Paper 19 - COST AUDIT & MANAGEMENT AUDIT

Full Marks: 100

Section A

Answer any four Questions [4x15=60]

1. **(a) There was a strike from 13.09.2009 to 16.11.2009 in a company of which you were the Cost Auditor for the year ending 31.03.2010. Although the company began working from 17.11.2009, production could effectively begin only from 5.12.2009. The expenses incurred during the year ended 31.03,2010 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 13.09.2009 to 16.11.2009:

	(₹ 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]

Answer:

Calculation of Fixed expenses incurred during the period 17.11.2009 to 04.12.2009

	₹ in lakhs
Total expenses 2009 - 10	1,560
Less: Variable expenses (Electricity)	180
Fixed expenses (2009 - 10)	1,380
Less: Fixed expenses during the strike period	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., 17.11.2009 to 4.12.2009 is 6% of ₹1,050 lakhs = ₹63 lakh.

Therefore, Expenses incurred during 13.9.09 to 16.11.09		₹330 lacs
For expenses incurred during 17.11.2009 to 04.12.2009		₹63 lacs
	Total	₹393 lacs

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

(b) Your company has received an order from the Government of India directing your company to have the Cost Accounting Records audited. List the actions to be taken by the company step by step from appointment of Cost Auditor till the submission of the Cost Audit Report specifying the time schedule. [5]

Answer:

The auditor under section 233B shall be appointed by the Board of directors of the company in accordance with the provisions of sub-section (1B) of section 224 and with the previous approval of the Central Government: Provided that before the appointment of any auditor is made by the Board, a written certificate shall be obtained by the Board from the auditor proposed to be so appointed to the effect that the appointment, if made, will be in accordance with the provisions of sub-section (1B) of section 224.

An audit conducted by an auditor under this section shall be in addition to an audit conducted by an auditor appointed under section 224.

An auditor shall have the same powers and duties in relation to an audit conducted by him under this section as an auditor of a company has under sub-section (1) of section 227 and such auditor shall make his report to the Central Government in such form and within such time as may be prescribed and shall also at the same time forward a copy of the report to the company.

Upon receipt of an order under sub-section (1), it shall be the duty of the company to give all facilities and assistance to the person appointed for conducting the audit of the cost accounts of the company.

The company shall, within thirty days from the date of receipt of a copy of the report referred to in sub-section (4), furnish the Central Government with full information and explanations on every reservation or qualification contained in such report.

If, after considering the report referred to in sub-section (4) and the information and explanations furnished by the company under sub-section (7), the Central Government is of opinion that any further information or explanation is necessary, that Government may call for such further information and explanation and thereupon the company shall furnish the same within such time as may be specified by the Government.

On receipt of the report referred to in sub-section (4) and the in formations and explanations furnished by the company under sub-section (7) and sub-section (8), the Central Government may take such action on the report, in accordance with the provisions of this Act or any other law for the time being in force, as it may consider necessary.

The Central Government may direct the company whose cost accounts have been audited under this section to circulate to its members, along with the notice of the annual general meeting to be held for the first time after the submission of such report, the whole or such portion of the said report as it may specify in this behalf.

If default is made in complying with the provisions of this section, the company shall be liable to be punished with fine which may extend to five thousand rupees, and every officer of the company who is in default, shall be liable to be punished with imprisonment for a term which may extend to three years, or with the fine which may extend to five thousand rupees, or with both.

(c) The following figures relate to usage of power for a product:

	2012-13	**2011-12**	**2010-11**
Total power consumed in KWH	**24,02,474**	**24,94,872**	**21,75,677**
Rate / KWH (₹)	**2.29**	**2.12**	**1.90**
Total production in million (Kgs)	**337.730**	**333.084**	**300.865**

Compute necessary productivity measures and compare the efficiency of power usage during the three years. [5]

Answer:

	2012-13	**2011-12**	**2010-11**
Power consumed in Kwh	24,02,474	24,94,872	21,75,677
Rate per Kwh (₹)	2.29	2.12	1.90
Total Power cost (₹)	55,01,665	52,89,129	41,33,786
Production (in million kgs)	337.730	333.084	300.865
	(337730 MT)	(333084 MT)	(300865 MT)
Power cost/MT (₹)	16.29	15.88	13.74
Power usage MT (KWH)	7.11	7.49	7.23

Variances over previous year:

Rate (₹) [(24,02,474) × (2.29 – 2.12)]	4,08,420 (A)	5,48,872 (A)
Volume (₹)	73,774 (A)	4,42,678 (A)
Usage (₹)	2,69,658 (F)	1,63,793 (A)
	2,12,536 (A)	11,55,343 (A)

Calculation of variances:

Volume variance:

	2012-13	**2011-12**	**2010-11**
Total power consumed (Kwh)	24,02,474	24,94,872	21,75,677
Rate per Kwh ₹	2.29	2.12	1.90
Rate variance	24,02,474 (2.12 – 2.29) = ₹4,08,421 (A)	24,94,872 (1.90 – 2.12) = ₹5,48,872 (A)	
Production in Mill Kg	337.730	333.084	300.865

