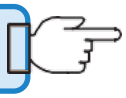
CHAPTER 9

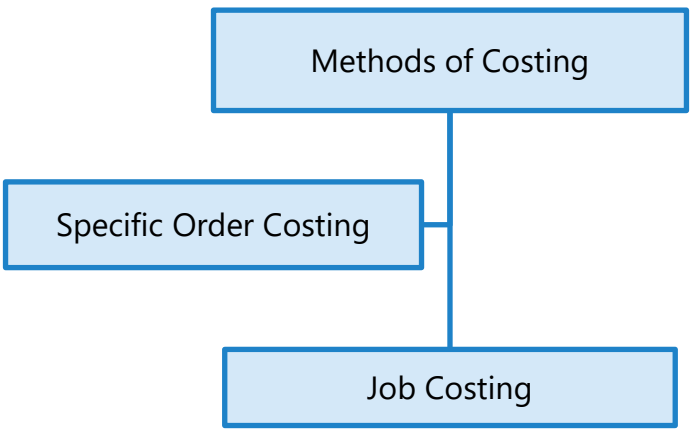
# JOB COSTING

## LEARNING OUTCOMES

- Describe Job Costing methods.
- Explain the accounting entries for cost elements under both the methods.
- Determining cost for a job.

## CHAPTER OVERVIEW





# 1. JOB COSTING

## 1.1 Meaning of Job Costing

CIMA London defines Job Costing as "**the category of basic costing methods which is applicable where the work consists of separate contracts, jobs or batches, each of which is authorised by specific order or contract**." According to this method, costs are collected and accumulated according to jobs, contracts, products or work orders. Each job or unit of production is treated as a separate entity for the purpose of costing. Job Costing is carried out for the purpose of ascertaining cost of each job and takes into account the cost of materials, employees and overhead etc. The job costing method is also applicable to industries in which production is carried out in batches. **Batch production basically is of the same character as the job order production, the difference being mainly one in the size of different orders.**

## 1.2 Principles of Job Costing

The job costing method may be regarded as the principal method of costing since the basic object and purpose of all costing is to:

- Analysis and ascertainment of cost of each unit of production
- Control and regulate cost
- Determine the profitability

The basic principles enunciated for the job costing method are valid essentially for all types of industry. For example, printing; furniture; hardware; ship-building; heavy machinery; interior decoration, repairs and other similar work.

## 1.3 Process of Job Costing

- Prepare a separate cost sheet for each job
- Disclose cost of materials issued for the job
- Employee costs incurred (on the basis of bill of material and time cards respectively)
- When job is completed, overhead charges are added for ascertaining total expenditure

## 1.4 Suitability of Job Costing

- When jobs are executed for different customers according to their specifications.
- when no two orders are alike and each order/job needs special treatment.
- Where the work-in-progress differs from period to period on the basis of the number of jobs in hand.

## 2. JOB COST CARD/ SHEET

Each job order is asymmetrical to other due to specific and customised requirements. To ascertain cost of a particular job, it is necessary to record all the expenditure related with a job separately. For this purpose, Job Cost card is used. Job cost card is a cost sheet, where the quantity of materials issued, hours spent by different class of employees, amount of other expenses and share of overheads are recorded. This is helpful in knowing the total cost, profitability etc. of a job. The following is an illustrative format of Job Cost card/ sheet.

**Format of Job Cost Sheet:**

| JOB COST SHEET | | | | | |
|---|---|---|---|---|---|
| Description: _____<br>Blue Print No.: _____<br>Material No.: _____<br>Reference No.: _____ | | | Job No.: _____<br>Quantity: _____<br>Date of delivery: _____<br>Date commenced: _____<br>Date finished: _____ | | |
| **Date** | **Reference** | **Details** | **Material** | **Labour** | **Overhead** |
| | | | | | |
| | | Total | | | |

| *Summary of costs* | *Estimated (₹)* | *Actual (₹)* | For the job _____<br>Units produced _____<br>Cost/unit _____<br>Remarks _____<br>Prepared by: _____<br>Checked by: _____ |
|---|---|---|---|
| Direct material cost<br>Direct wages<br>Production overhead | | | |
| PRODUCTION COST | | | |
| Administration and Selling & Distribution Overheads | | | |
| | | | |
| TOTAL COST | | | |
| PROFIT/LOSS<br>SELLING PRICE | | | |

# 3. COLLECTION OF COSTS FOR A JOB

## 3.1 Collection of Materials Cost

An essential requirement of job cost accounting is that **direct materials and their cost must be traced to and identified with specific job or work order**. This segregation of materials cost by jobs or work order is brought by the use of separate stores requisitions for each job or work order. Where a bill of material is prepared, it provides the basis for the preparation of these stores requisitions. But when the entire quantity of materials specified in the bill of materials is drawn in one lot or in installments, the bill itself could be made to serve as a substitute for the stores requisition.

