

PGDM 2016-18
Managerial Accounting
DM 205

Trimester – II End-Term Examination, December 2016

Time allowed: 2 hrs 30 min

Max Marks: 50

Roll No: _____

Instruction: Students are required to write Roll No on every page of the question paper, writing anything except the Roll No will be treated as **Unfair Means**. In case of rough work please use answer sheet.

Make assumptions wherever necessary and write them down at the end of solution.

Section A: Attempt 3 out of 5 questions; each question is of 5 marks

A1: The Bestest Industries Ltd has two divisions, A and B. Division A manufactures product X which it sells in outside market as well as to division B which processes it to manufacture Z. The manager of division B has expressed the opinion that the transfer price is too high. The two divisional managers are about to enter into discussions to resolve the conflict, and the manager of division to supply him with some information prior to the discussions. Division A has been selling 40,000 units to outsiders and 10,000 units to division B, all at Rs.20 per unit. It is not anticipated that these demand will change. The variable cost is Rs.12 per unit and the fixed costs are Rs.2 lakh.

The manager of division A anticipates that division B will want a transfer price of Rs. 18. If he does not sell to division B Rs.30,000 of fixed costs and Rs.1,75,000 of assets can be avoided out of Rs. 8,00,000 assets division currently has.

The manager of division A would have no control over the proceeds from the sale of the assets and is judged primarily on his rate of return.

- (i) Should the manager of division A transfer its products at Rs. 18 to division B?
(ii) What is the lowest price that the division A should accept? Support your decision.

A2: A factory is currently working at 50% capacity and produces 5,000 units at a cost of Rs.90 per unit as per details given below:

Materials	Rs.50
Labour	Rs.15
Factory Overhead	Rs.15 (Rs.6 fixed)
Administration Overhead	Rs.10 (Rs.5 fixed)
The current selling price	Rs.100 per unit.

At 60% working, material cost per unit increases by 2% and selling price per unit falls by 2%.
At 80% working, material cost per unit increases by 5% and selling price per unit falls by 5%.
Calculate the current profit at 50% working. Estimate profits of the factory at 60% and 80% working. Which capacity of production would you recommend?

A3: Jay Ltd. manufactures product A to the extent of 70% of total sales revenue and product B to the extent of 30% of the sales revenue. The variable cost of product A is 60% of its selling price and product B is 80% of its selling price. If the total fixed cost of the company is Rs.3, 06,000, calculate the break-even point of the company.

A4. Consider the ticket you have to a major football game in January 2017. After getting the ticket, you learn that the game will be on TV, and you really prefer to watch the game in the comfort of your warm home. Does your decision about attending the game or watching it on TV depend on whether you were given the ticket for free or you have paid 8000 Rs for it? What does this tell you about a manager's decision to replace a piece of equipment?

A5. "Accountants in every organizations should measure and report on every function in organization's value chain." Do you agree? Explain

Section B: Attempt 2 out of 3 questions; each question is of 10 marks

B1: Asahi USA, Inc., based in Denver, Colorado, is a subsidiary of a Japanese company manufacturing specialty tools. Asahi USA employs a standard cost system. Following are the standards per unit of one of its products, tool KJ79. This tool requires a special chrome steel as a direct material.

	Standard Quantity	Standard Price	Standard Cost
Direct materials	8 pounds	\$18 per pound	\$144
Direct labor	2.5 hours	\$8 per hour	20
			\$164

During November, Asahi USA started and completed job KJX86 to manufacture 1,900 units of tool KJ79. It purchased and used 14,250 pounds of the special chrome steel for tool KJ79 at a total cost of \$270,750. The total direct labor charged to job KJX86 was \$37,800. Job KJX86 required 5,000 direct labor hours.

Required

(a) For job KJX86, compute the following and indicate whether the variances are favorable or unfavorable:

- (1) Direct material price variance
- (2) Direct material quantity variance
- (3) Direct labor rate variance
- (4) Direct labor efficiency variance.

(b) Provide a plausible explanation for the variances.

B2. It is now January 1 2007. You are the general manager of Amelia Software Ltd. Today, you must decide when to release the new version of your company's flagship spreadsheet package, Easy-Speedy2. Development of Easy-Speedy2 is completed. The product can be shipped starting February 1 2007.

The key problem is that your company has overstocked the previous version of its spreadsheet package, EasySpeedy1. You know that once EasySpeedy2 is introduced, your company will not be able to sell any more units of EasySpeedy1. Rather than just throwing away the inventory of EasySpeedy1, you are wondering if it might be better to continue to sell EasySpeedy1 for the next three months and introduces EasySpeedy2 on April 1 2007, when the inventory of EasySpeedy1 will be sold out.

