# Acharya Patashala College of Commerce 

## Affiliated to Bengaluru Central University <br> Narasimharaja Colony, Bangalore-560019 <br> COSTING METHODS <br> ANSWERS FOR THE YEAR 2019 <br> SECTION - A

a) Job costing is carried out for purpose of ascertaining cost if each job and takes into account the cost of materials, labour and overheads etc,.
b) Printing, foundaries, repairs, and service centers, furniture, catering, jewellery, advertising agency etc.,
c) It is also called as Economic Batch Size. The object of this quantity is to see the cost of setting up and carrying cost should be minimum during the course of production, in such a way the selection of optimum size of quantity for production is called EBQ.
d) Features of process costing are:
$>$ The production is continuous and the final product is the result of last process
$>$ Cost are accumulated from one process to another
> The products are standardise and homogeneous
$>$ The output of one process will be the input of next process.
e) A work is completed by the contractor but which remains to be certified by the architect on the date of accounting.
f) All organisational units must provide medical services to the exisiting employees of an organisation the medical services are provided on the basis of functions performed, although the main function of a hospital is to provide medical service. Each department has a separate cost unit and cost of services of each department is ascertained independently of the other. Cost of medical services is appointed to administration, dispensary, transport etc., on most equitable basis.
g) When cost per unit is ascertained by considering which passenger kilometres or passenger milles, ton kilometre or ton miles etc.,

## SECTION B

2. 

| Job costing | Batch costing |
| :--- | :--- |
| Costs are accumulated according to jobs <br> contract. | Lot of similar units which comprise the batch <br> may be used as a cost unit for ascertaining of <br> cost |
| Each job is treated as separate entity | Cost sheet is prepared for each batch |
| Materials and labours cost is taken with the <br> abstracts and overhead are charged on the <br> basis of past experience | Costs are ascertained on the basis of number of <br> articles for each batch separately. |
| Costs are ascertained after completion of a job <br> or work order. | Cost per unit of the product is determined by <br> dividing the total cost of a batch by the number <br> of units of that batch |
| This is followed in printing, furniture, ship <br> building etc., | Drug industries, readymade garments, TV sets, <br> Radio etc., |

## 3. Job cost sheet

| Particulars | Amount (Rs) | Amount (Rs) |
| :--- | :--- | :--- |
| Materials |  | 24000 |
| Wages |  |  |
| Department A(120*100) | 12000 |  |
| Department B(80*60) | 4800 |  |
| Department C(40*50) | 2000 | 18800 |
| PRIME COST |  | 42800 |
| variable overhead (240*40) |  | 9600 |
| fixed overhead (50000/2000*240) |  | 6000 |
| COST OF SALES |  | 58400 |
| Profit |  | 14600 |
| SELLING PRICE |  | 73000 |

## 4. Preparation of process account

|  | units | amount |  | unit | Process |
| :--- | :--- | :--- | :--- | :--- | :--- |
| To materials | 2000 | 16000 | By normal loss a/c | 200 | 400 |
| To labour A/c |  | 4000 | By Abnormal loss a/c | 40 | 480 |
| To production overhead |  | 2000 | By out put | 1760 | 21120 |
|  | 2000 | 22000 |  | 2000 | 22000 |

## Calculate of abnormal loss:

Abnormal loss $=22000-400 / 2000-200 * 40$

$$
=21600 / 1800 * 40=480
$$

## 5. Preparation of contract account

| Particulars | Amount | Particulars | Amount |
| :--- | :--- | :--- | :--- |
| To materials purchased | 3000 | By materials returned | 480 |
| To materials issued | 1000 | By contractee a/c | 12000 |
| To wages | 4880 |  |  |
| To direct expense | 588 |  |  |
| To works cost | 1220 |  |  |
| To office cost | 899 |  | 12480 |
| To profit / loss a/c | 893 |  |  |
|  | 12480 |  |  |

## 6. calculate of total passenger kilometre

a. Total kms run=Distance*number of buses*number of days

$$
=400 * 4 * 3 \quad=4800 \mathrm{Kms}
$$

b. Total passenger PePr Kms = Distance*number of buses*number of days*capacity carried

$$
\begin{aligned}
& =400 * 4 * 30 * 50 * 75 \% \\
& =1800000
\end{aligned}
$$

## 7a. preparation of job cost sheet

| Particulars | Amount |
| :--- | :--- |
| Direct materials | 17600 |
| Direct labour | 8000 |
|  | Prime cost |
| Works overhead (50\% of the prime cost) | 25600 |
|  | 12800 |
| Administration overhead (10\% of works cost) | Works cost |
|  | 38400 |
| Profit(10\% of the cost of production) | 3840 |
|  | Cost of production |

