

Unit III: Operating Costing:-Concept of operating Costing Features of operating costing: Transport costing (Standing charge, Repair and Maintenance Charge and Running charges and log sheet), Canteen, Hospital and hotels costing

OPERATING COSTING OR SERVICE COSTING

Operating costing or service costing is used where services are rendered and articles are not produced. Operating costing are particularly suitable for the costing of road and rail transport services, electricity undertaking and hospital etc.

Features of operating costing:

Operating costs are usually assembled under the following headings

- i. Fixed or standing charges
- ii. Semi-fixed or maintenance charges
- iii. Variable or running charges

An important feature of operating costing is that mostly such costs are fixed in nature.

Transport costing:

In transport costing the cost unit is normally tone-mile or passenger mile but the organization of transport undertaking varies according to the nature of the undertaking.

Composition of Costs:

Transport operating costing consist of:

- I. Standing Charges (Fixed)
 - i. License duty and insurance
 - ii. Garage costs and administrative expenses
 - iii. Driver's wages
 - iv. Depreciation
 - v. Tax
- II. Running Costs (Variable)
 - i. Petrol
 - ii. Oil
 - iii. Grease

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SYLLABUS: 2T8- COST ACCOUNTING

III. Maintenance Charges (Semi variable)

- i. Repairs and maintenance
- ii. Tyres
- iii. Garage charges

Cost Units

Δ Passenger- kilometer or tone-kilometre

Δ Cost per unit=No. of vehicles* Capacity*distance travelled*Days*Passengers(weight actually carried)

FORMAT OF OPERATING COST SHEET

<u>Particulars</u>	<u>Amount</u>	<u>Amount</u>
A] STANDING CHARGES (FIXED) :		
i. License duty and insurance	***	
ii. Garage costs and administrative expenses	***	
iii. Driver's wages	***	
iv. Depreciation	***	
v. Tax	***	
TOTAL STANDING CHARGES [A]		***
B] RUNNING COSTS (VARIABLE):		
i. Petrol	***	
ii. Oil	***	
iii. Grease	***	
TOTAL RUNNING COSTS [B]		***
C] MAINTENANCE CHARGES		
i. Repairs and maintenance	***	
ii. Tyres	***	
iii. Garage charges	***	
TOTAL MAINTENANCE CHARGES [C]		***
TOTAL OPERATING COST [A+B+C]		***

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Problem 1 From the following data compute the cost per running mile:

Mileage (Annual)	15000 miles
Cost of vehicle	Rs.25000
Road license (Annual)	Rs.750
Insurance (Annual)	Rs.700
Garage Rent (Annual)	Rs.600
Supervisions and salaries	Rs.1200
Driver's wages per hour	Rs.30
Cost of fuel per gallon	Rs.30
Miles run per gallon	20 miles
Repairs and maintenance per mile	Rs1.75 per mile
Tyre allocation per mile	Rs.0.70 per mile
Estimated life of vehicle (miles)	100000 miles

Charge interest at 5% p.a. on cost of vehicles. The vehicle runs 20 miles per hour on an average.

Problem 2: Shanti Travels a transport company is running a fleet of 6 buses between 2 hours 75 km apart. Seating capacity of each bus is 40 passengers. The following particular are available for the month of June.

	Rs.
Wages of drivers conductors an cleaners	3600
Salaries of office and supervisory staff	1500
Diesel and other oils	10320
Repairs and maintenance	1200
Taxation Insurance etc.	2400
Depreciation	3900
Interest	3000

Actual passengers carried were 80% of the seating capacity. All the buses ran on all days of the month. Each bus made one round trip. Find the cost per passenger kilometer.

Problem No 3: a transport company operates two trucks. The following is the data regarding the monthly cost of operating them.

PARTICULARS	Rs.	
	TRUCK A	TRUCK B
Driver's salary	250	275
Cleaner's salary	150	160
Petrol	300	350
Mobil oil	25	30
Garage rent	125	125

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SYLLABUS: 2T8- COST ACCOUNTING

Taxes and insurance	50	50
depreciation	560	620
Expenses of supervision	200	100
repairs	120	140
overheads	40	40

Two trucks carried 150 tonnes of goods each during the month of November 2019. The distance covered were 3500 km by truck A and 5000 km by truck B. Prepare a operating cost statement for the month of November 2019.

Problem No: 4 The following particulars are available in respect of a 8 tonne truck maintained by Nagpur Company

Cost of truck	Rs.120000
Estimated life	10 years
Petrol grease oil etc	Rs.28 per single trip
Driver's wages	Rs.300 per month
Assistant's wages	Rs175 per month
Repairs and maintenance	Rs.250 per month
Insurance	Rs.3600 per annum
Tax	Rs.1200 per annum
General supervision	Rs.2400 per annum

The truck carried goods to and fro from a town covering a distance of 50 km. On return journey freight is available only up to 25% of capacity. Assuming that the truck runs on an average 25 days in a month find out:

1. Operating cost per ton km
2. Rate per ton trip which the company should charge if it wants to make a profit of 20% on freight.

