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) What are the steps to be taken by the cost auditor to ensure proper maintenance of cost records? (12 Marks)

Answer:

Answer:

The following steps can be taken to ensure proper maintenance of cost records:

(1) Study and examine the chart of accounts with special reference to the system of cost methods adopted by the company.

(2) Study the basic raw materials and packing materials, chemicals and stores required for the manufacture of the product and their sources.

(3) Study the organizational structure and know the details of manufacturing process.

(4) Examine whether cost centres are split-up into production & services functions

(5) The licensed capacity and installed capacity should be ascertained. Any addition to production capacity during the preceding two years should also be ascertained. It is to be noted that though the reporting in cost audit report is required to be done at a Product Group level, licensed capacity and installed capacity would continue to be ascertained machine wise as it is not feasible to ascertain such capacities at product/product group level.

(6) Examine the adequacy of internal checks and control.

(7) Before starting the assignment, meet the various important executives of the company and note down the functions, responsibilities and powers delegated to each.

(8) Obtain an understanding of the business and the production processes involved, the flow of the process, till the finished goods are packed and transferred to the finished stores for despatch.

(9) Obtain the Balance Sheets of the company for the past two years and make a note of the important points contained in the Directors' Report to the shareholders on the various financial, operation and technical matters.

(10) Study the books/records containing production records etc., statistics maintained by the factory(s) in compliance with the Excise and other Government requirements and note down the Licensed and Installed capacities. Ascertain the reasons for shortfall in production, if any, as compared to the previous two years.

(11) Compare actual production with the installed capacity.

(12) Prepare a complete quantitative analysis beginning with input materials (both direct and indirect), corresponding production at each stage of production, any by-product or joint products produced, scrap and wastages generated, quantity transferred for captive consumption and the stage from which such transfer is taking place and final reconciliation with that of sales and stocks in respect of each type of product.

(13) Study the Cost Accounting System followed by the company. Examine whether the same system is followed in case the Company is engaged in production of different and varied types of products manufactured at different locations and such locations are operating under different autonomous Divisions under the overall management of the Company.

(14) Make proper identification of various production and service cost centres and check whether the expenditure is initially booked to these cost centres correctly.

(15) Check whether the relevant cost accounting standards and generally accepted cost accounting principles (GACAP) are being followed for valuation of materials, utilities, overheads etc.

(16) It is necessary to prepare individual service/utilities cost statements, viz., Water, Steam, Power, DM Water, Purified Air etc. Ensure consumption records of these utilities at various production and service centres properly maintained and allocate the costs on an equitable basis to the various consuming cost centres. In respect of supplies made to or received from other units of the company, ensure that the transfers are made at cost of production/generation of the utilities and that the method followed is consistent. In case of inter unit transfers at pre-determined transfer price in financial accounts, the same has to be reversed for cost accounts and considered at cost.

(17) Ascertain any abnormal reasons for low productions and/or high usage of services/ utilities and high down time in the plant. Find out whether these have been properly recorded and reported separately.

(18) Verify whether consistency is maintained with regard to cost accumulation, cost analysis, cost allocation and apportionment, cost treatment and costing procedures adopted for inventory valuation from period to period.

(19) Examine the records maintained for inter--company transfers.

(20) Ascertain if any Royalty/Technical Services Fee has been paid to Collaborator/Technology Supplier. If it is one-time lump sum payment, check whether the charge to cost of product is spread over the period for which benefit is to be derived out of the payment and the same is equitable and reasonable.

(21) Examine whether there is any Royalty agreement and check its effect on cost of production and allocation of the cost to the product.

(22) Examine the practice followed for maintaining quality of the product and related Quality Control Expenses. Check the amount incurred on quality control, quality audit etc. and their treatment in the cost of product.

(23) Examine whether the company is complying with the various legal provisions with respect to pollution control and the expenses incurred therefor and whether absorption of such cost in the product is done equitably and consistently.

(24) Cost of production should be derived for domestic sale and export sale separately.

(25) Verify the reconciliation statement between the profit/loss as per the cost accounts and as per the financial accounts. Also examine the variations and reasons thereof.

(26) Examine whether the data maintained in the cost record are reconciled with the relevant returns submitted by the company to government authorities.