## B. preparation of process account

## Process $X$ account

| Particulars | units | amount | Particulars | units | amount |
| :--- | :--- | :--- | :--- | :--- | :--- |
| To Raw material | 4000 | 400000 | By weight lost | 200 | ----- |
| To expenditure |  | 240000 | By scarp sold @16 per | 200 | 3200 |
| To abnormal gain | 50 | 8400 | unit <br> By next process a/c | 3650 | 645200 |
|  |  | 4050 | 648400 |  | 4050 |

Abnormal gain=640000-3200/4000-200*50
$636800 / 3800 * 50=8400$

## 8. Preparation of process account

## Process I Account

| Particulars | units | amount | Particulars | units | amount |
| :--- | :--- | :--- | :--- | :--- | :--- |
| To raw Materials | 1000 | 3000 | By Normal loss | 50 | 100 |
| To direct material |  | 2600 | By process II a/c | 950 | 9500 |
| To direct wages |  | 2000 | Cost per unit Rs 10 |  |  |
| To production overhead |  | 2000 |  |  |  |
|  | 1000 | 9600 |  | 1000 | 9600 |

## Process II Account

| Particulars | units | amount | Particulars | units | amount |
| :--- | :--- | :--- | :--- | :--- | :--- |
| To raw Materials | 950 | 9500 | By Normal loss | 95 | 980 |
| To direct material |  | 1980 | By abnormal loss | 15 | 300 |
| To direct wages |  | 3000 | By Process III a/c | 840 | 16800 |
| To production overhead |  | 3000 |  |  |  |
|  |  |  |  |  |  |

Value of abnormal loss $=17480-380 / 950-15 * 15=300$
Process III Account

| Particulars | units | amount | Particulars | units | amount |
| :--- | :--- | :--- | :--- | :--- | :--- |
| To raw Materials | 840 | 16800 | By Normal loss | 126 | 630 |
| To direct material |  | 2962 | By process II a/c | 750 | 28500 |
| To direct wages |  | 4000 |  |  |  |
| To production overhead |  | 4000 |  |  |  |
| To abnormal gain a/c | 36 | 1368 |  | 876 | 29130 |
|  | 876 | 29130 |  |  |  |

Value of abnormal gain $=27762-630 / 840-126 * 36=1368$

## 9. Preparation of contract a/c

## Contract a/c

| Particulars | A | B | Particulars | A | B |
| :--- | :--- | :--- | :--- | :--- | :--- |
| To materials | 170698 | 146534 | By materials to stores | 1098 | 1264 |
| To labour | 148750 | 137046 | By WIP a/c <br> Work certificate <br> Work uncertificated | 390000 <br> 9000 | 290000 <br> 6000 |
| To plant | 30000 | 25000 | By materials at site | 3766 | 3472 |
| To direct expenses | 6334 | 5718 | By plant | 22000 | 19000 |
| To established <br> charges | 8252 | 7740 | By notional loss |  | 6826 |
| To outstanding wages | 4800 | 4200 |  | $\mathbf{4 2 5 8 6 4}$ | $\mathbf{3 2 6 5 6 2}$ |
| To outstanding <br> expenses | 480 | 360 |  | 56550 |  |
| To notional profit | 56550 |  |  | $\mathbf{5 6 5 5 0}$ |  |
|  | $\mathbf{4 2 5 8 6 4}$ | $\mathbf{3 2 6 5 6 2}$ |  | To notional profit |  |
| To profit/ loss a/c | 30160 |  |  |  |  |
| To WIP a/c | 26390 |  |  |  |  |
|  | 56550 |  |  |  |  |

## Calculate of profit transferred to profit /loss account

=notional profit*cash received /work certified*2/3
$=56550 * 312000 / 390000 * 2 / 3$
=30160
Cash received $=390000 * 80 / 100=312000$

## Contractee account

| Particulars | A | B | Particulars | A | B |
| :--- | :--- | :--- | :--- | :--- | :--- |
| To balance c/d | 312000 | 232000 | By cash a/c | 312000 | 232000 |
|  | 312000 | 232000 |  | 312000 | 232000 |

