

**23<sup>RD</sup> COMPREHENSIVE EXAMINATION – NOVEMBER 2012**

Marks

**CASE # 1****(a) Advantages to ABC Company:**

Continuing to obtain covers from its own Peshawar Plant would allow ABC Company to maintain its current level of **control over the quality** of the covers and the timing of their delivery. Keeping the Peshawar Plant open also allows ABC Company **more flexibility than purchasing the coverings** from outside suppliers. 2

ABC Company could more easily **alter the coverings' design** and change the quantities produced, especially if long-term contracts are required with outside suppliers. ABC Company should also consider the **economic impact that closing Peshawar Plant will have on the community** and how this might affect ABC Company's other operations in the region. 2

**(b) Financial Analysis in Deciding whether or not to Close the Peshawar Plant:**

(i) The following costs can be avoided by closing the plant, and therefore, are relevant to the decision:

	Rs.	
Materials	16,000,000	½
Labour:		
Direct	13,400,000	½
Supervision	800,000	½
Indirect plant	3,800,000	½
	18,000,000	
Differential pension expense (Rs. 3,200,000 – Rs. 1,400,000)	1,800,000	2
<b>Total annual relevant costs</b>	<b>35,800,000</b>	<b>1</b>

(ii) The following costs cannot be avoided by closing the plant, and therefore, are not relevant to the decision:

	Rs.	
Depreciation – equipment	2,600,000	½
Depreciation – building	4,200,000	½
Continuing pension cost	1,400,000	1
Plant manger and staff	1,200,000	½
Corporate allocation	3,400,000	½
<b>Total annual continuing costs</b>	<b>12,800,000</b>	<b>1</b>

The amounts for depreciation are not relevant to the decision because they are **sunk costs**. Moreover, whether the plant is closed or continues to operate, all of the remaining book value of the equipment and buildings will eventually be written off. 2

A total of Rs.1,400,000 of the annual pension expense is not relevant because it would continue whether or not the plant is closed. 1

The amount for plant manager and staff is not relevant because the manager and his staff would continue with ABC Company and administer the three remaining plants. 1

The corporate allocation is not relevant because it represents **allocated fixed costs** incurred **outside the Peshawar Plant** that presumably would not change if the plant were closed. 1

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- (iii) The following nonrecurring costs would arise in the year that the plant is closed, but would not be incurred in any other year:

	Rs.	
Termination charges on cancelled material orders (Rs. 16,000,000 x 25%)	4,000,000	1
Employment assistance	1,600,000	1
<b>Total nonrecurring costs</b>	<b>5,600,000</b>	<b>1</b>

These two costs are relevant to the decision because they will be incurred only if the plant is closed. The Rs. 4,000,000 salvage value of the equipment and buildings offsets these costs. 1

**(c) Decision to Close the Plant or Not:**

No, the plant should not be closed keeping in view the following computations:

	Rs.		
	First Year	Other Years	
Cost of purchasing the covers outside	(42,000,000)	(42,000,000)	1
Annual costs avoided by closing the part {from (b) (i)}	35,800,000	35,800,000	1
Cost of closing the plant (first year nonrecurring costs)	(5,600,000)		1
Salvage value of buildings and equipment	4,000,000		1
<b>Net advantage (disadvantage) of closing the plant</b>	<b>(7,800,000)</b>	<b>(6,200,000)</b>	<b>1</b>

**(d) Problem that ABC Company should Consider Before Making a Decision:**

Factors that should be considered by ABC Company before making a decision include:

- Alternative uses of the building and equipment.
- Any tax implications.
- The outside supplier's prices in future years.
- The cost to manufacture coverings at the Peshawar Plant in future years.
- The value of the time, manager and his staff would have spent managing the Peshawar Plant.
- The morale of ABC Company employees at other plants.

