## INSTITUTE OF COST AND MANAGEMENT ACCOUNTANTS OF PAKISTAN

### 17th Comprehensive Examination

**Saturday, the 6th August 2011**

**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 calculator of any model is allowed.*
*(v) DO NOT write your Name, Reg. No. or Roll No. anywhere inside the answer script.*
*(vi) Multiple Choice Questions (MCQs) printed separately, is an integral part of this question paper.*
*(vii) Question paper must be returned to the invigilator before leaving the examination hall.*

## CASE # 1

**Marks**

A small manufacturing company is considering to launch a new product at a selling price of Rs.100 per unit. Sales of the product are expected to be 5,000 units per month, but it is possible that the actual sales could differ quite significantly from this estimate.

Two different methods of manufacturing the product are being considered which would not involve any additional capital expenditure. The estimated production costs for each of the two methods of manufacturing together with additional marketing and distribution costs for selling the product, are summarized below:

| | Method A | Method B |
|---|---|---|
| Variable costs (Rs./ per unit) | 55 | 50 |
| Specific fixed costs (Rs./ per month) | 80,000 | 120,000 |
| The following estimates have been made for semi-variable costs: | Rs./ month | Rs./ month |
| 3,500 units | 55,000 | 47,500 |
| 4,500 units | 65,000 | 52,500 |
| 6,500 units | 85,000 | 62,500 |
| The fixed cost content of the semi-variable costs will remain constant throughout the level of activity shown. | | |

The company currently sells a product having similar features to those who will also be the customers of new product and consequently it is anticipated that sales of this existing product will be adversely affected. It is estimated that for every ten units sold of the new product, sales of the existing product will be reduced by one unit.

Sales and cost data of the existing product are shown below:

| | |
|---|---|
| Sales (units/ month) | 2,200 |
| Selling price (Rs./ unit) | 85 |
| Variable costs (Rs./ unit) | 35 |
| Specific fixed costs (Rs./ month) | 80,000 |

**Required:**

**(a)** Calculate, for each production method, the net increase in total profit of the company which will result from the introduction of the new product, at each of the following levels of activity:

(i) 5,000 units per month, (ii) 4,000 units per month, (iii) 6,000 units per month 22

**(b)** Calculate, for each production method, the amount by which sales volume of the new product could decline from the anticipated 5,000 units per month, before the company makes no additional profit from the introduction of the new product. 06

**(c)** Briefly provide conclusions which may be drawn from your calculations/ analysis. 02

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## CASE # 2

Marks

Dier Limited manufactures a variety of products using a standardised process, which is completed in one month. Each production batch is started at the beginning of a month and is transferred to finished goods at the beginning of the following month. The cost structure, based on current selling price is hereunder:

| Particulars | Percentage (%) |
|---|---|
| Sales price | 100 |
| Variable costs: | |
| − Raw materials | 30 |
| − Other variable costs | 40 |
| Total variable costs – used for stock valuation | 70 |
| Contribution margin | 30 |

Activity levels are constant throughout the year and annual sales are Rs.2,400,000 all of which are made on credit.

Dier Limited is now planning to increase sales volume by 50% and unit sales price by 10%. This increase would not alter the fixed costs of Rs.50,000 per month, which includes monthly depreciation of plant amounting to Rs.10,000. Similarly, raw material and other variable costs per unit will not change as a result of the price rise.

In order to facilitate the planned increases, several changes would be required in the long-run as given below:

- (i) The average credit period allowed to customers will increase to 70 days.
- (ii) Suppliers will continue to be paid strictly on monthly terms.
- (iii) Raw material stocks held will continue to be sufficient for one month's production.
- (iv) Stocks of finished goods held will increase to one month's output.
- (v) There will be no change in the production period and other variable costs will continue to be paid for in the month of production.
- (vi) The current end-of-month working capital position is given below:

| | | | (Rs. '000') |
|---|---|---|---|
| Raw material | 60 | | |
| Work-in-process | 140 | | |
| Finished goods | 70 | 270 | |
| Debtors | | 200 | 470 |
| Creditors | | | 60 |
| Net working capital – excluding cash | | | 410 |

The relevant points concerning the transitional arrangements are:

- (i) The cash balance anticipated at the end of May is Rs.80,000.
- (ii) Upto and including June all sales will be made on one month's credit. From July all sales will be on the transitional credit terms which mean: 60% of sales will take two (2) months credit and 40% of sales will take three (3) month's credit.
- (iii) Sales price increase will occur with effect from sales in the month of August.
- (iv) Production will increase by 50% with effect from the month of July. Raw material purchases made in June will reflect this.
- (v) Sales volume will increase by 50% from sales made in October.

**Required:**

**(a)** Calculate the long-term increase in annual profit and long-term working capital requirement as a result of the plans for expansion and a price increase. (Costs of financing the extra working capital requirements may be ignored). 19

**(b)** Prepare monthly cash forecast from June to December, the first seven months of the transitional period. Show closing balance at the end of each month. 07

**(c)** Using your findings in (a) and (b) above, make brief comments to the management of Dier Limited on the major factors concerning the financial aspects of the expansion which should be brought to their attention. (Assume 360 days in a year and 30 days in each month). 04

**THE END**