



Costing MOCK TEST NOV. 2018

Max Marks 100

Max Time 3 Hours

Attempt ALL questions. "Working notes should form part of the answer."

Q.1 Answer the following:

4x5 marks = 20

- (i) MFN Limited started its operation in 2011 with the total production capacity of 2,00,000 units. The following data for two years is made available to you:

	2011	2012
Sales units	80,000	1,20,000
Total cost (₹)	34,40,000	45,60,000

There has been no change in the cost structure and selling price and it is expected to continue in 2013 as well. P.V Ratio is 30%.

You are required to calculate:

- (a) Break-Even Point (in units)
 (b) Profit at 75% of the total capacity in 2013.

(ii)

	2015	2016
Sales units	60,000	80,000
Total cost (₹)	28,40,000	34,40,000

Sale units of 2017 are 15% more than previous year. Variable cost is increased by 20% over previous year cost. Fixed Cost increased by 30%. **Calculate** sales for desired profit of 25% on sales value.

- (iii) Following are the details of the product Phomex for the month of April 2013:

Standard quantity of material required per unit	5 kg.
Actual output	1,200 units
Actual cost of materials used	₹ 7,14,000
Material price variance	₹ 51,000 (Fav)

Actual price per kg of material is found to be less than standard price per kg of material by ₹ 10.

You are required to calculate:

- (i) Actual quantity and Actual price of materials used,
 (ii) Material Usage Variance
 (iii) Material Cost Variance
- (iv) A skilled worker is paid a guaranteed wage rate of ₹ 60 per hour. The standard time allowed for a job is 6 hours. He took 5 hours to complete the job. He is paid wages under Rowan Incentive Plan.
 (i) Calculate his effective hourly rate of earnings under Rowan Incentive Plan.
 (ii) If the worker is placed under Halsey Incentive Scheme (50%) and he wants to maintain the same effective hourly rate of earnings, calculate the time in which he should complete the job.

2. (a) ABX Company Ltd. provides the following information relating to Process - B :

(10 Marks)

- (i) Opening Work-in-progress - NIL
 (ii) Units Introduced - 45,000 units @ ₹ 10 per unit
 (iii) Expenses debited to the process:
 Direct material ₹ 65,500
 Labour ₹ 90,800
 Overhead ₹ 1,80,700
 (iv) Normal loss in the process - 5% of Input
 (v) Work-in-progress - 1800 units
 Degree of completion
 Materials - 100%
 Labour - 60%
 Overhead - 40%
 (vi) Finished output - 40,000 units
 (vii) Degree of completion of abnormal loss :
 Materials - 100%
 Labour - 80%
 Overhead - 60%
 (viii) Units scrapped as normal loss were sold at ₹ 5 per unit.
 (xi) All the units of abnormal loss were sold at ₹ 2 per unit.



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You are required to prepare:

- Statement of equivalent production.
- Statement showing the cost of finished goods, abnormal loss and closing balance of work-in-progress.
- Process - B account and abnormal loss account

- (b) A company manufactures one main product (M1) and two by-products B1 and B2. For the month of January 2017, following details are available: **(6 Marks)**

Total Cost upto Separation point ₹ 2,12,400

	M ₁	B ₁	B ₂
Cost after separation	–	₹ 35,000	₹ 24,000
No. of units sold	4,000	1,800	3,000
Selling price per unit	₹ 100	₹ 40	₹ 30
Estimated net profit as percentage to sales value	–	20%	30%
Estimated selling expenses as percentage to sales value	20%	15%	15%

There are no beginning inventories but 20% of produced quantity is unsold.

Prepare statement showing:

- Allocation of joint cost; and
- Product wise and overall profitability of the company for January 2017.

3. (a) Pentax Limited has prepared its cost budget for 20,000 units in its factory for the year 2016 as detailed below : **(8 Marks)**

	₹ per unit
Direct Materials	50
Direct Labour	20
Variable Overhead	15
Direct Expenses	6
Selling Expenses (20% fixed)	15
Factory Expenses (100% fixed)	7
Administration expenses (100% fixed)	4
Distribution expenses (85% variable)	12
Total	129

Prepare a Cost budget for the production of 12,000 units and 25,000 units and fix the selling price if desired P.V Ratio is 25%.

- (b) M.L. Auto Ltd. is a manufacturer of auto components and the details of its expense for the year 2014 are given below :

	Rs.
i. Opening Stock of Material	1,50,000
ii. Closing Stock of Material	2,00,000
iii. Purchase of Material	18,50,000
iv. Direct Labour	9,50,000
v. Factory Overhead	3,80,000
vi. Administrative Overhead	2,50,400

During 2015, the company has received an order from a car manufacturer where it estimates that the cost of Labour and Material will be Rs. 8,00,000 and Rs. 4,50,000 respectively. M.L. Auto Ltd. charges factory overhead as a percentage of direct labour and administrative overhead as a percentage of factory cost based on previous year's cost.

Cost of delivery of the components at customer's premises is estimated at Rs. 45,000.

