

Test Series: March, 2012

MOCK TEST PAPER – 2

FINAL COURSE: GROUP – II

PAPER – 5: ADVANCED MANAGEMENT ACCOUNTING

Question Number 1 is compulsory.

*Attempt any **five** out of the remaining **six** questions.*

Working notes should form part of the answer.

Time Allowed – 3 Hours

Maximum Marks – 100

- 1 (a) A budgeted profit statement of a company working at 75% capacity is provided to you below,

Sales	9,000 units at ₹ 32		₹ 2,88,000
Less:	Direct materials	₹ 54,000	
	Direct wages	72,000	
	Production overhead:		
	- fixed	42,000	
	- variable	18,000	
			1,86,000
	Gross profit		1,02,000
Less:	Administration, selling and distribution costs:		
	- fixed	36,000	
	- varying with sales volume	27,000	
			63,000
	Net profit		39,000

You are required to:

- (a) Calculate the breakeven point in units and in value.
- (b) It has been estimated that:
- (i) if the selling price per unit were reduced to ₹ 28, the increased demand would utilise 90% of the company's capacity without any additional advertising expenditure, and

- (ii) to attract sufficient demand to utilise full capacity would require a 15% reduction in the current selling price and a ₹ 5,000 special advertising campaign.

You are required to present a statement showing the effect of the two alternatives compared with the original budget and to advise management which of the three possible plans ought to be adopted, i.e., the original budget plan or (i) above or (ii) above.

- (c) An independent market research study shows that by spending ₹ 15,000 on a special advertising campaign, the company could operate at full capacity and maintain the selling price at ₹ 32 per unit.

You are required to:

- (i) Advise management whether this proposal should be adopted.
- (b) SM Ltd. manufactures Product S for national distribution in India. The standard costs for the manufacture of Product S were as follows:

	Standard Costs	Actual Costs
Direct materials	1,500 kgs at ₹ 35	1,600 kgs at ₹ 32
Direct labour	4,800 hours at ₹ 11	4,500 hours at ₹ 11.80
Factory overhead	Rates per labour hour, based on 100% of normal capacity of 5,500 labour hours:	
	Variable cost, ₹ 2.40	₹ 12,300 variable cost
	Fixed cost, ₹ 3.50	₹ 19,250 fixed cost

Instructions:

- Determine the quantity variance, price variance, and total direct materials cost variance for Product S.
 - Determine the time variance, rate variance, and total direct labour cost variance for Product S.
 - Determine the controllable variance, volume variance, and total factory overhead cost variance for Product S. (12+8 = 20 Marks)
2. (a) A project consists of nine activities whose time estimates (in weeks) and other characteristics are given below.

Activity	Preceding activity	Time estimates (weeks)		
		Most optimistic	Most likely	Most pessimistic
A	–	2	4	6

B	–	6	6	6
C	–	6	12	24
D	A	2	5	8
E	A	11	14	23
F	B, D	8	10	12
G	B, D	3	6	9
H	C, F	9	15	27
I	E	4	10	16

- (i) Show the PERT network for the project.
 - (ii) Identify the critical activities.
 - (iii) What is the expected project completion time and its variance?
- (b) You are the manager of a paper mill (XYZ Ltd) and have recently come across a particular type of paper, which is being sold at a substantially lower rate (by another company –ABC Ltd) than the price charged by your own mill. The value chain for one use of one tonne of such paper for ABC Ltd is as follows,

ABC Ltd. —————> Merchant —————> Printer —————> Customer

ABC Ltd sells this particular paper to the merchant at the rate of ₹ 1,466 per tonne. ABC Ltd pays for the freight which amounts to ₹ 30 per tonne. Average returns and allowances amount to 4% of sales and approximately equals ₹ 60 per tonne.

The value chain of your company, through which the paper reaches the ultimate customer is similar to the one of ABC Ltd. However, your mill does not sell directly to the merchant, the latter receiving the paper from a huge distribution center maintained by your company at Haryana. Shipment costs from the mill to the Distribution Center amount to ₹ 11 per tonne while the operating costs in the Distribution Center have been estimated to be ₹ 25 per tonne. The return on investments required by the Distribution Center for the investments made amount to an estimated ₹ 58 per tonne.

You are required to compute the “Mill manufacturing Target Cost” for this particular paper for your company. You may assume that the return on the investment expected by your company equals ₹120 per tonne of such paper. (10 + 6 = 16 Marks)

3. (a) Solve the following transportation problem.

	1	2	3	4	5	Stock available
1	73	40	9	79	20	8
2	62	93	96	8	13	7
3	96	65	80	50	65	9
4	57	58	29	12	87	3

