

## **Paper 19 - COST AND MANAGEMENT AUDIT**

## Answer to PTP\_Final\_Syllabus 2012\_Jun2015\_Set 3

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The following table lists the learning objectives and the verbs that appear in the syllabus learning aims and examination questions:

	Learning objectives	Verbs used	Definition
<b>LEVEL B</b>	KNOWLEDGE  What you are expected to know	List	Make a list of
		State	Express, fully or clearly, the details/facts
		Define	Give the exact meaning of
	COMPREHENSION  What you are expected to understand	Describe	Communicate the key features of
		Distinguish	Highlight the differences between
		Explain	Make clear or intelligible/ state the meaning or purpose of
		Identify	Recognize, establish or select after consideration
	APPLICATION  How you are expected to apply your knowledge	Illustrate	Use an example to describe or explain something
		Apply	Put to practical use
		Calculate	Ascertain or reckon mathematically
		Demonstrate	Prove with certainty or exhibit by practical means
		Prepare	Make or get ready for use
		Reconcile	Make or prove consistent/ compatible
	ANALYSIS  How you are expected to analyse the detail of what you have learned	Solve	Find an answer to
		Tabulate	Arrange in a table
		Analyse	Examine in detail the structure of
		Categorise	Place into a defined class or division
		Compare and contrast	Show the similarities and/or differences between
Construct		Build up or compile	
	Prioritise	Place in order of priority or sequence for action	
	Produce	Create or bring into existence	

**Paper 19 - COST AND MANAGEMENT AUDIT**

**Time allowed-3hrs**

**Full Marks: 100**

**Working Notes should form part of the answer.**

**—Wherever necessary, suitable assumptions should be made and indicated in answer by the candidates.**

**1. Answer the four Questions [15×4=60]**

**(a)(i) Discuss the basis of apportionment for primary distribution of overhead. (9 Marks)**

**Answer:**

**Basis of Apportionment for Primary Distribution of Overhead**

Each overhead cost is to be apportioned to all departments, both production and service departments, or other cost centres on an appropriate basis. The basis to be considered appropriate or suitable should satisfy the following conditions:

- (i) The overhead cost to be incurred should be measurable by the basis adopted.
- (ii) For achieving the above, there should be some relationship between the overhead cost and the basis.
- (iii) The basis should be practicable,
- (iv) The cost of apportionment should be reasonable.

The process of initial distribution to production and service departments is known as Primary Distribution. The following are the common bases for apportionment of production overheads:

1. **Direct Allocation:** Overheads exclusively pertaining to a department are charged to that department, e.g., salary of departmental manager, power when the department has separate power meter.
2. **Direct Material:** Cost of indirect materials and miscellaneous expenses if direct material cost is a dominant element in total cost, may be apportioned in the ratio of direct material cost incurred in different departments.
3. **Direct Labour/Wages:** Employer's contribution to employees provident fund or employee insurance or workmen compensation costs may be distributed in the ratio of direct labour cost of various departments. In case direct labour cost is a major element in total cost, miscellaneous expenses may also be apportioned on this basis.
4. **Number of Workers:** Supervision cost, Vanteen subsidy and other employee welfare expenses may be apportioned in the ratio of number of employees working in different departments.
5. **Direct Labour Hours:** In case production is labour intensive and no other specific appropriate base is available for apportioning an overhead cost, direct labour hour is the most suitable basis.
6. **Machine Hours:** In case production process is mechanised and no other specific appropriate base is available for apportioning a particular overhead, machine hours is the

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most suitable basis.

7. **Floor Area Overheads:** such as, rent, rates and taxes on building, building repair and maintenance, lighting, heating and air-conditioning may be apportioned in the ratio of effective floor area of different departments.
8. **Light Points Cost-** of lighting may be distributed on the basis of number of light points in different departments.
9. **Value of Assets:** In case depreciation is considered as fixed cost, it may be charged to different departments in the ratio of capital value of plant and machinery' in departments. Repair and maintenance of plant and machinery is also to be distributed on this basis.
10. **Value of Machines x Hours Worked'**- In case depreciation is treated as variable cost then it should be distributed in the ratio of ' Value of plant and machinery × Hours worked ' in different department. For example if department A has plant worth ₹ 10,00,000 and works for 10 hours per day and Department B has plant worth ₹ 20,00,000 and works for 8 hours daily, the ratio for distributing depreciation cost should be  $10,00,000 \times 10 : 20,00,000 \times 8$ , Le., 10:16.
11. **Horse Power:** Cost of power is charged to different cost centres in the ratio of horse power of plant and machinery installed.
12. **Horse Power × Hours Worked:** In case different departments have worked for different number of hours, the power cost may be distributed to these departments in the ratio of horse power x hours worked'.
13. **Number of Material Requisitions:** Overhead costs on account of stores and material handling may be apportioned in the ratio of number of material requisitions by departments.
14. **Hours Worked:** Crane expenses may be charged to different departments on the basis of number of hours it had worked in different departments. In the same way supervisor's salary may be distributed in the ratio of number of hours he worked in departments, provided such information is available.
15. **Technical Estimates:** In case an appropriate basis is not available for apportioning certain overheads, the distribution is done on the basis of technical estimate regarding the share of overhead cost chargeable to different departments.

