PAPER – 19: COST AND MANAGEMENT AUDIT

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
LEVEL C	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
		Identity	Recognize, establish or select after consideration
		Illustrate	Use an example to describe or explain something
	APPLICATION How you are expected to apply your knowledge	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
		Solve	Find an answer to
		Tabulate	Arrange in a table
	ANALYSIS How you are expected to analyse the detail of what you have learned	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
	SYNTHESIS How you are expected to utilize the information gathered to reach an optimum conclusion by a process of reasoning	Discuss	Examine in detail by argument
		Interpret	Translate into intelligible or familiar terms
		Decide	To solve or conclude
	EVALUATION How you are expected to use your learning to evaluate, make decisions or recommendations	Advise	Counsel, inform or notify
		Evaluate	Appraise or asses the value of
		Recommend	Propose a course of action

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) FTR Ltd. has two divisions. Division – I is involved in manufacturing of Railway and tramway locomotives & Division – II is involved in providing after sale service to their customer. His Aggregate annual turnover from manufacturing division is ₹ 80 crores and annual receipts from service division is ₹ 35 crores. State whether Companies (Cost Records and Audit) Rules, 2014 is applicable to the company? [5]

Answer:

As per Rule 3 of Companies (Cost Records and Audit) Rules, 2014, the class of companies including foreign companies, engaged in the production of the goods or providing services, specified in the Table, having an overall turnover from all its products and services of ₹ 35 crore or more during the immediately preceding financial year, shall maintain cost records for such products or services in their books of account.

In the given case, the product is covered under item (B) as non-regulated sector as per rule 3. The overall turnover of the company is ₹ 115 crores. Hence the company is required to maintained cost records under Rule 3 and also the aggregate turnover of the individual product "Railway and Tramway Locomotives" manufacturing by the company is not less than ₹ 35 crore. Hence, the company is also required to do cost audit.

(ii) ABC Ltd is a manufacturer of Steel since 1st December, 2012. The aggregate turnover of the product during the immediately preceding financial year is ₹ 34 crore. During the current financial year 2014-15 his turnover is ₹ 120 crore. You as a Cost Accountant, suggest whether any Cost Records is required to be maintained by ABC Ltd for the financial year 2014-15? [5]

Answer:

Rule 3 of the Companies (Cost Records and Audit) Rules, 2014 is applicable to the class of companies, including foreign companies defined in clause (42) of section 2 of the Act, engaged in the production of the goods or providing services, as specified in the Table (Regulatory or Non-regulatory Sectors) of Rule 3, having an overall turnover from all its products and services of ₹ 35 crore or more during the immediately preceding financial year, shall include cost records for such products or services in their books of account.

ABC Ltd is a manufacturer of steel, which is covered under item of non-regulatory sector of rule 3 and aggregate turnover during the immediately preceding financial year is less than ₹35 crore. Hence ABC Ltd is not liable to maintain cost records during the financial year 2014-15.

However, ABC Ltd. is required to maintain Cost Records and gets his accounts audited for the financial year 2015-16 as per rule 3 & 4 of the Companies (Cost Records and Audit) Rules, 2014.

(iii) Explain the procedure for appointment of a Cost Auditor of the Company? [5]

Answer:

The Board of Directors of the companies as specified in rule 3 and the thresholds limits laid down in rule 4, shall within 180 days of the commencement of every financial year, appoint a cost auditor. [Rule 6(1)]

Every company referred to in rule 6(1) shall inform the cost auditor concerned of his or its appointment as such and file a notice of such appointment with the Central Government within a period of thirty days of the Board meeting in which such appointment is made or within a period of 180 days of the commencement of the financial year, whichever is earlier, through electronic mode, in Form CRA-2, alongwith the fee as specified in Companies (Registration Offices and Fees) Rules, 2014. [Rule 6(2)]

Any casual vacancy in the office of a cost auditor, whether due to resignation, death or removal, shall be filled by the Board of Directors within thirty days of occurrence of such vacancy and the company shall inform the Central Government in Form CRA-2 within thirty days of such appointment of cost auditor.

(b)(i) X Ltd. which absorbs overheads at a pre-determined rate, provides the following information: overheads actually incurred ₹4,50,000; overhead absorbed ₹3,00,000. It was found that 60% of the unabsorbed overheads were due to defective planning. How would unabsorbed overheads due to defective planning be treated in cost accounts? [3]

Solution :

	₹
Overhead incurred	4,50,000
Overhead absorbed	3,00,000
Under absorption	1,50,000

60 percent of under absorbed overhead is due to defective planning. This being abnormal, should be debited to Profit and Loss A/c (60% of ₹ 1,50,000) = ₹ 90,000

(ii) Distinguish between cost allocation and cost absorption. [2]

Solution:

Cost allocation is the allotment of whole item of cost to a cost centre or a cost unit. It is the process of identifying, assigning or allowing cost to a cost centre or a cost unit.