5	56	23	87	18	12	5
Demand	6	8	10	4	4	

- (b) Define Total Quality Management (TQM). Explain in brief six Cs of T.Q.M. for its successful implementation.
- (c) What is Opportunity Cost? give examples. (10 + 4 + 2 = 16 Marks)
4. (a) C Ltd. and Indian company, has entered into an agreement of strategic alliance with Z Inc. of United States of America for the manufacture of personal computers in India. Broadly, the terms of agreement are:
- (i) Z will provide C with kits in a dismantled condition. These will be used in the manufacture of the personal computer in India. On a value basis, the supply, in terms of the FOB price will be 50% thereof.
 - (ii) C will procure the balance of materials in India.
 - (iii) Z will provide to C with designs and drawings in regard to the materials and supplies to be procured in India. For this, C will pay Z a technology fee of ₹ 3 crores.
 - (iv) Z will also be entitled total royalty at 10% of the selling price of the computers fixed for sales in India as reduced by the cost of standard items procured in India and also the cost of imported kits from Z.
 - (v) C will furnish to Z detailed quarterly returns.
- Other information available:
- (i) FOB price agreed \$510.
Exchange rate to be adopted \$1 = ₹ 47.059
[Note: In making calculations, the final sum may be rounded to the next rupees]
 - (ii) Insurance and freight – ₹500 per imported kit;
 - (iii) Customs duty leviable is 150% of the CIF prices; but as a concession, the actual rate leviable has been fixed at 30% of CIF.
 - (iv) The technology agreement expires with the production of 2,00,000 computers;
 - (v) The quoted price on kits includes a 20% margin of profits on cost to Z.
 - (vi) The estimated cost of materials and supplies to be obtained in India will be 140% of the cost of supplies made by Z.
 - (vii) 48% of the value in rupees of the locally procured goods represent cost of the standard items.
 - (viii) Cost of assembly and other overheads in India will be ₹2,000 per personal computer.

Required: Calculate the selling price, of a personal computer in India bearing in mind that C has targeted a profit of 20% to itself on the selling price.

- (b) Write a short note on the advantages of simulation. (12+4 = 16 Marks)
5. (a) A firm manufactures two types of products A and B and sells them at a profit of ₹ 2 on type A and ₹ 3 on type B. Each product is processed on 2 machines G and H. Type A requires 1 minute of processing time on G and 2 minutes on H. Type B requires 1 minute on G and 1 minute on H. The machine G is available for not more than 6 hours 40 minutes, while machine H is available for 10 hours during any working day. Formulate the problem as a L.P.P. and solve by using graphical method.
- (b) Describe the concept of Back flushing as used in a JIT system. What problems need to be addressed before implementing such a concept? Briefly discuss.
- (c) Discuss the application of the learning curve. (8 + 5 + 3 = 20 Marks)
6. (a) Rasoi Ltd. makes a high-end kitchen range hood 'Samrat'. The company presents the data for the year 2011 and 2012:

		2011	2012
1.	Units of Samrat produced and sold	40,000	42,000
2.	Selling Price per unit in ₹	1,000	1,100
3.	Total Direct Material (Square feet)	1,20,000	1,23,000
4.	Direct material cost per square feet in ₹	100	110
5.	Manufacturing Capacity (in units)	50,000	50,000
6.	Total Conversion cost in ₹	1,00,00,000	1,10,00,000
7.	Conversion cost per unit of capacity (6)/(5)	200	220
8.	Selling and customer service capacity	300 customer	290 customer
9.	Total selling and customer service cost in ₹	72,00,000	72,50,000
10.	Cost per customer of selling and customer service capacity (9)/(8)	24,000	25,000

Rasoi Ltd. produces no defective units, but it reduces direct material used per unit in 2012. Conversion cost in each year depends on production capacity defined in terms of Samrat units that can be produced. Selling and Customer service cost depends on the number of customers that the selling and service functions are designed to support. Rasoi Ltd. has 230 customers in 2011 and 250 customers in 2012.

You are required

1. Describe briefly key elements that would include in Rasoi Ltd.'s Balance Score

Card.

2. Calculate the Growth, Price-recovery and productivity component that explain the change in operating income from 2011 to 2012.
- (b) Budgetary control and standard costing are used within an insurance company and a standard cost of ₹ 20 have been set for obtaining and issuing each new life policy.

Prior to the commencement of the annual financial period, the life business manager had forecast that 7,500 policies would be sold during the year and the ₹ 20 standard cost was based on the following budgeted costs for the department. Actual costs are also shown.

Code	Budget ₹	Actual ₹
301 Sales' Salary	30,000	33,750
302 Staff Commission	30,000	28,500
303 Staff Expenses	15,000	13,000
431 Underwriting Staff	45,000	50,000
599 Other Admin. Cost	<u>30,000</u>	<u>33,000</u>
	<u>1,50,000</u>	<u>1,58,250</u>

At the end of the year, it was ascertained that

1. 6,750 new life policies had been issued.
2. the sales staff and underwriting staff received as salaries pay award of 12½% which had been back-dated to the beginning of the year and this had not been included in the budget.
3. expenses on codes 302, 303 and 431 are regarded as direct costs which vary with activity, and those on code 301 are treated as a direct fixed cost while those on code 599 are an indirect fixed cost.

You are required to

- (A) present a statement (or control report) for the life business manager showing the variances which have arisen,
- (B) comment on the likely cause or causes for each variance identifying, so far as you can from the information given, how much of each variance arises from price differences and how much can be related to efficiency or inefficiency.

(8 + 8 = 16 Marks)

7. (a) Indicate the possible disadvantages of treating divisions as profit centres
- (b) Explain the role of bench marking in continuous improvement in an organisation.

- (c) What is total-life-cycle costing approach? Why is it important?
- (d) "Skimming pricing is a policy where the prices are kept high during the early period of a product's existence". Discuss briefly the reasons for following such a policy.

(4 x 4 = 16 Marks)