

Answer to PTP_Final_Syllabus 2012_Jun2014_Set 1

Paper-19 - COST AUDIT & MANAGEMENT AUDIT

Time allowed-3hrs

Full Marks: 100

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

The paper is divided in three sections.

From Section A answer any four questions (4x15=60 marks)

From Section B answer any two questions (2x10=20 marks)

From Section C answer any two questions (2x10=20 marks)

Working Notes should form part of the answer.

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

Section A

Answer any four Questions [4x15=60]

1.

- a) The maximum period prescribed for presenting Compliance Report and/or Cost Audit Report is 180 days from date of close of the financial year. If Financial Accounts of a company is not ready before the stipulated time period, how cost audit report will be completed reconciled with the financial books of the company? [3]
- b) A firm can produce three different products from the same raw material using the same production facilities. The requisite labour is available in plenty at ₹8 per hour for all products. The supply of raw material, which is imported at ₹8 per kg., is limited to 10,400 kgs. for the budget period. The variable overheads are ₹5.60 per hour. The fixed overheads are ₹50,000. The selling commission is 10% on sales.
- i) From the following information, you are required to suggest the most suitable sales mix, which will maximize the firm's profit. Also determine the profit that will be earned at that level:

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

- ii) Assume, in above situation, if additional 4,500 kgs. of raw material is made available for production, should the firm go in for further production, if it will result in additional fixed overheads of ₹20,000 and 25 per cent increase in the rates per hour for labour and variable overheads? [6+6=12]

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Answer:

- a) Maintenance of cost accounting records is a continuous process. No time limit has been prescribed in the Rules for "submission" of records to cost auditor. The time limit of 180 days as prescribed in the Rules is for submission of Compliance Report regarding maintenance of cost accounting records and cost audit report in case cost audit is also applicable to the company.

In case financial accounts are not ready or are yet to be adopted in the AGM, the same was clarified by the Cost Audit Branch earlier. In such cases the cost auditor can submit the report based on provisional accounts and submit a supplementary report of reconciliation in case there are material differences in the final adopted accounts.

b) Working Notes

- 1) Calculation of Direct Material Consumption (per unit)

Product	Raw Material required (Kgs.)	Raw Material Price (₹ per kg.)	Raw Material consumption per unit (₹)
M	0.7	8	5.60
N	0.4	8	3.20
P	1.5	8	12.00

- 2) Calculation of Variable Overhead Per Unit

Product	Labour hours/ unit	Variable OH. Rate per hour (₹)	Variable OH. Per unit Amount (₹)
M	1.0	5.60	5.60
N	2.0	5.60	11.20
P	1.5	5.60	8.40

- i) **Statement of Contribution per unit and Ranking based on Contribution per kg. of Raw Material**

(₹)

Particulars	Products			
		M	N	P
Selling price	(a)	30.00	40.00	50.00
Direct material		5.60	3.20	12.00
Direct labour		8.00	16.00	12.00
Variable overhead		5.60	11.20	8.40
Selling commission @ 10% on sale		3.00	4.00	5.00
Total variable cost	(b)	22.20	34.40	37.40
(i) Contribution	(a)-(b)	7.80	5.60	12.60
(ii) Raw material requirement per		0.70	0.40	1.50

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unit (kgs.)				
Contribution per kg. of raw material	(i)/(ii)	11.14	14.00	8.40
Ranking		II	I	III

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

Product	Units	Raw material requirement per unit (kgs.)	Total Raw material requirement (kgs.)
N	6,000	0.40	2,400
M	8,000	0.70	5,600
P	1,600	1.50	2,400*
			10,400

*Balancing figure = $2,400 \text{ kgs.} / 1.5 \text{ kgs.} = 1,600 \text{ units}$

Statement of profit (₹)

Contribution			
M		(8,000 x 7.80)	62,400
N		(6,000 x 5.60)	33,600
P		(1,600 x 12.60)	20,160
Less: Fixed Cost			50,000
Profit			66,160

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

Product	Units	Raw material requirement (per unit/kg.)	Total Raw material requirement (kgs.)
N	6,000	0.40	2,400
M	8,000	0.70	5,600
P	4,600	1.50	6,900*
			14,900

*Balancing figure = $6,900 \text{ kgs.} / 1.5 \text{ kgs.} = 4,600 \text{ kgs.}$

Statement of Profit (₹)

Contribution			
M		(8,000 x 7.80)	62,400
N		(6,000 x 5.60)	33,600
P		(4,600 x 12.60)	57,960
Less: Increase on additional units			
Labour Cost		(3,000 units x 25% x ₹12)	9,000
Variable overhead		(3,000 units x 25% x ₹8.40)	6,300
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Net contribution			1,38,660
Less: Fixed Cost		50,000	
Add: Increase		20,000	70,000
Profit			68,660

Analysis: By using additional raw material of 4,500 kgs. in production of product P by another 3,000 units will increase the profit by ₹2,500 (i.e. ₹68,660 - ₹66,160). Hence, production of additional 3,000 units of P is suggested.