**(a)(ii) As a cost accountant of a manufacturing company, how would you dealt with over and under absorption of overhead? (6 Marks)**

**Answer:**

### **Treatment of Over and Under Absorption**

The accounting treatment of over or under absorption depends upon the quantum of over or under absorption and the circumstances leading to it. The following are the main methods of dealing with over or under absorption:

#### **1. Use of Supplementary Rate:**

In case there is significant over or under absorption due to anticipations about overhead costs or the base not coming true, supplementary rate may be used. In this case the mismatch between anticipations and actuals arises due to normal errors in business planning and not due to abnormal factors. Computation of supplementary rates is nothing but a process of correction whereby an over absorption is brought down and under absorption is pushed up to the correct figure of actual overhead cost. Accordingly there are two types of absorption rates:

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- (a) Positive supplementary rate, and
- (b) Negative supplementary rate.

**Positive Supplementary Rate (in case of under absorption) =**  
**Actual overheads - Absorbed Overheads**  
**Actual base**

**Negative Supplementary Rate (in case of over absorption) =**  
**Absorbed Overheads - Actual Overheads**  
**Actual base**

Under absorption is corrected by using positive supplementary rate, i.e., the unrecovered amount of overhead cost is added to the cost of sales, work-in-progress and unsold stock by applying supplementary rate to the base units contained in these three items of output.

Over absorption is corrected by using negative supplementary rate, i.e., the excess recovery of overhead cost is deducted from the cost of sales, work-in-progress and unsold stock by applying supplementary rate to the base units contained in these three items of output.

Supplementary rates are applied at the end of a budget period. Adjustments for over absorption are shown in the balance sheet by way of deduction in value of work-in progress and finished stock and by deducting it from the value of cost of sales in trading and profit and loss account. Simultaneously profit figure is adjusted upward by the total value of over absorption. Under absorption is adjusted in the balance sheet by an addition to the value of work-in-progress and finished stock and by adding it to the value of cost of sales in trading and profit and loss account. Simultaneously profit figure is adjusted downward by the total value of under absorption.

In case it has been decided that the values of cost of sales, work-in-progress and finished stocks are not to be affected by unanticipated changes in overhead costs and the base adopted for its absorption, supplementary rates are not used.

### 2. Carry Over of Overheads:

In the following circumstances over and under absorption of overheads may be transferred to Overhead Reserve Account and carried forward to the next year in the hope that an over absorption in the current period will be more or less neutralised by under absorption in the next period:

- (a) In case of seasonal industries over absorption of one season may be carried forward to the next season for neutralisation over a period of one year.
- (b) In case of cyclical businesses over absorption of one year may be carried forward to the next year in the hope that over and under absorption will neutralised each other over a period of one business cycle.
- (c) In case of new projects, under absorption of initial years may be carried forward in the hope of neutralization later when the project gets well established.

The criticism against this method is that overheads of a particular period are not charged to that period entirely. Such carry over of overheads adversely affects inter-temporal comparisons which may hinder managerial planning and control.

### 3. Transfer to Costing Profit and Loss Account:

In the following two cases the amount of over or under absorption of overheads should be credited or debited to Costing Profit and Loss Account:

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- (i) In case over or under absorption is of relatively very small value, it may be totally unnecessary to adjust value of cost of sales, work-in-progress and finished stock by such insignificant amount.
- (ii) In case over or under absorption arises due to abnormal factors, e.g., heavy machine breakdown, fire, strikes, lock outs, acute depression resulting in low output and capacity utilisation, etc., it should be transferred to Costing Profit & Loss A/c.

The reasons are : (a) the basic costing principle is that cost of output must not be affected by abnormal gains and losses ; (b) Charging under absorption to output under these circumstances will be wrong from the point of view of business policy and strategy ; and (c) it will also distort cost comparisons and cost control.

**(b) How would you deal the following items in the cost accounts of a manufacturing concern?**

- (i) Research and Development Cost;**
- (ii) Packing Expenses;**
- (iii) Fringe Benefits;**
- (iv) Expenses on Removal and Re-erection of Machinery;**
- (v) Training Costs.**

**(3×5=15 Marks)**

**Answer:**

**(i) Research and Development Cost:**

Research and Development Cost is the cost/expense incurred for searching new or improved products, production method's/techniques or plants/equipments. Research Cost may be incurred for carrying basic or applied research. Both basic and applied research relates to original investigations to gain from new scientific or technical knowledge and understanding, which is not directed towards any specific practical aim (under basic research) and is directed towards a specific practical aim or objective (under applied research).

**Treatment in Cost Accounts**

Cost of Basic Research (if it is a continuous activity) shall be charged to the revenues of the concern. It may be spread over a number of years if research is not a continuous activity and amount is large.

Cost of applied research, if relates to all existing products and methods of production then it should be treated as a manufacturing overhead of the period during which it has been incurred and absorbed. Such costs are directly charged to the product, if it is solely incurred for it.

If applied research is conducted for searching new products or methods of production etc., then the research costs treatment depends upon the outcome of such research. For example, if research findings are expected to produce future benefits or if it appears that such findings are going to result in failure then the costs incurred may be amortised by charging to the Costing Profit and Loss Account of one or more years depending upon the size of expenditure. If research proves successful, then such costs will be charged to the concerned product.

**Development Costs**, begins with the implementation of the decision to produce a new or improved product or to employ a new or improved method. The treatment of development expenses is same as that of applied research.

