THE INSTITTUTE OF CERTIFIED PUBLIC ACCOUNTANTS OF PAKISTAN (ICPAP)

Stage	**Professional**	Course Code	**P-503**
Examination	**Summer-2011**	Course Name	**Advanced Management Accounting**
Time Allowed	**03 Hours**	Maximum Marks	**100**

NOTES:

1. All questions are to be attempted.
2. Answers are expected to the precise, to the point and well written.
3. Neatness and style will be taken into account in marking the papers.

Question No 1

Aamin (Private) Limited (APL) is engaged in manufacturing of spare parts. In May 2010, the utilized production capacity of the company was 60%. The management has received an order to produce 100,000 units of product M, which will utilize 20% of the production capacity for a period of 6 months.

All the materials are added at the beginning of the process. Labour and overheads are distributed evenly throughout the process. Inspection is conducted when the product is 60% complete. Normal loss is equal to 5% of the units produced.

The following information is also available:

(i) **Materials**

Each unit of product M requires 1 kg of material A and 2 kg of material B. Material A is available in the market at a cost of Rs. 250 per kg. Alternatively, another material C can be used, which is produced in-house at a variable cost of Rs. 220 and is sold at a selling price of Rs. 260 per kg. C has unlimited demand. 300,000 kgs of Material B is available in stock at a cost of Rs. 50 per kg. 60% of the available stock is required for use in the current production. The current market price of material B is Rs. 70 per kg. However, the present stock available with HAPL can only be sold for Rs. 60 per kg.

(ii) **Labour**

Each worker will take 6 hours per unit for initial 50 units. Thereafter the average time would be reduced to 5 hours per unit. Each worker would be hired on six months contract at the rate of Rs. 60 per hour with 200 working hours per month.

(iii) **Variable overheads**

These are estimated at Rs. 8 per labour hour.

(iv) **Fixed overheads**

These are estimated at Rs. 45 million per annum at 100% capacity. Some of the facilities can be relieved, if the company does not want to work at more than 70% capacity. As a result of relieving these facilities, the annual fixed costs would reduce to Rs. 33.75 million. If the excess production capacity is used to produce material C, the company can earn a contribution margin of Rs. 200,000 per month for each 10% capacity utilization.

Required:
Compute the manufacturing cost of product M using the relevant cost approach.

(20 Marks)

Question No 2

Shahid Limited is engaged in manufacturing and sale of footwear. The company sells its products through company operated retail outlets as well as through distributors. The management is in the process of preparing the budget for the year 2010-11 on the basis of following information:

(i) The marketing director has provided the following annual sales projections:

	No. of units	Retail price range
Men	1,200,000	Rs. 1,000 – 4,000
Women	500,000	Rs. 800 – 2,500

The previous pattern of sales indicates that 60% of units are sold at the minimum price; 10% units are sold at the maximum price and remaining 30% at a price of Rs. 2,000 and Rs. 1,200 per footwear for men and women respectively.

(ii) It has been estimated that 30% of the units would be sold through distributors who are offered 20% commission on retail price. The remaining 70% will be sold through company operated retail outlets.

(iii) The company operates 22 outlets all over the country. The fixed costs per outlet are Rs. 1.2 million per month and include rent, electricity, maintenance, salaries etc.

(iv) Sales through company outlets include sales of cut size footwears which are sold at 40% below the normal retail price and represent 5% of the total sales of the retail outlets.

(v) The company keeps a profit margin of 120% on variable cost (excluding distributors' commission) while calculating the retail price.

(vi) Fixed costs of the factory and head office are Rs. 45 million and Rs. 15 million per month respectively.

Required:
Prepare budgeted profit and loss account for the year 2010 – 2011. (20 Marks)

Question No 3

Buraq Motors manufactures two types of cars i.e. X and Y. The production of each type of car involves two departments. Details of production time are as follows:

	Production hours per unit Departments	
Car type	**Assembly**	**Finishing**
X	120	80
Y	80	50

Contribution margin per unit of X is Rs. 150,000 and per unit of Y is Rs. 100,000. Total capacity of assembly and finishing departments is 18,200 and 12,000 hours per month respectively.

Required:

Calculate the shadow price per hour of capacity if 200 hours are added to the capacity of assembly department, assuming that the capacity of finishing department is not altered.

(20 Marks)

Question No 4

During the year ending June 30, 2011 Abdul Habib Company Limited has planned to launch a new product which is expected to generate a profit of Rs. 9.3 million as shown below:

	Rs. in '000'
Sales revenue (24,000 units)	51,600
Less: cost of goods sold	37,500
Gross profit	14,100
Less: operating expenses	4,800
Net profit before tax	9,300

The following additional information is available:

(i) 75% of the units would be sold on 30 days credit. Credit prices would be 10% higher than the cash price. It is estimated that 70% of the customers will settle their account within the credit term while rest of the customers would pay within 60 days. Bad debts have been estimated @ 2% of credit sales. All cash and credit receipts are subject to withholding tax @ 6%.

(ii) 80% of the expenses forming part of cost of goods sold are variable. These are to be paid one month in arrears.

(iii) The production will require additional machinery which will be purchased on July 1, 2010 at a cost of Rs. 60 million. The machine is expected to have a useful life of 15 years and salvage value of Rs. 7.5 million. The company has a policy to charge depreciation on straight line basis. The depreciation on the machinery is included in the cost of goods sold as shown above.

(iv) Variable operating expenses excluding bad debts are Rs. 105 per unit. These are to be paid in the same month in which the sale is made.

(v) 50% of the fixed costs would be paid immediately when incurred while the remaining 50% would be paid 15 days in arrears.

(vi) The management has decided to maintain finished goods stock of 1,000 units.

Required:
Calculate the cash requirements for the first two quarters. (20 Marks)

Question No 5

Emmad Limited has two factories, one at Lahore and the other at Faisalabad. The factory at Faisalabad produces product AMY whereas BNZ is produced at Lahore. The demand of these products is quite elastic.

BNZ uses XPY as an input which is available in the market at Rs. 725 per unit. AMY can also be used as an alternate of XPY.

The data in respect of revenue and costs at various levels of output is as follows:

	Faisalabad		Lahore	
	Revenue	**Total Cost**	**Revenue**	**Cost excluding XPY**
Output (No. of units)				
	------------------------------Rupees------------------------------			
1,500	1,275,000	870,000	1,800,000	535,000
3,000	2,475,000	1,680,000	3,480,000	985,000
3,500	2,800,000	1,950,000	3,920,000	1,135,000
4,000	3,100,000	2,220,000	4,320,000	1,285,000
5,000	3,500,000	2,760,000	5,150,000	1,585,000

Maximum production capacity of each factory is 5,000 units.

Required:
(a) Determine how the company can maximize its profit. (8 Marks)

(b) If the company decides to use product AMY internally, what would be the minimum price acceptable to Faisalabad factory and the maximum price which the Lahore factory may agree to pay? (12 Marks)

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