You are required to:

- Calculate the overhead recovery rates based on actual costs for 2014.
- Prepare a detailed cost statement for the order received in 2015 and the price to be quoted if the company wants to earn a profit of 20% on sales. **(8 Marks)**



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Q.4 (a) State the method of costing and also the units of cost for the following industries:

- i. Hotel
- ii. Toy-making
- iii. Steel
- iv. Ship Building

- (b) What is 'Defective Work'? How it is accounted for in cost accounts?
- (c) Distinguish between 'Committed Fixed Costs' and 'Discretionary Fixed Costs'.
- (d) Write a short note on Responsibility Accounting

(4 x 4 Marks)

Q.5 Ahead Ltd. produces and sells a single product sales budget for calendar year 2017 by quarters is as under:

Quarter	I	II	III	IV
No of units to be sold	12,000	15,000	16,500	18,000

The year is expected to open with an inventory of 4,000 units of finished products and close with an inventory of 6,500 units.

Production is customarily scheduled to provide for two-thirds of the current quarter's sales demand plus one-third of the following quarter's demand. Thus production anticipates sales volume by about one month.

The standard cost details for one unit of the product is as follows:

Direct materials 10 lbs @ 50 paise per lb.

Direct labour 1 hour 30 minutes @ ₹ 4 per hour.

Variable overheads 1 hour 30 minutes @ ₹ 1 per hour.

Fixed overheads 1 hour 30 minutes @ ₹ 2 per hour based on a budgeted production volume of 90,000 direct labour hours for the year.

- (i) **Prepare** a Production Budget for 2017, by quarters, showing the number of units to be produced and the total costs of direct material, direct labour, variable overhead and fixed overheads.
- (ii) If the budgeted selling price per units is ₹ 17, what would be the budgeted profit for the year as a whole?
- (iii) In which quarter of the year, is the company expected to break-even. **(10 Marks)**

(b) The following are the details of the budgeted and the actual cost in a factory for 6 months from January to June, 2016. From the figures given below **you are required to prepare** the production cost budget for the period from January to June 2017.

Jan. to June 2016

	Budget	Actual
Production (units)	20,000	18,000
Material cost	₹ 40,00,000	₹ 39,90,000
	2,000 M.T @ ₹ 2,000	@ ₹ 2,100
Labour cost	₹ 8,00,000	₹ 7,99,920
	(@ ₹ 20 per hour)	(@ ₹ 22 per hour)
Variable overheads	₹ 2,40,080	₹ 2,16,000
Fixed overheads	4,00,000	4,20,000

In the first half of 2017, production is budgeted for 25,000 units. Material cost per tonne will increase from last year's actual by ₹ 100 but it is proposed to maintain the consumption efficiency of 2016 as budgeted.

Labour efficiency will be lower by another 1% and labour rates will be ₹ 22 per hour variable and fixed overheads will go up by 20% over 2016 actual.

You are required to prepare the production cost budget for the period January - June 2017, giving all the workings. **(6 Marks)**

Q.6 (i) A Hospital operates a 40 bed capacity special health care department. The said department levies a charge of ₹ 425 per bed day from the patients using its services. The data relating to fees collected and costs for the year 2016 are as under:

Fees collected during the year	₹ 34,95,625
Variable costs based on patient days	13,57,125
Departmental Fixed Costs	6,22,500
Apportioned costs of the hospital adm. Charges	10,00,000

Besides the above, nursing staff were employed as per the following scale at ₹ 48,000 per annum per nurse.

Annual Patient days	No. of Nurses required
Less than 5000	3



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5000 – 7000	4
7000 – 9000	6
Above 9000	8

The Projections for the year 2017 are as under:

- The costs other than apportioned overheads will go up by 10%.
 - The apportioned overheads will increase by ` 2,50,000 p.a.
 - The salary of the nursing staff will increase to ` 54,000 p.a. per nurse.
- The Occupancy of the bed capacity is not likely to increase in 2016 & consequently the management is actively considering a proposal to close down the department. In that event, the departmental fixed costs can be avoided.

Required:

a. Present statements to show the profitability of the department for the years 2016 & 2017.

b. Calculate the

- Break - even bed capacity for the year 2017.
- Increase in fee per bed day required to justify continuance of the department.

(8 Marks)

(ii) On 31st march, 2016, the following balances were extracted from the books of the Supreme Manufacturing Co.:

	Dr.	Cr.
Stores Ledger Control A/c	35,000	--
Work in Progress Control A/c	38,000	--
Finished Goods Control A/c	25,000	--
Factory Overheads Control A/c		3,000

The following transactions took place in April 2016:-

Raw Materials: -

Purchased	1,23,000	
Returned to suppliers	3,000	
Issued to production	98,000	
Returned to Stores	3,000	
Material distributed as free samples	5,000	
Direct wages (of which Abnormal idle wages 4,000)	40,000	
Indirect labour	25,000	
Factory overhead expenses incurred	56,000	
Selling and Administration expenses	42,000	
Cost of Finished goods transferred to warehouse	2,23,000	
Cost of goods sold	2,15,000	
Sales		3,20,000
Bad Debts	9,000	

Factory overheads are applied to production at 140% of direct wages, any under/over absorbed overhead being carried forward for adjustment in the subsequent months. All administrative and selling expenses are treated as period costs and charged off to the Profit and Loss Account of the month in which they are incurred.

Show the following Accounts: -

(i) Cost Ledger Control A/c

(iii) Work in Progress Control A/c

(v) Factory Overhead Control A/c

(vii) Trial Balance as at 30th April 2016

(ii) Stores Ledger Control A/c

(iv) Finished Goods Stock Control A/c

(vi) Costing Profit and Loss Account.

(8 Marks)