2.

a) How would you treat the following as per CAS-15 related to selling and distribution overheads?

i) Leased Assets;

ii) Cost of Administrative Services procured from outside;

iii) Cost of Software

[2×3=6]

b) The Trial Balance of IGP Ltd as on 31.3.2013 are as follows;

Particulars	Amount (₹)Dr.	Amount(₹)Cr.
Materials consumed	25,00,000	
Salaries	15,00,000	
Employee Training Cost	2,00,000	
Special Subsidy received from Government towards Employee salary		2,75,000
Perquisites to Employees	4,50,000	
Contribution to Gratuity Fund	4,00,000	
Recoverable amount from Employee out of perquisites extended		35,000
Lease rent for accommodation provided to employees	3,00,000	
Festival Bonus	50,000	
Unamortised amount of Employee cost related to a discontinued operation	90,000	

Calculate the employee cost according to CAS 7.

[5]

c) Raj & Co. furnish the following expenditure incurred by them and want you to find the assessable value for the purpose of paying excise duty on captive consumption. Determine the cost of production in terms of Rule 8 of the Central Excise Valuation (Determination of Price of Excisable Goods) Rules, 2000 and as per CAS-4 (Cost Accounting Standard)

(i) Direct material cost per unit inclusive of excise duty at 12% - ₹ 1,320

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- (ii) Direct wages - ₹ 250
- (iii) Other direct expenses - ₹ 100
- (iv) Indirect materials - ₹ 75
- (v) Factory Overheads - ₹ 200
- (vi) Administrative overhead (25% relating to production capacity) ₹ 100
- (vii) Selling and distribution expenses - ₹ 150
- (viii) Quality Control - ₹ 25
- (ix) Sale of scrap realized - ₹ 20
- (x) Actual profit margin - 15%.

[4]

Answer:

a)

- i) In case of Leased Assets, if the Lease is an operating lease, the entire rentals shall be included in the administrative overheads. If the lease is a financial lease, the finance cost portion shall be segregated and treated as part of finance costs.
- ii) Cost of administrative services procure from outside shall be determined at invoice or agreed price including duties and taxes, and other expenditure directly attributable thereto net of discounts (other than cash discount), taxes and duties refundable or to be credited.
- iii) The Cost of Software (developed in house, purchased, licensed or customized) including up gradation Cost shall be amortized over its estimated useful life.

b)

Computation of Employee Cost

	Particulars	Amount (₹)
	Salaries	15,00,000
Add	Net Cost of Perquisites to Employees = Cost of Perquisites (-) Amount recoverable from employee = 4,50,000 (-) 35,000	4,15,000
Add	Lease rent paid for accommodation provided to employee	3,00,000
Add	Festival Bonus	50,000
Add	Contribution to Gratuity Fund	4,00,000
Less	Special subsidy received from Government towards employee salary	(2,75,000)

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Employee Cost	23,90,000
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Note:

- (i) Recoverable amount from employee is excluded from the cost of perquisites.
- (ii) Employee training cost is not an employee cost. It is to be treated as an Overhead, hence, not included.
- (iii) Special subsidy received is to be excluded, as it reduces the cost of the employer.
- (iii) Unamortized amount of employee cost related to a discontinued operation is not an includible item of cost.

c) Computation of Cost of Production (as per CAS-4)

Particulars	Amount (₹)
Direct Material (exclusive of Excise Duty) [1,320 x 100/112.36]	1,174.80
Direct Labour	250.00
Direct Expenses	100.00
Works Overhead [Indirect Material (75) plus Factory OHs (200)]	275.00
Quality Control Cost	25.00
Research & Development Cost	Nil
Administration Overheads (to the extent relates to production activity)	25.00
Less: Realizable Value of scrap	(20.00)
Cost of Production	1,829.80
Add: 10% as per Rule 8	183.00
Assessable Value	2,012.80

3.

