Advanced Cost Accounting

2009 April

Commerce Accountancy MCom

Part 1

University of Mumbai

Con. 133-09.

M. com I

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Advance Cost Accounting (3 Hours) [Total Marks : 100

Accountancy Paper II

N.B. (1) Question No. 1 is **compulsory**. Attempt any **four** questions from the **remaining**.
(2) **All** questions carry **20** marks **each** and sub-questions carry **equal** marks unless specified to the contrary.
(3) Workings to form part of the solutions and **necessary** assumptions to be made and **stated clearly**.

1. A transport company supplies the following details in respect of a truck of 5 tonne capacity which carries goods to and from the city covering a distance of 50 kms. each way.

	Rs.
Cost of truck	1,80,000
Diesel, oil, grease (per trip each way)	30
Repairs and maintenance (per month)	1,500
Driver's (monthly) wages	1,500
Cleaner-cum-attendant's wages (monthly)	750
Insurance (per year)	9,000
Road licence (per year)	3,000
General Supervision charges (per year)	6,000
Estimated life (years)	10

While going to the city, freight is available for a full load of the truck and on its return journey it can fetch freight only up to 20 per cent of its capacity.
On the assumption that the truck runs on an average 25 days a month, you are required to determine the following :
(i) Operating cost per tonne-km.
(ii) Rate per tonne per trip that the company should charge if profit of 50 per cent on cost is to be earned, and
(iii) What freight should the Company charge if one wants to engage the truck for one day for a trip to the city and back ?

2. Following relevant data of a firm is given :

Particulars	Activity Levels (tons)			
	50,000 tons	60,000 tons	70,000 tons	80,000 tons
Variable Cost (Rs. in thousands)	5,000	6,000	7,000	8,000
Semi-variable Cost (Rs. in thousands)	1,500	1,600	1,650	1,700
Fixed Cost (Rs. in thousands)	2,500	2,500	3,000	3,000
Total Cost (Rs. in thousands)	9,000	10,100	11,650	12,700

The fixed costs follow step-graph pattern as is clear from the above and the semi-variable costs change at uniform rate between the above given activity levels. Given that the firm operates at 55,000 tons level at present,
(1) Calculate the additional/incremental costs if it manufactures additional (a) 10,000 tons (b) 15,000 tons and
(2) Advise whether the firm should accept 'any **one**' of the following additional (special) export market offers and if Yes, 'which one' should it accept ;
(i) for 10,000 tons at a selling price of Rs. 125/- per ton
(ii) for 15,000 tons at a selling price of Rs. 150/- per ton.

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3. A manufacturing company uses the following standard mix of their compound in one batch of 100 kgs. of its production line :

   50 kgs of material X at the standard price of Rs. 2.
   30 kgs of material Y at the standard price of Rs. 3.
   20 kgs of material Z at the standard price of Rs. 4.
   The actual mix for a batch of 120 kgs was as follows :
   60 kgs of material X at the price of Rs. 3.
   40 kgs of material Y at the price of Rs. 2·5.
   10 kgs of material Z at the price of Rs. 3.

   Calculate the different material variances.

4. The following data relate to Process Q :
   (i) Opening work-in-process 4,000 units costing Rs. 45,600
   Degree of completion :

Materials	100%	Rs. 24,000
Labour	60%	Rs. 14,400
Overheads	60%	Rs. 7,200

   (ii) Received during the month of April, 2007 from Process P 40,000 units at Rs. 1,71,000
   (iii) Expenses incurred in Process Q during the month :

Materials	Rs. 79,000
Labour	Rs. 1,38,230
Overheads	Rs. 69,120

   (iv) Closing work-in-process
   Degree of Completion :

Materials	100%
Labour and Overheads	50%
	4,000 units

   (v) Units scrapped
   Degree of completion :

Materials	100%
Labour and overheads	80%

   (vi) Normal loss : 5% of current input
   (vii) Spoiled goods realised Rs. 1·50 per unit
   (viii) Completed 36,000 units are transferred to warehouse.

   Required : Prepare (By FIFO Method)
   (i) Statement of equivalent units
   (ii) Statement of cost per equivalent unit and total costs
   (iii) Process Q Account.