## 10. Preparation of operation cost sheet in the books of transport company

| Particulars | Amount | Amount |
| :--- | :--- | :--- |


| I. FIXED CHARGES <br> Depreciation <br> Wages <br> Cleaners wages <br> Directors fees <br> Office establishment <br> Licence and tax <br> Interest <br> Garage rent | 140000 24000 24000 9600 24000 4000 28000 7200 | 260800 |
| :---: | :---: | :---: |
| II. VARIABLE CHARGES <br> Annual repairs Diesel expense | $\begin{aligned} & 112000 \\ & 40000 \end{aligned}$ | 152000 |
| Operating cost |  | 412800 |
| Income from sale of old tyres and tubes |  | 12800 |
| Net operating cost |  | 400000 |

Cost per Km = net operating cost/Passenger killometer
= 400000/1440000
$=0.2778$ per km

## 11. Preparation of job cost sheet

## Calculate of overhead ratio of different rates

a) Hourly rate of direct wages
$X=20000 / 2.5=8000$
$Y=24000 / 2.5=9600$
b) Overhead rates per hour
$X=10000 / 80=1.25$ per hour
$Y=18000 / 9600=1.875$ per
c) Percentage of overhead on direct wages
$X=10000 / 20000 * 100=50 \%$
$Y=18000 / 24000 * 100=75 \%$
Job cost sheet

| Particulars | Amount |
| :--- | :--- |
| materials | 140 |
| Direct wages |  |
| $X\left(16^{*} 2.5\right)$ | 40 |
| Y(12*2.5) | 30 |
| Chargeable expenses | 10 |
| Prime cost | 220 |
| Overheads: |  |
| X (50\% of direct wages) | 20 |
| Y (75\% of direct wages) | 22.5 |
| Total cost | 262.5 |
| profit | 52.5 |
| sales | 315 |


Write the meaning of Job costing.

Give any four examples of industries where job costing is applicable.
(c) 'మితెవ్యయ శ్మమియ జరిమాణ' ఎండరాఁను ?

What do you mean by Economic Batch Quantity ?
(d) హ్మ్ర్య జిజ్జే ఎరడు గుణలచ్షణగళన్ను 3అన.

State any two features of process costing.
(e) ట్రమూణిలరంశడ శిలశ ఎండ゙రేఁను ?

What do you mean by work uncertified ?

State the meaning of Hospital costing.

What is composite cost unit ?

Write the differences between Job Costing and Batch Costing.
 బిలియున్ను చండుఃణియిరి.
ఈజ్మ్చవెస్తుగటు ₹ 24,000
 ఇలాఖీ B జ్రై గంజీగగ ₹ 60 రంతే ఒట్టు 80 గంటీగసు ఇలాయీ C జ్రె గి గంటిగే ₹ 50 రంతే ఒట్టు 40 గంజిగట
బజర మెలల్ట్జ్జ్జు

Calculate the cost and selling price of the job after adding 25\% profit on total cost.
Materials ₹ 24,000
Wages - Dept. A - 120 hrs at ₹ 100 per hr
Dept. B-80 hrs at ₹ 60 per hr
Dept. C-40 hrs at ₹ 50 per hr
Variable overhead - ₹ 40 per hour
Fixed overhead - ₹ 50,000 for 2,000 hours




 నజ్టుద మొల్కచన్ను చండుఃఃఙియిరి.
X company manufactures a product $2,000 \mathrm{kgs}$, raw materials at ₹ 8 per kg were supplied to Process-1. Labour cost amounted to ₹ 4,000 and production overhead incurred was ₹ 2,000 . The normal loss was estimated at $10 \%$ and was sold at ₹ 2 per kg . Actual production in the process was 1760 kgs . Prepare Process-1 account and value of abnormal loss.
5.

From the information given below prepare contract account :

| Particulars | Amount (₹) |
| :--- | ---: |
| Materials bought from the market | 3,000 |
| Materials issued from stores | 1,000 |
| Materials returned to stores | 480 |
| Wages | 4,880 |
| Direct expenses | 588 |

Works on cost $25 \%$ of direct wages
Office on cost $10 \%$ of prime cost
Contract price of $₹ 12,000$
6. శ్ళేచండ మూడితియింద :
(a) ఒట్టు శి.మిల. గెళు
(b) ఒట్టు జ్రయాణిశ ళః.మిల. గబు ఇవుగఱన్ను శండుఃండియిరి.