Volume variance:

2012-13 & 2011-12 (33084 – 337730) × 15.88 = ₹73,778 (A)

2011-12 & 2010-11 (300865 – 333084) × 13.74 = ₹4,42,689 (A)

Usage variance:

2012-13 & 2011-12

2,12,536 – 4,08,421 – 73778 = ₹2,69,663 (F)

2011-12 & 2010-11

11,55,343 – 5,48,872 – 4,42,689 = ₹1,63,782 (A)

Total variance:

2012-13& 2011-12 52,89,129 – 55,01,665 = ₹2,12,536 (A)

2011-12 & 2010-11 41,33,786 – 52,89,129 = ₹11,55,343 (A)

2. (a) 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 Para 7 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.

(b) The profit as per Financial A/cs of DGL Cement Ltd. for the year 2012-13 was ₹ 1,34,27,516. The profit as per Cost Accounting records showed a different figure. You are required to prepare a reconciliation statement and arrive at a profit as per Cost Accounts. The following details were collected from Financial Accounting and Cost Accounting records.

	₹ Financial A/cs	₹ Cost A/cs
Opening WIP	29,52,315	23,45,720
Opening Finished Goods	2,48,37,410	2,72,16,930
Closing WIP	41,72,635	36,35,345
Closing Finished Goods	3,67,51,410	4,15,24,148
Interest income from inter corporate deposits	6,14,250	–
Donations given	4,75,250	–
Loss on sale of Fixed Assets	1,04,148	–
Value of cement taken for own consumption	3,75,920	3,45,200
Cost of power drawn from own wind mill:		
At EB Tariff		48,58,415
At Cost	34,10,420	

[5]

Answer:

Sl. no.	Particulars	Current Year
1	Profit or Loss as per Cost Accounting Records	1,43,76,472
2	Add: Incomes not considered in cost accounts:	
	(a) Interest income from inter corporate deposits	6,14,250
3	Less: Expenses not considered in cost accounts:	
	(a) Loss on sale of Fixed Asset	1,04,148
	(b) Donations not considered in Cost Accounts	4,75,250
4	Add: Diff. in value of cement taken for own consumption	30,720
	Add: Diff. in valuation of wind mill power	14,47,995
	Less: Difference in stock valuation	24,62,523
5	Profit or Loss as per Financial Accounts	1,34,27,516

3. (a) Para 9 of the Companies (Cost Audit Report) Rules 2011 requires disclosure of "Cost of Production" and "Cost of Sales" at a company level. How the same would be available when all the products/ activities are not covered under cost audit? [5]

Answer:

The Companies (Cost Accounting Records) Rules 2011 [CARR] is now applicable to all companies engaged in production, processing, manufacturing & mining. Hence, product-wise/ activity-wise cost of production and cost of sales would be available from the Cost Accounting Records of all the products/activities, irrespective of whether these are covered under cost audit or not.

It may further be noted that in such a situation, the company would also be required to file a compliance report and for this purpose, product-wise/activity-wise cost of production and cost of sales would be determined to prepare the reconciliation statement as required in the compliance report.

(b) The following data have been collected by you, as a Cost Auditor of a Company:

Particulars	10-11	11-12	12-13
Installed Capacity (lac MT)	2.5	2.5	2.5
Production (lac MT)	2.4	2.3	1.25
Cost/MT of the product (₹)	1000	1077	1660

The poor capacity utilization in 2012-13 was due to abnormal power cut. The escalation in costs were 5% in 11-12 and 2% over 11-12 in 2012-13.

(i) Calculate the abnormal cost due to power cut.

(ii) How would you treat these abnormal cost? [5]

Answer:

Particulars	**10-11**	**11-12**	**12-13**
Installed Capacity (lac MT)	2.5	2.5	2.5
Production (lac MT)	2.4	2.3	1.25
% of Capacity Utilisation	96	92	50
Cost per unit (₹/MT)	1000	1077	1660
Escalation factor	100	105	107
Cost at Base Year price	1000	1025	1551
Total cost of production (₹in lacs)	2400	2359.8	1938.75
Variable cost /MT	402	402	402
Fixed cost /MT	598	623	1149
Fixed cost@100% utilisation	574		

Hence, increase in Fixed Cost /MT due to poor capacity utilization in 2012-13 is = 1149 - 574 = ₹575.

(i) Abnormal cost due to power cut = 575 × 1.25 = ₹ 718.75

(ii) The abnormal cost must be excluded from computation of Cost.