**(ii) Packing Expenses:**

It includes the expenses incurred on wrapping, tying, bottles, boxes, containers or bags etc. In

Cost Accounts they are treated as follows:

- (i) It is treated as a direct material cost in the case of those products which cannot be sold without the use of a packing. For example Ink-pot; Bread; Paste etc.

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- (ii) It may be treated as distribution overhead if packing expenses are incurred, to facilitate the transportation of finished products.
- (iii) It may be treated as advertisement cost and included in selling overheads if it is incurred for advertisement to make the product attractive.

### **(iii) Fringe Benefits:**

Additional benefits paid to the employees of a concern and are not related to the direct efforts of the employees, are called fringe benefits. They include holiday pay; leave pay; employer's contribution to provident fund; gratuity and pension schemes; slate insurance; medical benefits; subsidised canteen facility etc.

Expenditure incurred on fringe benefits in the case of factory workers should be treated as factory overheads and are apportioned among all the production and service departments on the basis of the number of workers in each department.

Fringe benefits to office and selling and distribution staff should be treated as administration and selling and distribution overheads respectively and are recovered accordingly.

### **(iv) Expenses on Removal and Re-erection of Machinery:**

Expenses are sometime incurred on removal and re-erection of machinery in factories. Such expenses may be incurred due to factors like change in the method of production an addition or alteration in the factory building, change in the flow of production, etc. All such expenses are treated as production overheads. When amount of such expenses is large, it may be spread over a period of time.

If such expenses are incurred due to faulty planning or some other abnormal factor, then they may be charged to Cost Profit and Loss Account.

### **(v) Training Costs:**

These costs comprises of — wages and salaries of the trainees or learners, pay and allowances of the training and teaching staff, payment of fees etc. for training or for attending courses of studies sponsored by outside agencies and cost of materials, tools and equipments used for training, costs incurred for running the training department, the losses arising due to the initial lower production, extra spoilage etc. occurring while providing training facilities to the new recruits.

All these costs are booked under separate standing order numbers for the various functions. Usually there is a service cost centre, known as the Training Section, to which all the training costs are allocated. The total cost of training section is thereafter apportioned to production centres.

**(c) TPO manufacturers - a small scale enterprise produces a single product and has adopted a policy to recover the production overheads of the factory by adopting a single blanked rate based on machine hours. The budgeted production overheads of the factory are ₹10,08,000 and budgeted machine hours are 96,000.**

**For the period first six month of the financial year 2014-2015, following information were extracted from the books:**

<b>Actual production overheads</b>	<b>₹6,79,000</b>
<b>Amount included in the production overheads:</b>	
<b>  Paid as per court's order</b>	<b>₹45,000</b>
<b>  Expenses of previous year booked in current year</b>	<b>₹10,000</b>
<b>  Paid workers for strike period under an award</b>	<b>₹42,000</b>
<b>  Obsolete stores written off</b>	<b>₹18,000</b>

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Production and sales data of the concern for the first six months are as under:

Production:	
Finished goods	22,000 units
Work- in – progress (50% complete in every respects)	16,000 units
Sales: Finished goods	18,000 units

The actual machine hours worked during the period were 48,000 hours. It is revealed from the analysis of information that 1/4 of the under-absorption was to defective production policies and the balance was attributable to increase in costs. You are required:

- (i) to determine the amount of under absorption of production overheads for the period,
- (ii) to show the accounting treatment of under-absorption of production overheads, and
- (ii) to apportion the unabsorbed overheads over the items. (15 Marks)

**Solution:**

- (i) Amount of under absorption of production overheads during the period of first six months of the year 2014 – 2015:

	Amount (₹)	
Total production overheads actually incurred during the period		6,79,000
Less: Amount paid to worker as per court order	45,000	
Expenses of previous Year booked in the current year	10,000	
Wages paid for the strike period under an award	42,000	
Obsolete material written off	18,000	(1,15,000)
		5,64,000
Less: Production overheads absorbed as per machine (48,000 hours * ₹10.5) hour rate		5,04,000
Amount of under absorbed production overheads		60,000

$$\text{Budgeted machine hours rate} = \frac{\text{₹}10,08,000}{96,000 \text{ hours}} = \text{₹}10.50 \text{ per hour}$$

- (ii) Accounting treatment of under absorbed production overheads:

As, one fourth of the under absorbed overheads were due to defective production policies, this being abnormal, hence should be debited to profit and loss account

$$\text{Amount to be distributed} = (60,000 \times 3/4) = \text{₹}45,000$$

$$\text{Supplementary rate} = \frac{\text{₹}45,000}{30,000 \text{ hours}} = \text{₹}1.50 \text{ per unit}$$

- (iii) Apportionment of under absorbed production overheads over WIP, finished goods and cost of sales:

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	Equivalent completed units	Amount ( in ₹)
Work-in progress (16,000units × 50%×1.50)	8,000	12,000
Finished goods( 4,000 units × 1.50)	4,000	6,000
Cost of sales (18,000 units × 1.50)	18,000	27,000
Total	30,000	45,000

**(d) (i) What are the objectives of Cost Audit?**

**(9 Marks)**

**Answer:**

Cost Audit has both general and social objectives. The general objectives can be described to include the following:

- (i) Verification of cost accounts with a view to ascertaining that these have been properly maintained and compiled according to the cost accounting system followed by the enterprise.
- (ii) Ensuring that the prescribed procedures of cost accounting records rules are duly adhered to Detection of errors and fraud.
- (iii) Verification of the cost of each "cost unit" and "cost center" to ensure that these have been properly ascertained.
- (iv) Determination of inventory valuation.
- (v) Facilitating the fixation of prices of goods and services.
- (vi) Periodical reconciliation between cost accounts and financial accounts.
- (vii) Ensuring optimum utilization of human, physical and financial resources of the enterprise.
- (viii) Detection and correction of abnormal loss of material and time.
- (ix) Inculcation of cost consciousness.
- (x) Advising management, on the basis of inter-firm comparison of cost records, as regards the areas where performance calls for improvement.
- (xi) Promoting corporate governance through various operational disclosures to the directors.
- (xii) Among the social objectives of cost audit, the following deserve special mention :
  - Facilitation in fixation of reasonable prices of goods and services produced by the enterprise.
  - Improvement in productivity of human, physical and financial resources of the enterprise.
  - Channelising of the enterprise resources to most optimum, productive and profitable areas.
  - Availability of audited cost data as regards contracts containing escalation clauses.
  - Facilitation in settlement of bills in the case of cost-plus contracts entered into by the Government.

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- Pinpointing areas of inefficiency and mismanagement, if any for the benefit of shareholders, consumers, etc., such that necessary corrective action could be taken in time.

**(d)(ii) A company meets the threshold limits for both maintenance of cost records and cost audit in Year-0 (previous year) and consequently comes under the purview of the Rules in Year-1 (current year). If the turnover of company gets reduced to lower than the prescribed threshold limit in Year-1 (current year), whether Cost Records and Cost Audit will be applicable for Year-2 (next year). (6 Marks)**

**Answer:**

Rule 3 of the Companies (Cost Records and Audit) Rules, 2014 states that a company engaged in the production of the goods or providing of services as prescribed having an overall turnover from all its products and services of rupees thirty five crore or more during the immediately preceding financial year, shall include cost records for such products or services in their books of account. Since the threshold limit for applicability of maintenance of cost accounting records is met in Year-0, the cost records are required to be maintained from Year-1. Once the maintenance of cost records becomes applicable, it would be maintained on a continuous basis in the subsequent years also. In the same line, cost audit will be applicable from Year-1 and for every year thereafter.

**(e)(i) The Tables listing the industry/sector/product/service in the Rules have described the same by way of description as well as CETA Heading, wherever applicable. For certain sectors, the coverage under the CETA Heading are apparently not in line with the description of the sector. How to determine the coverage in such cases? (5 Marks)**

**Answer:**

The description and the CETA Heading have to be read harmoniously and construed to be supplementing each other. The CETA Heading has been provided in the amended Rules in addition to what was provided in the original Rules issued in June 2014. The CETA Codes are inclusive and all products covered under the codes are covered irrespective of the description.

For example, in case of Petroleum Industry, the description states "Petroleum products regulated by the Petroleum and Natural Gas Regulatory Board under the Petroleum and Natural Gas Regulatory Board Act, 2006 (19 of 2006)" and the CETA Headings are 2709 to 2715. Hence, all products covered under CETA Headings 2709 to 2715 are included as well as activities like storage, transportation, distribution of Crude Oil or Gas etc. and any other activity that is defined under the Petroleum and Natural Gas Regulatory Board Act, 2006 and regulated by the PNGRB are covered.

Similarly, Rubber and allied products would include all rubber products as specified under CETA Codes 4001 to 4017 and will not be restricted only to such rubber products regulated by the Rubber Board.

Companies engaged in manufacturing Machinery and mechanical appliances falling under CETA Codes 8401 to 8402; 8801 to 8805; 8901 to 8908 are similarly covered irrespective of its ultimate customer/consumer, subject to the company meeting the threshold limits prescribed

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and it is not necessary that the products have to be exclusively used in defence, space and atomic energy sectors.

**(e)(ii) Opening stock of raw materials (5,000 units) ₹ 1,80,000; Purchase of Raw Materials (17,500 units) ₹ 7,00,000; Closing Stock of Raw Materials 3,500 units; Freight Inward ₹ 85,000; Self-manufactured packing material for purchased raw materials only ₹60,000 (including share of administrative overheads related to marketing sales ₹ 8,000); Demurrage charges levied by transporter for delay in collection ₹ 11,000; Normal Loss due to shrinkage 1% of materials; Abnormal Loss due to absorption of moisture before receipt of materials 100 units. Calculate the value of Closing Stock. (10 Marks)**

**Solution:**

### Computation of value of closing stock of raw materials [Average Cost Method]

	Particulars	Quantity (Units)	Amount (₹)
	Opening Stock of Raw Materials	5,000	1,80,000
<b>Add</b>	Purchase of raw materials	17,500	7,00,000
<b>Add</b>	Freight inwards		85,000
<b>Add</b>	Demurrage Charges levied by transporter for delay in collection		11,000
			9,76,000
<b>Less</b>	Abnormal Loss of raw materials ( due to absorption of moisture before receipt of materials) = $[(7,00,000 + 85,000 + 11000) \times 100] / 17,500$	(100)	(4,549)
<b>Less</b>	Normal loss of materials due to shrinkage during transit [ 1% of 17,500 units]	(175)	-----
<b>Add</b>	Cost of self-manufactured packing materials for purchased raw materials only (60,000 – 8,000)		52,000
	<b>Cost of raw materials</b>	<b>22,225</b>	<b>10,23,451</b>
<b>Less:</b>	Value of Closing Stock = Total Cost / (Total units – Units of Normal Loss)  [ 10,23,451 / (5,000+17,500 – 175) ] x 3,500	(3,500)	(1,60,451)