Whereas Cost absorption is the process of absorbing all indirect costs or overhead costs allocated to or apportioned over particular cost centre or production department by the number of units produced.

(iii) In a manufacturing concern 20 workmen work in a group. The concern follows a group incentive bonus system whereby each workman belonging to the group is paid a bonus on the excess output over the hourly production standard of 250 pieces, in addition to his normal wages at hourly rate. The excess of production over the standard is expressed as a

percentage and 2/3 of this percentage is considered to be the share of the workman and is applied on the notional hourly rate of ₹6.00 (considered only for purpose of computation of bonus). The output data for a week are stated below:

Days	Man hours worked	Output (in pieces)
Monday	**160**	**48,000**
Tuesday	**172**	**53,000**
Wednesday	**164**	**43,000**
Thursday	**168**	**52,000**
Friday	**160**	**46,000**
Saturday	**160**	**42,000**
	984	**2,84,000**

You are required to:

(I) Work out the amount of bonus for the week and the average rate at which each workman is to be paid the same.

(II) Compute the total wages including bonus payable to Ram Jadav who worked for 48 hours at an hourly rate of ₹ 2.50 and to Francis Williams who worked for 52 hours at an hourly rate of ₹ 3.00. [5]

Solution:

(I)

Actual production per week	2,84,000 pieces
Standard production (250 pieces × 984)	2,46,000
Excess production over standard	38,000

Excess production as a percentage over standard production

= (38,000 ÷ 2,46,000) × 100		= 15.447%
Each workman's share	2/3 × 15.447%	= 10.298%
Bonus on notional hourly rate	₹6 × 10.298%	= ₹0.618
Amount of bonus	984 hrs. × ₹0.618	= ₹608

(II) Computation of wages

Ram Jadav

Basic wages: 48 hrs × ₹2.50	₹120.00
Bonus : 48 hrs. × ₹0.618	29.66
Total	149.66

Francis William

Basic wages: 52 × ₹3	156.00
Bonus : 52 × ₹0.618	32.14
Total	188.14

(iv) State the nature and purpose of Cost Auditing Standard on Cost Audit Documentation – 102. [5]

Answer:

The purpose of Cost Auditing Standard on Cost Audit Documentation 102 is to provide guidance to the members in preparation of Audit Documentation in the context of the audit of cost statements, records and other related documents.

Nature and Purpose of Cost Audit Documentation

Cost Audit documentation that meets the requirement of this Cost Auditing Standard and the specific documentation requirements of other relevant Cost Auditing Standards provides:

(a) Evidence of the cost auditor's basis for a conclusion about the achievement of the overall objectives of the cost auditor; and

(b) Evidence that the cost audit was planned and performed in accordance with Cost Auditing Standards and applicable legal and regulatory requirements.

Cost Audit documentation serves a number of additional purposes, including the following:

(a) Assisting the audit team to plan and perform the cost audit.

(b) Assisting members of the audit team responsible for supervision to direct and supervise the cost audit work, and to discharge their review responsibilities.

(c) Enabling the audit team to be accountable for its work.

(d) Retaining a record of matters of continuing significance to future cost audits.

(e) Enabling the conduct of quality control reviews in accordance with the Guidance Manual for Audit Quality issued by Quality Review Board (QRB).

(f) Enabling the conduct of external inspections in accordance with applicable legal, regulatory or other requirements.

(c)(i) The Companies Act, 2013 has introduced provision regarding rotation of auditors. Is the provision of rotation of auditors applicable to cost auditors also? [6]

Answer:

The provisions for maintenance of cost accounting records and cost audit are governed by Section 148 of the Companies Act, 2013. The provisions of Section 148 clearly states that no person appointed under Section 139 as an auditor of the company shall be appointed for conducting audit of cost records of the company. Section 148 also provides that qualifications, disqualifications, rights, duties and obligations applicable to auditors (financial) shall apply to a cost auditor appointed under this section. The eligibility, qualifications and disqualifications are provided in Section 141 of the Act and powers and duties are provided in Section 143. Section 143(14) specifically states that the provisions of Section 143 shall mutatis mutandis apply to a cost auditor appointed under Section 148. There are no other provisions governing the appointment of a cost auditor.

Section 139(3) of the Act, applicable to appointment of auditors (financial), and Rule 6 of Companies (Audit and Auditors) Rules, 2014 deals with the provision of rotation of auditors and these provisions are applicable only to appointment of auditors (financial). The Act does not provide for rotation in case of appointment of cost auditors and the same is not applicable to a cost auditor. It may, however, be noted that though there is no statutory provision for rotation of cost auditors, individual companies may do so as a part of their policy, as is the practice with Public Sector Undertakings.