(27) Where a system of standard costing is used, it should be ensured that such costs are converted into actual for the purpose of determining the figures required to comply with the requirements of Cost Accounting Record Rules. The method of adjustment of variances to arrive at the actual cost from the standard cost should be examined.

(28) Examine that cost statements have been prepared as per requirements of Cost Accounting Records Rules.

(29) Examine whether Cost Accounting Standards and Generally Accepted Cost Accounting Principles issued by the Institute of Cost Accountants of India are being followed.

(30) Examine whether there are any abnormal features affecting production during the year, e.g., strikes, lock-outs, major breakdowns in the plant, substantial power cuts, serious accidents, etc., and what is their impact on the cost of production.

(31) Examine if there are any special expenses, which have been directly allocated to products under reference, and what is the total amount as also the incidence per unit of product.

(ii) What are the key features of Cost Audit? (3 marks)

Answer:

The cost audit of the companies under the relevant provisions of the Companies Act, 1956 has the following features:

(a) Assessing compliance of the relevant cost accounting records rules as applicable to the product under review;

(b) Study of the costing system to assess whether it is adequate for the cost ascertainment of the product under review;

(c) Evaluation of the operating and other efficiencies of the organization under audit with special reference to the product under review; to ensure the submission of necessary details required under the Cost Audit Report Rules, 2001 as amended from time to time.

(d) Submission of Cost Audit Report in the format prescribed.

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

Answer:

Basis of Apportionment for Primary Distribution of Overhear

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 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 ×10:20,00,000 × 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.

(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:

(a) Positive supplementary rate, and

(b) Negative supplementary rate.

Positive Supplementary Rate (in case of under absorption) =

$$\frac{\textbf{Actual overheads - Absorbed Overheads}}{\textbf{Actual base}}$$

Negative Supplementary Rate (in case of over absorption) =

$$\frac{\textbf{Absorbed Overheads - Actual Overheads}}{\textbf{Actual base}}$$

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:

(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.

(c)(i) List out the records to be maintained by companies to which Cost Accounting Record Rules, 2011 is applicable? (9 Marks)

Answer:

An illustrative list of Cost Records can be as follows:

1. **Production**
   a. Raw Material consumption register/report;
   b. Production report;
   c. Rejections/wastages/scrap report;
   d. Report on stoppage of machines with reasons;
   e. Idle time report with reasons;
   f. Machine utilization report;
   g. By-Product & Joint Products.

2. Work-in-Progress and Finished Goods
   a. Process stock register- cost centre-wise and product wise;
   b. Finished goods stock register- product-wise.
   c. Daily Stock Accounts (DSA) maintained under Central Excise Law

3. Raw Materials and Stores Accounting
   a. Goods received register;
   b. Bin cards;
   c. Materials/stores ledgers.
   d. Packing Materials

4. Employee Cost
   a. Attendance registers/ sheets;
   b. Wages/salary sheets;
   c. Leave and gratuity payments.

5. Repairs and Maintenance
   a. Works order register / card showing material and spares consumed and labour utilized;
   b. Procedure followed for routine maintenance;
   c. Details major breakdowns & Repairs;
   d. Details of Abnormal Repairs & Reconditioning activities.

6. Utilities (Water, Steam, Power, DM Water, Air, Effluent Treatment etc.)
   a. Records of input and output;
   b. Record of cost centre-wise allocation of outputs.

7. Overheads
   a. Details such as production hours, labour hours, machine hours to facilitate distribution of overheads;
   b. Overheads Keys.

8. Cost Accounts
   a. Overheads analysis register;
   b. Cost centre-wise assets register;
   c. Product ledger;
   d. Annexures and proformae as per rules, if any;
   e. Reconciliation of profit/loss as per cost records and financial records. The Reconciliation Statement between cost accounts and financial accounts can also be treated as a Costing Profit & Loss Account. This statement shall normally start with the margin arrived at as per cost accounts and all other items of expenses not considered for determination of cost or incomes not considered for arriving at the margin as per cost accounts would get reflected.

9. Sales
   a. Product-wise Sales analysis
   b. Stock Transfer
   c. Marketing/ Market Research Cost

(c)(ii) What are the benefits of cost information as per the expert committee of India? (6 Marks)

Answer:

The Expert committee formed by the Government of India to study the Cost Audit scenario in the country, highlighted the following benefits of cost information:

(i) Cost Information enables the organization to structure the cost, understand it and use it for communicating with the stakeholders.