Working Notes:

As compared to 10-11	11-12	12-13
(A) Difference in total cost (₹ in lacs)	2,400 - 2,359.8 = 40.2	2,400-1,938.75 = 461.25
(B) Difference in Production (lac MT)	2.4-2.3 = 0.1	2.4-1.25 = 1.15
Variable Cost/MT (₹) (A)/(B)	402	402 approx

(c) As a Cost Auditor of a manufacturing company, furnish your suggestions and observations based on following information: (You may make necessary assumptions):

Particulars	**2013**	**2012**	
Profit (₹ In lacs)	**250**	**340**	
Capacity Utilisation	**90%**	**95%**	
Consumption of Electricity/Tonne of output (KWH)	**4.07**	**3.98**	
Capital Employed (₹ In lacs)	**1,200**	**1,100**	
Salaries and Wages (₹ In lacs)	**117**	**98**	
Production (MT)	**1,80,000**	**1,90,000**	**[5]**

Answer:

Cost Auditor's Observations and Conclusions:

The profit of the company has declined by ₹ 90 lacs during the year 2013, as compared to the year 2012.

This may be due to the following reasons:

(i) Production during the year 2013 has decreased by 10,000 MT. This is perhaps due to underutilization of capacity from 95% to 90%. It may also be due to scarce power supply.

(ii) Based on further analysis and scrutiny, it is noted that the cost of production/ Tonne has increased (Assumption.)

(iii) It has also come to light that the price of the product in the market has declined. This may be due to stiff competition. (Assumption)

(iv) Profit as a % of Capital Employed has declined from the figure of 30.9% in 2012 to 20.8% in the year 2013. This is partly due to decline in the amount of profit and partly due to increase in capital employed.

(v) The consumption of electricity in terms of KWH/ tonne of output has increased from 3.98 in 2012 to 4.07 in 2013. This is a serious matter which need investigation and necessary action is to be initiated.

(vi) There is an increase in the Salaries and Wages by ₹19 lacs. This is due to the following reasons:

(A) Increase in ₹7 lacs due to increments and promotions. (Assumptions)

(B) Increase in ₹3 lacs due to additional DA paid to the workers. (Assumptions)

(C) Remaining ₹9 lacs is due to employment of new workers. (Assumptions)

Engagement of these new workers is not justified on economic considerations and this has resulted in excessive idle time. Additional work needs to be created for these workers.

4. (a) A manufacturing unit has two machines, viz. M_1 and M_2. Machine M_1 be used for the production of either Product A or production B or both. Machine M_2 can be used for the production of either product X or product Y or both. In order to met the long term contractual obligations with one of its customers, the unit should produce a minimum quantity of 1,200 units each of A and B and 1,600 units each of X and Y.

The production and cost data for the year 2013 are:

Machine hours available: **M_1 = 7,800 hours**

M_2 = 7,300 hours

	Product A	Product B	Product X	Product Y
Per unit of output:				
(a) Machine hours required	**2**	**3**	**3**	**1**
(b)Selling price (₹)	**350**	**465**	**540**	**235**
(c)Direct material cost (₹)	**120**	**135**	**150**	**100**

Per machine hour	**M1**	**M2**
(a)Direct labour (₹)	**65**	**80**
(b)Variable overhead (₹)	**15**	**22**

Fixed overhead per annum ₹5 lakhs

An additional expenditure involving a fixed overhead of ₹40,000 per annum will convert the M_1 and M_2 into a versatile centre so that any of the four products can be manufactured on these two machines.

As a management consultant advise whether conversion of machines should be undertaken or not. **[8]**

Answer:

	Machine M_1		Machine M_2	
	A	B	X	Y
Minimum production (units)	1,200	1,200	1,600	1,600
Machine hours required (per unit)	2	3	3	1
Minimum machine hours required	2,400	3,600	4,800	1,600
Total Machine hours required	6,000		6,400	

Computation of contribution per unit

	Machine M_1		Machine M_2	
	A	B	X	Y
Selling Price	350	465	540	235
Less: Direct material Cost	120	135	150	100
Less: Direct labour (Rate per machine hour x hours)	(65 x 2) 130	(65 x 3) 195	(80 x 3) 240	(80 x 1) 80
Less: Variable overhead	(15 x 2) 30	(15 x 3) 45	(22 x 3) 66	(22 x 1) 22
Contribution per unit	70	90	84	33
Machine hours required for 1 unit	2	3	3	1
Contribution per machine hour	35	30	28	33
Rank	I	II	II	I

Computation of total contribution

	Machine M_1		Machine M_2	
	A	B	X	Y
Contribution per machine hour	35	30	28	33
Minimum machine hours required	2,400	3,600	4,800	1,600
Contribution	84,000	1,08,000	1,34,400	52,800

Total Contribution (A + B + C + D)	= 3,79,200
Less: Fixed Overhead	= 5,00,000
Profit	(1,20,800)

<u>If machine M_1 & M_2 convert into versatile centre</u>

Computation of contribution per unit -

	Machine M_2		Machine M_1	
	A	B	X	Y
Selling Price	350	465	540	235
Less: Direct material Cost	120	135	150	100
Less: Direct labour (Rate per machine hour x hours)	(80 x 2) 160	(80 x 3) 240	(65 x 3) 195	(65 x 1) 65

