

8. CONTRACT COSTING

NO. OF PROBLEMS IN 41E OF CA INTER: CLASSROOM - 14, ASSIGNMENT - 21

NO. OF PROBLEMS IN 41.5E OF CA INTER: CLASSROOM - 10, ASSIGNMENT - 22

NO. OF PROBLEMS IN 42.5E OF CA INTER: CLASSROOM - 8, ASSIGNMENT - 20

MODEL WISE ANALYSIS OF PAST EXAM PAPERS OF IPCC & CA INTER

No.	MODEL NAME	N-10	M-11 TO N-11	M-12	N-12	M-13 TO N-13	M-14	N - 14	M-15	N-15	M-16	N-16	M-17	N-17	M-18 (O)	M-18 (N)	N-18 (O)	N-18 (N)
1.	PREPARATION OF CONTRACT ACCOUNT	8	-	8	-	-	8	8	-	-	-	-	-	-	-	10	8	5
2.	PROFIT / LOSS ON INCOMPLETE CONTRACTS		-	-	4	-		-	-	-	-	-	-	5	-	-	-	-
3.	CALCULATION OF ESTIMATED PROFIT	-	-	-	-	-	-	-	-	8	-	-	-	-	-	-	-	-
4.	CONTRACTS WITH ESCALATION CLAUSE	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-

SIGNIFICANCE OF EACH PROBLEM COVERED IN THIS MATERIAL

Problem No. in this material	Problem No. in NEW SM	Problem No. in OLD SM	Problem No. in OLD P.M	RTP	MTP	Previous Exams	Remarks
CR 1	-	-	-	-	-	M18 (N)	
CR 2	-	-	-	-	-	N18 (N)	
CR 3	ILL 6	ILL 4	-	-	-	-	
CR 4	-	-	-	-	-	N14	
CR 5	-	-	7	-	-	M09	
CR 6	PQ 2	-	-	-	-	-	
CR 7	PQ 4	ILL 8	-	-	-	-	
CR 8	-	-	3	N18	-	-	
ASG 1	ILL 4	ILL 2	-	-	-	-	
ASG 2	-	-	12	-	-	M14	
ASG 3	-	-	10	-	-	M12	
ASG 4	-	-	-	-	-	N18 (O)	
ASG 5	ILL 5	ILL 3	-	-	-	-	
ASG 6	-	-	-	-	-	-	
ASG 7	-	ILL 9	-	-	-	-	
ASG 8	-	-	-	M17	-	-	
ASG 9	-	-	4	-	-	-	
ASG 10	-	-	-	N16	-	M14	
ASG 11	-	-	14	M15	-	-	
ASG 12	-	-	12	-	-	M14	
ASG 13	-	-	-	-	-	N17	
ASG 14	-	ILL 5	-	-	-	-	
ASG 15	-	-	-	M14	-	-	
ASG 16	-	-	11	-	-	N 12	
ASG 17	-	-	9	-	-	N 10	
ASG 18	-	ILL 11	-	-	-	-	
ASG 19	-	-	-	-	N15	-	
ASG 20	-	-	5	-	-	-	

Contract costing is a form of specific order costing where job undertaken is relatively large and normally takes period longer than a year to be getting completed. Contract costing is usually adopted by the contractors engaged in the task of executing Civil Contracts.

A contract takes longer period to complete and the result of the contract can be known only after the completion of the contract. If the profit on such contracts is calculated only after their completion, then wide fluctuations may be noted in the profit figures of contractors from year to year. The profit in respect of each contract in progress is transferred to the costing profit and loss account of the year by calculating the notional profit. The portion of notional profit to be transferred to the costing profit and loss account depends on the stage of completion of a contract.

Contract costing have the following distinct features:

1. The major part of the work in connection with each contract is ordinarily carried out at the site of the contract.
2. The bulk of the expenses incurred by the contractor are considered as direct.
3. The indirect expenses mostly consist of office expenses of the yards, stores and works.
4. A separate account is usually maintained for each contract.
5. The number of contracts undertaken by a contractor at a time is usually few.
6. The cost unit in contract costing is the contract itself.

Profit or Loss on Incomplete Contracts:

1. If % of completion of contract is < 25% - NIL
2. If % of completion of contract is $\geq 25\%$ to $< 50\%$ - $1/3 \times \text{Notional Profit} \times \frac{\text{Cash received}}{\text{Work certified}}$
3. If % of completion of contract is $\geq 50\%$ to $< 90\%$ - $2/3 \times \text{Notional Profit} \times \frac{\text{Cash received}}{\text{Work certified}}$
4. If % of completion of contract is $\geq 90\%$ and above - based on estimated profit

Based on Estimated Profit: If contract is completed 90% & above then

1. Estimated Profit $\times \frac{\text{Work Certified}}{\text{Contract Price}}$
2. ***Estimated Profit $\times \frac{\text{Work Certified}}{\text{Contract Price}} \times \frac{\text{Cash Received}}{\text{Work Certified}}$
3. Estimated Profit $\times \frac{\text{Cost to date}}{\text{Total Cost of Contract}}$
4. Estimated Profit $\times \frac{\text{Cost to date}}{\text{Total Cost of Contract}} \times \frac{\text{Cash Received}}{\text{Work Certified}}$

(This formula may be preferably used in the absence of estimated profit figure)
 $\text{Notional Profit} \times \frac{\text{Work Certified}}{\text{Contract price}}$

*** It is preferable to use formula (2) in the absence of specific instructions.

Estimated Profit = Contract Price - Estimated total cost

Estimated total cost = Cost to date + Estimated Further cost to be incurred to complete the contract

Notional profit = Work Certified + Work Uncertified - Total cost of contract

Notional Profit = Work Certified - Cost of Work Certified

Cost work Certified = Cost incurred up-to-date - Work uncertified

Work Certified = Notional Profit + Cost of work Certified.