Six (6) points @ ½ mark = 3

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**CASE # 2****Income Statement  
for the year ended June 30, 2012**

	Rs.	
Sales	1,000,000	
Less: Variable costs	600,000	
Contribution margin	400,000	1
Less: Fixed costs (excluding interest)	180,000	
Earnings before interest and taxes	220,000	1
Less: Interest	120,000	
Earnings before tax	100,000	1
Less: Tax	—	
Profit after tax	100,000	1

**Balance Sheet  
as on June 30, 2012**

	Rs.	
<b>Assets:</b>		
<b>Current Assets:</b>		
Stock	200,000	
Debtors	83,333	
Others	16,667	300,000
Fixed assets	833,333	
Other assets (balancing figure)	366,667	
	1,500,000	2
<b>Equities:</b>		
Current liabilities	100,000	
Long-term liabilities	1,000,000	
Shares capital	400,000	
	1,500,000	2

**Workings:**

(1) Given net working capital	=	Rs.200,000	
Current Assets (CA) – Current Liabilities (CL)	=	Rs.200,000	
CA	=	Rs.200,000 + CL	1
Current ratio	=	3 (given)	
$\frac{\text{Rs. 200,000} + \text{CL}}{\text{CL}}$	=	3	1
CL	=	<b>Rs. 100,000</b>	1
CA	=	<b>Rs. 300,000</b>	1

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(2) Current Assets to stock 3 : 2 (given)			
Stock	=	$\text{Rs. } 300,000 \times \frac{2}{3}$	= <b>Rs. 200,000</b> 1
(3) Stock Turnover Ratio	=	5 (given)	
Turnover	=	5 x Rs. 200,000	= <b>Rs. 1,000,000</b> 1
(4) Variable cost	=	60% of sales	= <b>Rs. 600,000</b> 1
(5) Contribution	=	40% of sales	= <b>Rs. 400,000</b> 1
(6) Net Profit {Earnings before tax (EBT)}	=	10% of sales	= <b>Rs. 100,000</b> 1
(7) Financial Leverage	=	2.2 (given)	
$\frac{\text{Earnings before interest and taxes (EBIT)}}{\text{Earnings before tax (EBT)}}$	=	2.2	
EBIT	=	100,000 x 2.2	= <b>Rs. 220,000</b> 1
(8) Interest on Long-Term Loan	=	Rs. 220,000 – Rs. 100,000	= <b>Rs. 120,000</b> 1
(9) Long-Term Loan	=	$\frac{\text{Rs. } 120,000}{0.12}$	= <b>Rs. 1,000,000</b> 1
(10) Total Liabilities to Net Worth	=	2.75 (given)	
Total Liabilities	=	Long-term loan + current liabilities	
	=	Rs. 1,000,000 + Rs. 100,000	= <b>Rs. 1,100,000</b> 1
Net Worth	=	$\frac{\text{Rs. } 1,100,000}{2.75}$	= <b>Rs. 400,000</b> 1
(11) Fixed Assets Turnover Ratio	=	1.2 (given)	
$\frac{\text{Sales}}{\text{Fixed Assets}}$	=	$\frac{1,000,000}{1.2}$	
Fixed Assets	=		= <b>Rs. 833,333</b> 1
(12) Other Current Assets (Difference)	=	Rs.300,000 - Rs.200,000 - Rs.83,333	= <b>Rs. 16,667</b> 1
(13) Average Collection Period	=	30 days (given)	
Debtors	=	$\frac{\text{Rs. } 1,000,000}{12}$	= <b>Rs. 83,333</b> 1
(14) Fixed Cost (excluding interest)	=	Contribution – EBIT	
	=	Rs. 400,000 – Rs. 220,000	= <b>Rs. 180,000</b> 1
(15) Number of Shares:			
Book value per share	=	Rs. 40 (given)	
Net Worth	=	Rs. 400,000	
Number of Shares	=	$\frac{\text{Rs. } 400,000}{\text{Rs. } 40}$	= <b>10,000</b> 2

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Earnings per share = Rs. 10 (given)

$$\frac{\text{Profit after tax}}{\text{Number of shares}} = \text{Rs. 10}$$

$$\text{Number of Shares} = \frac{\text{Rs. 100,000}}{\text{Rs. 10}} = \mathbf{10,000} \quad 1$$

**(16)** The difference in the balance sheet, prepared on the basis of available information, is shown as other assets. 1

- Note:** (i) The cost of goods sold figure may not be available to an outside analyst from the published annual accounts. Therefore, inventory turnover may be calculated as sales divided by the inventory (average or year-end).
- (ii) Examinees who calculated the figures on the basis of inventory turnover as cost of sale divided by inventory are also awarded marks as per marking plan.

**THE END**