- a) i) Enumerate the duties to be performed by a Cost Auditor.
 ii) What do you understand by the term "Pollution Control" as per CAS-14? [5+2=7]
- b) ENRON INDUSTRIES LTD. a manufacturing unit, provides the following extracts from its records for the year ended March 31, 2012:
The company's specifications
Capacity for a machine per hour 1,600 units
No. of shifts (each shift of 8 hours) 3 shifts
Paid holidays in a year (365 days):
(i) Sundays 52 days
(ii) Other holidays 10 days

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Annual maintenance is done during the 10 other holidays

Preventive weekly maintenance is carried on during Sundays.

Normal idle capacity due to lunch time, Shift changes etc= 1 hour per shift.

Production based on sales expectancy in past 5 years are: (unit in lakh) = 81.28, 93.86, 70.20, 83.73 and 81.70 respectively.

Actual production during the year: 84.50 lakh units.

You are required to calculate

- 1. Installed capacity;**
- 2. Practical capacity;**
- 3. Actual capacity utilization;**
- 4. Normal capacity;**
- 5. Idle capacity;**
- 6. Abnormal idle capacity----- keeping in view of the relevant Cost Accounting Standard (CAS-2). [8]**

Answer:

a) i) The duties to be performed by a Cost Auditor are enumerated below:

1. To ensure that the proper books of accounts as required by the Cost Accounting Records Rules have been kept by the Company and proper returns for the purpose of his Audit have been received from branches not visited by him.
2. To ensure that the Cost Audit Report and the detailed Cost Statements are in the form prescribed by the Cost Audit Report Rules by following sound professional practices i.e. the report should be based on verified data and observations may be framed after the Company has been afforded an opportunity to Comment on them;
3. To ensure that the underlying assumptions and basis for allocation and absorption of indirect expenses are reasonable and are as per the established accounting principles;
4. If the auditor is not satisfied in any of the aforesaid matters, he may give a qualified report along with the reasons for the same.
5. He is to send the Cost Audit Report to the Cost Audit Branch within 180 days from the end of the financial year with one copy to the Company.
6. He is required to send his replies to any clarification that may be sought by the Cost Audit Branch on his report. Sending such replies within 30 days from the date of receipt of communication calling for clarification.

ii) As per CAS-14, Pollution Control means the control of emissions and effluents into environment. It constitutes the use of materials, processes, or practices to reduce, minimize, or eliminate the creation of pollutants or wastes. It includes practices that

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reduce the use of toxic or hazardous materials, energy, water, and / or other resources.

b) ENRON INDUSTRIES LTD

Calculation of Different Capacities:

1. INSTALLED CAPACITY :
 $365 \times 8 \times 3 \times 1600 = 140.16$ Lakh Units
2. PRACTICAL CAPACITY :
 $(365 - 52 - 10) \times (8 - 1) \times 3 \times 1600 = 303 \times 7 \times 3 \times 1600 = 101.81$ Lakh Units.
3. ACTUAL CAPACITY UTILIZATION :
 $[(84.50) / 140.16] \times 100 = 60.29\%$
4. NORMAL CAPACITY :
 $(81.28 + 83.73 + 81.70) \text{ Lakh Units} \div 3 = 82.24$ Lakh Unit
5. IDLE CAPACITY :
 $(140.16 - 84.50) \text{ Lakh Units} = 55.66$ Lakh Units
 $[(55.66) \div 140.16] \text{ Lakh Units} = 0.3971$ i.e 39.71%
6. ABNORMAL IDLE CAPACITY :
 $(101.81 - 84.50) = 17.31$ Lakh Units.

4. a) State the disclosures required to be made as per CAS – 8 [Cost of Utilities]. [7]

(b) Opening stock of raw materials (10,000 units) ₹ 1,80,000; Purchase of Raw Materials (35,000 units) ₹ 7,00,000; Closing Stock of Raw Materials 7,000 units; Freight Inward ₹ 85,000; Self-manufactured packing material for purchased raw materials only ₹ 60,000 (including share of administrative overheads related to marketing sales ₹ 8,000); Demurrage charges levied by transporter for delay in collection ₹ 11,000; Normal Loss due to shrinkage 1% of materials ; Abnormal Loss due to absorption of moisture before receipt of materials 100 units. [8]

Answer:

a) Disclosure requirement as per CAS – 8

The Cost Statement shall disclose the following:

- i) The basis of distribution of cost of utility to the consuming centres.
- ii) The cost of purchase , production, distribution, marketing and price with reference to sales to outside parties.
- iii) Where cost of utilities is disclosed at standard cost, the price and usage variances.
- iv) The cost and price of utility received from/supplied to related parties.
- v) The cost and price of utility received from/supplied as inter unit transfer and inter-company transfers
- vi) Cost of utilities incurred in foreign exchange.
- vii) Any subsidy/Grant/Incentive and any such payment reduced from cost of utilities.