% of Degree of completion = $\frac{\text{Work Certified}}{\text{Contract price}}$

Journal Entry for escalation clause

Contractee A/c Dr xxx

 To Contract a/c xxx

Journal Entry on completion of contract

Contractee A/c Dr xxx

 To Contract a/c xxx

The rules in respect of Profits and Losses to be recognised on Contracts is summarised below:

Combination		Situation	Treatment
Current Yr	Estimated		
Notional Profit	Estimated Profit	Profit : Profit	Notional Profit should be recognised based on degree <u>Percentage of Completion</u> .
Notional Profit	Estimated Loss	Profit : Loss	<u>Estimated Loss</u> is provided in the current year.
Notional Loss	Estimated Profit	Loss : Profit	<u>Notional Loss</u> is provided.
Notional Loss	Estimated Loss	Loss : Loss	Notional Loss or Estimated Loss, <u>Whichever is worse (Higher)</u> , is to be provided in the current year.

PROBLEMS FOR CLASSROOM DISCUSSION

MODEL 1: PREPARATION OF CONTRACT ACCOUNT

PROBLEM 1: XYZ Construction Company took a contract for construction of a stadium on 1st April, 2017 at a price of Rs. 160 lakhs. The relevant information for the year ended 31st March, 2018 are as under:

	Amount (Rs. in '000)
Materials purchased for the contract	6,800
Direct wages paid	3,450
Salaries	200
Direct wages prepaid at the end of the year	50
Salaries outstanding at the end of the year	100
Material returned to store	150
Material at site as on 31 st March, 2018	175
Payment received from a contractee (80% of work certified)	9,440
Work done but not certified	500

A plant purchased for Rs.12,00,000 on 1st November, 2017 and was in use at the site up to 31st March, 2018. Depreciation is to be charged on plant @ 15% per annum on straight line basis. Material costing Rs. 50,000 was stolen from the site.

You are required to:

- Prepare contract account for the year ended 31st March, 2018 showing the profit to be taken to Profit & Loss Account.
- Prepare Balance Sheet showing the relevant items.

(A) (M18(N) - 10M) (ANS.: NOTIONAL PROFIT = 2,100) (SOLVE PROBLEM NO 1, 2 OF ASSIGNMENT PROBLEMS AS REWORK)

Note:

PROBLEM 2: M/s. SD Private Limited commenced a contract on 1st July 2017 and the company closes its account for the year on 31st March every year.

The following information relates to the contract as on 31st March 2018.

- i) Material issued Rs.9,48,000
- ii) Direct wages Rs.4,57,200
- iii) Prepaid direct wages as on 31.3.2018 Rs.1,08,000
- iv) Administration charges Rs.7,20,000
- v) A supervisor, who is paid Rs.50,000 per month has devoted two- third of his time to this contract.
- vi) A plant costing Rs.7,85,270 has been on the site for 185 days, its working life is estimated at 9 years and its scrap value is Rs.75,000.

The contract price is Rs. 42 lakhs. On 31st March 2018 two-third of the contract was completed. The Architect issued certificate covering 50% of the contract price and the contractor had been paid Rs.15.75 lakhs on account.

Assuming 365 days in a year. You are required to:

- i) Prepare a Contract Account showing work cost
- ii) Calculate Notional Profit or Loss as on 31st March 2018.

(A) (N18 (N) - 5M) (SOLVE PROBLEM NO 3, 4, 5 OF ASSIGNMENT PROBLEMS AS REWORK)

Note: _____

MODEL 2: PROFIT / LOSS ON INCOMPLETE CONTRACTS

PROBLEM 3: M/s. Bansals Construction Company Ltd. took a contract for Rs. 60,00,000 expected to be completed in three years. The following particulars relating to the contract are available:

Particulars	2011 (Rs.)	2012 (Rs.)	2013 (Rs.)
Materials	6,75,000	10,50,000	9,00,000
Wages	6,20,000	9,00,000	7,50,000
Cartage	30,000	90,000	75,000
Other expenses	30,000	75,000	24,000
Cumulative work certified	13,50,000	45,00,000	60,00,000
Cumulative work uncertified	15,000	75,000	—

Plant costing Rs. 3,00,000 was bought at the commencement of the contract. Depreciation was to be charged at 25% per annum, on the written down value method. The contractee pays 75% of the value of work certified as and when certified, and makes the final payment on completion of the contract.

You are required to make a contract account and contractee account as they would appear in each of the three years. Also show how the work-in-progress and other items should appear in the balance sheet.

(C) (NEW SM, OLD SM)

(ANS.: 2011: LOSS TRANSFERRED TO COSTING P&L A/C: RS. 65,000; 2012: NOTIONAL PROFIT: RS.10,38,750; 2013- PROFIT TRANSFERRED TO COSTING P & L A/C-1,53,187) (SOLVE PROBLEM NO 6 OF ASSIGNMENT PROBLEMS AS REWORK)

PROBLEM 4: (PRINTED SOLUTION AVAILABLE) obtained a contract no.999 for Rs. 50 lacs. The following details are available in respect of this contract for the year ended march 31, 2014:

	Rs.
Materials purchased	1,60,000
Material issued from stores	5,00,000
Wages & salaries paid	7,00,000
Drawings and maps	60,000

Sundry expenses	15,000
Electricity charges	25,000
Plant hair expenses	60,000
Sub-contract cost	20,000
Material returned to stores	30,000
Material returned to suppliers	20,000

The following balance relating to the contract no.999 for the year ended on March 31, 2013 and March 31, 2014 are available:

Particulars	As on 31st March, 2013	As on 31st March, 2014
Work certified	12,00,000	35,00,000
Work uncertified	20,000	40,000
Material at site	15,000	30,000
Wages outstanding	10,000	20,000

The contractor receives 75% of work certified in cash. Prepare contract account and Contractee.