(ii) Costing is an important tool in assessing organizational performance in terms of shareholder and stakeholder value. It informs how profits and value are created, and how efficiently and effectively operational processes transform input into output. It contributes to the data input on economy level parameters like resources efficiency, waste management, resources allocation policies etc.

(iii) Costing includes product, process, and resource-related information covering the functions of the organization and its value chain. Costing information can be used to appraise actual performance in the context of implemented strategies.

(iv) Good practice in costing should support a range of both regular and non-routine decisions when designing products and services to

- meet customer expectations and profitability targets;
- assist in continuous improvements in resources utilisation; and
- guide product mix and investment decisions.

(v) Working from a common data source (or a single set of sources) also helps to ensure that output reports for different audiences are reconcilable with each other.

(vi) Integrating databases and information systems can help to provide useful costing information more efficiently as well as reducing source data manipulation.

(d) (i) As an cost auditor of a company, how would you deals with the following issues –

A. Valuation of Stock of work-in-progress and finished goods;

B. Treatment of Joint Products and By-Products.

C. Treatment of Scrap and Waste **(3×3 = 9)**

Answer:

A. Valuation of Stock of work-in-progress and finished goods

Stock of work-in-progress shall be valued at cost on the basis of stages of completion as per the cost accounting principles. Similarly, stock of finished goods shall be valued at cost. Opening and closing stock of work-in-progress shall be adjusted for calculation of cost of goods produced and similarly opening and closing stock of finished goods shall be adjusted for calculation of goods dispatched.

For determining the cost of production for captive consumption, adjustment for opening and closing stock of work-in-progress shall be made. The valuation of opening stock and closing stock of WIP is valued at cost on the basis of stages of completion. Similarly for calculation of cost of finished goods dispatched, adjustment for opening and closing stock of finished goods, if any, is to be made. In case the cost of a shorter period is to be determined, where the figures of opening and closing stock are not readily available, the adjustment of figures of opening and closing stock may be ignored.

Adjustment of opening and closing stock of WIP/finished goods will arise only when the cost of production is to be determined for historical cost and due consideration shall be given for above adjustment in determining the cost of production. However, if cost of production is to be determined for a future period, it will be based on projected cost and projected capacity utilisation. In such cases, adjustment of opening and closing WIP/finished goods and valuation thereof does not arise.

B. Treatment of Joint Products and By-Products

In case joint products are produced, joint costs are allocated between the products on a rational and consistent basis. In case by-products are produced, the net realisable value of by-products is credited to the cost of production of the main product.

For allocation of joint cost to joint products, the sales values of products at the split off point i.e. when the products become separately identifiable may be the basis. It may be allocated based on a measure of the number of units, weight or volume. Some other basis may be adopted. For example, in case of petroleum products, each product is assigned certain value based on its certain properties, may be calorific value and these values become the basis of apportionment of joint cost among petroleum products.

The joint cost shall be allocated to the cost of production of Joint Products as per the generally accepted cost accounting principles.

By-product:

It is difficult to determine the cost of by-product. By products are sold:

(1) Either in original form without further processing; or

(2) or processed in order to be saleable. In such case, the main product is credited with the sale realization (gross/net) as the case may be. In other words expenses incurred to bring by-product to marketable conditions shall be adjusted from the sale of by product and net realizable value of by-product shall be credited to cost of production of main product.

In case sale realization is not available, credit to main product at substitute value of by product may be given.

C. Treatment of Scrap and Waste

The production process may generate scrap or waste. Realized or realizable value of scrap or waste shall be credited to the cost of production.

In case, scrap or waste does not have ready market and it is used for reprocessing, the scrap or waste value shall be taken at a rate of input cost depending upon the stage at which such scrap or waste is recycled. The expenses incurred for making the scrap suitable for reprocessing shall be deducted from value of scrap or waste.