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- viii) Credits/recoveries relating to the cost of utilities.
- ix) Any abnormal cost excluded from cost of utilities.
- x) Penalties and damages paid etc. excluded from cost of utilities.
- xi) Any change in Cost Accounting Principles and methods applied for the measurement and assignment of the cost of utilities during the period covered by the cost statement which has a material effect on the cost of utilities. Where the effect of such change is not ascertainable wholly or partly the fact shall be indicated.
- xii) Disclosures shall be made only where it is material, significant and quantifiable.
- xiii) Disclosures shall be made in the body of the Cost Statement or as a foot note or as a separate schedule.

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

	Particulars	Quantity (Units)	Amount (₹)
	Opening Stock of Raw Materials	10,000	1,80,000
Add	Purchase of raw materials	35,000	7,00,000
Add	Freight inwards		85,000
Add	Demurrage Charges levied by transporter for delay in collection		11,000
			9,76,000
Less	Abnormal Loss of raw materials (due to absorption of moisture before receipt of materials) = $[(7,00,000 + 85,000 + 11,000) \times 100] / 35,000$	(100)	(2,274)
Less	Normal loss of materials due to shrinkage during transit [1% of 35,000 units]	(350)	
Add	Cost of self-manufactured packing materials for purchased raw materials only (60,000 - 8,000)		52,000
	Cost of raw materials	44,450	10,25,726
Less:	Value of Closing Stock = Total Cost/(Total units - Units of Normal Loss) $[10,25,726 / (10,000 + 35,000 - 350)] \times 7,000$	(7,000)	(1,61,169)
	Cost of Raw Materials Consumed	37,450	8,64,557

Note:

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

5.

- a) Specify the factors to be considered while estimating the useful life of a depreciable asset, as laid down in CAS-16. [3]

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b) What disclosures are required to be made in cost statement as per CAS 19 as regard to joint costs? [5]

c) "Research, and Development Costs shall include all the costs that are directly traceable to research and/or development activities."

On what basis these cost can be assigned to Research and development activities as par CAS 18? Also state the constituent element of such costs. [2+5=7]

Answer:

a) While estimating the useful life of a depreciable asset, consideration shall be given to the following factors:

- i) Expected physical wear and tear;
- ii) Obsolescence; and
- iii) Legal or other limits on the use of the asset.

b) The following disclosures are required to be made in cost statement as per CAS 19 as regard to joint costs.

- i) The Cost statement shall disclose the basis of allocation of Joint costs to individual products and the value assigned to the By-Products
- ii) The Cost statement shall also disclose:
- iii) The disclosure should be made only where material, significant & quantifiable.
- iv) Disclosures shall be made in the body of Cost Statements or as a foot note or as a separate schedule.
- v) Any change in the cost accounting principles and methods applied for the measurement and assignment of the Joint costs and the value assigned to by-product during the period covered by the cost statement which has a material effect on the Joint/By-Products shall be disclosed. Where the effect of such change is not ascertainable wholly or partly the fact shall be indicated.

c) 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.

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- 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 amortisation 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.

Section B

Answer any two Questions [2x10=20]

6.

- a) **You are appointed statutory auditor of X Ltd. X Ltd. has an internal audit system and reports for the same are given to you. Mention the factors you will consider to ensure that the said system of internal audit of X Ltd. is commensurate with the size of the company and nature of its business.**
- b) **Distinguish between Cost Audit and Management Audit.**

[5+5=10]

Answer :

- a) As per SA 610 (Revised) "Using the Work of Internal Auditor" the statutory auditor has to consider the following before placing reliance on the same".
 - i) Organizational status – whether the same is done internally or by an external agency.
 - ii) Scope of work – What is the nature and depth of the coverage of the assignment.
 - iii) Technical competence – Whether the internal auditor is technically competent to do the work i.e. having adequate technical training and proficiency.
 - iv) Due professional care – Whether his work and reports appear to be properly planned, supervised reviewed and documented.
 - v) Audit Evidence - Adequate audit evidence has been obtained to enable the internal auditors to draw reasonable conclusions;

