flows would M/s BB Corporation realise from this acquisition. 05
- (ii) If M/s BB Corporations required rate of return is 18%, what will be the maximum price that it could pay to acquire Three-Zee? 07

**Q. 6 (a)** Pak Juices Limited (PJL) is considering two mutually exclusive investment projects. Each project cost Rs.3,875,000 and has an expected life of 3 years. Annual net cash flows from each project begin one (1) year after the initial investment is made and have the following probability distributions:

Project X		Project Y	
Probability	Net Cash Flows Rs.(000)	Probability	Net Cash Flows Rs.(000)
0.2	3,500	0.2	0
0.6	3,875	0.6	3,875
0.2	4,250	0.2	9,500

PJL has decided to evaluate the more risky project at a 12% rate and the less risky project at a 10% rate.

**Required:**

Read page # 4.

PTO

- (i) Calculate the expected value of the annual net cash flows from each project and coefficient of variation. 06
- (ii) What is the risk-adjusted NPV of each project? Which project the company should accept? 03
- (iii) If it were known that Project 'Y' was negatively correlated with other cash flows of the firm whereas Project 'X' was positively correlated, how would this knowledge affect the decision for opting the project? 01

**(b)** A pharmaceutical company is going to launch a new medicine, which would be sold over the counter without a prescription. To develop the medicine and to market it, it will cost Rs. 18 million over the next 2 years, Rs. 9 million in each year. Other projections are made as under:

- Expected cash inflows associated with the project for year 3 to year 8 are Rs. 1.5 million, Rs. 3 million, Rs. 6 million, Rs. 6 million, Rs. 4.5 million and Rs. 1.5 million respectively.
- If the project is successful at the end of year 5, the company will have the option to invest additional Rs. 15 million to secure country's market.
- The probability of project's success is 0.60.
- If the project becomes successful, then the cash flows are expected to be Rs. 9 million higher in each of the year 6 through year 10 with a probability of 0.50 and Rs. 6 million higher in each of year 6 through year 10 with a probability of 0.50.
- If the project is not successful, then the company will not invest Rs. 15 million and there will be no incremental expected cash flows.
- The company's required rate of return for the project is 14%.

**Required:**

- (i) Calculate the net present value of the project. Is it acceptable to the company? 05
- (ii) What is the worth of the project if we consider the option to expand? Is the project acceptable with the option of expansion? 05

**THE END**

P R E S E N T V A L U E F A C T O R																
Year	5%	6%	7%	8%	9%	10%	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%
1	0.9524	0.9434	0.9346	0.9259	0.9174	0.9091	0.9009	0.8929	0.8850	0.8772	0.8696	0.8621	0.8547	0.8475	0.8403	0.8333
2	0.9070	0.8900	0.8734	0.8573	0.8417	0.8264	0.8116	0.7972	0.7831	0.7695	0.7561	0.7432	0.7305	0.7182	0.7062	0.6944
3	0.8638	0.8396	0.8163	0.7938	0.7722	0.7513	0.7312	0.7118	0.6931	0.6750	0.6575	0.6407	0.6244	0.6086	0.5934	0.5787
4	0.8227	0.7921	0.7629	0.7350	0.7084	0.6830	0.6587	0.6355	0.6133	0.5921	0.5718	0.5523	0.5337	0.5158	0.4987	0.4823
5	0.7835	0.7473	0.7130	0.6806	0.6499	0.6209	0.5935	0.5674	0.5428	0.5194	0.4972	0.4761	0.4561	0.4371	0.4190	0.4019
6	0.7462	0.7050	0.6663	0.6302	0.5963	0.5645	0.5346	0.5066	0.4803	0.4556	0.4323	0.4104	0.3898	0.3704	0.3521	0.3349
7	0.7107	0.6651	0.6227	0.5835	0.5470	0.5132	0.4817	0.4523	0.4251	0.3996	0.3759	0.3538	0.3332	0.3139	0.2959	0.2791
8	0.6768	0.6274	0.5820	0.5403	0.5019	0.4665	0.4339	0.4039	0.3762	0.3506	0.3269	0.3050	0.2848	0.2660	0.2487	0.2326
9	0.6446	0.5919	0.5439	0.5002	0.4604	0.4241	0.3909	0.3606	0.3329	0.3075	0.2843	0.2630	0.2434	0.2255	0.2090	0.1938
10	0.6139	0.5584	0.5083	0.4632	0.4224	0.3855	0.3522	0.3220	0.2946	0.2697	0.2472	0.2267	0.2080	0.1911	0.1756	0.1615

C U M U L A T I V E P R E S E N T V A L U E F A C T O R																
Year	5%	6%	7%	8%	9%	10%	11%	12%	13%	14%	15%	16%	17%	18%	19%	20%
1	0.9524	0.9434	0.9346	0.9259	0.9174	0.9091	0.9009	0.8929	0.8850	0.8772	0.8696	0.8621	0.8547	0.8475	0.8403	0.8333
2	1.8594	1.8334	1.8080	1.7833	1.7591	1.7355	1.7125	1.6901	1.6681	1.6467	1.6257	1.6052	1.5852	1.5656	1.5465	1.5278
3	2.7232	2.6730	2.6243	2.5771	2.5313	2.4869	2.4437	2.4018	2.3612	2.3216	2.2832	2.2459	2.2096	2.1743	2.1399	2.1065
4	3.5460	3.4651	3.3872	3.3121	3.2397	3.1699	3.1024	3.0373	2.9745	2.9137	2.8550	2.7982	2.7432	2.6901	2.6386	2.5887
5	4.3295	4.2124	4.1002	3.9927	3.8897	3.7908	3.6959	3.6048	3.5172	3.4331	3.3522	3.2743	3.1993	3.1272	3.0576	2.9906
6	5.0757	4.9173	4.7665	4.6229	4.4859	4.3553	4.2305	4.1114	3.9975	3.8887	3.7845	3.6847	3.5892	3.4976	3.4098	3.3255
7	5.7864	5.5824	5.3893	5.2064	5.0330	4.8684	4.7122	4.5638	4.4226	4.2883	4.1604	4.0386	3.9224	3.8115	3.7057	3.6046
8	6.4632	6.2098	5.9713	5.7466	5.5348	5.3349	5.1461	4.9676	4.7988	4.6389	4.4873	4.3436	4.2072	4.0776	3.9544	3.8372
9	7.1078	6.8017	6.5152	6.2469	5.9952	5.7590	5.5370	5.3282	5.1317	4.9464	4.7716	4.6065	4.4506	4.3030	4.1633	4.0310
10	7.7217	7.3601	7.0236	6.7101	6.4177	6.1446	5.8892	5.6502	5.4262	5.2161	5.0188	4.8332	4.6586	4.4941	4.3389	4.1925
10-25	6.9861	5.9817	5.1384	4.4279	3.8274	3.3180	2.8847	2.5149	2.1983	1.9265	1.6925	1.4906	1.3156	1.1639	1.0318	0.9166
25	14.0939	12.7834	11.6536	10.6748	9.8226	9.0770	8.4217	7.8431	7.3300	6.8729	6.4641	6.0971	5.7662	5.4669	5.1951	4.9476