

Acharya Patashala College of Commerce

Affiliated to Bengaluru Central University
Narasimharaja Colony, Bangalore-560019

COSTING METHODS

YEAR 2017

SECTION -A

- a. Contracting costing is a variant job costing. In this method of costing each contract is a cost unit and an account is opened for each contract in the books of contractor to ascertain profit/loss thereon.
- b. By products are products of relatively small value which are incidentally and unavoidably produced in the course of manufacturing the main product. For the main product –sugar by product –baggasse
- c. Abnormal process loss consists of loss due to carelessness, machine breakdown, accident, use of defective material etc., This is arise due to abnormal factors and represents a loss which is over and above normal loss.
- d.
 - o The production is always against order.
 - o Each job needs special treatment.
 - o Each job is treated as a cost unit.
 - o Work-in-progress differs.
- e. Shoe manufacturing, readymade garments, toys, spare parts, tyres and tubes, drug, electronic components manufacturing industries.
- f. Economic batch quantity is a measure used to determine the quantity of units that can be produced at the minimum average costs in a given batch or product run.
- g. Notional profit is the different between the value of work in progress certified the cost of such work in progress certified.

SECTION B

2. Job cost sheet for the year ending

Particulars	Amount (Rs)	Amount (Rs)
Materials		9014
Wages		
Department A(60*30)	1800	
Department B(40*20)	800	
Department C(20*50)	1000	3600
PRIME COST		12614
Variable overhead		
Department A(60*12)	720	
Department B(40*20)	800	
Department C(20*30)	600	2120
Fixed overhead (40000/2000*120)		2400
Total cost		17134
Profit		5711
Sales		22845

3. contract account for the year ended 31-3-2017

Particulars	amount	Particulars	Amount
To Materials sent to site	64500	By materials returned to stores	400
To Labour	56600	By materials on hand	1400
To Plant installed @ site	11300	By plant @the end	8200
To Direct expenditure	2600	By work-in-progress	
To established charges	3250	Work certified 143000	
To national profit c/d	18150	Work uncertified 3400	146400
	156400		156400
To profit/loss a/c	11000	By national profit b/d	18150
To reserves	7150		
	18150		18150

4. statement showing apportionment of joint cost

Particulars	X	Y	Z	Total
Sales	42000	20000	18000	80000
Profit	(21000)	(10000)	(6000)	(37000)
TOTAL COST	21000	10000	12000	43000
SUBSEQUENT EXPENSE	7000	4000	5000	16000
SHARE OF JOINT COST	14000	6000	7000	27000

5. CALCULATION OF PASSENGER KILOMETER

Distance *number of days *capacity carried *percentage of occupied

- i) Bangalore to shimoga = $300 * 2 * 10 * 90\% * 50 = 270000$ PKms
- ii) Bangalore to hassan = $200 * 2 * 10 * 50 * 80\% = 160000$ Pkms
- iii) Local city = $60 * 50 * 4 = 12000$ Pkms

Total passenger Kilometer = 442000

6. Features of process costing:

- The factory is divided into a number of process.
- All types of costs relating to process are recorded.
- The finished product of one process is the raw material for the next process.
- Production is continuous.
- Product is homogeneous and units are identical.
- The cost are collected process wise.
- The cost of the previous process is transferred to the subsequent process along with the output.
- The cost of normal wastages is added to the good units produced.
- Total cost of the finished final product comprises of all costs incurred in all the process.

SECTION-C

7.

Contract account for the year 2014

Particulars	Amount	Particulars	Amount
To Material issued	480000	By material at site	8000
To direct wages	440000	By Plant at the end	44800
To plant	56000	By work in progress	
		Work certified	940000
		Work uncertified	11200
To site expenses	20000		
To indirect expenses	8000		
	1004000		1004000

Contract account for the year 2015

Particulars	Amount	Particulars	Amount
To materials	8000	By material at site	20000
To Plant	44800	By Plant at the end	28000
To work in progress	951200	By work in progress	
		Work certified	3000000
		Work uncertified	32000
To Material issued	580000		
To direct wages	620000		
To site expenses	68000		
To indirect expenses	10400		
To notional profit	797600		
	3080000		3080000
To profit/loss a/c	425387	By notional profit	797600
To general reserve	372213		
	797600		797600

Contract account for the year 2016

Particulars	Amount	Particulars	Amount
To work n progress	2659787	By material at site	32000
To material	20000	By plant at the end	12000
To plant	28000	By contractees a/c	4000000
To Material issued	336000		
To Direct wages	440000		
To site expenses	24000		
To indirect expenses	2000		
To profit / loss a/c	534213		
	4044000		4044000

Contractee's a/c 2014

Particulars	Amount	Particulars	Amount
To balance c/d	752000	By cash	752000
	752000		752000

Contractee's a/c 2015

Particulars	Amount	Particulars	Amount
To balance c/d	3152000	by balance c/d	752000
		By cash	2400000
	3152000		3152000

Contractee's a/c 2016

Particulars	Amount	Particulars	Amount
To contract a/c	4000000	by balance c/d	3152000
		By cash	848000
	4000000		4000000

8.