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- vi) Conclusions - Conclusions reached are appropriate in the circumstances and any reports prepared by the internal auditors are consistent with the results of the work performed; and
- vii) Response to unusual matters - Any exceptions or unusual matters disclosed by the internal auditors are properly resolved. If the above factors are not satisfactory, the statutory auditor will have to modify his audit program and increase the verification to be carried out.

b) Distinguish between Cost Audit and Management Audit

Aspects	Cost Audit	Management Audit
Legal Requirement	Cost Audit is compulsory for Companies engaged in production, processing, manufacture or mining, and covered u/s 209(1)(d) of the Companies Act.	There is no legal compulsion as regards Management Audit. It is Voluntary.
Qualification of Auditor	It shall be done by an Auditor who shall be a cost accountant within the meaning of the Cost and Works Accounts Act, 1959.	It may be done by any independent person. However, professional Accountants are more suitable on account of their knowledge.
Focus	It involves verification of Cost Records, to determine internal efficiency of the Enterprise.	It involves a review of the past performance of the enterprise to ascertain whether it is in tune with the objectives, policies, etc.
Time period	Financial Year of the enterprise.	May be longer than the entity's financial year.
Reporting Authority	Cost Auditor reports to the Central Government, with a copy to the Company.	The Management Auditor reports to the Management.
Contents of Report	These are governed by the Companies Cost Audit (Report) Rules, notified by Central Government.	The contents of the Report are based on the Management Auditor's findings. There is no specific format for the same.
Time Limit for reporting	Cost Audit Report should be submitted within the prescribed time.	There is no rigid timeframe as regards submission of Management Audit Report.

7.

- a) **XYZ, a manufacturing unit does not accept the recommendations for improvements made by the Operational Auditor. Suggest an alternative way to tackle the hostile management.**
- b) **Explain whether the following activities amount to professional misconduct :**

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- i) A Cost Accountant takes voluntary retirement from his employer and starts practice. He continues his association with his previous employers as an advisor, on a monthly retainer.
- ii) A practicing lawyer specializing in antidumping cases comes to an informal understanding with an independent practicing Cost Accountant to assist him in preparing accounting statements to support his cases, and agrees to share his fees on a percentage basis.
- iii) A Cost Accountant gives a certificate of cost for a product manufactured by an SSI unit owned entirely by his son.

[5+5=10]

Answer :

- a) Alternative way to tackle the hostile management: While conducting the operational audit the auditor has to come across many irregularities and areas where improvement can be made and therefore he gives his suggestions and recommendations. These suggestions and recommendations for improvements may not be accepted by the hostile managers and in effect there may be cold war between the operational auditor and the managers. This would defeat the very purpose of the operational audit. The Participative Approach comes to the help of the auditor. In this approach the auditor discusses the ideas for improvements with those managers that have to implement them and make them feel that they have participated in the recommendations made for improvements. By soliciting the views of the operating personnel, the operational audit becomes co-operative enterprise. This participative approach encourages the audited to develop a friendly attitude towards the auditors and look forward to their guidance in a more receptive fashion. When participative method is adopted then the resistance to change becomes minimal, feelings of hostility disappear and gives room for feelings of mutual trust. Team spirit is developed. The auditors and the audited together try to achieve the common goal. The proposed recommendations are discussed with the audited and modifications as may be agreed upon are incorporated in the operational audit report. With this attitude of the auditor it becomes absolutely easy to implement the proposed suggestions as the audited themselves take initiative for implementing and the auditor do not have to force any change on the audited. Hence, Operational Auditor of XYZ manufacturing unit should adopt above mentioned participative approach to tackle the hostile management of XYZ.

b) Professional Misconduct :

- i) As the accountant has severed his connection with his previous employer as an employee and acts only in an advisory capacity, which is a legitimate activity of a practicing Cost Accountant, it does not amount to misconduct.
- ii) Although the practicing Cost Accountant can accept the assignment for preparing the necessary statements for the antidumping cases for a specified fee, the sharing of total fees on a percentage basis between the lawyer and Cost Accountant amounts to an informal partnership between them, which is prohibited. Therefore, this practice falls under the definition of misconduct.
- iii) The Second Schedule to the Cost and Works Accountants Act, 1959 stipulates that a Cost Accountant in practice shall be deemed to be guilty of professional misconduct if he expresses his opinion on cost or pricing statements of any business or enterprise in

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which he, his firm or a partner in his firm has a substantial interest, unless he discloses the interest also in his report. Strictly speaking, a Cost Accountant issuing a certificate for a unit in which he has no direct interest is in order. However, as in this case the factory is owned by the Cost Accountant's son it would be prudent on the part of the accountant to desist from issuing such a certificate on moral grounds.

