FINAL EXAMINATION

GROUP IV

(SYLLABUS 2012)

SUGGESTED ANSWERS TO QUESTIONS

JUNE 2015

Paper-19: COST AND MANAGEMENT AUDIT

Time Allowed : 3 Hours **Full Marks : 100**

The figures in the margin on the right side indicate full marks.

This paper contains 3 questions, representing three separate sections.

All three questions are compulsory, subject to the specific instructions provided against each question.

All workings wherever necessary, must form a part of your answer.

Assumptions, if any, should be clearly stated.

Please : (1) Answer all bits of a question at one place.
(2) Open a new page for answer to a new question.

SECTION A (60 marks)

1. Answer the *four* questions. (carrying 15 marks each):

(a) (i) The following information is extracted from the Cost Accounting Records of RAYGOLD LTD. a Cement Company for the year ended March 31, 2015.

Production	**96100 Tonnes**
Norms for power consumption per tonne of cement	**95 KWH**
Total power generated/consumed:	
From the Electricity Board (EB) Grid.	**52272540 KWH**
From the Captive power plant.	**62726720 KWH**
From the Wind Mill (fed into the EB	**47044815 KWH**
Grid and drawn at the factory site)	
Cost of fuel consumed	**₹11,39,26,234**
Other operating costs of generating set.	**₹ 2,84,81,558**
Total operating cost of Wind Mill.	**₹ 7,33,89,913**

Note: **The Electricity Board detects 10% of the Power fed into the Grid towards transmission losses.**

Required:

As a Cost Auditor of the Company, How will you present the above data in the Annexure to the Cost Audit Report under the Companies (Cost Records and Audit) Rules, 2014? **4+2=6**

(ii) MEGLOW TECHNO LTD. is a manufacturer of Ball and Roller bearings. In the Company four operations are carried on simultaneously in the manufacture of components.

The input/output data and Direct Wages Cost relating to the year 2014-15 for one component are as follows:

Opeations	Gross Input (Tonnes)	Scrap (Tonnes)	Direct Wages (₹)
PM	48000	8000	12,40,000
QN	50000	10000	12,50,000
RA	72000	12000	23,60,000
SB	55000	5000	32,70,000

Material is introduced at start of Operation PM at a cost of ₹ 6,000 per tonne. Scrap can be sold at ₹ 500 per tonne. Overheads are absorbed at 150% on Direct Wages.

You are appointed as a cost consultant of Meglow Techno Ltd. The company has not maintained cost records so far and seeks your advice in the matter.

Show your computation of the total cost per tonne of finished component so that the company can adopt the same in future. **7+2=9**

Answer:

1. (a) (i) RAY GOLD LTD.

Statement showing the cost of power consumed for the year ended March 31, 2015.

	Qty (KwH)	Rate (₹)	Amount (₹)
1. Power received from the Electricity Board (grid)	52272540	1.73	9,04,31,494
2. Self Generated			
(A) Captive Power Plant	62726720	2.27	14,24,07,792
(B) Wind mill (9% of generation)	42340334	1.73	7,33,89,913
Total	157339594	1.946	30,62,29,199

Production of Cement: 96100 Tonnes.

Actual Consumption of Power per Tonne: 1637.25

Note:

Cost of Power received from Electricity Board (grid):

It is assumed that the company purchased power from electricity board at the Wind Mill (fed to EB grid) rate i.e. ₹ 1.73 per KwH during the year 2014-15. Hence, cost of power will be ₹ 9,04,31,494.

PART-B. PARA-2

ABRIDGED COST STATEMENT (for each product with CETA heading separately)

	Name of Product			**CEMENT**		
	CETA heading			2523; 6811 to 6812		
	Unit of Measure			Tonne		
		Production	Finished stock adjustment	Captive consumption	Other adjustments	Quantity sold
	Current year	96100				
	Previous year					

Sl No.	**Particulars**	**Year 2014-15**		**Year 2013-14**	
		Amount in ₹ Lakh	Rate per Unit (₹)	Amount (₹)	Rate per Unit (₹)
1	Materials consumed (specify details as per para 2A)	-			
2	Process Materials/Chemicals	-			
3	Utilities (specify details as per Para 2B)	3062.29	3186.57		
4	Direct Employees Cost				
5	Direct Expenses				
	....				
30	Cost of Sales (28+29)				
31	Net Sales Realisation (net of taxes and duties)				
32	Margin (Profit/Loss) as per Cost Accounts (31-30)				

PARA- 2B

Details of utilities consumed		
	Name of Product	CEMENT
	CETA heading	2523; 6811 to 6812

SL No.	**Description of material**	**UOM**	**Year 2014-15**			**Year 2013-14**		
			Qty (KwH)	Rate per unit (₹)	Amount in (₹) lakhs	Qty	Rate per unit (₹)	Amount (₹ in lakh)
1.	Power	KwH	157339594	1.946	3062.29			
2.								
3.								

Alternative:

Statement showing the cost of power consumed for the year ended March 31, 2015.