(ii) A manufacturing unit produces two products 'A' and 'B'. The following information is furnished:

Particulars	Product A	Product B
Units produced (Qty)	**25,000**	**20,000**
Units Sold (Qty)	**20,000**	**17,000**
Machine Hours utilised	**10,000**	**5,000**
Design charges	**15,000**	**18,000**
Software development charges	**24,000**	**36,000**

Royalty paid on sales ₹1,11,000 [@ ₹3 per unit sold, for both the products]; Royalty paid on units produced ₹45,000 [@₹1 per unit purchased, for both the products], Hire charges of equipment used in manufacturing process of Product 'A' only ₹5,000, Compute the Direct Expenses. [5]

Solution:

Computation of Direct Expenses

	Particulars	**Product A**	**Product B**
	Royalty paid on Sales	60,000	51,000
Add	Royalty paid on units produced	25,000	20,000
Add	Hire charges of equipment used in manufacturing process of Product X only	5,000	----
Add	Design Charges	15,000	18,000
Add	Software development charges related to production	24,000	36,000
	Direct Expenses	**1,29,000**	**1,25,000**

Note:

(a) Royalty on production and royalty on sales are allocated on the basis of units produced and units sold respectively. These are directly identifiable and traceable to the number of units produced and units sold. Hence, this is not an apportionment.

(b) No adjustments are made related to units held, i.e. closing stock.

(iii) What are the duty liabilities of a Cost Auditor of an Company relating to reporting of frauds identified during audit? [4]

Answer:

Reporting of fraud by Cost Auditor –

(1) For the purpose of sub-section (12) of section 143, in case the auditor has sufficient reason to believe that an offence involving fraud, is being or has been committed against the company by officers or employees of the company, he shall report the matter to the Central Government immediately but not later than sixty days of his knowledge and after following the procedure indicated herein below:

(i) auditor shall forward his report to the Board or the Audit Committee, as the case may be, immediately after he comes to knowledge of the fraud, seeking their reply or observations within forty-five days;

(ii) on receipt of such reply or observations the auditor shall forward his report and the reply or observations of the Board or the Audit Committee along with his comments (on such reply or observations of the Board or the Audit Committee) to the Central Government within fifteen days of receipt of such reply or observations;

(iii) in case the auditor fails to get any reply or observations from the Board or the Audit Committee within the stipulated period of forty-five days, he shall forward his report to the Central Government along with a note containing the details of his report that was earlier forwarded to the Board or the Audit Committee for which he failed to receive any reply or observations within the stipulated time.

(2) The report shall be sent to the Secretary, Ministry of Corporate Affairs in a sealed cover by Registered Post with Acknowledgement Due or by Speed post followed by an e-mail in confirmation of the same.

(3) The report shall be on the letter-head of the auditor containing postal address, e-mail address and contact number and be signed by the auditor with his seal and shall indicate his Membership Number.

(4) The report shall be in the form of a statement as specified in Form ADT-4.

(d)(i) The maximum period prescribed for presenting Cost Audit Report is 180 days from date of close of the financial year. If Financial Accounts of a company is not ready before the stipulated time period, how cost audit report will be completed reconciled with the financial books of the company? [5]

Answer:

Maintenance of cost accounting records is a continuous process. No time limit has been prescribed in the rules for "submission" of records to cost auditor. The time limit of 180 days as prescribed in the rules is for submission of Cost audit Report in case Cost Audit is applicable to the company.
In case financial accounts are not ready or are yet to be adopted in the AGM, the same was clarified by the Cost Audit Branch earlier. In such cases the cost auditor can submit the report based on provisional accounts and submit a supplementary report of reconciliation in case there are materials differences in the final adopted accounts.

(ii) Purchase of Materials ₹ 2,40,000 (inclusive of Trade Discount ₹ 3,000); Fee on Board ₹10,000; Import Duty paid ₹ 15,000; Freight inward ₹ 20,000; Insurance paid for import by sea ₹12,000; Rebates allowed ₹ 4,000; Cash discount ₹ 3,000; CENVAT Credit refundable ₹ 7,000; Subsidy received from the Government for importation of these materials ₹ 18,000. Compute the landed cost of material (i.e. value of receipt of material). [5]

Solution:

Computation of Material Cost Sheet

	Particulars	**Amount (₹)**
	Purchase price of Material	2,40,000
Add	Fee on Board	10,000
Add	Import Duties on purchasing the material	15,000
Add	Freight Inward during the procurement of material	20,000
Add	Insurance paid	12,000
	Total	**2,97,000**
Less	Trade Discount	3,000
Less	Rebates	4,000
Less	CENVAT Credit refundable	7,000
Less	Subsidy received from the Government for importation of materials	18,000
	Value of Receipt of Material	**2,65,000**

Notes:

(I) Cash discount is not allowed, as it is a financial item.