(A) (N14 - 8M) (ANS.: NOTIONAL PROFIT = 8,35,000) (SOLVE PROBLEM NO 7, 9,10 OF ASSIGNMENT PROBLEMS AS REWORK)

Note: _____

PROBLEM 5: A contract is estimated to be 80% complete in its first year of construction as certified. The contractee pays 75% of value of work certified, as and when certified and makes the final payment on the completion of contract. Following information is available for the first year:

Particulars	Amt (Rs.)
Cost of work - in - progress uncertified	8,000
Profit transferred to costing Profit & Loss A/c at the end of year I on incomplete contract	60,000
Cost of work to date	88,000

Calculate the value of work - in - Progress certified and amount of contract price.

(A) (OLD PM, M09 - 8M) (ANS.: WORK IN PROGRESS CERTIFIED 2,00,000, CONTRACT PRICE 2,50,000)
(SOLVE PROBLEM NO 13 OF ASSIGNMENT PROBLEMS AS REWORK)

Note: _____

MODEL 3: CALCULATION OF ESTIMATED PROFIT

PROBLEM 6: Compute a conservative estimate of profit on a contract (which has been 90% complete) from the following particulars. Calculate the proportion of profit to be taken to Costing Profit & Loss Account under various methods and give your recommendation. (Rs.)

Total expenditure to date	4,50,000
Estimated further expenditure to complete the contract (including contingencies)	25,000
Contract price	6,12,000
Work certified	5,50,800
Work uncertified	34,000
Cash received	4,40,640

(C) (OLD SM, NEW SM) (ANS.: AMOUNT TO BE TRANSFERRED TO P&L A/C - 98,640)
(SOLVE PROBLEM NO 15, 16 OF ASSIGNMENT PROBLEMS AS REWORK)

PROBLEM 7: (PRINTED SOLUTION AVAILABLE) MM Construction Ltd. commenced a contract on April 1, 2011. The total contract was for Rs. 49,21,875. It was decided to estimate the total profit on the contract and to take to the credit of Costing Profit and Loss A/c that proportion of estimated profit on cash basis, which work completed bore to total contract. Actual expenditure for the period April 1, 2011 to March 31, 2012 and estimated expenditure for April 1, 2012 to September 30, 2012 are given below:

	April 1, 2011 to March 31, 2012 (Actual) (Rs.)	April 1, 2012 to Sept. 30, 2012 (Estimated) (Rs.)
Materials issued	7,76,250	12,99,375
Labour : Paid	5,17,500	6,18,750
Prepaid	37,500	-
Outstanding	12,500	5,750
Plant purchased	4,00,000	-
Expenses: Paid	2,25,000	3,75,000
Outstanding	25,000	10,000
Prepaid	15,000	-
Plant returns to store (historical cost)	1,00,000 (on September 30, 2011)	3,00,000 (on September 30, 2012)
Work certified	22,50,000	Full
Work uncertified	25,000	-
Cash received	18,75,000	-
Materials at site	82,500	42,500

The plant is subject to annual depreciation @ 25% on written down value method. The contract is likely to be completed on September 30, 2012.

Required:

Prepare the Contract A/c for the year ended 31st March, 2012 and determine the estimated profit on the contract.

(A) (NEW SM, OLD SM) (ANS.: ESTIMATED PROFIT: RS. 10,21,125)

(SOLVE PROBLEM NO 17, 18 OF ASSIGNMENT PROBLEMS AS REWORK)

Note: _____

PROBLEM 8: (PRINTED SOLUTION AVAILABLE) A construction company undertook a contract at an estimated price of Rs.108 lacs, which includes a budgeted profit of Rs. 18 lacs. The relevant data for the year ended 31.03.2002 are as under:

Particulars	(Rs. '000)
Materials issued to site	5,000
Direct wages paid	3,800
Plant hired	700
Site office costs	270
Materials returned from site	100
Direct expenses	500
Work certified	10,000
Progress payment received	7,200

A special plant was purchased specifically for this contract at Rs. 8,00,000 and after use on this contract till the end of 31.03.2002, it was valued at Rs.5,00,000. This cost of materials at site at the end of the year was estimated at Rs. 18,00,000. Direct wages accrued as on 31.03.2002 was Rs. 1,10,000.

Required: Prepare the Contract Account for the year ended 31st March, 2002 and compute the profit to be taken to the Profit and Loss account.