	Qty (KwH)	Rate (₹)	Amount
1. Power received from the Electricity Board (grid) (State Govt.)	52272540	-	-
2. Self Generated	62726720	2.27	142407792
(A) Captive Power Plant	42340334	1.73	73389913
(B) Wind mill (9% of generation)			
Total	157339594	1.372	215797705

Production of Cement: 96100 Tonnes.

Actual Consumption of Power per Tonne: 1637.25

Note:

Cost of Power received from Electricity Board (grid):

It is assumed that state government provided free power (i.e. at zero rate) to the cement company as incentive for the industry during the year 2014-15. Hence, cost of power will be zero/nil.

PART-B. PARA-2

ABRIDGED COST STATEMENT (for each product with CETA heading separately)

	Name of Product			**CEMENT**		
	CETA heading			2523; 6811 to 6812		
	Unit of Measure			Tonne		
		Production	Finished stock adjustment	Captive consumption	Other adjustments	Quantity sold
	Current year	96100				
	Previous year					

Sl No.	Particulars	Year 2014-15		Year 2013-14	
		Amount in ₹ Lakh	Rate per Unit (₹)	Amount (₹)	Rate per Unit (₹)
1	Materials consumed (specify details as per para 2A)	-			
2	Process Materials/Chemicals	-			
3	Utilities (specify details as per Para 2B)	2157.98	2245.55		
4	Direct Employees Cost				
5	Direct Expenses				
	....				
30	Cost of Sales (28+29)				
31	Net Sales Realisation (net of taxes and duties)				
32	Margin (Profit/Loss) as per Cost Accounts (31-30)				

PARA- 2B

Details of utilities consumed		
	Name of Product	CEMENT
	CETA heading	2523; 6811 to 6812

SL No.	Description of material	UOM	Year 2014-15			Year 2013-14		
			Qty (KwH)	Rate per unit (₹)	Amount in (₹) lakhs	Qty	Rate per unit (₹)	Amount (₹ in lakh)
1.	Power	KwH	157339594	1.372	2157.98			
2.	……							
3.	……							

Answer:

1. (a) (ii)

MEGLOW TECHNO LTD.

It is a fact that the company is not maintaining proper records. Cost per tonne of finished component is required to be worked out within the existing constraint of stage wise conversion cost and raw material identification to operation -PM

Stage-wise conversion cost, therefore to be converted to final cost using the multiplier or weightage factor. For converting Direct wages to conversion cost from the given data, following steps should be followed:

Let us assume. Direct wages	₹ 100
Overheads (150% of Direct wages)	₹ 150
Total conversion cost	₹ 250

Conversant cost is 2.50 times of Direct Wages:

Operation	Input tonnes in thousand	Output tonnes in thousand	Multiplier factor (2/3)	Conversion cost (₹ in lakh) D.W. x 2.5	Conversion cost per Tonne (5/3) (₹)	Cumulative conversion cost per tonne (₹)
1	**2**	**3**	**4**	**5**	**6**	**7**
PM	48	40	1.20	31.00	77.50	77.50
QN	50	40	1.25	31.25	78.12	175.00
RA	72	60	1.20	59.00	98.33	308.33
SB	55	50	1.10	81.75	163.50	502.66

Calculations:

(a) Cumulative conversion costs are:

Operation QN = (₹ 77.50x 1.25) + 78.12 = ₹ 175.00

Operation RA= (₹ 175.00x1.20) +98.33 = ₹ 308.133

Operation SB = (₹ 308.33 × 1.10) + 163.50 = ₹ 502.66

₹ 502.66 per tonne is the final stage conversion cost.

(b) Raw material cost is:

= Cost of material quantity introduced at operation

= Material quantity x Rate per Tonne

= Product of multiplier factors x rate per tonne

= (1,20 x 1.25 x 1.20 x 1.10 x ₹ 6000

= 1.98 x ₹ 6000 = ₹ 11880

Thus input = 1.98 tonnes Output = 1.00 Tonne Scrap = 0.98 Tonne

(c) Value of Scrap = 0.98 tonne x ₹ 500

= ₹ 490

Computation of Total cost per Tonne of finished component

Material cost	₹ 11,880.00
Less: Scrap Value	(-) 490.00
	₹ 11,390.00
Add: Conversion cost (table above	502.66
Total cost	**₹ 11,892.66**

(b) (i) 'Research and Development Costs shall include all the costs that are directly traceable to research and/or development activities'.

On what basis these costs can be assigned to Research and Development activities as per CAS-18?