8.

- a) **A company manufacturing consumer electronic goods has a fairly Research and Development set up. So far the company has been earmarking 2% of its turnover to R&D budget. Such an approach has so far paid ample dividends to the company. The company has been able to establish a reputation of introducing innovative products, which has excellent customer acceptability.**

The company, however, is now worried that new players, some of whom are of international repute, entering Indian market, whether their R&D efforts are really giving them value for their money. Since your firm is well known consultancy firm, they have approached you to conduct a management audit of their R&D activities.

List out five major questions, which your audit will address.

- b) **"Sometimes, the reports have to be prepared and submitted for special persons or purposes." Explain it.**

[5+5=10]

Answer:

- a) The major five questions, which the management audit should address are :-

i) Selection process :

It is the project selection based on prediction of market needs or responding to the market needs? What are the mechanics of consultation between the market research group and R&D group? Would the success of percentage of projects be better if R&D follows the perception of market research or would the initial advantage of breakthrough in new area give the company a sharp competitive edge?

ii) Collection of project wise R&D costs :

Are the costs collected project wise? Is there an agreed format for collecting such costs? Have the terms used in the format agreed upon between the management accounts, who would be monitoring costs and R&D would be using the collected information?

iii) Monitoring of costs :

How are the R&D budgets prepared? At the time of approval of projects for research, are any efforts made to indicated the value expected to flow from the successful completion of the projects and an attempt to match the expected cost and anticipated benefits?

Is there a regular system of responsibilities accounting? Are the accounting criteria like target rate of return, target payback period, target net present value built into the system? Are the criteria understood and accepted by R&D group?

iv) Parameters for suspending further work:

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Who takes the decision about suspending or scrapping a project initiated? What are the criteria used to arrive at such decision? If the criteria are already laid down, what is the process of authorizing deviation from such norms?

v) Customizing the results for production :

When the project considered to be successful? How is the successful project customized for production? What are the responsibilities of R&D group in such customization vis-à-vis design and such other production support services?

b) Sometimes, the reports have to be prepared and submitted for special persons or purposes. Salient features for these special reports are briefly discussed below:-

i) Reports for banks and creditors.

Form and content of financial statements and schedules are important to the lender but explanatory notes to the statements and schedules are perhaps more important to them. They require accuracy in report and confirmation of statement made, which should be properly verified and certified. Bankers are more oriented towards security due to their long-term expectation of debt servicing by the business. Hence, reliability of report is an important factor. All statements by the auditor should be clear and positive.

ii) Report to shareholders

The reports are read by financial experts, bankers, tax authorities, public officials and research people. The report should, therefore, be useful in analytical details for its user, and give full facts of the organisation's business. The report should also convey the right and correct message to a lay man. The reports are often used as a public relation exercise to improve relations with investors and to promote loyalty. In India, auditor's report in the prospectus at the time of public issue is very important. Experts read "between the lines" of the auditor's report. It will ultimately reflect in the auditor.

iii) Reports to employees

Reports for employees are mainly prepared for better understanding of the business, to dispel any misconceptions, counter charges by unions, or explain the need for continuance of the business in times of strike, competitions or sickness. The report to employees must gain the confidence of employees and earn respect for the statements. The report should consider the needs of employees, when the employee morale is low or where the relations with employees are strained. Auditor's views will be expected to be totally unbiased.

iv) Reports for small business

The form of annual accounts and other requirements under the Companies Act is the same for a large or a tiny private company. However, the management auditor should design his report in a very simple way as the report for a small business if specifically directed to a person or a small group of persons only. A great deal of reporting for small business is subjective, due to lack of adequate data. This poses problems on analyzing and comparing data. Suggestions in the report must be based on proper appraisal of the problem.

Conclusion: The report of the management auditor will leave a permanent impact on the user about his competence, integrity and honesty. He should, therefore, make his observations and recommendations clear even if it may affect the job of any executives or affect the fortunes of a few people concerned for interested for the organisation. HE

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cannot escape the duty to judge the right and the wrong. The best report is one which motivates the person receiving the report to act in the manner desired in the report.