(B) (OLD PM, RTP N18 (N&O)

(ANS.: AMOUNT TO BE TRANSFERRED TO PROFIT & LOSS A/C RS. 1200, % OF COMPLETION 92.59%)

(SOLVE PROBLEM NO 19 OF ASSIGNMENT PROBLEMS AS REWORK)

MODEL 4: CONTRACT WITH ESCALATION CLAUSE**NIL****ASSIGNMENT PROBLEMS****MODEL 1: PREPARATION OF CONTRACT ACCOUNT**

PROBLEM 1: The following expenses were incurred on a contract:

Particulars	Amount (Rs.)
Material purchased	6,00,000
Material drawn from stores	1,00,000
Wages	2,25,000
Plant issued	75,000
Chargeable expenses	75,000
Apportioned indirect expenses	25,000

The contract was for Rs. 20,00,000 and it commenced on January 1, 2011. The value of the work completed and certified upto 30th November, 2011 was Rs. 13, 00,000 of which Rs. 10,40,000 was received in cash, the balance being held back as retention money by the contractee. The value of work completed subsequent to the architect's certificate but before 31st December, 2011 was Rs. 60,000. There were also lying on the site materials of the value of Rs. 40,000. It was estimated that the value of plant as at 31st December, 2011 was Rs. 30,000

(OLD SM, NEW SM)

(B) (ANS.: NOTIONAL PROFIT = 3,30,000, TRANSFERRED TO COSTING P & L A/C- 1,76,000)

PROBLEM 2: M/s ABID Constructions undertook a contract at a price of Rs. 171.00 lacs. The relevant data for the year ended 31st March, 2014 are as under:

Particulars	(Rs. '000)
Material issued at site	7700
Direct Wages paid	3300
Site office cost	550
Material return to store	175
Work certified	12650
Work uncertified	225
Progress Payment Received	10120
Prepaid site office cost as on 31-03-2014	50
Direct wages outstanding as on 31-03-2014	100
Material at site as on 31-03-2014	110

Additional Information:

- A plant was purchased for the contract at Rs. 8,00,000 on 01-12-2013.
- Depreciation @ 15% per annum is to be charged.
- Material which cost Rs.1,30,000 was destroyed by fire.

Prepare:

- Contract Account for the year ended 31st March, 2014 and computes the profit to be taken to the Profit & Loss Account.
- Account of Contractee.
- Profit & Loss Account showing the relevant items.
- Balance Sheet showing the relevant items.

(B) (OLD PM, M14 - 8M) (ANS.: (I) 880 (II) 10,120 (III) 750)

PROBLEM 3: A contractor commenced a contract on 01-07-2013. The costing records concerning the said contract reveal the following information as on 31-03-2014.

Particulars	Amount (Rs.)
Material sent to site	7,74,300
Labour paid	10,79,000
Labour outstanding as on 31-3-2014	1,02,500
Salary to Engineer	20,500 per month
Cost of plant sent to site (1-7-2013)	7,71,000
Salary to Supervisor (3/4 time devoted to contract)	9,000 per month
Administration & other expenses	4,60,600
Prepaid Administration expenses	10,000
Material in hand at site as on 31-3-2014	75,800

Plant used for the contract has an estimated life of 7 years with residual value at the end of life Rs. 50,000. Some of material costing Rs. 13,500 was found unsuitable and sold for Rs. 10,000. Contract price was Rs.45,00,000. On 31-3-2014 two third of the contract was completed. The architect issued certificate covering 50% of the contract price and contractor has been paid Rs.20,00,000 on account. Depreciation on plant is charged on straight line basis. Prepare Contract Account.

(A) (OLD PM, M12 - 8M) (ANS.: P & L A/C = 1,60,178, WIP (RESERVE): 1,10,122)

PROBLEM 4: MKS Ltd. is engaged in construction sector. It took a contract to build a house for Rs. 45 lakhs. The contract commenced on 1st April, 2018. Following information, relating to contract, for the year ending as on 31st March, 2019 are as under:

Particulars	Amount (Rs.)
Materials purchased	8,52,000
Wages	10,48,000
Indirect Expenses	92,000
Administrative charges	1,18,000
Materials at site at the end of the year	38,000

A plant was purchased for the contract on 1st April, 2018 which, after charging depreciation @ 15% p.a. on the cost, appeared at Rs. 6,12,000 at the end of the year.

A supervisor who is paid Rs. 10,000 per month has devoted two-third of his time to this contract.

Two-third of the contract was completed. The architect issued certificate covering 50% of the contract price and contractor has been paid 90% of the work certified on account. The books of accounts are closed on 31st March every year.

Prepare contract account showing following:

- Works cost of the contract
- Value of works uncertified
- Notional profit and
- Amount to be carried to profit and loss account.

(A) (N18 (O) - 8M)

PROBLEM 5: A contractor prepares his accounts for the year ending 31st December each year. He commenced a contract on 1st April, 2011.

The following information relates to the contract as on 31st December, 2011:

Particulars	Amount (Rs.)
Material issued	2,51,000
Labour charges	5,65,600
Salary to Foreman	81,300

A machine costing Rs. 2,60,000 has been on the site for 146 days, its working life is estimated at 7 years and its final scrap value at Rs. 15,000.

A supervisor, who is paid Rs. 8,000 p.m. has devoted one-half of his time to this contract.

All other expenses and administration charges amount to Rs. 1,36,500.

Material in hand at site costs Rs. 35,400 on 31st December, 2011.

The contract price is Rs. 20,00,000. On 31st December, 2011 two-third of the contract was completed. The architect issued certificates covering 50% of the contract price, and the contractor had been paid Rs. 7,50,000 on account.

Prepare Contract A/c and show how much profit or loss should be included in financial accounts to 31st December, 2011.

(A) (NEW SM, OLD SM) (ANS.: NOTIONAL PROFIT = RS. 2,13,250; AMOUNT TO BE TRANSFERRED TO P&L A/C 1,06,625)

PROBLEM 6: Mr. Bhagwandas undertook a contact for Rs. 15,00,000 on an arrangement that 80% of the value of the work done as certified by the architect of the contract should be paid immediately and that the remaining 20% be retained until the contract was completed. In 2005-'06-'07 amounts expended were:

Particulars	2005	2006	2007
Materials	1,80,000	2,20,000	1,26,000
Wages	1,70,000	2,30,000	1,70,000
Carriage	6,000	23,000	---
Cartage	1,000	2,000	6,000
Sundry Exp.	3,000	4,000	3,000

Other information:

2005: Work certified for Rs.3,75,000 & 80% cash received.