Also state the constituent elements of such costs. 2+5=7

(ii) The extracts of Trial Balance of PANCHAL LTD. a manufacturing company pertaining to employees as on March 31, 2015 are given below:

Particulars	Amount
Debit	₹
Salaries Cost	**25,45,785**
Employees Training Cost	**4,73,000**
Employees Selection Expences	**2,25,000**
Perquisites To Employees	**12,45,000**
Contribution to Gratuity Fund	**5,25,000**
Lease rental for accommodation provided to employees	**3,25,000**
Festival Bonus	**1,25,000**
Unamortised amount of Employee Cost related to a discontinued operation	**1,85,000**

Employer's contribution to P.F. including Penalties ₹ 35,000	**2,75,325**
Penalties ₹ 35,000	
Free accomodation to own employees	
Depreciation	**1,00,000**
Municipal Tax	**5,500**
Maintenance	**45,000**
Credit	
Special subsidy received from Government towards employees salary	**1,75,000**
Recoverable amount from employee out of perquisites extended	**35,000**

Required:

(1) Calculate the Employees cost for the year ended March 31, 2015—Keeping in view of cost Accounting Standard (CAS)-7.

(2) Specify the disclosures required. **6+2=8**

Answer:

1. (b) (i)

Research and development costs shall include all the costs that are directly traceable to research and/or development activities or that can be assigned to research and development activities strictly on the basis of

(a) Cause and effect or (b) benefits received.

Such costs shall include the following elements:

(i) The cost of materials and services consumed in Research and Development activities,

(ii) Cost of bought out materials and hired services as per invoice or agreed price including duties and taxes directly attributable thereto net of trade discounts, rebates, taxes and duties refundable or to be credited,

(iii) The salaries, wages and other related costs of personnel engaged in Research and Development activities ;

(iv) The depreciation of equipment and facilities, and other tangible assets, and amortization of intangible assets to the extent that they are used for Research, and Development activities;

(v) Overhead costs, other than general administrative costs, related to Research, and Development activities,

(vi) Costs incurred for carrying out Research, and Development activities by other entities and charged to the entity ; and

(vii) Expenditure incurred in securing copyrights or licences

(viii) Expenditure incurred for developing computer software,

(ix) Costs incurred for the design of tools, jigs, moulds and dies

(x) Other costs that can be directly attributed to Research, and Development activities and can be identified with specific projects.

Answer:

1. (b) (ii)

Calculation of employee cost for the year ended March 31, 2015

		Amount (₹)
1.	Salaries	25,45,785
2.	Perquisites to Employees less amount recoverable from employee (₹ 12,45,000 - ₹35,000)	12,10,000
3.	Contribution to Gratuity Fund	5,25,000
4.	Lease rental for accommodation	3,25,000
5.	Festival Bonus	1,25,000
6.	Employer's contribution to P.F.	2,40,325
7.	Free accommodation to own employees	
	Depreciation	1,00,000
	Municipal tax	5,500
	Maintenance	45,000
8.	Less: Special subsidy received from Government towards employee salary	(1,75,000)
		49,46,610

Disclosures:

1. Recoverable amount of perquisites is excluded from cost of perquisites.
2. Employees training cost and selection expenses is not an employee cost. They are to treated as overhead, hence not included.
3. Special Govt, subsidy received to be used as reduction in the cost to employer.
4. Unamortised amount of employees cost related to discontinued operation is not includible item of cost
5. Penalties paid to P.F. authorities is not a normal expenditure are to be excluded from Contribution to P.F.
6. Assumed that the entire accommodation is exclusively used by the employees. Hence cost of accommodation provided includes all relevant expenses/costs as these are identifiable/traceable to the cost centre.

(c) (i) What disclosures are required to be made in cost statement as per CAS-14 as regard to Pollution Control-Cost? 5

(ii) The following particulars pertaining to product AZ are extracted from the record of SHINJIN LTD. for the half year ended March 31, 2015.

	Amount in ₹ Thousand
Direct Material Cost	**827**
Direct Wages and Salaries	**200**
Indirect Materials	**75**
Direct Expenses	**100**

Factory overheads	**200**
Administrative overheads (20% relating to production activities)	**100**
Quality Control Cost	**25**
Research and Development Cost	**25**
Selling and Distribution Expenses	**15**
Sale of Scrap realised	**20**
Material Cost includes Excise duty paid	**27**
Actual Profit Margin	**15%**

You are required to determine:

(1) the Cost of production for purpose of CAPTIVE CONSUMPTION in terms of Rule 8 of the Central Excise Valuation (Determination of Price of Excisable Goods) Rules 2000 and as per CAS-4 and

(2) Also Assessable value for the purpose of paying excise duty on Captive Consumption. 6+2=8

(iii) How will you treat an item of Direct Expenses that does not meet the test of materiality as per CAS-10? 2

Answer:

1. (c) (i)

As per CAS-14 as regards to Pollution Control Cost, the cost statements shall disclose the following:

1. The basis of distribution of pollution control cost to the cost objects/cost units.
2. Where standard cost is applied in pollution control cost, the price and usage variances.
3. Pollution control cost of jobs done in-house and outsourced separately.
4. Pollution control cost paid/payable to related parties.
5. Pollution control cost incurred in foreign exchange.
6. Any subsidy/grant/incentive or any amount of similar nature received/receivable reduced from Pollution control cost.
7. Any credits/recoveries relating to the pollution control cost.
8. Any abnormal portion of the Pollution control cost.
9. Penalties and damages excluded from the Pollution control cost.