(II) Subsidy received, rebates and CENVAT Credit refundable are to be deducted for the purpose of computing the material cost.

(iii) Explain the statement with the help of Cost Auditing Standard – 101 "Cost Auditor includes audit partner". [3]

Answer:

As per Cost Auditing Standard - 101 "Audit partner" means the partner or other person in the firm who is a member of the Institute of Cost Accountants of India and is in full time practice and is responsible for the engagement and its performance, and for the report that is issued on behalf of the firm, and who, where required, has the appropriate authority from a professional, legal or regulatory body.

(iv) How would you determine the cost of utilities generated for inter company transfers as per CAS 8? [2]

Answer:

Cost of Utilities generated for the inter company transfers shall comprise direct material cost, direct employee cost, direct expenses, factory overheads, distribution cost and share of administrative overheads.

(e)(i) How will you treat the following items in the Cost Accounting Records?

- **(I) CENVAT availed as credit on purchased raw materials.**
- **(II) Voluntary Retirement Compensation paid to workers included under 'wages'.**
- **(III) Profit on sale of fertilizers to cane growers by a sugar company.**
- **(IV) Commission paid to the Managing Director as a percentage of profit.**
- **(V) Interest received on security deposit with the Electricity Board. [10]**

Answer:

(I) CENVAT credit is to be deducted from the cost of raw materials, and only the net value should be taken in the priced stores ledger, which forms the basis for pricing material issues to cost centres.

(II) Voluntary retirement is a one-time non-recurring expenditure. Even if it is included under salaries and wages in Financial Accounts, it should be excluded for Cost Accounts purposes. This is an item of reconciliation between Cost and Financial Accounts.

(III) This is purely a trading activity. Hence profit derived from such activity should be shown as an item of reconciliation between Financial and Cost Accounts.

(IV) This is clearly an item to be excluded from cost. This should be shown as an item in the reconciliation statement in Part D Annexure - 2 between Costing and Financial Profit and Loss Account.

(V) Interest on security deposit with the Electricity Board can be set-off against interest paid or alternatively, it can be taken as a credit against overheads.

(ii) There was a strike from 13.09.2014 to 16.11.2014 in a company of which you were the Cost Auditor for the year ending 31.03.2015. Although the company began working from 17.11.2014, production could effectively begin only from 5.12.2014. The expenses incurred during the year ended 31.03,2015 were:

	(₹ in lakhs)
Salaries & Wages (direct)	**450**
Salaries & Wages (indirect)	**300**
Power (variable)	**180**
Depreciation	**270**

Other Fixed Expenses	**360**

Detailed examination of the records reveals that of the above, the following relate to the period 13.09.2014 to 16.11.2014:

	(₹ in lakhs)
Salaries & Wages (indirect)	**105**
Depreciation	**90**
Other Fixed Expenses	**135**

Calculate the amount which in your opinion should be treated as abnormal for exclusion from the product costs. [5]

Solution:

Calculation of Fixed expenses incurred during the period 17.11.2014 to 04.12.2014

	₹ in lakhs
Total expenses 2014 –15 (450+300+180+270+360)	1,560
Less: Variable expenses (Electricity)	180
Fixed expenses (2014 -15)	1,380
Less: Fixed expenses during the strike period (105+90+135)	330
Fixed expenses during non-strike period	1,050

Since the strike period was for 65 days, the non-strike period is 300 days. Hence, Fixed expenses attributed to 18 days, i.e., 17.11.2014 to 4.12.2014 is 6% of ₹1,050 lakhs = ₹63 lakh.

Therefore, Expenses incurred during 13.9.14 to 16.11.14		₹330 lacs
For expenses incurred during 17.11.2014 to 04.12.2014		₹63 lacs
	Total	₹393 lacs

Hence, ₹393 lakh is to be treated as abnormal cost and should be excluded from the product cost.

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

(a)(i) What are the objectives and responsibility as an internal auditor of a company for "Consideration of law and regulation in an Internal Audit? [5]

Answer:

Objectives and responsibility as an internal auditor of a company for "Consideration of law and regulation in an Internal Audit (SIA 17) -

Objectives -

The objectives of the internal auditor are to obtain sufficient appropriate audit evidence regarding compliance with the provisions of those laws and regulations generally recognised to have a direct effect on the determination of material amounts and disclosures in the financial statements, to perform specified audit procedures to help identify instances of noncompliance with other laws and regulations that may have a significant impact on the functioning of the entity and to respond appropriately to non–compliance or suspected non–compliance with laws and regulations identified during the internal audit.

Responsibility -

The role of an internal auditor is to carry out a continuous and critical appraisal of the functioning of an entity and suggest improvements thereto, the identification of non–compliance with laws and regulations is also an inherent part of his responsibilities.

