



September 11, 2009

**COST ACCOUNTING**

(MARKS 100)

**Module D**

(3 hours)

Q.1 Ahmer and Company is engaged in production of engineering parts. It receives bulk orders from bicycle manufacturers and follows job order costing. On July 1, 2008 two jobs were in progress whereas two jobs were opened during the year. The details are as follows:

	JOBS			
	A	B	C	D
Work in process – opening (Rs.)	1,400,000	2,500,000	-	-
Raw material issued from stores (Rs.)	800,000	1,200,000	1,500,000	600,000
Direct labour hours worked (Hours)	20,000	30,000	15,000	18,000
Rate of direct labour per hour (Rs.)	20	18	16	15

Other related information is as follows:

- (i) Factory overhead is applied to the jobs at Rs. 10 per labour hour.
- (ii) Actual factory overheads for the year amounted to Rs. 900,000.
- (iii) Under/over applied factory overheads are charged to profit and loss account.
- (iv) Job A was completed during the year. All the goods were shipped to the customers.
- (v) Job B was also completed during the year. However, about 10% of the goods were rejected during inspection. These were transferred to Job C where they will be used after necessary adjustments.

**Required:**

Prepare journal entries to record all the above transactions.

(14)

Q.2 Following information has been extracted from the records of RT Limited for August 2009:

	Departments				
	Production			Service	
	P-1	P-2	P-3	S-1	S-2
Budgeted machine hours	60,000	100,000	120,000		
Actual machine hours	60,500	110,000	100,000		
Budgeted labour hours	50,000	200,000	75,000		
Actual labour hours	55,000	190,000	75,000		
Budgeted material cost (Rs. '000)	50,000	40,000	3,000		
Actual material cost (Rs. '000)	50,000	42,000	3,200		
Budgeted overheads (Rs. '000)	1,200	2,000	2,250	600	700
Actual overheads (Rs. '000)	1,250	2,000	1,800	500	750
Services provided by S-1	20%	30%	40%	-	10%
Services provided by S-2	30%	40%	20%	10%	-
Basis of overhead application	Machine hours	Labour hours	75% of Material cost		

**Required:**

- (a) Allocate costs of service departments using repeated distribution method.
- (b) Compute department wise over / under applied overheads.

(12)

(2)

Q.3 Solvent Limited has two divisions each of which makes a different product. The budgeted data for the next year is as under:

	Product A	Product B
	Rupees	
Sales	200,000,000	150,000,000
Direct material	45,000,000	30,000,000
Direct labour	60,000,000	45,000,000
Factory overheads	35,000,000	15,000,000
Price per unit	20	25

Details of factory overheads are as follows:

- (i) Product A is stored in a rented warehouse whose rent is Rs. 0.25 million per month. Product B is required to be stored under special conditions. It is stored in a third party warehouse and the company has to pay rent on the basis of space utilized. The rent has been budgeted at Rs. 0.12 million per month.
- (ii) Indirect labour has been budgeted at 20% of direct labour. 70% of the indirect labour is fixed.
- (iii) Depreciation for assets pertaining to product A and B is Rs. 6.0 million and Rs. 2.0 million respectively.
- (iv) 80% of the cost of electricity and fuel varies in accordance with the production in units and the total cost has been budgeted at Rs. 4.0 million.
- (v) All other overheads are fixed.

**Required:**

Compute the break-even sales assuming that the ratio of quantities sold would remain the same, as has been budgeted above. (14)

Q.4 (a) Karachi Limited is a large retailer of sports goods. The company buys footballs from a supplier in Sialkot. Karachi Limited uses its own truck to pick the footballs from Sialkot. The truck capacity is 2,000 footballs per trip and the company has been getting a full load of footballs at each trip, making 12 trips each year.

Recently the supplier revised its prices and offered quantity discount as under:

Quantity	Unit price (Rs.)
2,000	400
3,000	390
4,000	380
6,000	370
8,000	360

Other related data is given below:

- All the purchases are required to be made in lots of 1,000 footballs.
- The cost of making one trip is Rs. 15,000. The company has the option to hire a third party for transportation which would charge Rs. 9 per football.
- The cost of placing an order is Rs. 2,000.
- The carrying cost of one football for one year is Rs. 80.