5. Rex Enterprises operates an integral system of accounting. You are required to pass the Journal Entries for the following transactions that took place for the year ended 30th June, 2007. :

	Rs.
Raw materials purchased (50% on credit)	6,00,000
Materials issued to production	4,00,000
Wages paid to workers	2,00,000
Factory overheads incurred	80,000
Factory overheads charged to production	1,00,000
Selling and distribution overheads incurred	40,000
Finished goods at cost	5,00,000
Sales (50% credit)	7,50,000

6. The following information relates to the productive activities of Delta Ltd. for 3 month ending on 31st March 2008 : (3)

Particulars	
Variable Expenses : (at 50% capacity)	**Rs.**
—Materials	6,00,000
—Labour	6,40,000
—Salesmen's Commission	95,000
	13,35,000
Semi-variable Expenses : (at 50% capacity)	
—Plant maintenance	62,500
—Indirect Labour	2,47,500
—Salesmen's salaries	72,500
—Sundry	65,000
	4,47,500
Fixed Expenses :	
—Management Salaries	2,10,000
—Rent and Taxes	1,40,000
—Depreciation of Machinery	1,75,000
—Sundry Office Expenses	2,22,500
	7,47,500

It is further noted that semi-variable expenses remain constant between 40% and 70% capacity, increase by 10% of the above figures between 70% and 85% capacity and increase by 15% of the above figures between 85% and 100% capacity.
Fixed expenses remain constant whatever the level of activity may be. Sales at 60% capacity are Rs. 25,50,000, at 80% capacity are Rs. 34,00,000 and at 100% capacity are Rs. 42,50,000.
Assuming that all items produced are sold, you are required to prepare a flexible budget at 60%, 80% and 100% capacity.

7. (a) Ambar construction Ltd., undertook a contract for Rs. 20,00,000 on 1st April, 2007. On 31st March, 2008, when the accounts were closed, following details were available :

Particulars	Rs.
Materials purchased	4,00,000
Work certified	8,00,000
Materials on hand on 31st March, 2008	1,00,000
Machinery purchased	2,00,000
Cash received	6,00,000
Wages paid	1,80,000
Work uncertified	60,000
General expenses	40,000
Wages accrued	20,000

Depreciation on machinery is to be charged @ 10% per annum. However the contract contains an escalation clause as under :
"In the event of price of materials and rate of wages increase by more than 5%, then the contract price will be increased accordingly by 40% of the rise in the cost of materials and wages beyond 5% in each case".
It is found that after signing the agreement the price of materials and wage rate increased by 25% each. The value of the work certified does not take into account the effect of the above clause. Prepare the contract account giving the effect of the above escalation.

(b) You are given the following information for the next year :

Particulars	Rs.
Sales (10,000 units)	1,20,000
Variable Cost (10,000 units)	48,000
Fixed Cost	60,000

(1) Find out the P.V. ratio and Break-even Point.

(2) Evaluate the effect of following on P.V. ratio and Break-even Point.

(a) 10% decrease in Variable Cost

(b) 10% decrease in Fixed Cost

(c) 10% increase in Physical Sales Volume

(d) 5% increase in Selling Price.

8. (a) Relax Hotel has a capacity of 100 single rooms and 20 double rooms. The average occupancy of both single and double rooms is expected to be 80% throughout the year of 365 days. The rent for the double room has been fixed at 125% of the rent of the single room. The costs are as under :

Variable Costs :	Single rooms Rs. 220 each per day.
	Double rooms Rs. 350 each per day
Fixed Costs :	Single rooms Rs. 120 each per day
	Double rooms Rs. 250 each per day

Calculate the rent chargeable for single and double rooms per day in such a way that the hotel earns an overall profit of 20% on hire charges of rooms.

(b) A company manufacturing and marketing a product supplies the following information :

Units	Standard Sales		Units	Actual Sales	
	Price	Amount		Price	Amount
	Rs.	Rs.		Rs.	Rs.
10,000	3·00	30,000	5,000	3·00	15,000
			8,000	2·50	20,000
			13,000		

Calculate (1) Sales value variance

(2) Sales Volume variance

(3) Sales price variance.

9. Write short notes on (any **four**) :—

(a) Inter-link of Budgetary control and variance analysis ;

(b) Utility of Standard Costing;

(c) Different types of Budgets useful for a typical business enterprise;

(d) Implications of the angle of incidence;

(e) Special features of Operating Costing;

(f) Importance of Marginal Costing in decision making function.