After the materials have been issued and the stores requisitions have been priced, it is usual to enter the value of the stores requisition in a material abstract or analysis book. It serves to analyse and collect the cost of all direct materials according to job or work orders and departmental standing orders or expense code numbers. From the abstract book, **the summary of materials cost of each job is posted to individual job cost sheets or cards in the Work-in-Progress ledger**. The postings are usually made weekly or monthly. Similarly, at periodic intervals, from the material abstract books, summary cost of indirect material is posted to

different standing orders or expense code numbers in the Overhead Expenses ledger. If any special material has been purchased for a particular job, it is generally the practice to charge such special material direct to the job concerned without passing it through the Stores Ledger, as soon as it is purchased.

If any surplus material is left over in the case of any job, unless it can be immediately and economically used on some other job, the same is returned to the stores with a proper supporting document/stores Debit Note or Shop Credit, and the relevant job account is credited with the value of excess material returned to the stores. **If the surplus material is utilised on some other job, instead of being returned to the stores first, a material transfer note is prepared.** The transfer note would show the number of the transfer to job as well as transferee job (or jobs) so that, on that basis, the cost thereof can be adjusted in the Work-in-Progress Ledger.

## 3.2 Collection of Labour Cost

All direct labour cost must be analysed according to individual jobs or work orders. Similarly, different types of indirect labour cost also must be collected and accumulated under appropriate standing order or expenses code number. The analysis of labour according to jobs or work orders is, usually, made by means of job time cards or sheets. **All direct labour is booked against specific jobs in the job time cards or sheets.** All the idle time also is booked against appropriate standing order expense code number either in the job time card for each job or on a separate idle time card for each worker (where the job time card is issued job-wise). The time booked or recorded in the job time and idle time cards is valued at appropriate rates and entered in the labour abstract or analysis book. All direct employee cost is accumulated under relevant job or work order numbers, and **the total or the periodical total of each job or work order is then posted to the appropriate job cost card or sheet in Work-in-Progress ledger**. The postings are usually made at the end of each week or month.

The abstraction of idle time costs under suitable standing order or expenses code numbers is likewise done and the amounts are posted to the relevant departmental standing order or expense code number in the Overhead Expenses Ledger at periodical intervals. As regards other items of indirect labour cost these are collected from the payrolls books for the purpose of posting against standing order or expenses code numbers in the Overhead Expenses ledger.

## 3.3 Collection of Overheads

Manufacturing overheads are collected under suitable standing order numbers and selling and distribution overheads against cost accounts numbers. Total overhead expenses so collected are apportioned to service and production departments on some suitable basis. The expenses of service departments are finally transferred to production departments. The total overhead of production departments is then applied to products on some realistic basis, *e.g.* machine hour; labour hour; percentage of direct wages; percentage of direct materials; etc. It should be remembered that the use of different methods will lead to a different amount being computed for the works overhead charged to a job hence to different total cost. The problem of accurately absorbing, in each individual job or work order, the overhead cost of different cost centres or departments involved in the manufacture is difficult under the job costing method. It is because the cost or the expenses thereof cannot be traced to or identified with any particular job or work order. In such circumstances, the best that can be done is to apply a suitable overhead rate to each individual article manufactured or to each production order. This is essentially an *arbitrary* method.