Section C

Answer any two Questions [2x10=20]

9. Based on the following information in respect of GRINDING MILLS LTD. a concern manufacturing cement, you as a Cost Auditor, are required to offer your comments on
- a. The performance of the company
 - b. Your suggestions for improvements

	Rated Capacity 80 MT/Hr	
	2011-2012	2010-2011
(1) Breakdown (Hrs)	2175	1105
(2) Planned maintenance (Hrs.)	252	435
(3) Power restrictions (Hrs)	1236	1475
(4) Shortfall (there are no order) (Hrs)	792	665
(5) Want of wagons (Hrs)	480	646
(6) Total Stoppage (Hrs)	4935	4326
(7) Total running (Hrs)	3972	4635
(8) Total available (Hrs)	8907	8961
(9) Production during the year (MT)	2,57,380	3,36,950
(10) Hourly Rate Production (MT)	64.80	72.70
(11) Capacity utilization	64.35%	84.24%
(12) Annual Installed Capacity : 400000 MT		

[10]

Answer:

GRINDING MILLS LTD.

Performance of the Company:

(i) Hourly Rate of Production M.T.

2011-2012 64.80 MT

2010-2011 72.70 MT

Rated Capacity = 80 MT/Hr

Rated Capacity achieved in 2011-2012 = $64.80/80 \times 100 = 81\%$

Rated Capacity achieved in 2010-2011 = $72.70/80 \times 100 = 90.88\%$

Thus the capacity achieved as a percentage of the rated capacity has come down from 90.88% to 81% in 2011-2012.

(ii) Capacity Utilization percentage

2011-2012 64.35%

2010-2011 84.24%

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The capacity utilization has gone down from 84.24% in 2010-2011 to 64.35% in 2011-2012.

- (iii) From the data available, the following observations are noted:
- a. Breakdown hours have gone up 1105 Hrs in 2010-11 to 2175 Hrs in 2011-12 i.e. by 96.83%
 - b. Planned maintenance Hrs has reduced from 435 Hrs in 2010-11 to 252 hrs. in 2011-2012: 42.07%
 - c. Shortfall Hrs has increased from 665 Hrs to 792 Hrs by 27%
 - d. The total stoppage Hrs has increased from 4326 Hrs to 4935 Hrs i.e. by 14.08%
 - e. The total running hrs has come down to 4635 Hrs to 3972 Hrs i.e. by 14.30%
 - f. The production has come down from 336950 MT to 257350 MT i.e. by 23.62%

From the above findings, it is ascertained that the under utilization of capacity to the extent of 20% can be attributed mainly to the

- (i) Increase total stoppage hrs of 4935 Hrs in 2011-12 as against that of 4326 Hrs in 2010-11.
- (ii) The net increase of 609 hrs (i.e. 4935-4326) hrs is again due to the increase of break down hrs by 1070 hrs (i.e. 2175-1105) hrs in the year 2011-12 over 2010-11.

Further from the given data, it is noted that:	2011-2012	2010-2011
Breakdown (Hrs)	2175	1105
Total stoppage (Hrs)	4935	4326
Percentage of Breakdown (Hrs)	44.07%	25.54%

Thus the performance has deteriorated steeply in the year 2011-12 as compared to the performance in the year 2010-11.

Suggestions:

The management is advisable to:

- a) Augment its planned maintenance with a view to reducing breakdown hours.
- b) Installed Power Generation sets with a view to compensate the Hours lost due to Power restriction.

10.

- a) Gurgo Ltd presented the following particulars on 31.3.2012.

You are asked to compute the Inventory Turnover Ratio of each material:

	Material X ₹	Material Y ₹
Stock (as on 1.4.2011)	12,000	16,000
Purchases	60,000	1,00,000
Stock (as on 31.3.2012)	18,000	24,000

[5]

- b) State the application of Management Accounting Tools.