Answer:

1. (c) (ii)

SHINJIN LTD.
Computation of cost of production (As per -CAS-4)

(Amount in ₹ Thousand)

Direct materials (exclusive of excise duty) (827-27)	800
Direct wages & salaries	200
Direct expenses	100
Factory overheads (200+75)	275
Quality control cost	25

Research and development cost	25
Administrative overheads (to the extent relates to Production activity)	20
Less: Sale of scrap realized	(20)
Cost of production	1425
Add: 10% as per Rule 8 of CEV (DPOEG) Rules (10% of 1425)	142.50
Assessable value as per Rule 8 of the CE Valuation (DPOEG) Rules 2001	1567.50

Answer:

1. (c) (iii)

If an item of Direct Expenses does not meet the test of materiality as per CAS-10, it can be treated as part of overheads.

(d) (i) What Constitutes the Cost Records under Rule 2(e) of the Companies (Cost Records and Audit) Rules, 2014? 4

(ii) You are the Cost Auditor of MERLIN TEXTILE MILLS LTD. for the year ended March 31, 2015.

The Company had a Strike from 16.09.2014 to 19.11.2014. Although the company resumed working from 20.11.2014 normal production was achieved only from 08.12.2014. The expenses incurred during the year ended March 31, 2015 were

	Amount in ₹ Lakh
Salaries and Wages (Direct)	**1,800**
Salaries and Wages (Indirect)	**1,200**
Power (Variable-90%)	**600**
Depreciation	**1,080**
Other fixed expenses	**1,320**
Repairs and Maintenance (Variable-80%)	**600**

Detailed examination of the records reveals that of the above, the following relate to the period 16.09.2014 to 19.11.2014.

	Amount in ₹ Lakh
Salaries and Wages (Direct)	**Nil**
Salaries and Wages (Indirect)	**480**
Depreciation (Non-productive)	**300**
Other fixed expenses	**660**
	1,440

Required:

Calculate the amount which in your opinion should be treated as abnormal for exclusion from the product costs. 7

(iii) How would you compute the Cost of Utilities as per CAS-8 in the following circumstances?

(A) Utilities generated for the purpose of Inter Company transfer.

(B) Utilities generated for the sale to outside parties. 2×2=4

Answer:

1. (d) (i)

As per Rule 2 (e) the Companies (Cost Records and Audit) Rules, 2014, "Cost records" means 'books of account relating to utilization of materials, labour and other items of cost as applicable to the production of goods or provision of services as provided in section 148 of the Act and these Rules'. There cannot be any exhaustive list of cost accounting records. Any transaction -statistical, quantitative or other details- that has a bearing on the cost of the product/activity is important and form part of the cost accounting records.

Cost records are to be kept on regular basis to make it possible to "calculate per unit cost of production/operations, cost of sales and margin for each of its products for every financial year on monthly/quarterly/half yearly/annual basis". What is required is to maintain such records and details in a structured manner on a regular basis so that accumulation is possible on a periodical basis.

Answer:

1. (d) (ii)

MERLIN TEXTILE MILLS LTD.

CALCULATION OF FIXED EXPENSES INCURRED DURING THE PERIOD 20.11.2014 TO 07.12.2014

		(Amount in ₹ Lakh)
Total Expenses for 2014-15		6,600
Less: Variable expenses		
Power (90% of 600)	540	
Repairs & Maintenance (80% of 600)	480	(1,020)
Total fixed expenses during 2014-15		5,580
Less: Fixed expenses during strike period:		(1,440)
(16.09.2014 to 19.11.2014)		———
Fixed Expenses during Non-strike period		4,140

'Since strike period was for 65 days (16.09.2014 to 19.11.2014), the non-strike period is 300 days.

Hence fixed expenses attributed to 18 days i.e. 20.11.2014 to 07.12.2014 is 6% (18/300) of ₹ 4140 = ₹ 248.40 lakh

	(Amount in ₹ Lakh)
Expenses (fixed) incurred during the period of 16.09.14 to 19.11.14	1,440.00
Expenses (fixed) incurred during the period of 20.11.14 to 07.12.14.	248.40
Total	**1,688.40**

Hence, the amount to the tune of ₹1,688.40 lakh is to be treated as abnormal cost and should be excluded from the product cost.

Answer:

1. (d) (iii)

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

(B) Cost of utilities generated for the sale to outside parties shall comprise of direct material cost, direct employee cost, direct expenses, factory overheads, distribution cost, share of administrative overheads and marketing overheads. The sale value of such utilities will also include the margin, and share of research and development cost incurred for development and improvement of existing process or product.

(e) (i) Whether maintenance of Cost Accounting records and Cost Audit thereof under the Companies (Cost Records and Audit) Rules, 2014, subject to threshold limits prescribed, is applicable to products which are for 100% CAPTIVE CONSUMPTION? 5

(ii) The profit as per Cost Accounts of RUKMANI SUGAR MILLS LTD for the year ended March 31, 2015 was ₹ 1,30,46,200. In the course of Cost Audit, you come across the following differences between the Financial Accounts and Cost Accounts.