2006: 3/4th of contract was certified and 80% of cash received. Uncertified work -20,000.

2007: on 30th June, the work completed.

Shown how the contract account and also contractee's account would appear each of these years in the books of the contractor assuming that the balance due to him was paid on completion of the contract.

(C) (ANS.: 2005: P & L A/C - 4000, 2006: P & L A/C - 161067, 2005: P & L A/C - 1,90,933)

MODEL 2: PROFIT / LOSS ON INCOMPLETE CONTRACTS

PROBLEM 7: A building contract on October 1, 2010. The contract price is Rs. 4,40,000. The following data pertaining to the contract for the year 2011-2012 has been compiled from his books and is as under:

Date	Particulars	(Rs.)
April 1, 2011	Work-in-progress not certified	55,000
	Materials at site	2,000
2011-12	Expenses incurred :	
	Materials issued	1,12,000
	Wages paid	1,08,000
	Hire of plant	20,000
	Other expenses	34,000
March 31, 2012	Materials at site	4,000
	Work-in-progress : Not certified	8,000
	Work-in-progress : Certified	4,05,000

The cash received represents 80% of work certified. It has been estimated that further costs to complete the contract will be Rs. 23,000 including the materials at site as on March 31, 2012.

Required: Determine the profit on the contract for the year 2011-12 on prudent basis, which has to be credited to Costing P/L A/c.

(B) (OLD SM) (ANS.: AMOUNT TO BE TRANSFERRED TO P&L A/C - 66,273)

PROBLEM 8: The following details have been extracted from the books of DKG Construction LLP, which closes its books on 31st March every year.

Particulars	Contract 101	Contract 102
	Amount (Rs.000)	Amount (Rs.000)
Contract Price	4,000	1,100
Material issued to construction site	1,400	300
Material returned to store	160	60
Plant & Machinery sent to construction site	2,000	300
Inter-Contract material transfer	(80)	80
Materials at site on 31 st March, 2016	150	30
Plant hire charges	400	60
Wages paid to workers	600	540
Overhead apportioned	150	36
Other direct expenses	50	8
Value of work certified	3,000	750
Cost of work not certified	320	40
Progress payment received from contracted	2,880	700
Estimated cost of completion	270	220

Depreciation is charged on plant and machinery @ 15% p.a. using straight line method.

Required: Prepare contract account for each contract using columnar format, showing Cost of work certified and Notional profit / loss on each contract.

(C) (RTP M17)

(ANS: COST OF WORK CERTIFIED : 2,190, 909; NOTIONAL PROFIT / LOSS: 810, (159) FOR CONTRACT 101,102 RESPECTIVELY)

Note: _____

PROBLEM 9: Modern Constructions Ltd obtained a contract No. B-37 for Rs.40 Lakhs. The following balances and information relates to the contract for the year just ended.

Particulars	At the beginning of the year Rs.	At the end of the year Rs.
Work-in-Progress: Work Certificate	9,40,000	30,00,000
Work Uncertified	11,200	32,000
Materials at site	8,000	20,000
Accrued Wages	5,000	3,000

Particulars	Rs.	Particulars	Rs.
Materials issued from Stores	Rs.4,00,000	Indirect Expenses	Rs.10,000
Materials directly purchased	Rs.1,50,000	Share of General Overheads for B-37	Rs.18,000
Wages paid	Rs.6,00,000	Materials returned to Supplier	Rs.15,000
Architect's Fees	Rs.51,000	Fines and Penalties paid	Rs.12,000
Plant Hire Charges	Rs.50,000	Materials returned to Stores	Rs.25,000

The Contractee pays 80% of Work Certified in cash. You are required to prepare -

- i) Contract Account showing clearly the amount of profits transferred to Profit and Loss Account,
- ii) Contractee's Account, and
- iii) Balance Sheet.

(A) (OLD PM) (ANS.: PROFIT - RS. 4,56,427)

PROBLEM 10: ABC Construction Ltd. has started a contract on 1st April 2015. The Trial balance as on 31st March 2016 showed the following balances:

Particulars	Dr. (Rs.)	Cr. (Rs.)
Paid up share capital		1,75,00,000
Land and buildings	46,00,000	
Machinery at cost (80% at site)	36,00,000	
Cash and bank	30,000	
Materials at cost	25,26,000	
Creditors for materials		10,30,600
Direct wages	13,28,000	
Site expenses	9,60,000	
Vehicles	32,20,000	
Furniture	3,22,000	
Office equipments	6,40,000	
Postage and Stationery	29,600	
Office expenses	6,26,000	
Rates and taxes	25,600	
Fuel and power	8,46,000	
Outstanding wages		2,24,000
Advance rates and taxes	1,400	
	1,87,54,600	1,87,54,600

The contract price is Rs. 2,50,00,000 and work certified is Rs. 1,00,00,000. The cost of work uncertified is Rs. 12,00,000. Machinery costing Rs. 2,00,000 was returned to stores at the end of the year. Stock of material at site on 31st March 2016 was of the value of Rs. 50,000. Depreciation on Machinery, Vehicles and furniture are 10%, 20% and 15% respectively.

