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TEST-3
CA INTER
(06-03-2022)
COST AND MANAGEMENT ACCOUNTING

Topics Covered:
1. Marginal Costing   2. Contract Costing

Roll No ………………
Total No. of Question: 13   **Total No. of Printed Pages: 9**
Time allowed: 3 hours   **Maximum Marks: 100**

Q.1 The following details are available from the books of accounts (for the year ended 31st March, 2018) of a contractor with respect to a particular contract (No. 113), he has undertaken for an organization:

Work in progress on 1-4-2017	₹2,00,000
Material in hand on 1.4.2017	8,000
Materials sent to site	5,11,800
Labour paid at site	4,66,100
Cost of plant installed at site	1,00,000
Direct expenses	24,000
Establishment expenses	29,000
Materials returned to stores	2,120
Work certified as on 31-3-18	10,70,000
Cost of work not certified	31,000
Materials in hand (as on 31st March, 2018)	12,220
Accrued wages (as on 31st March, 2017)	11,160
Accrued direct expenses (as on 31st March, 2018)	1,330
Value of plant (as revalued on 31st March, 2018)	88,000

The contract price agreed upon with contractee is ₹13,00,000. Payment of ₹9,50,000 has been received from the contractee. ***You are required*** to prepare the Contract Account No. 113 for the year ended 31st March 2018. [8]

Q.2 Rex Limited commenced a contract on 1.4.2016. The total contract price was ₹5,00,000 but Rex Limited accepted the same for ₹4,80,000. It was decided to estimate the total profit and to take to the credit of profit & loss account that proportion of estimated profit on cash basis, which the work completed, bore to the total contract. Actual expenditure till 31.12.2016 and estimated expenditure in 2017 are given below:

Expenses	Actual Till 31.12.16	Estimate For 2017
Materials issued to site	₹75,000	₹1,30,000
Labour paid	55,000	60,000
Accrued Wages	4,000	---
Plant Purchased (original cost)	40,000	---
Misc. Expenses	20,000	35,500
Plant Returned to Stores at original cost	15,000	20,000
	On 31.12.16	As at (30.6.17)
Materials at Site	5,000	Nil
Work Certified	2,00,000	Full
Work uncertified	7,500	Nil
Cash Received	1,80,000	Full

The plant is subject to annual depreciation @ 20% on WDV basis. The contract is likely to be completed on 30.6.17. **<u>You are required</u>** to prepare the contract account for the year ended 31.12.2016. Workings should be clearly given. It is the policy of the company to charge depreciation on time basis. [10]

Q.3 A contractor commenced a building contract on October 1, 2016. The contract price is ₹4,80,000. The following data pertaining to the contract for the 2017-18 has been compiled from his books and is as under:

April 1, 2017	Work-in-progress not certified	₹58,000
	Prepaid Wages	2,000
2017-18	Expenses incurred:	
	Materials issued	1,12,000
	Wages paid	1,08,000
	Hire of plant	20,000
	Other expenses	34,000
March 31, 2018	Materials at site	4,000
	Work-in-progress: Not certified	8,000
	Cash received from contractee	3,64,000

The cash received represents 80% of work certified. It has been estimated that further cost to complete the contract will be ₹27,000 other than the materials at site as on March 31, 2018. Material costing Rs.20,000 sold at a profit of 20% of sales.

<u>Determine</u> the profit on the contract for the year 2017-18 on prudent basis, which has to be credited to P/L A/c. [8]

Q.4 A contractor, who prepares his account on 31st Dec. each year, commenced a contract on 1st April 2017. The costing records concerning the said contract reveal the following information on 31st December, 2017:

Material charged to site	₹ 2,85,100
Labour engaged	5,60,500
Foreman's salary	79,300

Plants costing ₹2,60,000 had been on site for 164 days. Their working life is estimated at 8 years and their final scrap value at ₹25,000. A supervisor, who is paid ₹4,000 p.m., has devoted approximately three fourths of his time to this contract. The administrative and other expenses amount to ₹1,40,000. Materials in hand at site on 31st December, 2017 cost ₹15,400. Some of the material costing ₹4,500 was found unsuitable and was sold for ₹5,000 and a part of the plant costing ₹5,500 (on 31.12.17) unsuited to the contract was sold at a profit of ₹1,000. The contract price was ₹22,00,000. On 31st December, 2017 3/5 of the contract was completed. Architect's certificate had been issued covering 50% of contract price and ₹10,00,000 had so far been paid on account. ***Prepare*** contract a/c for the year ended 31st Dec.2017. Also prepare the Contractee's account & Balance sheet as 31st December, 2017. [10]