(A) Element of Profit on self-consumption of sugar included in Financial Accounts was ₹ 75,000.

(B) A sum of ₹ 32 Lakhs has been paid during the year towards Additional Sales Tax for previous years and included in current year Rates and Taxes.

(C) Income (dividend) from investment booked in Financial Accounts was ₹ 2,90,000

(D) Loss on Sale of investments — ₹ 6,000

(E) Profit on Sales of fixed Assets accounted in F/A was ₹ 6,25,000.

(F) A sum of ₹ 15,00,000 had been written off in the financial A/c as new Project development expenses.

(G) Major consumables written off in full in the Financial A/cs be treated as deferred revenue expenditure amortized over three years in the Cost Accounts full value of ₹ 24,00,000.

(H) Insurance claim relating to previous years received during the year ₹ 54,00,000.

(I) Loss from trading Activity ₹ 11,20,000.

(J) Voluntary Retirement Compensation included in Salary & Wages in F/A— 26,50,000.

(K) Increase in value of work in-progress and finished goods inventory was as follows:

As per Financial Accounts	**₹ 18,30,000**
As per Cost Accounts	**₹ 16,15,000**

You are required to prepare a reconciliation statement between Profit figures as per Cost and Financial Accounts and Also show the Profit as per Financial Accounts for the year ended March 31, 2015. 5+4+1=10

Answer:

1. (e) (i)

The Companies (Cost Records and Audit) Rules, 2014 has specified different products and services for which maintenance of cost accounting records and cost audit thereof, subject to threshold limits prescribed, is mandatory.

In case a product is manufactured and 100% captively consumed for production of some other product which is also covered under these Rules and is subject to cost audit, then the cost of

such captively consumed product would form part of the final product which is also under cost audit and as such a separate cost audit report for the captively consumed product will not be necessary.

However, if the product is partly for captive consumption and partly sold, or if the product is 100% captively consumed for production of some other product which is not covered under these Rules, then cost audit would be applicable for such captively consumed product (s).

Answer:

1. (e) (ii)

RUKMANI SUGAR MILLS LTD.

RECONCILIATION OF PROFIT AS PER COST ACCOUNTS WITH PROFIT AS PER FINANCIAL ACCOUNTS FOR THE YEAR ENDED MARCH 31, 2015

			(Amount in ₹)
PROFIT AS PER COST ACCOUNTS			1,30,46,200
Add: Incomes not considered in cost accounts:			
(A)	Element of profit on self consumption of sugar	75,000	
(B)	Income from Investments	2,90,000	
(C)	Profit on Sale of fixed assets	6,25,000	
(D)	Insurance claim received relating to previous year	54,00,000	63,90,000
Less : Expenses not considered in cost accounts:			
(A)	Additional sales tax paid or previous years	32,00,000	
(B)	New project development expenses	15,00,000	
(C)	Expenditure fully written off in financial A/c but treated as deferred revenue (the deferred portion only)	16,00,000	
(D)	Loss from Trading Activity	11,20,000	
(E)	Loss on Sale Investments	6,000	
(F)	Voluntary Retirement compensation included in Salary and Wages in F/A	26,50,000	1,00,76,000
	Add: Difference in valuation of stock		
(A)	Increase in inventory as per financial A/c	18,30,000	
	Increase in inventory as per cost Accounts	16,15,000	
	Valuation in Financial Accounts is higher		2,15,000
	PROFIT AS PER FINANCIAL ACCOUNTS		**95,75,200**

SECTION B (20 marks)

2. Answer the *two* questions. (carrying 10 marks each):

(a) (i) What is the Role of Management with regard to Internal Control? 5

(ii) What are the quantities and functions of a Management Auditor? 5

Answer:

2. (a) (i)

The responsibility of Management with regard to internal Control can be summarized as under-

1. **Creation of system:** Management is responsible for maintaining an adequate accounting system incorporating various internal Controls to the extent appropriate to the size and nature of the Business. The Management is vested with the responsibility of carrying on the business, safeguarding its assets and recording the transactions in the books of account and other records.
2. **Review of system:** The system installed, should be reviewed by the Management to ascertain, whether-
   (a) The prescribed Management policies are being properly interpreted by the employees and are faithfully implemented,
   (b) The prescribed procedures need a revision due to changed circumstances or whether they have become obsolete or cumbersome, and
   (c) Effective corrective measures are taken promptly when the system appears to breakdown
3. **Internal Audit:** it is desirable that the Management also installs an internal audit System as an independent function to check, amongst other things, the actual operation of the Internal Control System and report any deviations or non-compliances.

Answer:

2. (a) (ii)

Management audit is systematic, examination, analysis and appraisal of the overall performance of the organisation. The essential qualities of management auditor are:-

1. Ability to grasp business problems.
2. General understanding of the motive, purpose and objects of organisation.
3. Ability to assist the programme of management.
4. Knowledge about the principles of delegation of authority
5. Understanding different internal control devices, flow charts, flow of work etc.
6. General understanding of all economic and commercial legislations like Company Law, Customs Law, Labour Law, Tax Laws etc.
7. Ability to prepare reports to various levels of management
8. Capacity to adjust personnel of different types with tact etc.