You are required to calculate the profit from the contract. (B) (RTP N16) (ANS.: NOTIONAL PROFIT: RS. 37,05,900)

PROBLEM 11: G. Constructions has undertaken three separate building contracts. Information relating to these contracts for the year 2016-17 are as under:

Particulars	Contract - I (Amount in Rs.'000)	Contract - II (Amount in Rs.'000)	Contract - III (Amount in Rs.'000)
Value of contract	17,500	14,500	24,500
Balances as on 01.04.2016:			
Work completed and certified	--	4,100	8,150
Materials at site	-	220	310
Plant & Machinery (WDV)	--	770	3,760
Wages outstanding	--	48	104
Profit transferred to Costing P/L A/c.	--	--	350
Transaction during the year:			
Materials issued to the sites	870	2,150	4,020
Wages paid to workers	450	1,160	2,180
Salary to site staffs	90	85	135
Travelling and other expenses	18	24	32

Plants issued to sites	910	240	680
Apportionment of Head office expenses	110	90	126
Balances as on 31.03.2017:			
Materials at site	215	152	12
Plant & Machinery (WDV)	728	808	3,552
Wages outstanding	52	98	146
Values of works certified	2,000	8,600	24,000
Cost of work not certified	800	452	560

As per the contract agreement 15% of the certified value of the contract is kept by the contractees as retention money. The Contact-III is scheduled to be completed in the coming months, however, this contract required a further estimated cost of Rs. 7,20,000 to get it completed.

Required:

- Prepare Contract Statement for each of the three contracts and calculate the notional/ estimated profit/ loss
- Calculate the profit/ loss to be transferred to Costing Profit & Loss Account for internal managerial purpose.

(C) (RTP N17) (ANS.: A) **ESTIMATED PROFIT:** I. 12,43,000, II. 11,23,000, III. 94,09,000 B) **PROFIT TO BE TRANSFERRED TO COSTING P&L A/C:** I. NILL, II. 6,36,370, III. 74,84,500)

PROBLEM 12: Dream house (P) Ltd. is engaged in building two residential housing projects in the city. Particulars related to two housing projects are as below:

Particulars	HP-1 (Rs.)	HP-2 (Rs.)
Work in Progress on 1st April 2013	7,80,000	2,80,000
Materials Purchased	6,20,000	8,10,000
Land purchased near to the site to open an office	-	12,00,000
Brokerage and registration fee paid on the above purchase	-	60,000
Wages paid	85,000	62,000
Wages outstanding as on 31st March, 2014	12,000	8,400
Donation paid to local clubs	5,000	2,500
Plant hire charges paid for three years effecting from 1st April 2013	72,000	57,000
Value of materials at site as on 31st March, 2014	47,000	52,000
Contract price of the projects	48,00,000	36,00,000
Value of work certified	20,50,000	16,10,000
Work not certified	1,90,000	1,40,000

A concrete mixture machine was bought on 1st April 2013 for Rs. 8,20,000 and used for 180 days in HP-1 and for 100 days in HP-2. Depreciation is provided @ 15% p.a. (this machine can be used for any other projects)

As per the contract agreement contractee shall retain 20% of work certified as retention money.

Prepare contract account for the two housing projects showing the profit or loss on each project for the year ended 31st March, 2014.

(B) (OLD PM, RTP - M15) (ANS: AMOUNT TO BE TRANSFERRED TO P&L A/C 1,86,758; 1,56,374)

PROBLEM 13: Premier Construction Company undertook a contract for Rs.5,00,000 on 1st August, 2016. On 31st March, 2017 when the accounts were closed, the following information was available:

Cost of work uncertified	Rs. 1,20,000
Cash received	Rs. 2,50,000 (80 of work certified)
Profit transferred to costing Profit and Loss account at the end of the year on Incomplete contract	Rs. 80,000

Calculate:

- The value of work in progress certified
- Degree of completion of contract
- Notional Profit and
- Cost of contract as on 31-03-2017 (A) (N 17 - 5M) (ANS.: I) RS. 3,12,500, II) 62.5%, III) RS. 1,50,000, IV) RS. 2,82,500

MODEL 3: CALCULATION OF ESTIMATED PROFIT

PROBLEM 14: Compute a conservative estimate of profit on a contract (which has been 90% complete) from the following particulars. Calculate the proportion of profit to be taken to Costing Profit & Loss Account under various methods and give your recommendation.

Particulars	(Rs.)
Total expenditure to date	4,50,000
Estimated further expenditure to complete the contract (including contingencies)	25,000
Contract price	6,12,000
Work certified	5,50,800
Work uncertified	34,000
Cash received	4,40,640

(C) (OLD SM, OLD PM) (ANS.: A) PROFIT - RS.4,90,385; B) PROFIT - RS. 98,640

PROBLEM 15: Hut-to-Palace Ltd. undertook a contract in last year. In the agreement between the Hut-to-Palace Ltd. and the contractee, there is a clause stating that Hut-to-Palace Ltd. will receive total cost plus 40% as contract consideration. The following are the details of the contract as on 31st March, 2014:

Particulars	Amount (Rs.)
Total expenditure to date	17,64,525
Estimated further expenditure to complete the contract	8,38,645
Value of work certified	21,07,500
Cost of work not certified	3,11,075
Progress payment received from the contractee	14,75,250

From the above information calculate the

- Conservative estimate of profit for the management of Hut-to-Palace Ltd.
- What would be the estimated profit from the contract if management of Hut-to-Palace Ltd has come to know that the contractee has liquidity crunch and it is not able to pay further payments.