## 3.4 Treatment of spoiled and defective work

**Spoiled work is the quantity of production that has been totally rejected and cannot be rectified.**

**Defective work refers to production that is not as perfect as the saleable product but is capable of being rectified** and brought to the required degree of perfection provided some additional expenditure is incurred. Normally, all the manufacturing operations are not fully successful; they result in turning out a certain amount of defective work. Nonetheless, over a period of time it is possible to work out a normal rate of defectives for each manufacturing process which would represent the number of defective articles which a process shall produce in spite of due care. Defects arise in the following circumstances:

| Circumstances | Treatment |
|---|---|
| (1) **Where a percentage of defective work is allowed in a particular batch as it cannot be avoided.** | When a normal rate of defectives has already been established, if the actual number of defectives is within the normal limit or is near thereto **the cost of rectification will be charged to the whole job and spread over the entire output of the batch**. If, on the other hand, the number of defective units substantially exceeds the normal, the cost of rectification of the number which exceeds the normal will be written off as a loss in the Costing Profit and Loss Account. |
| (2) **Where defect is due to bad workmanship.** | In this case cost of rectification will be abnormal cost, *i.e.*, not a legitimate element of the cost. Therefore, **the cost of rectification shall be written off as a loss**, unless by an arrangement, it is to be recovered as a penalty from the workman concerned. It is possible, however that the management did provide for a certain proportion of defectives on account of bad workmanship as an unavoidable feature of production. If that be the case, the cost of rectifying to the extent provided for by the management will be treated as a normal cost and charged to the batch. |
| (3) **Where defect is due to the Inspection Department wrongly accepting incoming material of poor quality.** | In this case the **cost of rectification will be charged to the department and will not be considered as cost of manufacture of the batch.** Being an abnormal cost, it will be written off to the Costing Profit and Loss Account. |

# 4. ACCOUNTING OF COSTS FOR A JOB

## 4.1 Entries in Control Accounts

1. For purchase of materials-

   Stores Ledger Control A/c Dr.

   To Cost Ledger Control A/c*

2. For the value of direct materials issued to jobs-

   Work-in-Process Control A/c Dr.

   To Stores Ledger Control A/c

3. For return of direct materials from jobs-

   Stores Ledger Control A/c Dr.

   To Work-in-Process Control A/c

4. For return of materials to suppliers –

   Cost Ledger Control A/c Dr.

   To Stores Ledger Control A/c

5. For indirect materials-

   Factory Overhead Control A/c Dr.

   To Stores Ledger Control A/c

6. For wages paid-

   Wages Control A/c Dr.

   To Cost Ledger Control A/c

7. For direct wages incurred on jobs-

   Work-in-Process Control A/c Dr.

   To Wages Control A/c

8. For indirect wages –

   Factory Overhead Control A/c Dr.

   To Wages Control A/c

9. For any indirect expense paid-

| | | |
|---|---|---|
| Factory Overhead Control A/c | Dr. | |
| To Cost Ledger Control A/c | | |

10. For charging overhead to jobs-

| | | |
|---|---|---|
| Work-in-Process Control A/c | Dr. | |
| To Factory Overhead Control A/c | | |

11. For the total cost of jobs completed-

| | | |
|---|---|---|
| Cost of Sales A/c | Dr. | |
| To Work-in-Progress Control A/c | | |

12. The balance of Cost of Sales A/c is transferred to Costing Profit and Loss a/c; For such transfer –

| | | |
|---|---|---|
| Costing Profit and Loss A/c | Dr. | |
| To Cost of Sales A/c | | |

13. For the sales value of jobs completed -

| | | |
|---|---|---|
| Cost Ledger Control A/c | Dr. | |
| To Costing Profit and Loss A/c** | | |

*General ledger adjustment account is another name of Cost Ledger Control Account.

**The balance of Costing Profit and Loss Account shall now represent profit or loss. The balance of Cost Ledger Control Account shall be carried forwarded. With the balance on all the accounts trial balance can be drawn.

## ILLUSTRATION 1

*The manufacturing cost of a work order is ₹ 1,00,000; 8% of the production against that order spoiled and the rejection is estimated to have a realisable value of ₹ 2,000 only. The normal rate of spoilage is 2%. RECORD this in the costing journal.*

## SOLUTION

Actual loss due to spoilage = 8% of ₹ 1,00,000 = ₹8,000 and Normal loss = 2% of ₹ 1,00,000 = ₹2,000, therefore abnormal loss = ₹6,000.

The rejection has a realisable value of ₹ 2,000, which is to be apportioned between normal loss and abnormal loss in the ratio of 2 : 6.