The functions of Management auditors are as follows:

1. Ensure that all pertinent information's needed for planning reaches higher management

2. Ensure that decisions are based on objective of management.
3. Key functions or operation which are profit making are given maximum attention.
4. He should keep himself knowledgeable with developments, information technology and introduce latest method of information and communication system consistent with cost benefit studies needed to improve the system.

(b) (i) Write short notes on Disclosure and Transparency of Corporate Governance. 5

(ii) What is Energy Audit?

Briefly state the Key-functions of Energy Audtior? 2+3=5

Answer:

2. (b) (i)

Disclosure and transparency of corporate Governance include the followings:-

1. Disclosure includes but not limited to the material information on:
   (a) The financial and operating results of the company
   (b) Objectives of the company
   (c) Key-member of the Board and their remuneration
   (d) Material foreseeable factors.
   (e) Material issues regarding employees and other stake holders.
   (f) Government structures and policies.
2. Information should be prepared, audited and disclosed in accordance with high quality standards of accounting, financial and non financial disclosures.
3. An annual audit should be conducted by an independent auditor in order to provide on external and objective assurance which should be prepared and presented.
4. Channels for disseminating information should provide for fair, timely and cost efficient access or relevant information by users.

Answer:

2. (b) (ii)

Energy auditing is an activity that serves the purposes of assessing energy-use, pattern of a factory or energy consuming equipment and identifying energy saving opportunities. In that context, energy management involves the basic approaches in reducing avoidable losses, improving the effectiveness of energy use, and increasing energy use efficiently. The energy auditor is normally expected to give recommendations on effective improvements leading to monetary benefits and also advise on energy management issues. Generally, energy auditor for the industry is an external party. The following are some of the key functions of the energy auditor:

1. Quantification of energy costs and quantities.
2. To correlate trends of production or activity to energy cost.
3. To devise energy database formats separately by products, departments or energy consuming departments.

While performing the aforesaid key functions, the energy auditor is required to carry out the following activities:

1. To analyse the historical energy consumption and cost data.
2. To conduct preliminary energy audit with the objective to identify:
   (A) major energy consuming equipment and process.
   (B) Obvious inefficiencies and energy wastes.
   (C) Priority areas for further detailed investigation.
3. To conduct detailed technical and economic analysis of energy efficiency measures involving large efficiency measures involving large capital investment or long pay back periods.

(c) 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.
1+1+1+1+(½×12)=10

Answer:

2. (c) (i)

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

(i) 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?

(ii) Are the product-Mix decisions based on optimum profitability?

What is the proportion of standard products and tailor-made items?

(iii) Whether all infrastructures like machinery, materials, manpower and money have been assured at the scheduled time for uninterrupted production,

(iv) 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?

(v) Is it possible to subcontract some jobs to increase production capacity or maintain production in times of power-cuts etc.?

(vi) What is the percentage of scrap, waste and rejects?

Is it reasonable?

(vii) 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?

(viii) Is there excess, or shortage of manpower?

How is the control exercised - time & motion study, incentives, labour budgets or any other means?

(ix) Is there any wastage in consumption of utilities like power, fuel, steam, compressed air, etc.?

(x) How effective is the material handling system?

Are there any avoidable movements of materials?

(xi) 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?

(xii) 'How is the control exercised on inventory of stores and spares?

(xiii) What is the procedure to handle breakdown emergencies?

(xiv) Are all statutory requirements in regard to safety measures complied with?

(xv) Are history cards available for all plant and machinery giving details of downtime, replacement of parts, etc?

(xvi) Does the system provide for flexibility or change of production schedules to execute urgent, orders or changes in the product mix?

SECTION C (20 marks)

3. Answer the *two* questions. (carrying 10 marks each):

(a) The Balance Sheet of MOUNTHILL LTD. for the last two years stood as follows:

(Amount in ₹Lakh)

As on March 31,		2015	2014
Sources of Fund			
Share Capital (Share of ₹ 10 each)		**3,000**	**3,000**
Reserves and Surplus		**1,392**	**1,200**
Loans		**1,200**	**1,440**
	Total	**5,592**	**5,640**
Represented by:			
Fixed Assets		**4,800**	**3,600**
Less: Depreciation		**1,680**	**1,200**
		3,120	**2,400**
Investment		**480**	**360**
	(A)	**3,600**	**2,760**
Net Current Assets:			
Current Assets:			
Stock		**1,440**	**1,200**
Debtors		**840**	**600**
Cash and Bank		**240**	**240**
Other Current assets		**300**	**300**
		2,820	**2,340**
Less: Current Liabilities		**1,548**	**300**
	(B)	**1,272**	**2,040**
Miscellaneous Expenditure	**(C)**	**720**	**840**
Total (A+B+C)		**5,592**	**5,640**