Less: Variable overhead	(22 x 2) 44	(22 x 3) 66	(15 x 3) 45	(15 x 1) 15
Contribution per unit	26	24	150	55
Machine hours required for 1 unit	2	3	3	1
Contribution per machine hour	13	8	50	55
Rank	I	II	II	I

It is assume that available machine hours and existing demand of products are same. If we covert the machines M_1 ,then contribution per machine hour of the product X & Y has been increased by ₹22 in each case and in the case M_2 , contribution per machine hour has decrease by ₹22 in each case. So, it is concluded that maximum contribution is generated in case of product A, B, X & Y if it is manufactured in Machine M_1. So, machine hours of M_1 are bottleneck.

Computation of total contribution (under bottleneck – Rank-wise)

Machine M_1	Units	Hours available	Contribution per hours	Total Contribution
Products		7,800		
Product Y	1,600	7,800 – 1,600 x 1 = 6,200	55	1,600 x 1 x 55 = 88,000
Product X	1,600	6,200 – 1,600 x 3 1,400	50	1,600 x 3 x 50 = 2,40,000
Product A	700	1,400 – 700 x 2 = 0	35	700 x 2 x 35 = 49,000
Machine M_2		7,300		
Product A	500	7,300 - 500 x 2 = 6,300	13	500 x 2 x 13 = 13,000
Product B	1,200	6,300 – 1,200 x 3 = 2,700	8	1,200 x 3 x 8 = 28,800
Total Contribution				4,18,800

Increase in total contribution = ₹4,18,800 – ₹3,79,200 = ₹39,600 which is lower then relevant cost of ₹40,000.

Conclusion:

Management can go for the new proposal because difference in increased cost and increased contribution is negligible and if this option is available, organization can get other order if near future which will be managed easily & create wealth to the organisation.

(b) What do you understand by "Anti-dumping duty"? Briefly explain the provisions in the Cost Accounting Records Rules and Cost Audit (Report) Rules covering this aspect. [7]

Answer:

Anti-dumping duty:

When a product or commodity is exported at a price which is lower than its cost of production in the exporting country, it is treated as 'Dumping'. As this practice affects the competitiveness of manufacturers/ producers of that product/commodity in the importing country, the Government of that country usually, in order to protect the interests of those producers, levy an additional import duty which is called 'Anti-dumping Duty'.

The W.T.O. under GATT' 94 had laid down the norms and criteria for levy of such duties. As this exercise calls for detailed analysis and verification of the cost of production, the *Cost Accounting Records Rules* prescribed during the last few years provide for maintenance of proper records-whenever W.T.O. provisions are attracted to identify the competitiveness of the product in the domestic as well as global market and the expenses, if any, incurred to combat the competition arising out of W.T.O. provisions.

So, levy of such Anti-dumping Duty is permissible as per W.T.O. agreement, Anti-dumping action can be taken only when there is an Indian industry producing "like articles".

Dumping duty for W.T.O. Countries:

Section 9B provides restrictions on imposing dumping duties in case of imports from W.T.O. countries or countries or countries given "Most Favoured Nation" by an agreement. Dumping duties can be levied on import from such countries, only if Central Government declares that import of such articles in India causes material injury to industry established in India or materially retard establishment of industry in India.

Quantum of Dumping Duty:

The anti-dumping duty will be dumping margin or injury margin whichever is lower. Injury margin means difference between fair selling price of domestic industry and landed cost of imported product. Landed cost will include 1% and basic custom duty.

Adequate statistical records shall also be maintained to identify the market share of the product manufactured and the likely impact thereon on account of competitive goods imported into the company. These records shall indicate, inter alia, the total volume of imports, names of importers, countries of origin and contain such empirical evidence as to show whether such imports can be constructed as dumping and affecting the market share of the product. Proper records shall also be maintained containing such details as may be necessary to show that the export price of the product is not such as to be constructed as dumping in the importing country, by applying the provisions of W.T.O. regarding antidumping measures under Article VI of GATT' 94.

5. (a) What information is required to be furnished by the Cost Auditor in the "Annexure to the Cost Audit Report", and "Observation and Suggestion", in regard to exports, if any, of the product under audit? [5]

Answer:

Every cost auditor, who conducts an audit of the records of a company, is required to submit his report by electronic mode along with his observation and suggestions, if any, and annexure to the Central Government in the form prescribed in the Rules. A copy of the report along with Annexures is also required to be forwarded to the company at the same time. The rules have prescribed Form I, Form II and Form III in respect of cost audit reports.

Form I – Form for filing Cost Audit Report and other documents with the Central Government.

Form II – Divided into two parts, Form of the Cost Audit Report and Annexure to the Cost Audit Report divided into paragraphs and

Form III – Form of the performance Appraisal Report.