(d)(ii) What are the disqualifications of a Cost Auditor? [6]

Answer:

Disqualifications of a Cost Auditor

The disqualifications of a person for being appointed or re-appointed for conducting the cost audit are detailed in sub-Sections (a), (b) and (c) Section 233 (5) of the Companies Act, 1956 detailed as under:

(a) The sub-Section (5)(a) provides that a person referred to in sub-Section (3) or sub-Section (4) of the Section 226 shall not be appointed or re-appointed for conducting the audit of the cost accounts of a company.

(b) The sub-Section 5(b) provides that a person appointed under Section 224 as an auditor of a company shall not be appointed or re-appointed for conducting the audit of the cost accounts of that company.

(c) The sub-Section (5)(c) provides that if a person, appointed for conducting the audit of cost accounts of a company, becomes after his appointment, to any of the disqualifications specified in clause 5(a) or 5(b) above, he shall on and from the date on which he becomes disqualified, shall cease to conduct the audit of the cost accounts of the company.

Section 226 of the Companies Act, 1956 provides for the qualifications and disqualifications of the auditors. Reading of sub-Section (3) of Section 226 implies that the following persons cannot be appointed or reappointed as cost auditor of a company –

(a) a body corporate;

(b) an officer or employee of the company;

(c) a person who is a partner, or who is in the employment, of an offi cer or employee of the company;

(d) a person who is indebted to the company for an amount exceeding one thousand rupees or who has given any guarantee or provided any security in connection with the indebtedness of any third person to the company for an amount exceeding one thousand rupees;

(e) a person holding any security of that company after a period of one year from the date of commencement of the Companies (Amendment) Act, 2000. (Explanation: "security" means an instrument which carries voting rights);

The sub-Section (4) of Section 226 provides that a person shall also not be qualified for appointment as auditor of a company if he is, by virtue of sub-Section (3), disqualified for appointment as auditor of any other body corporate which is that company's subsidiary or holding company or a subsidiary of that company's holding company, or would be so disqualified if the body corporate were a company. In other words, if a person is disqualified under any of the aforesaid classes from being appointed as an auditor of any company or body corporate, he cannot be appointed as auditor of its holding company, subsidiary or 'co-subsidiary'; and

A person, who is in full time employment elsewhere [Section 224 (1B)]. If an auditor becomes disqualified after his appointment, under any of the above provisions he shall be deemed to have vacated his office.

(e) (i) State the meaning of Captive Consumption. What types of goods covered under CAS-4?

[9]

Answer:

(i) Meaning of Captive Consumption:

"Captive Consumption" means that the goods are not sold by the assessee but are used for consumption by him or on his behalf in the production or manufacture of other articles in the same premises or elsewhere.

When goods manufactured are supplied to a related party who does not sell the goods but consumes the same in manufacture of another product(s), such goods are also deemed to be "captively consumed" for the purpose of valuation under Excise Laws.

In some cases during the manufacture, certain intermediate goods emerge and are used in manufacture/production of other goods. The use of such intermediate product within the factory is also termed as "Captive Consumption".

Sometimes the goods are not removed from the factory but are used in the further manufacture/production of goods and in such cases also, duty is payable as soon as the goods are manufactured/produced within the factory unless exempted. Goods captively consumed in the same factory of the manufacturer are exempted from duty as per Notification No. 67/95-CE dt.16.03.1995, if duty is payable on the final product. For example, the manufacturer of motor vehicles manufactures various parts of the motor vehicles like brakes, panels etc. These parts are also excisable goods and have separate entry in the schedule to Central Excise Tariff Act, 1985. If these parts are removed from the factory, duty is payable but if these parts are used in the same factory of the manufacturer in the assembly / further manufacture of motor vehicles then the use of parts and components is called as captive consumption, and is not subject to excise duty in view of above notification.

Type of Goods:

Following type of goods are covered under CAS-4:

1. Goods manufactured not sold but captively consumed
2. Goods manufactured partly sold and partly captively consumed
3. Goods manufactured sold to related party for captive consumption

(ii) As a Cost Auditor of a company how would you dealt with treat the head office expenses of a company? [6]

Answer:

Treatment of Head Office/Corporate Office Expenses:

A company may have a number of factories with a head office. In a multi-locational/ multi-product company, there are common activities carried out at Head Office like purchase, inventory management, finance, personnel, R & D, Quality Assurance, security etc. These activities sometimes, are centralized at one place i.e. Head Office for business convenience and scale of economy and booked as head office expenses along with other activities like secretarial, project, treasury, investment, trading, etc. They do not form part of the Administration overheads. For example: Industrial relation Department; Material management; Operation/production planning Department; Human Resources, System Design & Development Set Up and the like are production related activities. Nomenclature or place where the activity takes place is not relevant. In such a situation, activities at Head Office/Corporate level are to be clearly demarcated and segregated so as to distinguish activities that contribute clearly and directly to production activities from general management and administration activities. It is necessary to properly analyze the expenses of such activities of head office and allocate these to plants/products on rational basis.