The accounting entries necessary for recording the above facts would be:

| | | *(₹)* | *(₹)* |
|---|---|---|---|
| Material Control Account | Dr. | 2,000 | |
| Overhead Control Account | Dr. | 1,500 | |
| Costing Profit and Loss Control Account | Dr. | 4,500 | |
| To Work-in-Progress Control Account | | | 8,000 |

In the case of defectives being inherent in the manufacturing process, the rectification cost may be charged to the specific jobs in which they have arisen. In case detectives cannot be identified with jobs, the cost of rectification may be treated as factory overheads. Abnormal defectives should be written off to the Costing Profit and Loss Account.

## ILLUSTRATION 2

*A shop floor supervisor of a small factory presented the following cost for Job No. 303, to determine the selling price.*

| | **Per unit (₹)** |
|---|---|
| *Materials* | *70* |
| *Direct wages 18 hours @ ₹ 2.50*<br>*(Deptt. X 8 hours; Deptt. Y 6 hours; Deptt. Z 4 hours)* | *45* |
| *Chargeable expenses* | *5* |
| | *120* |
| *Add : 33-1/3 % for expenses cost* | *40* |
| | *160* |

***Analysis of the Profit/Loss Account***

***(for the current financial year)***

| | | (₹) | | (₹) |
|---|---|---|---|---|
| *Materials used* | | *1,50,000* | *Sales less returns* | *2,50,000* |
| *Direct wages:* | | | | |
| *Deptt. X* | *10,000* | | | |
| *Deptt. Y* | *12,000* | | | |
| *Deptt. Z* | *8,000* | *30,000* | | |
| *Special stores items* | | *4,000* | | |
| *Overheads:* | | | | |
| *Deptt. X* | *5,000* | | | |
| *Deptt. Y* | *9,000* | | | |
| *Deptt. Z* | *2,000* | *16,000* | | |
| *Works cost* | | *2,00,000* | | |
| *Gross profit c/d* | | *50,000* | | |
| | | *2,50,000* | | *2,50,000* |
| *Selling expenses* | | *20,000* | *Gross profit b/d* | *50,000* |
| *Net profit* | | *30,000* | | |
| | | *50,000* | | *50,000* |

*It is also noted that average hourly rates for the three Departments X, Y and Z are similar.*

*You are required to:*

*(i) PREPARE a job cost sheet.*

*(ii) CALCULATE the entire revised cost using current financial year actual figures as basis.*

*(iii) Add 20% to total cost to DETERMINE selling price.*

**SOLUTION**

**Job Cost Sheet**

Customer Details ——— Job No._____

Date of commencement —— Date of completion _____

| Particulars | Amount (₹) |
|---|---|
| Direct materials | 70 |
| Direct wages: | |
| Deptt. X ₹ 2.50 × 8 hrs. = ₹ 20.00 | |
| Deptt. Y ₹ 2.50 × 6 hrs. = ₹ 15.00 | |
| Deptt. Z ₹ 2.50 × 4 hrs. = ₹ 10.00 | 45 |
| Chargeable expenses | 5 |
| **Prime cost** | **120** |
| Overheads: | |
| Deptt. X $= \frac{₹5,000}{₹10,000} \times 100$ = 50% of ₹ 20 = ₹ 10.00 | |
| Deptt. Y $= \frac{₹9,000}{₹12,000} \times 100$ = 75% of ₹ 15 = ₹ 11.25 | |
| Deptt. Z $= \frac{₹2,000}{₹8,000} \times 100$ = 25% of ₹ 10 = ₹ 2.50 | 23.75 |
| **Works cost** | **143.75** |
| Selling expenses= $\frac{₹20,000}{₹2,00,000} \times 100$ = 10% of work cost | 14.38 |
| Total cost | 158.13 |
| Profit (20% of total cost) | 31.63 |
| **Selling price** | **189.76** |

## 4.2 Advantages and Disadvantages of Job Costing

Some of the advantages and disadvantages of Job costing are summarised as below:

| Advantages | Disadvantages |
|---|---|
| 1. The details of Cost of material, labour and overhead for all job is available to control. | 1. Job Costing is costly and laborious method. |
| 2. Profitability of each job can be derived. | 2. As lot of clerical process is involved the chances of error is more. |
| 3. It facilitates production planning. | 3. This method is not suitable in inflationary condition. |
| 4. Budgetary control and Standard Costing can be applied in job costing. | 4. Previous records of costs will be meaningless if there is any change in market condition. |
| 5. Spoilage and detective can be identified and responsibilities can be fixed accordingly. | |