Under annexure of the Form II, cost auditor furnished the following information relating to export are as follows -

(i) In Para 4 (Quantitative information), separate details for quantity of export sale from own manufactured products (actual sale)/activity group exported and traded quantity of sales of the product/activity group exported. This sale would be from the Finished Goods purchased.
(ii) In Para 8 (Value addition and Distribution of earnings- for the company as a whole), for the calculation of value addition amount of export incentive and other income should be added with net revenue to arrived at total revenue of the company as shown in Para 3.
(iii) In Para 11 (Reconciliation of Indirect Taxes), this para is to be prepares for the company as a whole covering excise duty, service tax and VAT (including CST and any other state tax) for all types of products whether or not covered under cost audit.

Cost Auditor in his observations and suggestions also state the Export commitments of the Company vis-a-vis actual exports for the year under review. Also comment on comparative profitability. The auditor also supposes to give impact of exports benefits/incentives offered by the Government on export profitability.

(b) The financial profit and loss account for the year 2012-13 of a company shows a net profit of ₹2,62,800. During the course of cost audit, it was noticed that:

(i) The company was engaged in trading activity by purchasing goods at ₹4,00,000 and selling it for ₹5,00,000 after incurring and expenditure of ₹25,000.

(ii) Some old assets sold off at the end-end fetching a profit of ₹80,000

(iii) A major overhaul of machinery was carried out at a cost of ₹4,00,000. And the next such overhaul will be done only after four years.

(iv) Interest was received amounting to ₹1,50,000 from outside investments.

(v) Work-in-progress valuation for financial accounts does not as a practice take into account factory overhead. Factory overhead was ₹1,85,000 in opening WIP and ₹3,15,000 in closing WIP.

Work out the profit as per Cost Accounts and briefly explain the adjustment, if any, carried out.

[7]

Answer:

Reconciliation Statement

		₹	₹
Profit as per Financial Profit & Loss Account			26,28,000
Add:	1. Proportionate Charge i.e., three-fourth for overhaul of machinery not provided in cost accounts	3,00,000	
	2. Difference in the valuation of work-in-progress	1,30,000	4,30,000
Less:	1. Trading profit not included in cost accounts	75,000	
	2. Profit on sale of old assets	80,000	
	3. Interest received on outside investment	1,50,000	3,05,000
Profit as per Cost Accounts			27,53,000

(c) How are abnormal losses of recurring nature treated as per costing principles? [3]

Answer:

If a particular cost is abnormal but it is of recurring in nature, it should be treated as part of cost. For e.g 'off-season' salary and wages paid to employees in sugar industry should not be taken as abnormal as they are recurring every year and treated as a part of cost.

Section B
Answer any two questions [2x10=20]

6. (a) 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.

(b) 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.

7. (a) What is the basic difference between Internal audit and Management audit? [5]

Answer:

Distinguish between Internal Audit and Management Audit

Aspects	Internal Audit	Management Audit
Definition	Function of internal control with the objective of determining whether other internal controls are well designed and properly operated.	Management Audit is - (a) the systematic independent appraisal activity, (b) within an organisation, (c) for a review of the Management's efficiency, (d) in its decision-making function.
Relationship to Internal Control	This operates as a part of internal control system.	It is not a part of Internal Control. It is over and above the regular internal control system.
Objectives	• To determine whether internal controls are well designed and properly operated, and • To assist all members of Management in the objective of discharging of their responsibilities by reviewing activities and procedures.	It is concerned with appraising - • Management's accomplishment of organizational objectives, • Management functions of planning, organizing, directing, and controlling, and • Adequacy of Management's decisions and action in moving towards its objectives.
Function	Protective Function, I.e. to safeguard the assets of the Enterprise.	Constructive Function, i.e. to provide suggestions for improvement.
Areas	The traditional field of Internal Auditors is restricted to financial accounting and internal control.	All aspects of managerial decision- making are analysed, to see whether they are in tune with Management policies, objectives and goals.
Aspect	Internal Audit Function focuses more on quantitative aspects when compared to Management Audit.	Qualitative aspects of decision-making are analysed.

(b) Inspite of increase turnover continuously for three years, a company has started incurring cash losses, and has become sick. Is it possible to identify and pinpoint the factors which have led to this situation from Cost Audit Report? Explain quoting the relevant paragraphs in the Annexure to the Report. [5]

Answer:

The factors that need to be taken into account for analyzing company's position are:

Turnover of the Company continuously increasing for three years; and the Company is incurring cash losses and has become sick. The various Annexure to Cost Audit Report that will provide an explanation to company's position are as follows:

(i) Para 4 (Quantitative information) – Total available capacity & capacity utilized, Actual production, Stock purchase for trading, total available quantity for sale & Actual sale of current & previous period –

A) Indigenous

B) Imported

C) Self- manufactured

This data will help in determining the quantity variance relating to Capacity utilization, Production variance, Sales variance

(ii) Para 5 (Abridged Cost Statement - for each product group separately) - This para highlights the rate per unit of the product manufactured of the current year and previous year activity wise and product wise which help in identify the area due to which organization suffer loss. It is also cleared from this para that the reason for cost increased whether due to increase of rate or increase of quantity.