Internal auditor should obtain an Understanding of the Legal and Regulatory Framework. The internal auditor shall inquire from the management and, where appropriate, those charged with governance, as to whether the entity is in compliance with such laws and regulations; and Inspecting correspondence, if any, with the relevant licensing or regulatory authorities to help identify instances of non–compliance with other laws and regulations that may have a significant impact on the entity's functioning.

The internal auditor shall request management and, where appropriate, those charged with governance to provide written representations that all known instances of non–compliance or suspected non–compliance with laws and regulations which impact the functioning of the entity, including the reporting framework, have been disclosed to the internal auditor.

If the internal auditor becomes aware of information concerning an instance of non–compliance or suspected non–compliance with laws and regulations, the internal auditor shall obtain an understanding of the nature of the act and circumstances in which it has occurred and further information to evaluate the possible effect on the functioning of the entity. The internal auditor may discuss the findings with those charged with governance where they may be able to provide additional audit evidence.

The internal auditor shall evaluate implications of non–compliance in relation to other aspects of internal audit, including the internal auditor's risk assessment and the reliability of written representations, and take appropriate action.

If the internal auditor concludes that non–compliance has a significant impact on the functioning of an entity and has not been adequately dealt with by the management, the internal auditor shall report the same in accordance with SIA 4, "Reporting". If the internal auditor is precluded by management or those charged with governance from obtaining sufficient appropriate audit evidence to evaluate whether non–compliance that may be significant to the functioning of the entity has, or is likely to have, occurred, the internal auditor should report the same.

(ii) How the work of an expert should be evaluated by auditor before accepting the same as Audit evidence? [5]

Answer:

As per SIA 16, when the internal auditor uses the work of an expert, he should satisfy himself about the competence, objectivity and independence of such expert and consider the impact of such assistance or advice on the overall result of internal audit engagement, specially in cases where the outside expert is engaged by senior management or those charged with governance.

When determining whether to use the work of an expert or not, internal auditor should consider the materiality of the item being examined, the nature and complexity of the item including the risk of error therein, the other internal audit evidence available with respect to the item.

When the internal auditor plans to use the expert's work, he should satisfy himself as to the expert's skills and competence. To consider the objectivity of the expert. To satisfy himself that the expert has no personal, financial or organizational interests that will prevent him from rendering unbiased and impartial judgments and opinion.

When the internal auditor intends to use the work of an expert, he should gain knowledge regarding the terms of the expert's engagement. To seek reasonable assurance that the expert's work constitutes appropriate evidence in support of the overall conclusions formed during the internal audit engagement. To consider whether the expert has used source data which are appropriate in the circumstances.

In exceptional cases where the work of an expert does not support related representations in the overall systems, procedures and controls of the entity, the internal auditor should attempt to resolve the inconsistency by discussions with the auditee and the expert.

(b)(i) What are the qualities and functions of a Management Auditor? A Management Audit team should be multidimensional. Discuss and elucidate. [5]

Answer:

Management audit is the systematic and dispassionate examination, analysis and appraisal of management's overall performance. In this context the essential qualities of a Management Auditor are:

(i) Ability to grasp the business problems.

(ii) General understanding of the motive, purpose, and objects of the organization.

(iii) Ability to assist the program of the organization.

(iv) Knowledge about the principles of delegation of authority.

(v) Power of understanding different internal control devices, flow charts, flow of work etc.

(vi) Sufficient knowledge about engineering, statistical techniques, cost and management etc.

(vii) General understanding of all economic legislations like Company Law, Customs, Central Excise, IT etc.

(viii) Ability to prepare reports to various levels of management.

(ix) Capacity to adjust with personnel of different types with tact. Management Auditor should be able to elicit information and capable of discovering intelligently in a meeting and should not disclose own ignorance on any issue.

The functions of Management Auditor are as follows:

(i) He should ensure that all pertinent information needed for planning reaches the higher management.

(ii) He should ensure that decisions are based on the objectives of the management.

(iii) He should ensure that key functions or operations which are profit making are given maximum attention.

(iv) The implication of changes in the budgetary proposals should be projected by him adequately both in respect of direct and indirect taxation, to the top levels of management. Similarly changes in the laws should also be studied by him and implications ascertained.

(v) He should keep himself abreast with developments in information technology and introduce latest methods of information and communication system, consistent with cost benefit studies needed to improve the systems.

Management Audit is a service function with the object of assisting management in achieving the most efficient administration. Management audit involves multidisciplinary and multidimensional approach and requires systematic and dispassionate review of analysis and appraisal of overall performance. It takes into account the techno-economic study of the Industry. As a management auditor is concerned with all aspects of business and the organization, ranging from manufacture to marketing and finance, the management audit team should be multidisciplinary to make multidimensional approach to audit function.