Crushing process

Particulars	Tons	Amount	Particulars	Tons	Amount
To direct material	5400	440000	By loss in weight	275	---
To labour		5500	By bank(Resdue)	1925	24200
To Electric power		1320	By Bank snacks		880
To Sundry Material		220	By refining Process	3200	426800
To repairs		616			
To Steam		1320			
To factory expense		2904			
	5400	451880		5400	451800

Refining process

Particulars	Tons	Amount	Particulars	Tons	Amount
To Crushing Process	3200	426800	By loss in weight	100	----
To Labour		2200	By Product	500	14850
To Electric Power		1320	By finishing Process	2600	422510
To Sundry Material		4400			
To Repair		726			
To Steam		990			
To Factory expenses		1452			
	3200	437360		3200	437360

Finishing process

Particulars	Tons	Amount	Particulars	Tons	Amount
To Refining Process	2600	422510	By loss in weight	50	----
To Labour		3300	By Finished stock	2550	444620
To Electric Power		528			
To Repair		308			
To Steam		990			
To Factory expenses		484			
To Casks		16500			
	2600	444620		2600	444620

9. **Total passengers kms** = 1 bus*25kms*4 trips*30 days*25seats*80/100
= 60000 passenger kms

Operating cost sheet for the month 60000 Pass Kms

Particulars	Amount	Per Km
(A) standing charges		
Drivers salary	18000	
Conductors salary	15000	
Mangers salary	12000	
Cleaners salary	9000	
Garage rent (64800/12)	5400	
Life tax(144000/10=14400/12)	1200	
Rent and lighting	3000	
Total standing charges	636000/60000	1.06
(B) operating charges		
Repairs	7200	0.12
Diesel, oil	72000	1.20
Depreciation(3000000-120000/10years)=288000/12	24000	0.40
Total operating charges/p kms		2.78
profit		0.067
Takings/P.kms		3.4

10. **Job cost sheet**

Particulars	Job-A	Job -B	Job-C	Job-D
materials	1600	2000	2400	2800
Wages	800	1000	1200	1400
Direct expenses	160	200	240	280
Prime cost	2560	3200	3840	4480
Factory overhead(50% prime cost)	1280	1600	1920	2240
Works cost	3840	4800	5760	6720
Office overhead (20% of works cost)	768	960	1152	1344
Total cost	4608	5760	6912	8064
profit	1536	1920	2304	2680

SECTION – A

1. Answer **any five** of the following. Each question carries **2** marks. **(5×2=10)**
- What is contract costing ?
 - What do you mean by by-products ?
 - What is abnormal process loss ?
 - Mention four features of Job costing.
 - Name any four industries in which Batch Costing is used.
 - What is Economic Batch Quantity ?
 - Give the meaning of Notional profit.

SECTION – B

Answer any three of the following. Each question carries 6 marks.

(3×6=18)

2. The following costs were incurred on Job No. 501

Materials ₹ 9,014

Wages

Department 'A' 60 hours at ₹ 30 per hour

Department 'B' 40 hours at ₹ 20 per hour

Department 'C' 20 hours at ₹ 50 per hour

Variable overheads

Department 'A' ₹ 12 per hour

Department 'B' ₹ 20 per hour

Department 'C' ₹ 30 per hour

Fixed overheads estimated at ₹ 40,000 for 2000 hours

You are required to find out cost of Job No. 501 and the price to give profit of 25% on selling price.

3. The following particulars relate to a certain contract carried out during the year ended 31-3-2017.

	(in ₹)
Work Certified	1,43,000
Cash received from contractee	1,30,000
Materials sent to site	64,500
Labour	56,600
Plant installed at site	11,300
Value of plant at the end	8,200
Cost of work not yet certified	3,400
Establishment charges	3,250
Direct expenditure	2,600
Materials on hand at the end	1,400
Materials returned to stores	400
Contract price	2,00,000

Prepare the Contract Account for the year ended 31-3-2017.

4. In processing a basic raw material, three joint products X, Y and Z produced. The joint expenses of manufacturing are :

Materials	₹ 10,000
Labour	₹ 8,000
Overheads	₹ 9,000
	27,000

Subsequent expenses are as follows :

Particulars	X (₹)	Y (₹)	Z (₹)
Materials	2,000	1,600	1,800
Labour	2,500	1,400	1,700
Overhead	2,500	1,000	1,500
	7,000	4,000	5,000
Sales value	42,000	20,000	18,000
Estimated profit on sales	50%	50%	33.33%

Show how you would apportion the joint costs of manufacture by reverse cost method.