(iii) Para 6 (Operating Ratio Analysis) – This para highlights the ratio of Operating expenses to Cost of Sales of current year together with previous two years which enable to judge the increase in expenses.

(iv) Para 8 (Value addition and Distribution of Earning) – In this para data relating to current year and previous two years are required to be available relating to value added. From this para we identify the some of the reason for increase or decrease in revenue of the company due to increase or decrease of Export incentive or income from other sources. From this para also we can easily get comparison of cost of bought out inputs with Net sale.

(v) Para 9 (Financial position and ratio analysis) – This para provide data of current year and previous two years relating to Financial performance, Profitability ratio, Other financial ratios & Working Capital Ratios.

(vi) Form III (Form of the Performance Appraisal Report) – This para provides Capacity Utilization Analysis, Productivity/ Efficiency Analysis, Utilities/ Energy Efficiency Analysis, Key-Cost & Contribution Analysis, Product/ Service Profitability Analysis, Market/ Customer Profitability Analysis, Working Capital & Inventory Management Analysis, Manpower Analysis etc. which identify the percentage increase or decrease in performance of the company.

After analyzing the data contained in the Annexure, the causes for decline in profitability and cash losses may be derived. Some of the probable reasons are:

A) Adverse change in product–mix, resulting in reduced contribution though there is increase in sales volume.

B) Increase in expenditure due to increase in rates, inefficiency in use.

C) Increase in Sales volume may be due to increase in credit period resulting in increase in interest cost.

D) The company may have incurred huge capital expenditure benefit is less than cost incurred during initial period.

After studying the actual facts, correct analysis is possible.

8. (a). 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.

(b) 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.

Section C

Answer any two questions [2x10=20]

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

	₹ in lakhs		
	As on 31 March 2010	**As on 31 March 2011**	**As on 31 March 2012**
Sources of Fund:			
Share Capital [Share of ₹10 each]	**2,000**	**2,000**	**3,000**
Securities Premium	**1,700**	**1,800**	**500**
Reserves [After 10% Dividend]	**1,800**	**2,000**	**1,800**
Long-term Loan	**1,250**	**1,050**	**2,100**
Total Funds	**6,750**	**6,850**	**7,400**
Represented by:			
Fixed Assets	**2,300**	**2,700**	**3,000**
Less: Depreciation	**800**	**1,050**	**1,300**
	1,500	**1,650**	**1,700**
Capital WIP [work-in-progress]	**800**	**900**	**1,000**
Investment	**300**	**400**	**350**
A.	**2,600**	**2,950**	**3,050**
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]	**6,750**	**6,850**	**7,400**
Sales [excluding Excise Duty and Sales Tax @ 20%]	**4,050**	**4,200**	**5,400**

I. Calculate & analyse for the year 2010-11 and 2011-12:

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.

Answer:

Calculation of ration for the year 2010-11 & 2011-12

	2010-11	2011-12
(i) Fixed Asset Turnover Ratio $\frac{\text{Net sales excluding Excise Duty \& Sales Tax}}{\text{Average Fixed Asset}}$	$\frac{4,200}{1,575}$ = 2.67 times	$\frac{5,400}{1,675}$ = 3.22 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 $\frac{\text{Average Receivables}}{\text{Credit Sales including Excise duty and Sales Tax}}$ x No. of days in the year	$\frac{1,875}{5,040}$ x 365 = 136 days	$\frac{2,050}{6,480}$ x 366 =116 days
(iv) Debt-Equity Ratio $\frac{\text{Debt}}{\text{Equity}}$	1,050/ 5,800 =0.18	2,100/ 5300 =0.40
(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 2011-12 as compared to that of in 2010-11, and, thus, shows a better efficient use or utilization in Fixed Assets in the year 2011-12.

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 2011-12 as compared to that of in 2010-11, and, thus, shows a faster movement of stock in 2011-12 than in 2010-11. 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 2011-12 is shorter that of in 2010-11, and, thus, reflects a more efficient collection process in 2011-12 than in 2010-11. 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

	2010-11	2011-12
	₹ in Lakhs	₹ in Lakhs
Sales Excluding Excise Duty and Sales Tax	4,200	5,400
Add: 20% Excise duty and Sales Tax @20%	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 2010 -11:

Average Fixed Assets (Net) = (1,500 + 1,650)/2 = ₹1,575 lakhs

In 2011 – 12:

Average Fixed Assets (Net) = (1,650 + 1,700)/2 = ₹1,675 lakhs

3. Calculation of Average Stock

In 2010 – 11:

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

In 2011 – 12:

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

4. Calculation of Average Receivables

In 2010-11

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

In 2011-12

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

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

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

Note: Being 2012 a leap year, the number of days in 2011-12 is taken at 366.

