INSTITUTE OF COST AND MANAGEMENT ACCOUNTANTS OF PAKISTAN

1st Comprehensive Examination

Sunday, The 12th August, 2007

Time Allowed – 2 Hours **Maximum Marks – 60**

(i) Attempt both the Cases 1 and 2 that carry 30 marks each.

(ii) Answers must be neat, relevant and brief.

(iii) In marking the question paper , the examiners take into account the clarity of exposition, logic of arguments, effective presentation, language and use of clear diagram or chart where appropriate.

(iv) Read the instructions printed on 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.

CASE # 1

Marks 30

The management of Bahadur Company is a manufacturing concern. It has been considering various options which included the following:

1. Whether to buy the products from a vendor, or
2. Make / manufacture these internally, or
3. Use some combination of make and buy.

The concept "make or buy analysis" involves special studies for the evaluation of alternatives involving the manufacture or purchase of products and parts.

The current situation is that the above enterprise has two departments and each operates normally 40 hours per week. Department 1 has 15 machines with a normal operating time of 600 (15x40 = 600) machine hours per week and Department 2 has 8 machines or 320 (8x40 = 320) machine hours per week. The present demand for Product A is 5,000 units and for Product B is 4,000 units. Based on collected statistics the required usage co-efficient (machines hours required for each unit of output) are as under:

Product	Machine Hours per Unit	
	Department-1	Department-2
A	0.1	0.2
B	0.3	0.2

The enterprise has one clear object namely, to produce and purchase in a manner enabling it to meet the demand at the least cost. There is a Cost Accounting section in the enterprise. This section has prepared the following cost estimates:

A: Variable cost per machine hour:

Department	Regular Time	Overtime
1	Rs. 600	Rs. 900
2	Rs. 720	Rs. 1,080

B: Raw materials costs:

Product	Cost
A	Rs. 600 per unit
B	Rs. 300 per unit

A vendor offers to supply **Product A** at Rs. 1,080 and **Product B** at Rs 720 per unit respectively.

The management indicates several decision alternatives. These included the following:

1. Varying quantities of Products A and B can be manufactured. If this is followed this will constitute two decision variables.

2. Varying hours of overtime can be used in the two departments. This requires two additional variables.

3. Varying quantities of Products A and B can be purchased from the vendor; hence two additional decision variables.

   The basic objective of the management is to minimize the cost.

Required:

The management wishes to be educated for an answer based on Cost Accounting approach indicating all available alternatives. You are required to help the management out in making optimal decision.

CASE # 2

Marks
30

A public limited company is considering acquisition of a new plant that costs Rs 20,000,000. The plant has useful life of five (5) years. It has a salvage value of Rs. 5,000,000 and it will increase the production by 20,000 units. The finished product of the company sells for Rs. 400 per unit. The production & operating costs excluding depreciation are Rs. 100 per unit. The plant will be depreciated using declining balance method. However, additional depreciation of 25% will be allowed in the first year. The incremental tax rate of the company is 30%. The plant will be financed as under:

Sources of Financing	**(Amount)**
• Ordinary Shares	Rs. 8,000,000
• Preference Shares	Rs. 6,000,000
• 15% Term Loan	Rs. 6,000,000
Total Finance	**Rs. 20,000,000**

An average market rate of return on equity is 14%, while preference shares yield is16%.

Required:

(i) On the basis of available information, analyse if the company should invest in the plant. You may use present value approach in taking your decision. A risk cushion of 2.45% may be added over and above the Weighted Average Cost of Capital.

(ii) Write a report for the Managing Director advising the actual rate of return on the plant.

END