Q.5 The following Trial Balance was extracted on 31st Dec,2017 from the Books of SSP Co. Ltd Contractors:

	₹	₹
Share Capital: Shares of ₹10 each		3,51,800
Profit & Loss A/c on 1st Jan. 2017		25,000
Provision for depreciation on machinery		63,000
Cash received on account: Contract 7		12,60,000
Creditors		81,200
Dividend		32,000
Land and Building (Cost)	74,000	
Machinery (Cost)	52,000	
Bank	57,000	
Investment	1,00,000	
Contract 7:		
Materials	4,00,000	
Direct Labour	7,30,000	
Expenses	2,40,000	
Machinery on site (Cost)	1,60,000	
	18,13,000	18,13,000

Contract 7 was begun on 1st Jan, 2017. The contract price is ₹24,00,000 and the customer has so far paid ₹12,60,000 being 75% of the work certified.

The cost of the work done since certification is estimated at ₹16,000.

On 31st Dec. 2017, after the above Trial Balance was extracted, machinery costing ₹32,000 was returned to stores, and materials then on site were valued at ₹27,000. Material costing 15,000 destroyed by fire and insurance claim admitted is 60%.

Direct labour includes prepaid amount of ₹16,000 and depreciation of all machinery at 15% on cost. Expenses are charged to the contract at 25% of Wages. Provide income tax @ 30%.

<u>You are required</u> to prepare (a) the contract account (b) a statement of profit, if any, to be properly credited to Profit and Loss A/c for 2017 and (c) the Balance Sheet as per revised schedule III of companies act 2013 of SSP Co. Ltd as on 31st Dec. 2017. [14]

Q.6 If Break even sales is 60% of sales, ***<u>find</u>*** fixed costs when profit is ₹ 1,50,000. Evaluate the required sales for desired profit of 40% of sales. [3]

Q.7 Anuradha Enterprises manufactures and sells black phenyl worth ₹20,000, white phenyl worth ₹25,000; scented phenyl worth ₹10,000 and naphthalene balls worth ₹5,000 every month. The firm's total fixed costs per month are ₹14,700. The variable costs are: on black phenyl 60%, on white phenyl 68%, on scented phenyl 80%, and on naphthalene balls 40%.

The proprietrix, Ms. Anuradha shah, being basically a science graduate, wonders at what combined sales volume does she really start earning profit. Please help her in arriving at such a sales volume. [4]

Q.8 A company makes 1,500 units of a product for which the profitability statement is given below:

	₹
Sales	1,20,000
Direct materials	30,000
Direct labour	36,000
Variable OH	15,000
Subtotal variable cost	81,000
Fixed cost	16,800
Total cost	97,800
Profit	22,200

After the first 500 units of production, the company has to pay a premium of ₹ 6 per unit towards overtime labour. The premium so paid has been included in the direct labour cost of ₹36,000 given above.

<u>You are required to</u> compute the Break -even point. [6]

Q.9 The following information of a company is available for the year 2006:

	₹
Sales	40,000
Raw materials	20,000
Direct wages	6,000
Variable and fixed OH	10,000
Profit	4,000
Units sold	200 Nos.

In the year 2007, wages rate will increase by 50% and fixed cost will decrease by ₹600. If 300 units are sold in 2007, the total fixed and variable O/H will be 11,400. ***How many*** units should be sold in 2007, so that the same amount of profit per unit as in year 2006 may be earned? [6]

Q.10 Navbharat Commerce College, Bombay has six sections of B.Com, and two sections of M. Com with 40 and 30 student per section respectively. The college plans one day pleasure trip around the city for the students once in an academic session during winter break to visit park, Zoo, planetarium and aquarium.
A Transporter used to provide the required number of buses at a flat rate of ₹ 700 per bus for the aforesaid purpose. In addition, a special permit fee of ₹ 50 per bus is required to be deposited with city municipal corporation. Each bus is 52 seater.Two seats are reserved for teachers who accompany in each bus. Each teachers is paid allowance of ₹ 100 for the day. No other costs in respect of teachers are relevant to the trip.