Problem No 5. Bharat Transport Company owns a fleet of 10 trucks each costing Rs90000. The company has employed one Manager who is paid Rs.900/- per month, an accountant who gets Rs.500 per month and a peon who gets Rs.100 per month. The trucks are insured @ Rs.2 p.a. the annual tax is Rs.18000/-per truck. The other expenses are as follows

Driver's salary	Rs.150 p.m.
Cleaner's salary	Rs.600 p.m.
Repairs and maintenance	Rs.1800 per year for one week
Mechanic's salary	Rs.200 p.m.
Diesel consumption	3km per liter @ Rs.0.90 per liter

The estimated life of truck is 5years

Other information

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SYLLABUS: 2T8- COST ACCOUNTING

Distance travelled by each truck per day	200 km
Normal loading capacity	100 quintals
Wastage in loading capacity	10%
Percentage of truck held up for repairs	5%
Effective days in a month	25 day

Calculate

- a. Cost per quintal km
- b. Cost per k.m.

CONTRACT COSTING

Introduction:

Contract costing is also known as terminal costing. Features of contract are as follows:

1. The contractor begins work on a small number or large contract in the course of a year
2. The contracts are completed away from the contractor's premises
3. The contracts may continue over more than one accounting period
4. Materials are purchased and delivered direct to the contract site and/or are drawn from the central stores
5. The payroll is prepared at either the site or at a central administrative office
6. Sub-contractor may be employed
7. Plant and equipment may be purchased or hired for the duration of the contract from another business or from a central plant department
8. Payment by the customer for various stages of the contract is made only on receipt of architect's certificate for the completed stage
9. The contract price is normally estimated in advance of the work. Additional work found necessary may be charged on a cost plus basis.

In contract account the following costs are recorded:

1. Material cost

Materials required for a specific contract are debited to the contract.

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MASTER'S IN BUSINESS ADMINISTRATION

SYLLABUS: 2T8- COST ACCOUNTING

Problem No 6: The following are the particulars relating to a contract which has begun on 1st Jan 2016.

Particulars	Amount
Contact Price	500000
Machinery	30000
Materials	170600
Wages	148750
Direct expenses	6330
Outstanding wages	5380
Uncertified work	9000
Overheads	8240
Materials returned	1600
Materials on hand 31 st Dec 2016	3700
Machinery on hand 31 st Dec 2016	22000
Value of work certified	390000
Cash received	351000

Prepare the contract account for the year 2016 showing the amount of profit that may be taken to the credit of Profit and loss account for the year. Also show the amount of work in progress as it would appear in Balance Sheet.

Problem No: 7 MC Ltd., has taken two contracts A and B during the year. The following particulars are obtained at the year end 31-12-2017

Particulars	Contact A (April 2017)	Contact B (Sept 2017)
Date of commencement		
Contract Price	Rs.600000	Rs.500000
Materials issued	Rs.160000	Rs.60000
Materials returned	Rs.4000	Rs.2000
Materials on site 31-12-17	Rs.22000	Rs.8000
Direct Labor	Rs.150000	Rs.42000
Direct expenses	Rs.66000	Rs.35000
Establishment expenses	Rs. 25000	Rs.7000
Plant installed on cost	Rs.80000	Rs.70000
Value of plant 31-12-17	Rs.65000	Rs.64000
Cost of contract not certified	Rs.23000	Rs.10000
Value of contract certified	Rs.420000	Rs.135000
Cash received from contractors	Rs.378000	Rs.125000
Architect's fees	Rs.2000	Rs.1000

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SYLLABUS: 2T8- COST ACCOUNTING

During the period materials amounting to Rs.9000/- have been transferred from contract A to Contract B

You are required to show

- A. Contract account
- B. Contractor's account
- C. Extracts from balance sheet as on 31-12-2017

Problem No 8: The following information given below relating to an incomplete contract prepare contract account and work in progress account

Particulars	Amount
Contact Price	Rs. 500000
Materials sent to site	Rs. 86000
Labor engaged at site	Rs.65000
Plant issued at cost	Rs.80000
Direct expenses	Rs.8000
Establishment charges	Rs.4000
Materials returned to stores	Rs.600
Work certified	Rs.190000
Work uncertified	Rs.7700
Materials in hand	Rs.2000
Cash received	Rs.161500
Wages accrued	Rs.300
Depreciation on plant	