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	<b>Cost of Raw Materials Consumed</b>	<b>18,725</b>	<b>8,63,000</b>
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**Note:**

- (i) Units of normal loss adjusted in quantity only and not in cost, as it is an includible item
- (ii) Cost of self-manufactured packing materials does not include any share of administrative overheads or finance cost or marketing overheads. Hence, marketing overheads excluded.
- (iii) Abnormal loss of materials arised before the receipt of the raw materials, hence, valuation done on the basis of costs related to purchases only. Value of opening stock is not considered for arriving at the valuation of abnormal loss.
- (iv) Demurrage charges paid to transporter is an includible item. Since this was paid to the transporter, hence considered before estimating the value of abnormal loss

**ALTERNATIVELY, SOLVING THE ABOVE ILLUSTRATION BASED ON FIFO METHOD**

**Computation of value of closing stock of raw materials [FIFO Method]**

	Particulars	Quantity (Units)	Amount (₹)
	Opening Stock of Raw Materials	5,000	1,80,000
<b>Add</b>	Purchase of raw materials	17,500	7,00,000
<b>Add</b>	Freight inwards		85,000
<b>Add</b>	Demurrage Charges levied by transporter for delay in collection		11,000
			9,76,000
<b>Less</b>	Abnormal Loss of raw materials ( due to absorption of moisture before receipt of materials) = [(7,00,000 + 85,000 + 11000) x 100]/17,500	(100)	(4,549)
<b>Less</b>	Normal loss of materials due to shrinkage during transit = [ 1% of 17,500 units]	(175)	-----
<b>Add</b>	Cost of self-manufactured packing materials for purchased raw materials only (60,000 – 8,000)		52,000
	<b>Cost of Raw Materials</b>	<b>22,225</b>	<b>10,23,451</b>

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<b>Less:</b>	Value of Closing Stock = Total Cost / (Total units – Units of Normal Loss) Where Total Cost = = [ 7,00,000 + 85,000 + 11,000 -4,549 + 52,000] = 8,43,451 And Total Units = [17,500 – 1% of 17,500] = 17,325 units Value of Closing Stock = [8,43,451 x 3,500]/ 17,325	(3,500)	(1,70,394)
	<b>Cost of Raw Materials Consumed</b>	<b>18,725</b>	<b>8,53,057</b>

**Note:**

- (i) Since FIFO method is followed, hence for the purpose of estimating the units sold/used/consumed, it is presumed that there is no units left out of units in opening stock.
- (ii) Since normal loss is in transit, hence it is calculated on units purchased only.

**(2) Answer any two questions [10×2=20]**

**(a) In an audit, it is necessary for an auditor of the company to evaluate the internal control of the company. Comments (10 Marks)**

**Answer:**

**Evaluation of internal control**

The guiding factor for audit operations by the auditor depends to a great extent on the soundness or otherwise of the internal controls in the business. Due to the limitation of time, an auditor can spend limited time only on a company's audit. Therefore, he has to decide the extent of in-depth audit of many areas, particularly the checking and verification of routine aspects of financial transactions.

Section 177 of the Companies Act, 2013 provides for establishment of a committee of the Board known as "Audit Committee" by all public company having paid-up capital of ₹ 10 crore or more or turnover of ₹ 100 crore or more or having aggregate outstanding loans or borrowing or debenture or deposits exceeding ₹ 50 crore or more. The said section provides that the statutory auditor, the internal auditor, if any and director in-charge of finance shall attend every meeting of the audit committee but shall not have the right to vote. This section clearly provides that the Audit Committee should have discussions with the auditors periodically about internal control systems, scope of audit including the observations of auditors and review of the half yearly and annual financial statements before submission to the Board and also ensure compliance of internal control systems. Moreover, Clause 49 of the uniform listing agreement prescribed by Securities and Exchange Board of India, which is applicable to all the listed companies provides that the Audit Committee is empowered to investigate any activity within terms of reference, seek information from any employee, obtain outside advice and secure attendance of outsiders, if necessary. Its role shall inter-alia include recommending appointment and removal of external auditor, reviewing the adequacy of internal audit function, reviewing the company's financial and risk management policies etc.

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The evaluation of internal controls including internal accounting controls gives an opportunity to the auditor to a clearer insight into the operational systems and an overall view of the organizational workings to spot weaknesses in the systems and procedures both in respect of financial and operational areas of the business. The audit process effectively evaluates the auditee's existing internal controls through the use of questionnaires and flow charts. The internal control questionnaire is a list of systematically and logically prepared questions designed to find out and evaluate the effectiveness of internal control systems regarding various aspects and accounting transactions of an organization. The questionnaires are to be comprehensive in nature to ensure that all aspects and accounting transactions are covered which are to be replied by the officials of the department or division concerned. The criteria for replies against each question are "yes", "no", "not applicable", "explanatory notes" and comments". Normally the affirmative answers suggest satisfactory internal controls while negative answers suggest weaknesses of internal controls.