The following information is available:

	EasySpeedy1	EasySpeedy2
Selling price	£150	£185
Variable cost per unit	£20	£25
Development cost per unit	£65	£95
Marketing and administration cost per unit	£35	£40
Operating profit per unit	£30	£25

Note:

(1)	Development cost per unit for each product equals the total costs of developing the software product divided by the anticipated unit sales over the life of the product.
(2)	Marketing and administrative costs are fixed costs in 2007, incurred to support all marketing and administrative activities of the company. The costs are allocated to products on the basis of the budgeted revenues of each product.
(3)	The preceding unit costs assume EasySpeedy2 will be introduced in April 2007.

Required:

- (i) On the basis of financial considerations alone, should you introduce EasySpeedy2 on January 1 2007, or wait till April 1 2007? Show your calculations supporting your decisions.
- (ii) What other factors might you consider in making a decision?

B3: Based on the following information prepare a Cash Budget for ABC Ltd.:

	1st quarter	2nd quarter	3rd quarter	4th quarter
Opening cash balance	10,000	—	—	—
Collection from customers	1,25,000	1,50,000	1,60,000	2,21,000
Payments				
Purchase of materials	20,000	35,000	5,000	54,200
Other expenses	25,000	20,000	20,000	17,000
Salary and wages	90,000	95,000	95,000	1,09,200
Income tax	5,000	—	—	—
Purchase of machinery	—	—	—	20,000*

The company desires to maintain a cash balance of Rs. 15,000 at the end of each quarter. Cash can be borrowed or repaid in multiples of Rs. 500 at an interest of 10% per annum. Management does not want to borrow cash more than what is necessary and wants to repay as early as possible. In any event, loans cannot be extended beyond four quarters. Interest is computed and paid when the principal is repaid.

Assume that borrowing take place at the beginning and payments are made at the end of the quarters.

Section C: Compulsory Case Study 15 Marks

ABC Limited manufactures two radio models, the Nova which has been produced for five years and sells for Rs.900, and the Royal, a new model introduced in early 2012, which sells for Rs.1,140. Based on the following Income statement for the year 2012-13, a decision has been made to concentrate ABC Limited's marketing resources on the Royal model and to begin to phase out the Nova model.

ABC Limited Income Statement for the year ended March 31, 2013

	Royal Model	Nova Model	Total
Sales	45,60,000	1,98,00,000	2,43,60,000
Cost of Goods sold	31,92,000	1,25,40,000	1,57,32,000
Gross margin	13,68,000	72,60,000	86,28,000
Selling & Administrative Expenses	9,78,000	58,30,000	68,08,000
Net Income	3,90,000	14,30,000	18,20,000
Unit Produced and sold	4,000	22,000	
Net Income per unit sold	97.50	65	

The standard unit costs for the Royal and Nova models are as follows:

	Royal Model	Nova Model
Direct materials	584	208
Direct Labour		
Royal (3.5 hrs x Rs. 12)	42	
Nova (1.5 hrs x Rs. 12)		18
Machine usage		
Royal (4 hrs x Rs. 18)	72	
Nova (8 hrs x Rs. 18)		144
Manufacturing overheads (applied on the basis of machine hours at a pre-determined rate of Rs. 25 per hour)	100	200
Standard Cost	798	570

ABC Ltd.'s Controller is advocating the use of activity-based costing and activity-based cost management and has gathered the following information about the company's manufacturing overheads cost for the year ended March 31, 2013.

Activity centre (Cost driver)	Traceable Costs (Rs.)	Number of Events		
		Royal	Nova	Total
Soldering (Number of solder joints)	9,42,000	3,85,000	11,85,000	15,70,000
Shipments (Number of shipments)	8,60,000	3,800	16,200	20,000
Quality control (Number of Shipments)	12,40,000	21,300	56,200	77,500
Purchase orders (Number of orders)	9,50,400	1,09,980	80,100	1,90,080
Machine Power (Machine hours)	57,600	16,000	1,76,000	1,92,000
Machine setups (Number of setups)	7,50,000	14,000	16,000	30,000
Total Traceable costs	48,00,000			

Required:

- (i) Prepare a Statement showing allocation of manufacturing overheads using the principles of activity-based costing.
- (ii) Prepare a Statement showing product cost profitability using activity-based costing.
- (iii) Should ABC Ltd. continue to emphasize the Royal model and phase out the Nova model? Discuss. (6+6+3 = 15Marks)