ఒందు కంగగళనల్లి ซలయిఁనిచF\&సిద దిసగళు : 30 దినగగళు

ఒట్టు బస్సెగుటు : 4
జ్రీ బస్సిన నామెథ్య 50 జ్ర్యయాణికరు

From the following information calculate :
(a) Total kilometers
(b) Total passenger kilometers

Days operated in a month - 30 days
Trips made by each bus covering a distance of 200 kms one side
No. of buses - 4
Capacity of each bus 50 passengers
Average passenger travelling - $75 \%$ capacity.
 బీలఆయున్ను చండుకండియిరి.
₹

Nేలర శ్రెము జేజ్జ $\quad 8,000$





 3,650 ఘ゙టప゙గళు.

（a）From the following particulars related to Job No． 101 ascertain the total cost and estimated selling price．
₹

Direct materials 17,600
Direct labour $\quad 8,000$
Works overheads are recovered on the basis of 50\％of prime cost and administrative overhead $10 \%$ of works cost．A profit of $10 \%$ on total cost is to be added．
（b）In process $X, 4,000$ units of raw materials were introduced at a cost of $₹ 4,00,000$ ．The other expenditure incurred in the process was $₹ 2,40,000$ ．Out of the units introduced $5 \%$ were lost in weight and the normal loss was $5 \%$ which were sold＠₹ 16 per unit．The output of process X was only 3,650 units．

Prepare process X A／c and calculate the value of abnormal gain．



| ఐటంగ\％ | ఒむ్టె <br> （₹） | జ్మిరీం－I <br> （₹） | జ్మేci - II (₹) | జ్రొయియ－III <br> （₹） |
| :---: | :---: | :---: | :---: | :---: |
| నెలర ఫబ్మ్ జస్తుగరు | 7，542 | 2，600 | 1，980 | 2，962 |
| నైర జుల | 9，000 | 2，000 | 3，000 | 4，000 |
| లుత్రాననర ఓపరాజేడాగగు | 9，000 | －－－－－ | －－－－－ | －－－－－ |
| బారుద లుత్బాదనగ |  | 950 （\％゙ひచగసీ） | 840 （\％゙ひずn |  |
| న్రొమోన్క నజ్ట్ర |  | 5\％ | 10\％ | 15\％ |
|  |  | ₹ 2 | ₹ 4 | ₹ 5 |






Product ' A ' is obtained after it passes through three distinct processes. The following information is obtained from the accounts for week ending 31-12-18.

| ITEMS | TOTAL <br> (₹) | $\begin{gathered} \text { PROCESS - I } \\ \text { (₹) } \end{gathered}$ | $\begin{gathered} \text { PROCESS - II } \\ \text { (₹) } \end{gathered}$ | $\begin{gathered} \text { PROCESS - III } \\ \text { (₹) } \end{gathered}$ |
| :---: | :---: | :---: | :---: | :---: |
| Direct materials | 7,542 | 2,600 | 1,980 | 2,962 |
| Direct wages | 9,000 | 2,000 | 3,000 | 4,000 |
| Production overheads | 9,000 | ----- | ------ | ------ |
| Output during the week |  | 950 (units) | 840 (units) | 750 (units) |
| Normal loss |  | 5\% | 10\% | 15\% |
| Sale of scrap per unit |  | ₹ 2 | ₹ 4 | ₹ 5 |

1000 units at ₹ 3 each were introduced in Process-I. There were no stock of materials or work-in-progress at the beginning or at the end of the period. The output of each process passes directly to next process and finally to finished stock. Production overhead is recovered at $100 \%$ of direct wages. Prepare Process cost a/c.