**(b)(i) Analytical procedure is a pre-requisite procedure for an audit. Comments (5 Marks)**

**Answer:**

**Analytical Procedure (SIA 6):**

- i. To apply analytical procedures as the risk assessment procedures at the planning and overall review stages of internal audit.
- ii. Analytical procedures are analysis of significant ratios and trends including resulting investigation of fluctuations and relationships that are inconsistent with other relevant information or which deviate from predicted amounts.
- iii. Factors to be considered for analytical procedures are significance of the area being examined, adequacy of the system of internal control, availability and reliability of financial and non-financial information, the precision with which results of analytical procedures can be predicted, availability and comparability of information regarding the industry in which the organization operates, the extent to which other auditing procedures provide support for audit results. After evaluating the aforementioned factors, internal auditor should consider and use additional auditing procedures, as necessary, to achieve the audit objective.
- iv. To apply analytical procedures at or near the end of internal audit when forming an overall conclusion as to whether the systems, processes and controls as a whole are robust, operating effectively and are consistent with the internal auditor's knowledge of the business.
- v. When analytical procedures identify significant fluctuations or relationships that are inconsistent with other relevant information or that deviate from predicted amounts, the auditor should investigate and obtain adequate explanations and appropriate corroborative evidence.

**(b)(ii) What are the areas need to be examined by the management auditor of the company to evaluate the adequacy of Budgetary Control System? (5 Marks)**

**Answer:**

**Adequacy of budgetary control system**

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While determining the adequacy or otherwise of the budgetary control system of an organisation, it is essential that management auditor should evaluate its coverage and effectiveness i.e., whether the system in operation covers all functions rather than an accounting exercise. For this purpose, he should examine whether the system contributes towards accomplishing the basic task of planning, coordinating and controlling the activities of the organisation in relation to the product under management audit. The management auditor should examine and appraise the following points :-

(a) In the area of planning:

1. Where it covers all interrelated functions like production, sales, purchasing and finance.
2. Whether it determines the linkage between budget centres and responsibility centres.
3. Whether it establishes definite goals and limits for these function well in advance. The system must answer the questions such as "what they are expected to operate?" What will be the financial requirement for the functional areas? What would be the potential problems in the key areas?
4. Whether there are imbalances in the fixation of performance levels of functional budgets in relation to sales budgets.
5. Whether budget monitoring cell exists for operating the system in right perspective.

(b) In the area of coordination :

1. Whether the budget monitoring committee holds its meeting regularly with a view to ensure performance evaluation.
2. Whether it helps to prevent waste that results in duplicate or cross purpose activities.
3. Whether it reveals timelines in the process of preparation and approval of all functional budgets and master budget.

(c) In the area of control:

1. Whether system exists for measuring, comparing and quantifying the results of all functional areas.
2. Whether the budget incorporates a degree of flexibility with a provision of its periodical review.
3. Whether the variance reports are issued in time and appropriate corrective action is taken on these variances.

**(c) Prepare the checklist of Purchasing Function.**

**(10 Marks)**

**Answer:**

**(i) Purchasing Function Checks**

- (a) Are there effective arrangements for minimizing the price of purchases, e.g. total purchases for multi location organizations, contract pricing, forward purchasing, quantity controls and correct timing?
- (b) What arrangement are there for controlling stock investment, in particular for controlling deliveries of raw materials, perhaps as a result of contracts placed for raw materials to be called off as required?
- (c) Is there evidence that the purchasing budget is developing on sound lines?

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- (d) Is the budget, once prepared, used as an effective control on the purchasing function?
- (e) Are 'make-or-buy' proposals made to ensure optimum supply arrangements?
- (f) What is the system for synchronizing deliveries with the scheduled production requirements?
- (g) What follow-up is there on scheduled deliveries?
- (h) Is the receipt of goods adequately controlled?
- (i) What procedures are there for dealing with over-deliveries and under-deliveries?
- (j) Is there an effective system of inspection of materials received?
- (k) Are 100 percent of the goods received inspected, or are they sampled, or what other inspection method is used?
- (l) What accounting procedures are there for ensuring that rejected goods are debited to the supplier, either on return, or when scrapped, and for charging the supplier for any re-work done to make the goods acceptable?
- (m) Are there any statistical routines to determine the quality standards of suppliers and the rejection rates of goods supplied by them?
- (n) Are there similar routines to determine the supplier's relative ability to deliver on time?
- (o) Are standard conditions printed on the order forms, and do they adequately cover the purchaser for the commercial and business hazards applying to the purchase of goods? For example, do the conditions make clear whether the carrier is to be construed the agent of the seller or the buyer?
- (p) What system is used for validating incoming invoices for goods?
- (q) What method of control prevents duplicate payment for goods?
- (r) What purchasing measures are taken to rationalize cash flow and the amount of capital locked up in stocks?
- (s) Are there means for assessing buyers' workloads?

### **(3) Answer any two questions [10×2=20]**

**(a) Explain the Impact of IFRS on the Cost Structure, Cash Flows and Profitability. (10 Marks)**

**Answer:**

The new era of accounting standards has started in India after India committed to converge to the IFRS. The Ministry of Corporate Affairs had notified 35 new Ind AS in 2011. The timeline for the adoption of these new standards is not yet given. The date had been postponed in view of pending the suitable amendments required to be done in the other enactments.