6. Debt/ Equity ratio

Debt = Long term loan

In 2010-11 = 1,050 lakhs

In 2011-12 = 2,100 lakhs

Equity = Equity share capital + Reserve & Surplus

In 2010 -11 = 2,000 + 1,800 + 2,000 = 5,800 lakhs

In 2011 -12 = 3,000 + 500 + 1,800 = 5,300 lakhs

(b) Following are the summarized accounts of Key Ltd and Pee Ltd for the 2 years 2007 and 2008:

Particulars	₹ in Lakhs			
	Key Ltd		Pee Ltd	
	2007	2008	2007	2008
Sales	5,412	4,575	1,752	1,447
Manufacturing & Other Expenses	5,104	4,356	1,496	1,182
Depreciation	56	51	60	35
Profit before Tax	252	168	196	230
	5,412	4,575	1,752	1,447
Miscellaneous Expenditure	165	169	-	-
Fixed Assets	836	941	351	275
Stock	1,124	1,219	177	226
Debtors	728	824	582	402
Bank	93	33	464	246
	2,946	3,186	1,574	1,149

Creditors	**947**	**926**	**233**	**175**
Taxation [Less Advance Tax]	**56**	**68**	**87**	**58**
Short-term Borrowings	**424**	**800**	**464**	**216**
Long-term Borrowings	**254**	**210**	**10**	**-**
Capital & Reserves	**1,265**	**1,182**	**780**	**700**
	2,946	**3,186**	**1,574**	**1,149**

You are required to:

i. **Indicate and calculate five Ratios which in your opinion are relevant in determining the stability of the two companies.**
ii. **Compare the Ratios so determined for the two companies. Indicate what conclusions can be drawn therefrom?**

Answer:

In our opinion, the following five Ratios are very much relevant in determining the stability of the given two companies as growing concerns:

Computation of five Relevant Ratios in determining the stability of two companies

	Key ltd		**Pee ltd**	
	2007	**2008**	**2007**	**2008**
(i) Current Ratio $\frac{\text{CAs}}{\text{CLs}}$	1,945 ÷ 1,427 = 1.36	2,076 ÷ 1,794 = 1.16	1,223 ÷784 =1.56	874 ÷ 449 = 1.95
(ii) Total Debts to Net Worth $\left[\frac{Total\ Outside\ Liabilities}{Net\ Worth}\right]$	1,681 ÷ 1,100 = 1.528	2,004 ÷ 1,013 = 1.978	794 ÷780 =1.017	449 ÷ 700 = 0.641
(iii) Total Asset Turnover ratio$\left[\frac{Turnover}{Total\ Assets}\right]$	5,412 ÷ 2,781 = 1.946	4,575 ÷ 3,017 = 1.516	1,752 ÷1,574 =1.113	1,449÷ 1,149 = 1.259
(iv) ROI $\left[\frac{PBT}{Total\ Assets} \text{ x } 100\right]$	252 ÷ 2,781 = 0.090	168 ÷ 3,017 = 0.055	196 ÷1,574 =0.124	230 ÷1,149= 0.20
(v) Liquid Assets to Operating Expenses [excluding Depreciation] per day	821 ÷ 13.98 = 59	857 ÷ 11.90 = 72	1,046 ÷ 4.09 = 256	648÷ 3.23 = 201

From the different Ratios as calculated in (i) above, it has been observed that the results of Pee Ltd for the year 2008 were better than that of Key Ltd. for 2007. On the other hand, the results of Key Ltd. for the year 2008 were weaker than that of for 2007. Short-term liquidity of solvency Ratios (i.e., Current Ratio and Liquid Assets to Operating-expenses Ratio) of Pee Ltd were improved in 2008 than 2007, whereas these Ratios of Key Ltd were deteriorated in 2008 than it was in 2007. Pee Ltd had improved its long-term solvency Ratios (i.e., Total debts to Net Worth and Total Asset Turnover Ratio) in 2008 than in 2007, whereas these Ratios were also deteriorated in 2008 than in 2007 in the case of Key Ltd. As far as profitability was concerned, Pee Ltd had remarkably increased its ROI in 2008 than it was in 2007, whereas ROI of Key Ltd was remarkably declinbed in 2008 than 2007.

Therefore, Ratios as computed in the above as showing as stronger position in 2008 as compared to 2007 in the case of Pee Ltd, whereas they are showing a deterioration position in 2008 as compared to 2007 in the case of Key Ltd.