(ii) A nationalized bank which has extended cash credit to a manufacturing company on the security of the inventory holding, is periodically receiving stock statements from the company indicating the value of stocks held. The company is sick and the Bank wants to reassure itself that its loans are fully covered by stocks. You have been appointed by the Bank to certify the value of the inventory. How would you proceed to conduct the 'inventory audit?' [5]

Answer:

Inventory Audit involves the following aspects:

(I) Physical verification of stocks.
(II) Method of valuation adopted.
(III) Currency of stocks (i.e., movement)

(I) Physical verification of stocks—Physical verification of stocks will normally be 100 percent. However, depending upon the nature of items and material flows, it may be done by sampling. This will require proper sampling procedures to ensure the samples verified represent the characteristics of entire stock. An ABC categorization may be done so that right emphasis is given to each item of stock.

(II) Method of valuation adopted— The main thrust of inventory audit is to check the accuracy of the costs, to verify the market rates and to see that the values adopted for stock valuation are cost price or net realisable value whichever is lower. Basis of valuation adopted for Raw Materials, Work-in process, Finished Goods and Spares and Consumables must be examined and reasonableness verified to ensure the realizable values. For imported items foreign exchange translation rate for conversion will be:

(a) as per bank debits under LC, or
(b) rate prevalent as evidenced by Bill of Entry(or Forward Rate if Forward Contract has been taken (for imports on D.A. terms or on account).

(III) Currency of stocks— Currency of stocks will be ensured by analyzing all items by fast, slow and non-moving characteristics. In respect of slow and non-moving items, fall in value, if any, due to obsolescence, deterioration etc. will also have to be examined and reported.

In respect of spare parts, care must be taken to segregate items of spares relating to scrapped or replaced plant/machinery, as these may not have any value.

In finished goods also, returns from customers for defects in quality must be given special consideration in valuation.

(IV) The basis of the unit rates adopted must be consistent and include:

(a) Freight, insurance, octroi, packing, loading and unloading and other incidental charges incurred.
(b) Manufacturing costs upto stages of completion in case of finished product.

The report may be designed by the bank or designed by the Cost Auditor. In any case some items which need to be highlighted should be shown separately. The report should contain lacuna, if any, improvements required, and suggestions for improvement. Needless to say the report should not only be useful to client, i.e. bank but also to the unit whose audit is carried out to enable them to improve their performance.

(c)(i) What is productivity audit? Describe the steps involved and the measures used in this audit. [5]

Answer:

Productivity audit is the process of monitoring and evaluating organizational practices to determine whether functions, programmes, and organization itself are utilizing resources effectively and efficiently so as to accomplish objectives.

It is measured in terms of outputs and inputs in relation to the three major factors of production i.e. material, labour and capital. The measurement used in relationship between outputs and inputs measured in physical and/or financial terms.

Productivity audit concentrates on areas such as:

- productivity actions
- resource availability
- performance standards
- benefit allocation
- productivity policies

- equipment usage
- accountability reporting
- resource allocation.

The measures of productivity for three factors of production:

Material productivity:
- Obtaining higher output for same input.
- Obtaining same output with lower input.

Labour productivity:
- Labour hour per unit of product.
- Output per man hour.
- Added value per capita or per rupee of labour cost.

Capital productivity:
- Physical output per rupee of investment.
- Value of production per rupee of investment.
- Value added per rupee of investment.

The audit is done by -
- Ratio analysis
  - Return on capital employed
  - Return on sales
- Capacity utilization of plant, equipments and facilities against available capacity.
- Material consumption against bench marks.
- Productivity analysis of man hours in time and cost.

Productivity audit consists of following steps:
- Setting of standards for different factors of production.
- Choosing yardsticks for measurement of each of the factors.
- Comparing actual performance with standards and identifying variances.
- Making recommendations for control action.

(ii) You are the Management Auditor of a large manufacturing company suffering from working capital crunch. What are the related areas which you would probe into to overcome the company's problem. [5]

Answer:

Adequate working capital is required for liquidity and smooth operations of the company. To ensure an adequate flow of working capital to the manufacturing company, the following action plan may be considered:

(I) Working Capital Estimation: The company should start by preparing a statement of the projected working capital requirements. This should be based on the functional budgets in sales, production, expenses, capital expenditure and the Master Budget consisting of projected profit and loss and the Balance Sheet.

(II) Cash Flow Statement/Cash Budget: Month-wise cash budgets showing inflows and outflows of cash head-wise should be prepared to analyse the major inflows and outflows affecting the entity. At this stage any wasteful outflow can be traced and eliminated. Bank reconciliation should be undertaken periodically so that outstandings can be traced and acted upon. This is also necessary to reduce the float time.