However, it will be useful for the cost auditor to run through the effects that the new standard may have on the organizations in the new era. The cost auditor should get acquainted with the requirements of the new standards and the differences as compared to the existing standards.

In the Performance Appraisal Report, the cost auditor may point out the impact of IFRS on the existing cost structure, cash flows, and profitability. It may be noted that the new standards

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provide a principle based framework in place of rule based standards, and as such the companies may need to assess the effect of their actions and choices made for accounting.

The five main elements of financial statements are assets, liabilities, equity, income and expenses. The IFRS provide for recognition, measurement and disclosure criteria for these elements. In cases, where the measurement criteria change, there will be an impact on the costs. The changed recognition criteria may impact the profitability and cash flows of the company.

The most important effect on valuation will happen through the adoption of "fair value" concept in measuring various assets and liabilities. The cost auditor must enumerate the cases where use of fair value is mandatory or permitted as management's choice. It should be noted that any change in the fair value as on the reporting date has to be taken to the profit and loss a/c.

It may not be possible to split the effect of new standards on individual product or product group costs and profitability. It could be assessed for the organization as a whole.

These effects arise due to the balance sheet orientation of IFRS rather than the P&L smoothing practices followed by companies. Given below is an illustrative list of areas where major impact would be arising out of the IFRS provisions related to:

- Revenue recognition – companies may have to defer part or whole of their revenues.
- Inventory valuation – explicit rejection of LIFO method could change the inventory costs and thus profitability.
- Property, plant and equipment – recognition of assets and depreciation may change, provisions on revaluation of assets are noteworthy.
- Financial instruments-accounting for hedges and FOREX may result in profits or losses to be recognized or derecognized.
- Construction contracts – there could be changes in contract revenues and profit measurement thereon
- Impairment of assets-recognition of provisions may impact profitability
- Intangible assets-certain existing assets may have to be derecognized
- Business combinations – some costs of M & A cannot be capitalized

The impact of changeover has been explained in the Ind AS 101 – first time adoption. It may be noted that the impact based on this standard would be in the first year in which the new standards are applied. In the first financial statements, the adjustments will have to be made in the retained earnings, subject to some exceptions and exemptions. This standard may require an entity to

- (a) Recognize all assets and liabilities whose recognition is required by Ind AS;
- (b) Not to recognize items as assets or liabilities if Ind AS do not permit such recognition;
- (c) Reclassify items that it recognized under previous GAAP as one type of asset, liability or component of equity, but are a different type of asset, liability or component of equity under Ind AS and
- (d) Apply Ind ASs in measuring all recognized assets and liabilities.

The Performance Appraisal Report should include comments of the potential changes for the understanding of the Board and Audit Committee members. The cost auditor could provide them an insight to the likely changes in the cost structure. This content area is an important aspect to be covered till the new standards are not adopted. In subsequent years, it may lose its relevance.

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(b) Dhiraj Textiles Ltd. has been having low profits. A special task force appointed for reviewing performance and prospects has the following to report:

The company has 1,200 looms working 2 shifts per day. There are 25 sections of 48 looms each. Each section has 24 weavers and a jobber. Thus there are 1,250 direct labourers, other than indirect labourers and service hands. The working time is between 7 a.m. and 12 mid-night, comprising 2 shifts of 8 hours each, with half hour interval between shifts. The production is 18 lakh metres per month and the realization is ₹3 per metre. The average wage of the direct labourer is ₹800 per month and the fixed costs amount to ₹2,00,000 per month. The product cost is ₹2.25 per metre in addition to direct wages.

The following suggestions are to be considered:

- (i) Labour productivity can be improved by changing the layout of the machines.
- (ii) Given the space available, with the proposed change in layout, only 1,008 looms can be re-installed, with 48 looms in each section.
- (iii) Technically, a section of 48 looms can be run with 12 weavers, a helper and a jobber. It will be necessary to increase the age of direct labour, for such sections, by ₹110 per head per month. There will be some drop in production per loom. The company is not for retrenchment of labour.
- (iv) The company can run a third shift between 12 mid-night and 7 a.m., with a half hour interval. However, for the six and half hours' work, eight hours' wage will have to be paid.
- (v) Only 18 lakh metres can be sold at the present price of ₹3 per metre. There is an export offer for ₹4.5 lakh metres at ₹2.70 per metre.
- (vi) As an initial step, the company can switch to 3 shift working, with 12 sections having 25 direct labourers each and 9 sections having 14 direct labourers each. Progressive conversion to 14 hands per section, for all sections, can be planned, as direct labourers retire or voluntarily leave the job. The production with three shift working will be 22.5 lakh metres. Additions to fixed costs will amount to ₹60,000 per month.

Examine the implications of the proposals for the company's profits and give your advice.