Working Notes:

1. Net Worth		₹ **In Lakhs**			
		Key Ltd		**Pee Ltd**	
		2007	**2008**	**2007**	**2008**
	Capital & Reserves	1265	1182	780	700
Less :	Miscellaneous Expenditure	165	169	000	000
	Net Worth	1100	1013	780	700

2. Total Outside Liabilities	₹ **In Lakhs**			
	Key Ltd		**Pee Ltd**	
	2007	2008	2007	2008
Long-term Borrowings	254	210	10	-
Short-term Borrowings	424	800	464	216
Creditors	947	926	233	175
Taxation [Less Advance Tax]	56	68	87	58
Total outside Liabilities	1681	2004	794	449
3. Current Assets				
Stock	1124	1219	177	226
Debtors	728	825	582	402
Bank	93	33	464	246
Current Assets	1945	2076	1223	874
4. Current Liabilities				
Creditors	947	926	233	175
Taxation [less Advance Tax]	56	68	87	58
Short-term Borrowings	424	800	464	216
Current Liabilities	1427	1994	784	449
5. Total Assets				
Fixed Assets	836	941	351	275
Current Assets [as computed in (3) above]	1945	2076	1223	874
Total Assets	2781	3017	1574	1149

6. Liquid Assets

	Current Assets [as computed in (3) above]	1945	2076	1223	874
Less :	Stock	1124	1219	177	226
	Liquid Assets	821	857	1046	648

7. Operating Expenses (excluding Depreciation) per day

	5104/365 = 13.98	4356 / 366 = 11.90	1496 / 365 = 4.09	1182 / 365 = 3.23

(c) Petro Ltd has the following Balance Sheets as on 31 March 2012 and 31 March 2011:

Particulars	**₹ in lakhs**	
	31 March 2012	**31 March 2011**
Sources of Funds:		
Shareholder's Fund	**2,477**	**1,572**
Loan Funds	**3,670**	**3,183**
	6,147	**4,755**
Applications of Funds:		
Fixed Assets	**3,566**	**3,000**
Cash & Bank	**589**	**570**
Debtors	**1,595**	**1,268**
Stock	**2,967**	**2,507**
Other Current Assets	**1,667**	**1,504**
Less: Current Liabilities	**(4,037)**	**(3,894)**
	6,347	**4,955**

The Income Statement of the JKL Ltd for the year that ended is as follows:

	₹ in lakhs	
	31 March 2012	**31 March 2011**
Sales	**22,265**	**13,982**
Less: CGS	**20,960**	**12,644**
GP	**1,305**	**1,338**
Less: Selling, General & Administrative Expenses	**1,035**	**652**
Earnings before Interest and Tax (EBIT)	**270**	**686**
Less: Interest Expense	**113**	**105**
Profit before tax	**57**	**481**
Less: Tax	**23**	**192**
Profit after Tax	**34**	**289**

Required:

(i) Calculate for the year 2011-12:

- **a. Inventory Turnover Ratio**
- **b. Return on Net worth**
- **c. ROI**
- **d. ROE**
- **e. Profitability ratio**

(ii) Give a brief comment on the financial position of Petro Ltd.

Answer:

i. a . Inventory Turnover Ratio (for the year 2011-12) = $\frac{\text{Cost of Goods Sold}}{\text{Average Inventory}} = \frac{20,960}{2,737} = 7.66$

b. Return on Net Worth (for the year 2011-12)= $\frac{\text{Profit after tax}}{\text{Net Worth}} = \frac{34}{2,477} = 1.37\%$

Net Worth = Shareholder's Fund

c. ROI (for the year 2011-12) = $\frac{\text{Net Profit before Interest but after tax}}{\text{Average Capital Employed}} \text{x}100$

$= \frac{147}{5,651} \text{x}100 = 2.60\%$

Net Profit before interest but after tax = 34 + 113 = 147

Average Capital Employed = Average of Opening and closing of Net Current Assets + Average of Opening and closing of Net Current Assets

= (6,347 + 4,955)/2 = 5,651

d. ROE (for the year 2011-12) = $\frac{\text{Net Profit available to Equity Shareholders}}{\text{Average Equity Shareholders' Fund}} \text{x}100$

$= \frac{34}{(2,477 + 1,572)/2} \text{x}100 = 1.68\%$

e. Profitability ratio (for the year 2011-12) –

(i) Gross Profit Ratio = $\frac{\text{Gross Profit}}{\text{Sales}} \text{x}100 = \frac{1,305}{22,265} \text{x}100 = 5.86\%$

(ii) Operating Profit Ratio = $\frac{\text{Operating Profit}}{\text{Sales}} \text{x}100 = \frac{57+113}{22,265} \text{x}100 = 0.76\%$

(iii) Net Profit Ration = $\frac{\text{Profit before tax}}{\text{Sales}} \text{x}100 = \frac{57}{22,265} \text{x}100 = 0.26\%$

ii. Profitability of operation of the company remarkably decline from ₹686 (₹ in Lakh to ₹270 (₹ in Lakhs), due to a huge increase in the operating expenses during the year 2011-12. NP of the company also reduces due to an increase in the interest expenses. During the year 2011-12, both Fixed operating expenses as well as fixed financial expense have increased, as a consequence of which the NP of the company radically reduced. During 2011-12, both operating and Financial Leverages have become adverse, as a result of which the company has been crucially suffering from a liquidity crisis during the year 2011-12.