You are giving the following additional information for the year 2014-15:

	(Amount in ₹ Lakh)
Sales	**7,200**
Profit before Interest and Tax	**1,800**
Interest	**288**
Provision for Tax	**720**
Proposed Dividend	**600**

Required:

(i) Calculate for the year 2014-15:

- **(A) Return on Capital Employed**
- **(B) Stock Turnover Ratio**
- **(C) Return on Net-worth**
- **(D) Current Ratio**
- **(E) Proprietory Ratio**

(ii) Give a brief comment on the financial position of Mounthill Ltd. **10**

Answer:

3. (a)

(A) Computation of Capital Employed **(Amount in ₹ Lakh)**

Year ended March 31,	**2015**	**2014**
Fixed Assets	4800	3600
Less: Depreciation	1680	1200
	3120	2400
Current Assets		
Stock	1440	1200
Debtors	840	600
Cash & Bank	240	240
Other current assets	300	300
Total	2820	2340
Less: Current liability	1548	300
Working capital	1272	2040
Capital Employed (Net fixed asset + working capital)	4392	4440

Average Capital Employed = (4392+4440)/ 2 = 4416

Total Earning = Profit after tax+Interest on debt funds+Non-Operating Adjustments

= (1800-288-720)+288

= 1080

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

$$= \frac{1080}{4416} \times 100 = 24.46\%$$

It is normally expressed as a percentage. It indicates the rate of return earned by the company from its total Capital Employed in the business. It is also an indicator of the profit earning capacity of the company. A higher return a better profitability on the total Capital Employed in the business.

(B) Stock Turnover Ratio $= \frac{\text{Net sales Excluding Excise Duty \& Sales Tax}}{\text{Average Stock}}$

$$= \frac{7200}{(1440+1200)/2} = \frac{7200}{1320} = 5.45 \text{ Times}$$

This ratio indicates the movement of stock during a particular period. In other words, it indicates how fast goods are sold out from the stock of those goods. Higher ratio indicates a faster movement of stock.

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

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

Average Net worth = [(3000+1392-720)+(3000+1200-840)]/2 = 3516

Return on Net worth = $\frac{1080}{3516} \times 100 = 30.72\%$

It is normally expressed as a percentage. It indicates the rate of return earned by the company on the capital invested by its owners. This is an indicator of the rate of return on the shareholders' fund invested in the business. A higher return reveals the better profitability to the shareholders' of the company.

(D) Current ratio $= \frac{\text{Current Assets}}{\text{Current Liabilities}}$

Current ratio $\frac{2820}{1548} = 1.82$

This ratio indicates whether the company possesses sufficient Current Assets to pay off its Current Liabilities. This ratio is an indicator of short term solvency or liquidity position of the company. Ideal ratio is 2:1, Le.,_the_company should have twice the current assets than the current liabilities, to exhibit ideal short term solvency position.

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

Proprietary Funds = Equity share capital + Preference share Capital + reserve & surplus – Accumulated losses.

= 3000 + 1392 - 720 = 3672

Total assets = Net fixed assets + Total current assets (only tangible assets will be included)

= 3120 + 2820 = 5940

Proprietary Ratio = $\frac{3672}{5940} \times 100 = 61.82\%$

This ratio indicates the portion of proprietary fund or shareholders' fund invested in Fixed Assets. It is also an indicator of the efficiency of the management regarding the formulation of the financial planning.

(ii) From the different ratios as calculated in (i) above and remarks/indications individually thereon, it has been revealed that the financial position of MOUNTHILL LTD. is remarkably good.

(b) The following parameters are extracted from the records of PHIMPEX TECHNO LTD. a cement manufacturing company for the year that ended as follows:

Year ended March 31,	2015	2014
Rated capacity (per HR)	90 Tonne	90 Tonne
Installed capacity per Annum (in Tonnes)	4,50,000	4,50,000
Capacity Utilization	62.80%	84.28%
(A) Plant Stoppage (Hours)		
1. Breakdown (Hrs.)	2,435	1,135
2. Planned Maintenance (Hrs.)	277	472
3. Power Restriction (Hrs.)	1,384	1,656
4. Stoppage (There are no orders) (Hrs.)	884	757
5. Want of wagon (Hrs.)	554	710
6. Total stoppage (Hrs.)	5,534	4,730
(B) 1. Total Running (Hrs.)	4,348	5,125
2. Total available (Hrs.)	9,882	9,855
3. Production during the year (in Tonnes)	282620	379250
4. Hourly Rate of Production (in Tonnes)	65	74

Based on the information Stated Supra, you, as a Cost Auditor are required to offer your Comments on

(i) The performance of the company

(ii) Your suggestions for improvement. **8+2=10**

Answer:

3. (b)

(i) **Performance of the company Phimpex Techno Ltd.**

Rated Capacity =

Rated Capacity achieved in 2014 = 74/90 = 82.22%

Rated Capacity achieved in 2015 = 65/90 = 72.22%

Thus capacity achievement reduced from 82.22% in 2013-14 to 72.22% in 2014-15

(ii) Capacity utilization has gone down to 62.80% in 2014-15 as against the figure of 84.28% in 2013-14. Thus, reduction in capacity is by 21.48%