**Required:**

- (i) Work out the most economical option.
- (ii) Compute the annual savings in case the company revises its policy in accordance with the computation in (i) above. (10)

(b) Briefly describe:

- (i) Stock out costs
- (ii) Lead time
- (iii) Reorder point
- (iv) Safety stock (04)

Q.5 Smart Limited has prepared a forecast for the quarter ending December 31, 2009, which is based on the following projections:

(i) Sales for the period October 2009 to January 2010 has been projected as under:

	<b>Rupees</b>
October 2009	7,500,000
November 2009	9,900,000
December 2009	10,890,000
January 2010	10,000,000

Cash sale is 20% of the total sales. The company earns a gross profit at 20% of sales. It intends to increase sales prices by 10% from November 1, 2009, however since there would be no corresponding increase in purchase prices the gross profit percentage is projected to increase. Effect of increase in sales price has been incorporated in the above figures.

- (ii) All debtors are allowed 45 days credit and are expected to settle promptly.
- (iii) Smart Limited follows a policy of maintaining stocks equal to projected sale of the next month.
- (iv) All creditors are paid in the month following delivery. 10% of all purchases are cash purchases.
- (v) Marketing expenses for October are estimated at Rs. 300,000. 50% of these expenses are fixed whereas remaining amount varies in line with the value of sales. All expenses are paid in the month in which they are incurred.
- (vi) Administration expenses paid for September were Rs. 200,000. Due to inflation, these are expected to increase by 2% each month.
- (vii) Depreciation is provided @ 15% per annum on straight line basis. Depreciation is charged from date of purchase to the date of disposal.
- (viii) On October 31, 2009 office equipment having book value of Rs. 500,000 (40% of the cost) on October 1, 2009 would be replaced at a cost of Rs. 2,000,000. After adjustment of trade-in allowance of Rs. 300,000 the balance would have to be paid in cash.
- (ix) The opening balances on October 1, 2009 are projected as under:

	<b>Rupees</b>
Cash and bank	2,500,000
Trade debts – related to September	5,600,000
Trade debts – related to August	3,000,000
Fixed assets at cost (20% are fully depreciated)	8,000,000

**Required:**

- (a) Prepare a month-wise cash budget for the quarter ending December 31, 2009.
- (b) Prepare a budgeted profit and loss statement for the quarter ending December 31, 2009. **(16)**

Q.6 Toy Limited is engaged in the production of a single product. On the basis of past history, the management has estimated the cost of production per unit, as follows:

	<b>Rupees</b>
Raw material – 5 kg @ Rs. 40 per kg	200
Labour – 10 hours @ Rs. 25 per hour	250
Variable overheads – 60% of direct labour	150
Total	600

The annual production requirement is 100,000 units.

(4)

The management has been deeply concerned with the performance of its labour as it has been witnessing various inefficiencies. The industrial relations department has recently carried out a study under the guidance of a consultant. It has put forward a plan whereby the company's wage policy is to be revised as under:

- Rate of wages would be increased by 12%.
- Workers who perform their tasks in less than the estimated time of 10 hours per unit would be given a premium of Rs. 18 per hour saved.

The consultant is of the view that the following efficiencies can be brought about by introducing the above change:

- (i) Raw material input per unit includes wastage of 7%. It would reduce to 3% .
- (ii) 70% of the workers would work more efficiently and improve their efficiency by 20%.
- (iii) Overheads will be reduced to 55% of the revised cost of direct labour (including premium).
- (iv) The quality of production will improve and the rate of rejection will be reduced from 4% to 3%. Rejected units are sold for Rs. 150 each.

**Required:**

Determine whether it would be beneficial for the company to adopt the wage plan recommended by the industrial relations department.

(14)

Q.7 Excellent Limited makes and sells a single product. The standard cost card for the product, based on normal capacity of 45,000 units per month is as under:

	<b>Rupees</b>
Material 60 kgs at Re. 0.60 per kg	36.00
Labour ½ hour at Rs. 50.00 per hour	25.00
Variable factory overheads, 30% of direct labour cost	7.50
Fixed factory overheads	6.50
<b>Total</b>	<b>75.00</b>

Actual data for the month of August 2009 is as under:

Work in process on August 1, 2009 (60% converted)	Units	10,000
Started during the month	Units	50,000
Transferred to finished goods	Units	48,000
Work in process on August 31, 2009 (50% converted)	Units	10,000
Material purchased at Re. 0.50 per kg	Rs.	1,750,000
Material issued to production	Kgs	3,100,000
Direct labour at Rs. 52 per hour	Rs.	1,300,000
Actual factory overheads (including fixed costs of Rs. 290,000)	Rs.	600,000

The company uses FIFO method for inventory valuation.

All materials are added at the beginning of the process. Conversion costs are incurred evenly throughout the process. Inspection takes place when the units are 80% complete. Under normal conditions, no spoilage should occur.

**Required:**

- (a) Quantity and equivalent production schedules for material and conversion costs.
- (b) Material, labour and overhead variances. (Use four variance method for overheads)

(16)

(THE END)