- Manju company owns a bus which runs between Bangalore and Shimoga for 10 days in a month. The distance from Bangalore to Shimoga is 300 kms. It makes one round trip per day. The bus goes another 10 days in a month towards Hassan. The distance from Bangalore to Hassan is 200 kms. The trip is also completed in the same day. For rest of 4 days of its operation in a month it runs in the local city. Daily distance covered in local city is 60 kms. The seating capacity of the bus is 50 passengers. The bus is generally occupied 90% of the capacity while it travels from Bangalore to Shimoga and back. 80% of its capacity while it travels from Bangalore to Hassan and back. It is generally full when it runs within the city. Calculate total passenger in kilometers.
- Write the features of process costing.

SECTION – C

Answer any three of the following. Each question carries 14 marks. (3×14 = 42)

- The following information relates to a building contract for ₹ 40,00,000 and for which 80% of the value of work-in-progress is certified by the architect is being paid by the contractee.

Particulars	2014 (₹)	2015 (₹)	2016 (₹)
Materials issued	4,80,000	5,80,000	3,36,000
Direct Wages	4,40,000	6,20,000	4,40,000
Site Expenses	20,000	68,000	24,000
Indirect Expenses	8,000	10,400	2,000
Work certified 31 st March	9,40,000	30,00,000	40,00,000
Work uncertified	11,200	32,000	–
Material at site	8,000	20,000	32,000
Value of plant	56,000	–	–

The value of the plant at the end of 2014, 2015 and 2016 was ₹ 44,800, ₹ 28,000 and ₹ 12,000 respectively.

Prepare contract account for the three years and contractee Account.

- The following details are extracted from the costing books of Chandru Copra Oil products Ltd. for the year ended 31-3-2017.
Purchase of Copra 5400 tons for ₹ 4,40,000

Particulars	Crushing Process	Refining Process	Finishing Process
Cost of Labour	5,500	2,200	3,300
Electric power	1,320	792	528
Sundry Material	220	4,400	—
Repairs to plant and Machinery	616	726	308
Steam	1,320	990	990
Factory Expenses	2,904	1,452	484
Cost of Casks	—	—	16,500

3200 tonnes of crude oil were produced, 2600 tonnes of oil were produced by the refining process, 2550 tonnes of refined oil were finished for delivery.

Copra sacks sold for ₹ 880, 1925 tonnes of copra residue sold for ₹ 24,200, loss in weight in crushing 275 tonnes, 500 tonnes of by-products obtained from refining process were valued at ₹ 14,850.

You are required to show the account of each of the following process concerned for the purpose of arriving at cost per ton of each process.

- Crushing process
- Refining process and
- Finishing process including casking

9. Pranav Transport runs a minibus with a capacity of 25 seats. The bus runs between two towns which are 25 km apart. It runs for 30 days in a month and on an average 80% of seating capacity is utilised. The bus makes two round trips each day.

	(in ₹)
Cost of the bus	30,00,000
Estimated scrap value at the end of its useful life of 10 years	1,20,000
Driver's salary per month	18,000
Conductor's salary p.m.	15,000
Manager's salary p.m.	12,000
Cleaners salary p.m.	9,000
Garage rent p.a.	64,800
Life Tax	1,44,000
Rent, Lighting etc. p.m.	3,000
Repairs p.m.	7,200
Diesel, oil etc. p.m.	72,000

The profit expected 20% of takings

Prepare statements to show

- Operating cost per passenger kilometer.
- The fare per passenger kilometer.

10. From the following particulars relating to 4 jobs of a manufacturing company as certain the total cost of each job and selling price of each job. Assuming that profit mark up is 25% on selling price.

Particulars	Job – A	Job – B	Job – C	Job – D
Materials	1,600	2,000	2,400	2,800
Wages	800	1,000	1,200	1,400
Direct Expenses	160	200	240	280

Works overhead is 50% prime cost and office overhead is 20% on works cost.

11. a) The demand of an item is uniform at a rate of 25 units per month. The set up cost is ₹ 30 each time a production is made. The inventory carrying cost is 0.50 per unit per month. Determine the Economic Batch Quantity by using batch costing.
- b) In process 'A' 2000 units of raw materials were introduced a cost of ₹ 2,00,000. The other expenditure incurred in the process was ₹ 1,20,000 of the units introduced, 5% were cost in weight and the normal loss was 5% which were sold at ₹ 8 per unit. The output process 'A' was only 1825 units. Calculate the abnormal gain by preparing process 'A' account and value of abnormal gain by showing formula.