(10 Marks)

**Answer:**

Statement of Profitability

Particulars	Present	Proposed
No. of Looms	1,200	1,008
No. of shifts	2	3
No. of sections	25	21*
No. of sections (with 25 hands in each section @ ₹800 p.m.)	25	12
No. of sections (with 14 hands in each section @ ₹910 per head p.m.)	-	9
Total number of direct labourers employed	1,250	1,278
Expected production (lakh metres p.m.)	18	22.5

(\*1008/48)

Profit Statement (per month)

(₹)

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Particulars	Present	Proposed
Sales Revenue (a)	54,00,000	66,15,000
Costs:		
Production Cost (@ ₹2.25)	40,50,000	50,62,500
Direct Wages	10,00,000	10,63,980
Fixed Costs	2,00,000	2,60,000
Total Costs (b)	52,50,000	63,86,480
Profit (a) – (b)	1,50,000	2,28,520

With the proposed plan of action the profit of the company has increased by ₹78,520 (₹2,28,520 - ₹1,50,000). Hence, the proposal is recommended for implementation.

### Working Notes:

1. No. of Sections = No. of Looms/Looms per section = 1000 looms/48 looms = 21 sections.
2. No. of labourers employed  
No. at present (25 persons x 25 sections x 2 shifts) = 1250 persons  
Proposed [(25 x 12 x 3) + (14 x 9 x 3)] = 1278 persons
3. Direct Wages (per month)  
Present (1,250 x ₹800) = ₹10,00,000  
Proposed [(900 x ₹800) + (378 x ₹910)] = ₹10,63,980
4. Sales revenue per month  
Present (18,00,000 x ₹3) = ₹54,00,000  
Proposed [(18,00,000 x ₹3) + (4,50,000 x ₹2.70)] = ₹66,15,000

**(c) A firm can produce three different products from the same raw material using the same production facilities. The requisite labour is available in plenty at ₹8 per hour for all products. The supply of raw material, which is imported at ₹8 per kg., is limited to 10,400 kgs. for the budget period. The variable overheads are ₹5.60 per hour. The fixed overheads are ₹50,000. The selling commission is 10% on sales.**

**(i) From the following information, you are required to suggest the most suitable sales mix, which will maximize the firm's profit. Also determine the profit that will be earned at that level:**

Product	Market demand (units)	Selling price per unit (₹)	Labour hours required per unit	Raw material required per unit (kgs.)
P	8,000	30	1	0.7
Q	6,000	40	2	0.4
R	5,000	50	1.5	1.5

**(ii) Assume, in above situation, if additional 4,500 kgs. of raw material is made available for production, should the firm go in for further production, if it will result in additional fixed overheads of ₹20,000 and 25 per cent increase in the rates per hour for labour and variable overheads. (10 Marks)**

**Answer:**

**Working Notes**

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(i) Calculation of Direct Material Consumption (per unit)

Product	Kgs. per unit	₹ per kg.	Amount (₹)
P	0.7	8	5.60
Q	0.4	8	3.20
R	1.5	8	12.00

(ii) Calculation of Variable Overhead Per Unit (₹)

Product	Hours	Rate per hour (₹)	Amount (₹)
P	1	5.60	5.60
Q	2	5.60	11.20
R	1.5	5.60	8.40

Statement of Contribution per unit and Ranking based on Contribution per kg. of Raw Material (₹)

Particulars	Products			
		P	Q	R
Selling price	(a)	30.00	40.00	50.00
Direct material		5.60	3.20	12.00
Direct labour		8.0	16.00	12.00
Variable overhead		5.60	11.20	8.40
Selling commission		3.00	4.00	5.00
Total variable cost	(b)	22.20	34.40	37.40
(i) Contribution	(a)-(b)	7.80	5.60	12.60
(ii) Raw material requirement per unit (kgs.)		0.7	0.4	1.5
Contribution per kg. of raw material	(i)/(ii)	11.14	14.00	8.4
Ranking		II	I	III

Since, the raw material supply is restricted to 10,400 kgs., it is to be allocated to each product based on its ranking and market demand as follows:

Product	Units	Raw material requirement per unit (kgs.)	Total Raw material requirement (kgs.)
Q	6,000	0.4	2,400
P	8,000	0.7	5,600
R	1,600	1.5	2,400*
			10,400

\*Balancing figure=2,400 kgs./1.5 kgs.=1,600 units

Statement of profit (₹)

Contribution
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P	(8,000x7.80)	62,400	
Q	(6,000x5.60)	33,600	
R	(1,600x12.60)	20,160	1,16,160
Less: Fixed Cost			50,000
Profit			66,160

(b) If additional 4,500 kgs. of raw material is made available, the production will be as follows:

Product	Units	Raw material requirement (per unit/kg.)	Total Raw material requirement (kgs.)
Q	6,000	0.4	2,400
P	8,000	0.7	5,600
R	4,600	1.5	6,900*
			14,900

\*Balancing figure=6,900 kgs./1.5 kgs.=4,600 kgs.

Statement of Profit

(₹)

Contribution			
P	(8,000x7.80)	62,400	
Q	(6,000x5.60)	33,600	
R	(4,600x12.60)	57,960	1,53,960
Less: Increase on additional units			
Labour Cost	(3,000 unitsx25%x₹12)	9,000	
Variable overhead	(3,000 unitsx25%x₹8.40)	6,300	15,300
Net contribution			1,38,660
Less: Fixed Cost		50,000	
Add: Increase		20,000	70,000
Profit			68,660

**Analysis:** By using additional raw material of 4,500 kgs. in production of product R by another 3,000 units will increase the profit by ₹2,500 (i.e. ₹68,660). Hence, production of additional 3,000 units of R is suggested.