(iii) From the data available the following observations are noted:

(a) Breakdown hrs have gone up "from 1135 hrs in 2013-14 to 2435 hrs in 2014-15 i.e. by 114.54%

(b) Planned maintenance hours has reduced from 472 hrs to 277 hrs i.e. by 41.31%

(c) Shortfall hrs due to number of orders has increased from 757 hrs to 884 hrs i.e. by 16.78%

(d) Total stoppage hours has increased from 4730 hrs. To 5534 hrs i.e. by 17%

(e) Total running hrs has reduced to 4348 hrs from 5125 hrs by 15.16%

(f) The production has come down from 379250 to 282620 tonnes i.e. by 25.48%

From the above findings, it is ascertained that under utilization of capacity to the extent of 21.48% as due to mainly

(i) Increase in total stoppage hrs 5534 hrs in 2014-15 as against 4730 hrs in 2013-14 which is attributable to breakdown which is 2435 hrs as against 1135 hrs in 2013-14

Years	2013-14	2014-15
Breakdown	1135	2435
Total stoppage hrs	4730	5534
%age of breakdown hrs to Total stoppage hrs	24	44

Thus performance has been deteriorated in 2014-15 because of breakdown increased steeply as compared to 2013-14.

Suggestions:

The management is advised to

(i) Augment its planed maintenance to reduce breakdown hours

(ii) Install power generation set with a view to compensate the hours lost due to power failure and Power restriction.

(iii) Strengthen marketing network.

(c) The following parameters are extracted from the Cost Accounting Records of ADRIJA LTD, a single product manufacturing company.

Year ended 31st March	2015	2014
	(Amount in ₹ Lakh)	
Gross Sales including Excise duty	**5,712**	**5,558**
Excise duty	**826**	**784**
Raw materials consumed	**3,192**	**2,968**
Direct wages	**98**	**90**
Power and fuel	**84**	**76**
Stores and spares	**16**	**14**
Depreciation charged to production cost centres	**44**	**42**
Factory Overheads:		
Salaries and Wages	**14**	**12**
Depreciation	**6**	**6**
Rates and Taxes	**2**	**2**
Other overheads	**16**	**14**
Administrative Overheads:		
Salaries and Wages	**28**	**26**
Rates and Taxes	**6**	**6**
Other Overheads	**462**	**432**
Selling and Distribution Overheads:		
Salaries and Wages	**20**	**16**
Packing and Forwarding	**16**	**16**
Depreciation	**2**	**2**
Other Overheads	**348**	**330**
Interest	**238**	**208**
Bonus and Gratuity	**34**	**28**

You are required to compute the following RATIOS as stipulated in PART-D, PARA-4 to the Annexure of Cost Audit Report under the Companies (Cost Records and Audit) Rules, 2014 for the year ended March 31, 2015 and March 31, 2014.

(i) Profit before Tax (PBT) to Value Added,

(ii) Value Added to Net Revenue from Operations.

(iii) Profit before Tax (PBT) to Net Revenue from operations. **4+3+(1×3)=10**

Answer:

3. (c)

ADRIJA LTD.

CALCULATION OF PROFIT BEFORE TAX (PBT) **(Amount in ₹ lakh)**

YEAR ENDED 31st MARCH	**2015**	**2014**
Gross Sales inclusive of Excise Duty	5712	5558
Excise duty	826	784
Net Revenue from Operation	4886	4774
Cost of Sales		
Raw material consumed	3192	2968
Direct Wages	98	90
Power and fuel	84	76
Stores and spares	16	14
Depreciation charged to production centres	44	42
Factory over heads (including depreciation)	38	34
Administration overheads	496	464
Selling and distribution overheads (inclusive depreciation)	386	364
Interest	238	208
Bonus and gratuity	34	28
Total (B)	4626	4288
Profit before Tax (PBT) (A-B)	260	486

CALCULATION OF VALUE ADDED **(Amount in ₹ lakh)**

YEAR ENDED 31st MARCH	**2015**	**2014**
Net Sales (A)	4886	4774
Less: Cost of bought out of inputs:		
Direct materials consumed	3192	2968
Stores & spares	16	14
Power& Fuel	84	76
Overheads (exclusive salaries, wages, rates & taxes and depreciation)	842	792
Total cost of bought out of Inputs (B)	4134	3850
VALUE ADDED (A-B)	752	924

(Amount in ₹ lakh)

YEAR ENDED 31st MARCH	**2015**	**2014**
(i) Profit before Tax (PBT) to Value Added	260/752	486/924
As (%)	34.57%	52.60%
(ii) Value Added to Net revenue from operations	752/4886	924/4774
As (%)	15.39%	19.35%
(iii) Profit before tax (BPT) to net revenue from operations	260/4886	486/4774
As (%)	5.32%	10.18%