(C) (RTP M14) (ANS.: A) 3,05,223, B) (2,89,275))

PROBLEM 16: From the following particulars compute a conservative estimate of profit by 4 methods on a contract which has 80 percent complete:

Particulars	Amount (Rs.)
Total expenditure to date	8,50,000
Estimate further expenditure to complete the contract	1,70,000
Contract Price	15,30,000
Work Certified	10,00,000
Work not certified	85,000
Cash received	8,16,000

(C) (OLD PM, N12 - 8M) (ANS.: AMOUNT TO BE TRANSFERRED TO P&L A/C- 1,25,333)

PROBLEM 17: PQR Construction Ltd. commenced a contract on April 1, 2009. The total contract was for Rs.27,12,500. It was decided to estimate the total profit and to take to the credit of P/L A/c the proportion of estimated profit on cash basis which work completed bear to the total contract. Actual expenditure in 2009-10 and estimated expenditure in 2010-11 are given below:

Particulars	2009 - 10	2010 - 11
	Actual (Rs.)	Estimated (Rs.)
Material issued	4,56,000	8,14,000
Labour: Paid	3,05,000	3,80,000
: Outstanding at end	24,000	37,500
Plant purchased	2,25,000	-
Expenses: Paid	1,00,000	1,75,000
: Outstanding at the end	-	25,000
: Prepaid at the end	22,500	-
Plant returned to stores (a historical stores)	75,000	1,50,000 (on Dec 31 2010)
Material at site	30,000	75,000
Work-in-Progress certified	12,75,000	Full
Work-in-progress uncertified	40,000	-----
Cash received	10,00,000	Full

The plant is subject to annual depreciation @ 20% of WDV cost. The contract is likely to be completed on December 31, 2010.

Required:

- Prepare the Contract A/c for the year 2009-10.
- Estimate the profit on the contract for the year 2009-10 on prudent basis which has to be credited to P/L A/c
(A) (OLD PM, N10 - 8M) (ANS.: (I) NOTIONAL PROFIT-4,37,500; (II) 1,59,263)

PROBLEM 18: MNP Construction Ltd. commenced a contract on April 1, 2010. The total contract was for Rs. 17,50,000. It was decided to estimate the total profit and to take to the credit of Costing P/L A/c the proportion of estimated profit on cash basis which work completed bore to the total contract. Actual expenditure in 2010-11 and estimated expenditure in 2011-2012 are given below:

Particulars	2010-11 (Actual) (Rs.)	2012-13 (Estimated) (Rs.)
Materials issued	3,00,000	5,50,000
Labour : Paid	2,00,000	2,50,000
Outstanding at end	20,000	30,000
Plant purchased	1,50,000	—
Expenses : Paid	75,000	1,50,000
: Prepaid at end	15,000	—
Plant returns to store (historical cost)	50,000	1,00,000 (on Dec. 31, 2011)
Material at site	20,000	50,000
Work certified	8,00,000	Full
Work uncertified	25,000	—
Cash received	6,00,000	Full

The plant is subject to annual depreciation @ 25% of WDV Cost. The contract is likely to be completed on Dec. 31, 2011. Prepare the Contract A/c. Determine the profit on the contract for the year 2010-2011 on prudent basis, which has to be credited to Costing P/L A/c.

(A) (OLD SM) (ANS.: AMOUNT TO BE TRANSFERRED TO P & L A/C: RS. 66,322)

PROBLEM 19: Apex construction Ltd. has undertaken a contract to build a commercial building at an estimated price of Rs.135 lakhs, expecting a profit of Rs. 28 lakhs from this contract.

The data for the year ended 31.03.2016 are as under:

Particulars	Amount (in Rs.'000)
Materials issued to site	6,500
Direct wages paid	3,820
Machine hired	780
Site administration cost	570
Materials returned from site	90
Other direct expenses	850
Work certified	12,000
Payment received up to 31.03.2016	9,600

A crane was purchased specifically for this contract at Rs. 18,00,000 and at the end of 31.03.2016, it was valued at Rs. 13,00,000. The cost of materials at site at the end of the year was estimated at Rs. 14,00,000. Wages of Rs. 98,000 is still to be paid.

You are required to prepare:

Prepare the Contract Account and Cost of the contact for the year ended 31st March, 2016.

(B) (MTP N16) (ANS.: COST OF CONTRACT: 1,16,28,000)

MODEL 4: CONTRACT WITH ESCALATION CLAUSE

PROBLEM 20: SB Constructions Limited has entered into a big contract at an agreed price of Rs.1,50,00,000 subject to an escalation clause for material and labour as spent out on the contract and corresponding actuals are as follows:

Material	Standard		Actual	
	Quantity (Tonnes)	Rate Per Tonne (Rs.)	Quantity (Tonnes)	Rate Per Tonne (Rs.)
A	3,000	1,000	3,400	1,100
B	2,400	800	2,300	700
C	500	4,000	600	3,900
D	100	30,000	90	31,500
Labour	Hours	Hourly Rate Rs.	Hours	Hourly Rate Rs.
L1	60,000	15	56,000	18
L2	40,000	30	38,000	35

You are required to:

- Give your analysis of admissible escalation claim and determine the final contract price payable.
- Prepare the contract account, if the all expenses other than material and labour related to the contract are Rs.13,45,000.

(C) (OLD PM) (ANS.: A) 5,40,000, 1,55,40,000, B) ESTIMATED PROFIT - 13,32,000)

PRINTED SOLUTIONS TO SOME SELECTIVE PROBLEMS

PROBLEM NUMBERS TO WHICH SOLUTIONS ARE PROVIDED: 4.7.8

PROBLEM NO.4

Dr. **Contract No. 999 account for the year ended 31st march, 2014** Cr.