## 4.3 Difference between Job Costing and Process Costing

The main points which distinguish job costing and process costing are as below:

| Job Costing | Process Costing |
|---|---|
| (i) A Job is carried out or a product is **produced by specific orders**. | The process of producing the product has a continuous flow and the **product produced is homogeneous.** |
| (ii) Costs are determined **for each job.** | Costs are compiled on time basis i.e., for production of a given accounting period **for each process** or department. |
| (iii) **Each job is separate and independent** of other jobs. | **Products lose their individual identity** as they are manufactured in a continuous flow. |

| | |
|---|---|
| (iv) Each job or order has a number and costs are collected against the same job number. | The unit cost of process is an average cost for the period. |
| (v) **Costs are computed when a job is completed**. The cost of a job may be determined by adding all costs against the job. | **Costs are calculated at the end of the cost period.** The unit cost of a process may be computed by dividing the total cost for the period by the output of the process during that period. |
| (vi) As production is not continuous and each job may be different, so **more managerial attention is required for effective control.** | Process of production is usually standardized and is therefore, quite stable. Hence **control here is comparatively easier**. |

# SUMMARY

- **Job Costing**: The category of basic costing methods which is applicable where the work consists of separate contracts, jobs or batches, each of which is authorised by specific order or contract.

# TEST YOUR KNOWLEDGE

## Multiple Choice Questions (MCQs)

1. *In case product produced or jobs undertaken are of diverse nature, the system of costing to be used should be:*

   *(a) Process costing*

   *(b) Operating costing*

   *(c) Job costing*

   *(d) None of the above*

2. *The production planning department prepares a list of materials and stores required for the completion of a specific job order, this list is known as:*

   *(a) Bin card*

   *(b) Bill of material*

(c) *Material requisition slip*

(d) *None of the above*

3. *Job costing is similar to that under Batch costing except with the difference that a:*

(a) *Job becomes a cost unit.*

(b) *Batch becomes the cost unit instead of a job*

(c) *Process becomes a cost unit*

(d) *None of the above.*

4. *In job costing which of the following documents are used to record the issue of direct material to a job':*

(a) *Goods received note*

(b) *Material requisition*

(c) *Purchase order*

(d) *Purchase requisition*

5. *The most suitable cost system where the products differ in type of materials and work performed is :*

(a) *Job Costing*

(b) *Process Costing*

(c) *Operating Costing*

(d) *None of these.*

6. *Which of the following statements is true:*

(a) *Job cost sheet may be used for estimating profit of jobs.*

(b) *Job costing cannot be used in conjunction with marginal costing.*

(c) *A production order is an order received from a customer for particular jobs.*

(d) *None of these.*

7. *Which of the following statements is true:*

   (a) *Job cost sheet may be prepared for facilitating routing and scheduling of the job*

   (b) *Job costing can be suitably used for concerns producing uniformly any specific product*

   (c) *Job costing cannot be used in companies using standard costing*

   (d) *Neither (a) nor (b) nor (c)*

## Theoretical Questions

1. *DESCRIBE Job Costing giving example of industries where it is used.*
2. *DISTINGUISH between Job Costing & Process Costing.*

## Practical Problems

1. *In a factory following the Job Costing Method, an abstract from the work-in-progress as on 30th September was prepared as under.*

| Job No. | Materials (₹) | Direct hrs. | Labour (₹) | Factory Overheads applied (₹) |
|---|---|---|---|---|
| 115 | 1325 | 400 hrs. | 800 | 640 |
| 118 | 810 | 250 hrs. | 500 | 400 |
| 120 | 765 | 300 hrs. | 475 | 380 |
| | 2,900 | | 1,775 | 1,420 |

*Materials used in October were as follows:*

| Materials Requisition No. | Job No. | Cost (₹) |
|---|---|---|
| 54 | 118 | 300 |
| 55 | 118 | 425 |
| 56 | 118 | 515 |
| 57 | 120 | 665 |
| 58 | 121 | 910 |

| | | |
|---|---|---|
| *59* | *124* | *720* |
| | | *3,535* |

*A summary for labour hours deployed during October is as under:*

| ***Job No.*** | ***Number of Hours*** | |
|---|---|---|
| | ***Shop A*** | ***Shop B*** |
| *115* | *25* | *25* |
| *118* | *90* | *30* |
| *120* | *75* | *10* |
| *121* | *65* | *--* |
| *124* | *25* | *10* |
| | *275* | *75* |
| *Indirect Labour: Waiting of material* | *20* | *10* |
| *Machine breakdown* | *10* | *5* |
| *Idle time* | *5* | *6* |
| *Overtime premium* | *6* | *5* |
| | *316* | *101* |