The approved caterers of the collage supply breakfast, lunch and afternoon tea respectively at ₹ 7, ₹ 30 and ₹3 per student.

No entrance fee is charged at the park. Entrance fees come to ₹ 5 per student both for the zoo and the aquarium. As regards planetarium the authorities charge block entrance fee as under for group of students of educational institutions depending upon the number of students in a group:

Number of Students in a Group	Block Entrance Fee
	₹
Upto 100	200
101-200	300
201 & above	450

Cost of prizes to be awarded to the winners in different games being arranged in the park depends upon the strength of students in a trip. Cost of prizes to be distributed is:

Number of Students In a Trip	Cost of Prizes
	₹
Upto 50	900
51-125	1.050
126-150	1,200
151-200	1,300
201-250	1,400
251 & above	1,500

To meet the above costs the college collects ₹ 65 from each student who wish to join the trip. The college releases subsidy of ₹ 10 per student in the trip towards it.

You are required to:

a) Prepare a tabulated statement showing total costs at the levels of 60, 120, 180, 240 and 300 students indicating each item of cost.
b) Compute average cost per student at each of the above levels.

c) Calculate the number of students to break even for the trip as the college suffered loss during the previous year despite 72% of the student having joined the trip. [10]

Q.11 Paramount food products is a new entrant in the market for chocolates. It has introduced a new product- Sweetee. This is a small rectangular chocolate bar. The bars are wrapped in aluminum foil and packed in attractive cartons containing 50 bars. A carton, is therefore, considered the basic sales unit. Although management had made detailed estimates of costs and volumes prior to undertaking this venture, new projections based on actual cost experience are now required.

Income statements for the last two quarters are each thought to be representative of the costs and productive efficiency we can expect in the next few quarters. There were virtually no inventories on hand at the each quarter. The income statement reveals the following:-

	First Quarter ₹	**Second Quarter** ₹
Sales:		
50,000 x ₹24	12,00,000	-
70,000 x ₹24	-	16,80,000
Cost of Goods Sold	7,00,000	8,80,000
Gross Margin	5,00,000	8,00,000
Selling And Administration	6,50,000	6,90,000
Net Income (Loss) Before Taxes	(1,50,000)	1,10,000
Tax (Negative)	60,000	44,000
Net Income (Loss)	(90,000)	66,000

The firm's overall marginal and average income-tax rate is 40%. This 40% figure has been used to estimate the tax liability arising from the chocolate operations.

Required:
Management would like to know the break-even point in terms of quarterly carton sales for the chocolates.

Management estimates that there is an investment of ₹ 30,00,000 in this product line. What quarterly carton sales and total revenue are required in each quarter to earn an after-tax return of 20% per annum on investment?
The firm's marketing people predict that if the selling price is reduced by ₹ 1.50 per carton (Re. 0.03 off per chocolate bar) and a ₹ 1,50,000 advertising campaign among school children is mounted sales will increase by 20% over the second quarter sales. Should the plan be implemented? [8]

Draw and explain the angle of incidence in a break - even chart. What is its significance to the management? [3]

Q.12 The relevant data of X Ltd. for its three products A, B, and C are as under:-

	A	B	C
Direct Material (₹/ Unit)	260	300	250
Direct Labour (₹/Unit)	130	270	260
Variable Overheads (₹/Unit)	110	230	180
Selling Price (₹/ Unit)	860	1,140	930

Machine Hours Required (Per Unit)	12	6	3

The estimated fixed overheads at four different levels at 3,600; 6,000; 8,400 and 10,800 machine hours are ₹1,00,000; ₹1,50,000; ₹2,20,000 and ₹3,00,000 respectively. The maximum demand of A, B, and C in a cost period are 500; 300 and 1,800 units respectively.

You are required to find out (i) the most profitable product-mix at each level and (ii) the level of activity where the profit would be maximum. [6]

Q.13 When volume is 6,000 units, average cost is ₹ 4 per unit, When volume is 8,000 units, average cost is ₹3.75. The break-even point is 40%. Margin of Safety 3,000 units. ***Find*** the profit-volume ratio**.** ***Calculate*** Sales if desired profit is 20% of sales. [4]

SPACE FOR ROUGH WORK