Particulars	Amount (Rs.)	Particulars	Amount (Rs.)
To Work In Progress b/d:		By material return to store	30,000
- Work certified	12,00,000		
- Work uncertified	20,000		
To Stock (Material) b/d	15,000	By Material return to suppliers	20,000

To Material Purchased	1,60,000	By Stock (material) c/d	30,000
To Material Issued	5,00,000	By Work In Progress c/d: - Work certified - Work uncertified	35,00,000 40,000
To Wages & Salaries	7,00,000		
Less: Opening O/s	(10,000)		
Add: Closing O/s	20,000	7,10,000	
To drawing & maps	60,000		
To sundry expenses	15,000		
To electricity charges	25,000		
To plant & hire expenses	60,000		
To sub contract cost	20,000		
To Notional Profit c/d (b/f)	8,35,000		
	36,20,000		36,20,000
To Costing P & L A/c (W.N.1)	4,17,500	By notional profit b/d	8,35,000
To WIP reserve (bal. fig)	4,17,500		
	8,35,000		8,35,000

- Assumed that expenses incurred for drawing and maps are used exclusively for this contract only.

Particulars	Amount (Rs.)	Particulars	Amount (Rs.)
To balance c/d (35,00,000 x 75%)	26,25,000	By balance b/d (75% of Rs. 12,00,000)	9,00,000
		By bank A/c	17,25,000
	26,25,000		26,25,000

Working Notes:

- Profit to be transferred to Costing Profit & Loss Account:

$$a) \text{ Percentage of completion} = \frac{\text{workcertified}}{\text{value of contract}} \times 100 = \frac{35,00,000}{50,00,000} \times 100 = 70\%$$

- Profit to be transferred to Costing Profit & Loss account

$$\begin{aligned}
 &= \frac{2}{3} \times \text{Notional profit} \times \frac{\text{Cash received}}{\text{Work certified}} \\
 &= \frac{2}{3} \times 8,35,000 \times \frac{75}{100} = \text{Rs. } 4,17,500
 \end{aligned}$$

PROBLEM NO.7

Dr. **Contract A/c (1-4-20X1 to 31-3-20X2)** Cr.

Particulars	(Rs.)	Particulars	(Rs.)
To Materials issued	7,76,250	By Plant returned to Store on 30-9-20X1	
		1,00,000	
To Wages	5,17,500	Less: Depreciation(1/2)	87,500
Less: Prepaid	(37,500)	(12,500)	
Add: Outstanding	12,500	By Plant at site on 31.3.X2	3,00,000
To Plant purchased	4,00,000	Less : Depreciation	(75,000)
To Expenses		(75,000)	2,25,000
2,25,000		By Materials at site c/d	82,500
Less: Prepaid	(15,000)	By Work-in-progress c/d:	
Add: Outstanding	25,000	Work certified	22,50,000
		Work uncertified	25,000
To Notional profit	7,66,250		
	26,70,000		26,70,000

Computation of Estimated Profit

Dr.	Contract A/c (1-4-20X1 to 30-9-20X2)		Cr.
Particulars	(Rs)	Particulars	(Rs)
To Materials issued (7,76,250 + 12,99,375)	20,75,625	By Materials at site	42,500
To Wages (5,17,500 - 37,500 + 12,500 + 6,18,750 + 37,500 - 12,500 + 5,750)	11,42,000	By Plant returned to store on 30.9.20X1 (1,00,000 - 12,500)	87,500
To Plant purchased	4,00,000	By Plant returned to store on 30.9.X2 (4,00,000 - 1,00,000 - 1,03,125)	1,96,875
To Expenses (2,25,000+25,000 - 15,000 + 3,75,000 - 25,000 +15,000 + 10,000)	6,10,000	By Contract A/c	49,21,875
To Estimated profit	10,21,125		
	52,48,750		52,48,750

Workings:

Calculation of written down value of plant as on 30-9-20X2. **Amount (Rs.)**

Plant purchased on 1-4-20X1	
Less: Plant returned to store on 30-9-20X1 (Depreciation on it Rs1,00,000 × 25/100 × 6/12 = Rs12,500)	3,00,000
Less: Depreciation on Balance plant (3,00,000 × 25/100)	75,000
WDV of Plant on 1-4-20X2	2,25,000
Less: Depreciation (2,25,000 × 25/100 × 6/12)	28,125
WDV of plant returned to store on 30-9-20X2	1,96,875

PROBLEM NO. 8

Dr. Cr. **Contract Account for the year ended 31st March, 2014**

Particulars	Amount	Particulars	Amount
To Material issue to site	5,000	By Material at site	1,800
To Direct wages	3,800	By Material returned	100
Add: outstanding wages	110		
To Plant Hire	700	By Cost of Contract	8,780
To Site office cost	270		
To Direct Expenses	500		
To Depreciation (Special plant)	300		
	10,680		10,680
To Cost of Contract	8,780	By work certified	10,000
To Profit & Loss A/c	1,200		
To WIP (Reserve) c/d	20		
	10,000		10,000

Working Note:

1. Percentage of completion of contract = $\frac{\text{Value of workcertified}}{\text{Value of the contract}} \times 100 = \frac{100\text{lakhs}}{108\text{lakhs}} \times 100 = 92.59\%$
2. Since the percentage of completion of the contract is more than 90% therefore, the profit to be taken to profit & loss A/c can be computed by using the following formula.

$$\text{Profit to be taken to profit & loss Account} = \text{Budget / estimated profit} \times \frac{\text{Cash Received}}{\text{Workcertified}} \times \frac{\text{Work certified}}{\text{Contract price}}$$

$$= 1,800 \times \frac{7,200}{10,000} \times \frac{10,000}{10,800} = \text{Rs.} 1,200 \text{lakhs}$$

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To **MASTER MINDS**, Guntur

THE END