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

(a) As a management consultant, you have an assignment to conduct a Management Audit of the production function of a medium-scale engineering unit. Prepare a check list of the points on which you should undertake the study. (10 Marks)

Answer:

Checklist for carrying out management audit of production function in a medium sized engineering unit:

1. How is the production plan prepared? Is it based entirely on market forecasts, or does it also take into account limitations of materials, personnel and finance?
2. Are the product-mix decisions based on optimum profitability? What is the proportion of standard products and tailor-made items?

3. Whether all infrastructure like machinery, materials, manpower and money have been assured at the scheduled time for uninterrupted production.
4. Are there any constraints in achieving maximum capacity utilization? Are there any imbalances in the plant? If so, what steps are being contemplated to set right the imbalance?
5. Is it possible to subcontract some jobs to increase production capacity or maintain production in times of power-cuts etc.?
6. What is the percentage of scrap, waste and rejects? Is it reasonable?
7. Is the idle time being monitored regularly? Is it being analysed reason-wise? How much of it is due to machinery breakdown which is controllable by production department?
8. Is there excess or shortage of manpower? How is the control exercised – time & motion study, incentives, labour budgets or any other means?
9. Is there any wastage in consumption of utilities like power, fuel, steam, compressed air, etc.?
10. How effective is the material handling system? Are there any avoidable movements of materials?
11. What is the system for preventive maintenance? If the in-house maintenance capability is not adequate, are there annual maintenance contracts for all important items of plant and machinery?
12. How is the control exercised on inventory of stores and spares?
13. What is the procedure to handle breakdown emergencies?
14. Are all statutory requirements in regard to safety measures complied with?
15. Are history cards available for all plant and machinery giving details of downtime, replacement of parts, etc?
16. Does the system provide for flexibility or change of production schedules to execute urgent orders or changes in the product mix?

(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

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)(i) Explain the objects of Management Audit? (5 Marks)

Answer:

Objects of Management Audit

The main objectives of management audit can be summarized as follows:-

(i) to ensure optimum utilization on all the resource employed, including money, materials, machines, men and methods;

(ii) to highlight efficiencies in objectives, policies, procedures and planning;

(iii) to suggest improvement in methods of operations;

(iv) to highlight weak links in organizational structure and in internal control systems, and suggest necessary improvements;

(v) to help management by providing health indicators and help prevent sickness or help cure in case of sickness; and

(vi) to anticipate problems and suggest remedies to solve them in time.

(c)(ii) Explain the need for capacity determination of an organisation in India. (5 Marks)

Answer:

Need for Capacity Determination

The need for determining "production capacity" in respect of industrial organisation in India arises from the following reasons :-

(i) To meet the requirement under Section 211 of the Companies Act, 1956, that prescribes the form and contents of the balance sheet as well as profit and loss account (Part II of the Schedule VI of the Companies Act).

(ii) For purpose of Cost Audit Report under section 233 – B of the Companies Act, 1956 where a cost audit has been ordered by Government.

(iii) For internal management purpose, to be used:

    (a) in planning, scheduling and controlling production, and

    (b) in planning expansion of capacity and correction of imbalances.

(iv) For assessment of capacities for national level planning.

(v) For fixing the price of product(s) after ascertaining the capacity costs and per unit incidence thereof, and

(vi) For determination of allotment of scarce raw-materials in the form of quotas, import licenses, etc.