(III) Inventory/Stock Management: Raw materials and inventories should be classified properly to determine the level of stock of materials. The method of costing also needs to be looked at minutely. There is a need to establish linkage with the production pattern and work backwards accounting for time factor in receipt of material. This needs to be worked out carefully since at no cost, production schedule should be hampered. The cautions also need to be exercised that there is no unused/obsolete inventory. The system of inventory management needs to be looked at so as to check the avoidable wastes/scraps generated during storage and handling. Just in time philosophy will enable the company to reduce processing time, stocks and related costs. The adoption of such a mechanism would bring down the cost to a considerable extent.

(IV) Credit Management: The company should lay down a proper policy for evaluating customers, determining the credit period and offering discounts for early payment. An age-wise analysis of debtors should also be prepared so as to avoid credit to defaulters. The sale departments need to be geared up so that realisation can be made in time. A careful analysis should be done of various customers according to pattern of sales so as to exercise control on their respective debit balances. The company should through its purchase department endeavour to avail the maximum credit period from its creditors. This would enhance the working capital of the company.

(V) Funds Flow Analysis: The Company should prepare a funds flow analysis, distinguishing between long-term and short-term sources and applications.

(VI) Investment Management: The idle funds of the company, if any, should be invested in short-term securities to augment the income.

(VII) WIP Analysis: Minimum WIP should be monitored and for the purpose it is necessary to ensure that no bottlenecks develop at any stage during the production process.

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

(a) 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 ₹40,000. 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.)
X	8,000	30	1	0.7
Y	6,000	40	2	0.4
Z	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]

Solution:

Working Notes

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

Product	Kgs. per unit	₹ per kg.	Amount (₹)
X	0.7	8	5.60
Y	0.4	8	3.20
Z	1.5	8	12.00

(ii) Calculation of Variable Overhead Per Unit

Product	Hours	Rate per hour (₹)	Amount (₹)
X	1	5.60	5.60
Y	2	5.60	11.20
Z	1.5	5.60	8.40

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

Particulars	Products			
		X	Y	Z
Selling price	(a)	30.00	40.00	50.00
Direct material		5.60	3.20	12.00
Direct labour		8.00	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.)		0.70	0.40	1.50
Contribution per kg. of raw material	(i)/(ii)	11.14	14.00	8.40
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.)
Y	6,000	0.40	2,400
X	8,000	0.70	5,600
Z	1,600	1.50	2,400*
			10,400

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

(iv) Statement of profit (₹)

Contribution			
X	(8,000 x 7.80)	62,400	
Y	(6,000 x 5.60)	33,600	
Z	(1,600 x 12.60)	20,160	1,16,160
Less: Fixed Cost			40,000
Profit			76,160

(v) 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.)
Y	6,000	0.40	2,400
X	8,000	0.70	5,600
Z	4,600	1.50	6,900*
			14,900

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

Statement of Profit (₹)

Contribution			
X	(8,000 x 7.80)	62,400	
Y	(6,000 x 5.60)	33,600	
Z	(4,600 x 12.60)	57,960	1,53,960
Less: Increase on additional units			
Labour Cost	(3,000 units x 25% x₹12)	9,000	
Variable overhead	(3,000 units x25%x₹8.40)	6,300	15,300
Net contribution			1,38,660
Less: Fixed Cost		40,000	
Add: Increase		20,000	60,000
Profit			78,660

Analysis: By using additional raw material of 4,500 kgs. in production of product Z by another 3,000 units will increase the profit by ₹2,500 (i.e. ₹78,660 - ₹76,160). Hence, production of additional 3,000 units of Z is suggested.

(b)(i) From the following information as extracted from the books of P Ltd, ascertain the amount of Capital Employed in the business:

	₹
Equity Share Capital	**5,00,000**
Preference Share Capital	**3,00,000**
Securities Premium	**40,000**
General Reserve	**1,30,000**
Profit & Loss A/c (Cr.)	**90,000**
Capital Reserve	**30,000**
10% Debentures	**2,00,000**
12% Bank Loan	**1,00,000**
Sundry Creditors	**55,000**
Bills Payable	**25,000**
Preliminary Expenses	**50,000**
Discount on Issue of Shares	**20,000**

[5]

Solution:

Books of P Ltd.
Statement showing ascertainment of capital Employed

	₹	₹
Share Capital:		
Equity Share Capital	5,00,000	
Preference Share Capital	3,00,000	8,00,000
Add: Reserves Surplus:		
Securities Premium	40,000	
General Reserve	1,30,000	
Profit & Loss A/c (Cr)	90,000	
Capital Reserve	30,000	2,90,000
		10,90,000
Less: Miscellaneous Expenditure:		
Preliminary Expenses	50,000	
Discount on Issue Shares	20,000	70,000
Proprietors' Fund		10,20,000