*A shop credit slip was issued in October, that material issued under Requisition No. 54 was returned back to stores as being not suitable. A material transfer note issued in October indicated that material issued under Requisition No. 55 for Job 118 was directed to Job 124.*

*The hourly rate in shop A per labour hour is ₹ 3 per hour while at shop B, it is ₹ 2 per hour. The factory overhead is applied at the same rate as in September. Job 115, 118 and 120 were completed in October.*

*You are asked to COMPUTE the factory cost of the completed jobs. It is the practice of the management to put a 10% on the factory cost to cover administration and selling overheads and invoice the job to the customer on a total cost plus 20% basis. DETERMINE the invoice price of these three jobs?*

2. *Ares Plumbing and Fitting Ltd. (APFL) deals in plumbing materials and also provides plumbing services to its customers. On 12th August, 2022, APFL received a job order for a students' hostel to supply and fitting of plumbing materials. The work is to be done on the basis of specification provided by the hostel owner. Hostel will be inaugurated on 5th September, 2022 and the work is to be completed by 3rd September, 2022. Following are the details related with the job work:*

***Direct Materials***

*APFL uses a weighted average method for the pricing of materials issues.*

*Opening stock of materials as on 12th August 2022:*

- *15mm GI Pipe, 12 units of (15 feet size) @ ₹600 each*
- *20mm GI Pipe, 10 units of (15 feet size) @ ₹660 each*
- *Other fitting materials, 60 units @ ₹26 each*
- *Stainless Steel Faucet, 6 units @ ₹204 each*
- *Valve, 8 units @ ₹404 each*

*Purchases:*

*On 16th August 2022:*

- *20mm GI Pipe, 30 units of (15 feet size) @ ₹610 each*
- *10 units of Valve @ ₹402 each*

*On 18th August 2022:*

- *Other fitting materials, 150 units @ ₹28 each*
- *Stainless Steel Faucet, 15 units @ ₹209 each*

*On 27th August 2022:*

- *15mm GI Pipe, 35 units of (15 feet size) @ ₹628 each*
- *20mm GI Pipe, 20 units of (15 feet size) @ ₹660 each*
- *Valve, 14 units @ ₹424 each*

*Issues for the hostel job:*

*On 12th August 2022:*

- *20mm GI Pipe, 2 units of (15 feet size)*
- *Other fitting materials, 18 units*

*On 17th August 2022:*

- *15mm GI Pipe, 8 units of (15 feet size)*
- *Other fitting materials, 30 units*

*On 28th August 2022:*

- *20mm GI Pipe, 2 units of (15 feet size)*
- *15mm GI Pipe, 10 units of (15 feet size)*
- *Other fitting materials, 34 units*
- *Valve, 6 units*

*On 30th August 2022:*

- *Other fitting materials, 60 units*
- *Stainless Steel Faucet, 15 units*

***Direct Labour:***

*Plumber: 180 hours @ ₹ 50 per hour (includes 12 hours overtime)*

*Helper: 192 hours @ ₹35 per hour (includes 24 hours overtime)*

*Overtimes are paid at 1.5 times of the normal wage rate.*

***Overheads:***

*Overheads are applied @ ₹ 13 per labour hour.*

***Pricing policy:***

*It is company's policy to price all orders based on achieving a profit margin of 25% on sales price.*

*You are required to*

*(a) Calculate the total cost of the job.*

*(b) Calculate the price to be charged from the customer*

# ANSWERS/ SOLUTIONS

## Answers to the MCQs

| | | | | | | | | | | | |
|---|---|---|---|---|---|---|---|---|---|---|---|
| **1.** | (c) | **2.** | (b) | **3.** | (a) | **4.** | (b) | **5.** | (a) | **6.** | (a) |
| **7.** | (d) | | | | | | | | | | |