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

(a) The Balance Sheets of Sun Ltd for the last 3 years read as follows:

	₹ in lakhs		
	As on 31 March 2012	As on 31 March 2013	As on 31 March 2014
Sources of Fund:			
Share Capital [Share of ₹10 each]	2,200	2,200	3,200
Securities Premium	1,900	2,000	700
Reserves [After 10% Dividend]	1,900	2,100	1,900
Long-term Loan	1,750	1,550	2,600
Total Funds	7,750	7,850	8,400
Represented by:			
Fixed Assets	2,800	3,200	3,500
Less: Depreciation	800	1,050	1,300
	2,000	2,150	2,200
Capital WIP [work-in-progress]	1,000	1,100	1,200
Investment	600	700	650
A.	3,600	3,950	4,050
Net Current Assets:			
Current Assets:			
Debtors	1,800	1,950	2,150
Stock	1,900	2,050	2,700
Cash & Bank	800	800	800
Others	550	750	1,800
	5,050	5,550	7,450
Less: Current Liabilities	900	1,650	3,100
B.	4,150	3,900	4,350
Total Assets [A+B]	7,750	7,850	8,400
Sales [excluding Excise Duty and Sales Tax @ 20%]	4,050	4,200	5,400

I. Calculate & analyse for the year 2012-13 and 2013-14:
   i. Fixed Asset Turnover Ratio
   ii. Stock Turnover Ratio
   iii. Debtors' 'Turnover Ratio in terms of number of days'
   iv. Debt-Equity Ratio
   v. Current assets to current liability

II. Briefly comment on the performance of the company. (10 Marks)

Solution:

Calculation of ration for the year 2012-13 & 2013-14

	2012-13	2013-14
(i) Fixed Asset Turnover Ratio $\frac{\text{Net sales excluding Excise Duty \& Sales Tax}}{\text{Average Fixed Asset}}$	$\frac{4,200}{2,075}$ = 2.02 times	$\frac{5,400}{2,175}$ = 2.48 times
(ii) Stock Turnover Ratio $\frac{\text{Net sales excluding Excise Duty \& Sales Tax}}{\text{Average Stock}}$	$\frac{4,200}{1,975}$ = 2.13 times	$\frac{5,400}{2,375}$ = 2.27 times
(iii) Debtors' Turnover Ratio [in term of no. of days' sales $\frac{\text{Average Receivables}}{\text{Credit Sales including Excise duty and Sales Tax}} \times \text{No. of days in the year}$	$\frac{1,875}{5,040}$ x 365 = 136 days	$\frac{2,050}{6,480}$ x 365 =115 days
(iv) Debt-Equity Ratio $\frac{\text{Debt}}{\text{Equity}}$	1,550/ 6,300 =0.25	2,600/ 5,800 =0.45
(v) Current Ratio = Current Assets/ Current liability	5,550/1,650 = 3.36	7,450/3,100 = 2.40

Comments on the performance of the company:

Fixed Asset Turnover Ratio indicates the level of efficiency of uses or utilizations of Fixed Assets. Here, this Ratio has increased in the year 2013-14 as compared to that of in 2012-13, and, thus, shows a better efficient use or utilization in Fixed Assets in the year 2013-14.

Stock Turnover Ratio is an indicator of the movement of stock. Higher Ratio indicates a faster movement of stock. Here, this Ratio has increased in 2013-14 as compared to that of in 2012-13, and, thus, shows a faster movement of stock in 2013-14 than in 2012-13. Yet, the inventory-holding period of the company is still high. Therefore, this Ratio should be compared with the industry average to draw a final conclusion about the efficiency of the inventory management of the company.

Debt Collection Period indicates the efficiency of the collection department as regards to the collection of credit sales. Here, the Debt Collection Period in 2013-14 is shorter that of in 2012-13, and, thus, reflects a more efficient collection process in 2013-14 than in 2012-13. But, to draw a final conclusion about the efficiency of debtors' management of the company, this Ratio should be compared with the industry average and the credit period received by the company from its creditors.

Debt-Equity Ratio indicates the proportion of debt Capital and Owners' Capital included in the Capital Structure. This is an indicator of the Capital Structure of an enterprise. It also shows the efficiency of the management in financial planning. The ideal ratio is 1:2.

Current ratio indicates whether an enterprise possesses sufficient Current Assets to pay off its Current liabilities. This ratio is an indicator of short-term solvency or liquidity position of an enterprise. Ideal ratio is 2:1.