| ఎిజరగగ\% | $\begin{gathered} A \\ \text { (₹) } \end{gathered}$ | $\begin{gathered} \mathbf{B} \\ \text { (₹) } \end{gathered}$ |
| :---: | :---: | :---: |
|  | 1,70,698 | 1,46,534 |
| జుల | 1,48,750 | 1,37,046 |
| న్ల్థెర | 30,000 | 25,000 |
|  | 6,334 | 5,718 |
|  | 8,252 | 7,704 |
|  | 1,098 | 1,264 |
|  | 3,90,000 | 2,90,000 |
|  | 9,000 | 6,000 |
|  | 3,766 | 3,472 |
| జృలి బాః్ర (31/12/2018) | 4,800 | 4,200 |
| నేలర జేజ్జుకు బలరి (31/12/2018) | 480 | 360 |
| న్థ్థారురు మోల్క (31/12/2018) | 22,000 | 19,000 |
| గుక్తిగึ\% బేల | 5,00,000 | 4,00,000 |




The following information relates to two contracts of a company for the year 2018.

| Particulars | A <br> (₹) | B <br> (₹) |
| :--- | ---: | ---: |
| Materials sent to site | $1,70,698$ | $1,46,534$ |
| Labour | $1,48,750$ | $1,37,046$ |
| Plant | 30,000 | 25,000 |
| Direct expenses | 6,334 | 5,718 |
| Establishment charges | 8,252 | 7,704 |
| Materials returned to stores | 1,098 | 1,264 |
| Work certified | $3,90,000$ | $2,90,000$ |
| Work uncertified | 9,000 | 6,000 |
| Materials at site (31/12/2018) | 3,766 | 3,472 |
| Wages outstanding (31/12/2018) | 4,800 | 4,200 |
| Direct expenses outstanding (31/12/2018) | 480 | 360 |
| Value of plant (31/12/2018) | $2,00,000$ | $4,00,000$ |
| Contract Price |  |  |

The cash received from the contractee was $80 \%$ of the value of the work Certified. Prepare contract account and contractee's account.


 ముత్తు ₹ $1,60,000$.













Workout in an appropriate cost sheet and find the unit cost i.e., per passenger km , for the year 2018-2019, for a fleet of passenger buses run by a transport company. The following information is extracted from its books.
(a) 5 passenger buses of ₹ $1,00,000$, ₹ $2,40,000$, ₹ 90,000 , ₹ $1,10,000$ and $₹ 1,60,000$ respectively.
(b) Yearly depreciation on vehicle is $20 \%$ of cost.
(c) Annual repair charges, maintenance and spare parts $80 \%$ of depreciation.
(d) Wages of 10 drivers is ₹ 200 per month.
(e) Wages of 20 cleaners at $₹ 100$ per month.
(f) Director's fees - ₹ 800 per month.
(g) Office establishment ₹ 2,000 per month
(h) License and taxes at $₹ 4,000$ per annum.
(i) Realization by sale of old tyres and tubes - ₹ 6,400 for every 6 months.
(j) Yearly rate of interest is 4\% on capital.
(k) Diesel expenses per annum is ₹ 40,000 .
(1) 900 passengers were carried over $1,600 \mathrm{kms}$ during the year.
(m) Rent of 6 garages at ₹ 100 each per month.


₹

ซึజ్ వన్తుగఱ


140



| 10 |
| ---: |
| 220 |
| 74 |
| 294 |


$₹$
₹
శబ
$3,00,000$
నిచ్య్ మారలళ
5，00，000
నలర జాల ：
ఇలాజี X
20，000
ఇలอని Y
24，000
मిอ్ర D2むたగ\％
8，000
ఓच్రేఙた్ ：
ఇలుజీ $\mathrm{X} \quad 10,000$
ఇలాజీ Y $\quad 18,000$
ఒష్టు లాభ

| $\frac{1,20,000}{5,00,000}$ |
| :--- |

5，00，000






A company has manufacturing shops. The shop floor supervisor presented the following cost for job A to determine the selling price :

|  | $₹$ <br> (per unit) |
| :--- | :---: |
| Material | 140 |
| Direct wages; 28 hrs @ ₹ 2.50 per hr. | 70 |
| (Dept. X - 16 hrs and Dept. Y - 12 hrs ) |  |
| Chargeable expenses (stores) | $\underline{10}$ |
| Add : 33.67\% for expenses (overhead) | $\underline{220}$ |
|  | $\underline{294}$ |

Analysis of the P/L account shows the following :


It is noted that average hourly rates for the two departments $X$ and $Y$ are similar. You are required to :
(a) Draw up a job cost sheet.
(b) Calculate the revised cost using overhead figures as shown in the profit and loss a/c as the basis for charging overhead to Department $X$ and $Y$.
(c) Add $20 \%$ of total cost to determine the selling price.