## Answers to the Theoretical Questions

**1.** Please refer paragraph 1

**2.** Please refer paragraph 4

## Answers to the Practical Problems

1. **Factory Cost Statement of Completed Job.**

| Month | Job No. | Materials | Direct labour | Factory overheads (80% of direct labour cost) | Factory cost |
|---|---|---|---|---|---|
| | (₹) | (₹) | (₹) | (₹) | (₹) |
| September | 115 | 1,325 | 800 | 640 | 2765 |
| October | 115 | -- | 125 | 100 | 225 |
| Total | | 1,325 | 925 | 740 | 2,990 |
| September | 118 | 810 | 500 | 400 | 1,710 |
| October | 118 | 515 | 330 | 264 | 1,109 |
| Total | | 1,325 | 830 | 664 | 2,819 |
| September | 120 | 765 | 475 | 380 | 1,620 |
| October | 120 | 665 | 245 | 196 | 1,106 |
| Total | | 1,430 | 720 | 576 | 2,726 |

**Invoice Price of Complete Job**

| Job No. | 115 (₹) | 118 (₹) | 120 (₹) |
|---|---|---|---|
| Factory cost | 2,990.00 | 2,819.00 | 2,726.00 |
| Administration and selling overheads @ 10% of factory cost | 299.00 | 281.90 | 272.60 |
| Total cost | 3,289.00 | 3,100.90 | 2,998.60 |
| Profit (20% of total cost) | 657.80 | 620.18 | 599.72 |
| **Invoice Price** | 3,946.80 | 3,721.08 | 3,598.32 |

Assumption: - Indirect labour costs have been included in the factory overhead which has been recovered as 80% of the labour cost.

**2. (a) Calculation of Total Cost for the Hostel Job:**

| Particulars | Amount (₹) | Amount (₹) |
|---|---|---|
| Direct Material Cost: | | |
| - 15mm GI Pipe (Working Note- 1) | 11,051.28 | |
| - 20mm GI Pipe (Working Note- 2) | 2,588.28 | |
| - Other fitting materials (Working Note-3) | 3,866.07 | |
| - Stainless steel faucet<br>- 15 units × $\left(\frac{6\times₹204+15\times₹209}{21\text{units}}\right)$ | 3,113.57 | |
| - Valve<br>6 units × $\left(\frac{8\times₹404+10\times₹402+14\times₹424}{32\text{units}}\right)$ | 2,472.75 | 23,091.95 |
| Direct Labour: | | |
| - Plumber [(180 hours × ₹ 50) + (12 hours × ₹ 25)] | 9,300.00 | |
| - Helper [(192 hours × ₹ 35) + (24 hours × ₹ 17.5)] | 7,140.00 | 16,440.00 |

| | | |
|---|---|---|
| - Overheads [₹ 13 × (180 + 192) hours] | | 4,836.00 |
| Total Cost | | 44,367.95 |

**(b) Price to be charged for the job work:**

| | Amount (₹) |
|---|---|
| Total Cost incurred on the job | 44,367.95 |
| Add: 25% Profit on Job Price $\left(\frac{44,367.95}{75\%} \times 25\%\right)$ | 14,789.32 |
| | 59,157.27 |

**Working Note:**

**1. Cost of 15mm GI Pipe**

| Date | | Amount (₹) |
|---|---|---|
| 17-08-2022 | 8 units × ₹ 600 | 4,800.00 |
| 28-08-2022 | 10 units × $\left(\frac{4 \times ₹600 + 35 \times ₹628}{39 \text{units}}\right)$ | 6,251.28 |
| | | 11,051.28 |

**2. Cost of 20mm GI Pipe**

| Date | | Amount (₹) |
|---|---|---|
| 12-08-2022 | 2 units × ₹ 660 | 1,320.00 |
| 28-08-2022 | 2 units × $\left(\frac{8 \times ₹660 + 30 \times ₹610 + 20 \times ₹660}{58 \text{units}}\right)$ | 1,268.28 |
| | | 2,588.28 |

**3. Cost of Other fitting materials**

| Date | | Amount (₹) |
|---|---|---|
| 12-08-2022 | 18 units × ₹ 26 | 468.00 |
| 17-08-2022 | 30 units × ₹ 26 | 780.00 |

| | | |
|---|---|---|
| 28-08-2022 | 34 units × $\left(\frac{12\times₹26+150\times₹28}{162\text{units}}\right)$ | 946.96 |
| 30-08-2022 | 60 units × $\left(\frac{12\times₹26+150\times₹28}{162\text{units}}\right)$ | 1,671.11 |
| | | 3,866.07 |