Working Notes

1. Calculation of Sales including Excise Duty and Sales Tax

	2012-13	2013-14
	₹ in Lakhs	₹ in Lakhs
Sales Excluding Excise Duty and Sales Tax	4,200	5,400
Add: 20% Excise duty and Sales Tax	840	1,080
Sales including Excise Duty & Sales Tax	5,040	6,480

Note: While calculating the Fixed Asset Turnover Ratio and Stock Turnover Ratio, sales excluding excise duty & sales tax is considered. But, while calculating Debtors' Turnover Ratio, sales including excise duty and sales tax is considered as sales to debtors include excise duty and sales tax.

2. Calculation of Average Fixed Asset (Net)

In 2012 -13:

Average Fixed Assets (Net) = (2,000 + 2,150)/2 = ₹2,075 lakhs

In 2013 – 14:

Average Fixed Assets (Net) = (2,150 + 2,200)/2 = ₹2,175 lakhs

3. Calculation of Average Stock

In 2012 – 13:

Average Stock = (1,900 + 2,050)/2 = 1,975 lakhs

In 2013 – 14:

Average Stock = (2,050 + 2,700)/2 = 2,375 lakhs

4. Calculation of Average Receivables

In 2012-13

Average Receivables = (1,800 + 1,950)/2 = 1,875 lakhs

In 2013-14

Average Receivable = (1,950 + 2,150)/2 = 2,050 lakhs

5. Debtors' Turnover Ratio in term of number of days

We know, Debtors' Turnover Ratio = $\frac{\text{Credit sales}}{\text{Average Receivables}}$

Here, Debtors' Turnover Ratio in terms of number of days = Average Collection Period

$$= \frac{\text{No. of days in a year}}{\text{Debtors turnover Ratio}} = \frac{\text{No. of days in a year}}{\text{Credit sales} \div \text{Average Receivable}}$$

$$= \frac{\text{Average Receivables}}{\text{Credit Sales}} \text{x No. of days in the year}$$

6. Debt/ Equity ratio

Debt = Long term loan

In 2012-13 = 1,550 lakhs

In 2013-14 = 2,600 lakhs

Equity = Equity share capital + Reserve & Surplus

In 2012 -13 = 2,200 + 2,000 + 2,100 = 6,300 lakhs

In 2013 -14 = 3,200 + 700 + 1,900 = 5,800 lakhs

(b) Niraj 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) (₹)

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 [(18,00,000x ₹3) + (4,50,000 x ₹2.70)] = ₹66,15,000

(c)(i) Manufacture's specification capacity for a machine per hour = 1550 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
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. (6 Marks)

Answer:

Installed capacity for the machine	= 365 x 8 x 3 x 1550
	= 135.78 lakhs units
Available capacity	= (365 – 52 - 8) x (8 -1) x 3 x 1550
	= 305 x 7 x 3 x 1500
	= 99.28 lakhs units
Normal capacity	= (76.2 + 78.5 + 76.6)/3
	= 77.1 lakhs units.
Actual capacity utilization	= 76.4 lakhs units
	= 76.4/135.78 x 100
	= 56.27%
Idle capacity	= (135.78 - 76.4) lakhs units
	= 59.38 lakhs units
	= 59.38 /135.78 x 100
	= 43.73%
Abnormal idle capacity	= (77.1 - 76.4) lakhs units
	= 0.70 lakhs units

(c)(ii) A chemical manufacturing unit uses ingredient 'Q' as the basic material. The cost of the material is ₹ 20 per kg and the Input-Output ratio is 120%. Due to a sudden shortage in the market the material becomes non-available and the unit is considering the use of one of the following substitutes available:

Materials	Input - Output Ratio	₹/ per Kg
B1	135%	26
B2	115%	30

You are required to recommend which of the above substitutes is to be used. (4 Marks)

Answer:

Cost of Raw Material = $\frac{\text{Input}}{\text{Output}}$ x Rate per Unit

Cost of Material of: (Per Kg)

$$Q = \frac{120}{100} \times 20 = ₹24.00$$

$$B1 = \frac{135}{100} \times 26 = ₹35.10$$

$$B2 = \frac{115}{100} \times 30 = ₹34.50$$

Material B2 is cheaper to be used in the final product. It is cheaper than B1 by ₹0.60 (₹35.10 - ₹34.50).