Add: Long –term loans: 10% Debentures 12% Bank Loan	 2,00,000 1,00,000	 3,00,000
Capital Employed		13,20,000

(ii) Manufacture's specification capacity for a machine per hour = 1800 units
No. of shifts (each shift of 8 hours each) = 3 shifts
Paid holidays in a year (365 days):
Sundays 52 days
Other holidays 8 days
Annual maintenance is done during the 8 other holidays.
Preventive weekly maintenance is carried on during Sundays.
Normal idle capacity due to lunch time, shift change etc =1hour.
Production during last five years = 76.20, 88, 65.82, 78.5, 76.6 lakhs units
Actual production during the year = 76.40 lakhs units.
Calculate Installed capacity, Available capacity, Actual capacity, Idle capacity and Abnormal idle capacity as per CAS 2 from the data given. [5]

Solution:

Installed capacity for the machine = 365 x 8 x 3 x 1800
= 157.68 lakhs units

Available capacity = (365 – 52 - 8) x (8 -1) x 3 x 1800
= 305 x 7 x 3 x 1800
= 115.29 lakhs units

Normal capacity = (76.2 + 78.5 + 76.6)/3
= 77.1 lakhs units.

Actual capacity utilization = 76.4 lakhs units
= 76.4/157.68 x 100
= 48.45%

Idle capacity = (157.68 - 76.4) lakhs units
= 81.28 lakhs units
= 81.28 /157.68 x 100
= 51.55%

Abnormal idle capacity = (77.1 - 76.4) lakhs units
= 0.70 lakhs units

(c) The Balance Sheet of Akash Ltd. stood as follows as on: (₹ in Lakhs)

Liabilities	31 March 2015	31 March 2014	Assets	31 March 2015	31 March 2014
Capital	500	500	Fixed Assets	800	600
Reserves	232	200	Less: Depreciation	280	200
Loans	200	240		520	400
Creditors & Others			Investment	80	60

Current Liabilities	**258**	**50**	**Stock**	**240**	**200**
			Debtors	**140**	**100**
			Cash & Bank	**40**	**40**
			Other Current assets	**50**	**50**
			Miscellaneous Expenditure	**120**	**140**
	1,190	**990**		**1,190**	**990**

You are given the following information for the year 2014-15:

	₹ in Lakhs
Sales	**1,200**
Profit before Interest & Tax	**300**
Interest	**48**
Provision for Tax	**120**
Proposed Dividend	**100**

Required:

i. **Calculate for the year 2014-15:**

   a. **Return on Capital Employed.**
   b. **Stock Turnover Ratio.**
   c. **Return on Net Worth.**
   d. **Current Ratio.**
   e. **Proprietary Ratio**

ii. **Give a brief comment on the financial position of Akash Ltd.** **[10]**

Solution:

(a) Computation of Capital Employed –

	2015	2014
Fixed Assets	800	600
Less: Depreciation	280	200
	520	400

Current Assets		
Stock	240	200
Debtors	140	100
Cash & Bank	40	40
Other current assets	50	50
	470	390

Current Liability	258	50

Working capital	212	340
Net Fixed Assets + Working Capital	732	740

Average Capital Employed = (732 + 740)/2 = 736

Total Earning = Profit after tax + Interest on debt funds + Non-Operating Adjustments
= (300 – 48 – 120) + 48

= 180

$$\therefore \text{Return on Capital Employed} = \frac{\text{Total Earning}}{\text{Average Capital Employed}}$$

$$= \frac{180}{736} \times 100 = 24.46\%$$

(b) Computation of Stock Turnover Ratio = $\frac{\text{Net sales excluding excise Duty \& Sales Tax}}{\text{Average Stock}}$

$$= \frac{1{,}200}{(240 + 200)/2} = 5.45 \text{ times}$$

(C) Return on Net Worth = $\frac{\text{Total Earning}}{\text{Average Net Worth}}$

Net Worth = Share Capital + Reserve & Surplus – Revaluation reserve – Intangible assets – Accumulated losses, if any

Net Worth = 500 + 232 - 120 = 612

Return on Net Worth = $\frac{180}{612}$ = 29.41%

(d) Current Ratio = $\frac{\text{Current Assets}}{\text{Current Liabilities}}$

Current Ratio = $\frac{470}{258}$ = 1.82

(e) Proprietary Ratio = $\frac{\text{Proprietary Funds}}{\text{Total Assets}}$

Proprietary Funds = Equity Share Capital + Preference Share Capital + reserve & Surplus – Accumulated Losses
= 500 + 232 – 120 = 612

Total Assets = Net Fixed assets + Total Current Assets (Only tangible assets will be included)
= 520 + 470 = 990

Proprietary Ratio = $\frac{612}{990}$ = 0.62