[5]

Answer:

- a)

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Computation of the Inventory Turnover Ratio

$$\text{Inventory Turnover Ratio} = \frac{\text{Cost of Goods Sold}}{\text{Average Stock}}$$

	Material X	Material Y
	₹	₹
(i) Cost of Goods Sold		
Opening Stock	12,000	16,000
Add: Purchases	60,000	1,00,000
	72,000	1,16,000
Less: Closing Stock	18,000	24,000
Cost of Goods Sold	54,000	92,000
(ii) Average Stock		
Opening Stock	12,000	16,000
Add: Closing Stock	18,000	24,000
	30,000	40,000
	<u>30,000</u>	<u>40,000</u>
∴ Average Stock	2	2
	= 15,000	= 20,000
∴ Inventory Turnover Ratio =	$\frac{54,000}{15,000}$	$\frac{92,000}{20,000}$
	= 3.6 times	= 4.6 times

- b)** The performance measurement involves collection of information, analyzing the same by establishing the interrelations between them, interpreting the results and then arriving at meaningful conclusion. The collection of information depends upon various sources of data and other reports for various systems used by the organization.

The data input is generally made in the accounting system used by the company e.g. the ERP systems. Most of the ERP systems facilitate input and capturing of even the non-financial data which can be then processed to produce desired reports. There is a lot of information to be accessed from outside of the ERP system. The cost auditor should identify such sources within and outside of the organization and use information drawn from the same.

The management accounting tools could be used to analyze the performance with different purposes. The cost auditor should verify the tools and techniques used by the company and comment on appropriateness and adequacy thereof. The cost auditor could recommend more appropriate management accounting tool.

The following table shows various management accounting tools that are used to serve different objectives:

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Purpose	Management Accounting Tool
Control	Budgetary control, standard costing, variance analysis
Cost computation	Full(absorption) Costing, Job, batch, process or contract costing Activity based costing, Time Driven ABC
Cost reduction	Total Quality management, Quality costing, Kaizen costing, Lean manufacturing, Value Analysis and Value Engineering, Six Sigma
Pricing and decision making	Target costing, Life cycle costing, Throughput accounting, Variable or marginal costing
Total performance management	Balanced Scorecard, Performance Prism, Performance pyramid, Business Objects, Business Intelligence

The cost auditor should be acquainted with the intricacies of these and such other tools and what it takes to successfully implement and use them. The success of Performance Appraisal Report would depend upon not how many performance measure are considered, but upon how they are evaluated and assessed with the help of various management accounting tools.

11. Kemp & Co. Ltd. operates a small machine shop that manufactures one standard product available from many other similar businesses as well as products to customer order. The accountant has prepared the annual statement shown here:

	Customs sales ₹	Standard sales ₹	Total sales ₹
Sales	<u>50,000</u>	<u>25,000</u>	<u>75,000</u>
Material	10,000	8,000	18,000
Labour	20,000	9,000	29,000
Depreciation	6,300	3,600	9,900
Power	700	400	1,100
Rent	6,000	1,000	7,000
Heat and light	600	100	700
Others	400	900	1,300
Total expenses	44,000	23,000	67,000
Net income	6,000	2,000	8,000

The depreciation charges are for machines used in the respective product lines. The power charge is apportioned on the estimate of power consumed. The rent is for the building space, which has been leased for ten years at ₹ 7,000 year. The rent as well as heat and light are apportioned to the product lines based on the amount of floor space occupied. All other costs are current expenses identified with the product line causing them.

A valued custom parts customer has asked Kemp & Co. Ltd. if its shop would manufacture 5,000 special units. Kemp & Co Ltd. is already working at capacity and would have to give up some other business in order to take this business. The company cannot refuse on custom orders already agreed to, but it could reduce the output of its standard product by about one-half for one year while producing the specially requested custom parts. The customer is willing to pay ₹ 7 for each part. The material cost will be about ₹ 2 per unit, and the labour will be ₹ 3.60 per unit. Kemp & Co Ltd. will have to dish out ₹ 2,000 for a special device, which will be discarded when the job is done.

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Calculate and present the following costs —

- a) The incremental cost of the order,
- b) The full cost of the order,
- c) The opportunity cost of taking the order.

[4+3+3=10]

Answer:

(a) Differential Cost Analysis :

Cost of special Job:

	₹
1. Material cost (5000 @ ₹ 2)	10,000
2. Labour (5000 @ ₹ 3.60)	18,000
3. Special expenses	<u>2,000</u>
Total	<u>30,000</u>

Costs reduced for standard products:

Material	4,000
Labour	4,500
Other costs	<u>450</u>
Total	<u>8,950</u>

Total incremental costs ₹ 30,000 – ₹ 8,950 = ₹ 8,950 = ₹ 21,050

It has been assumed that depreciation, rent, heat and light are fixed and will not be affected by the acceptance of the order.

(b)

Calculation of the full cost of the order:	₹
Special cost as shown in (a)	30,000
Depreciation	1,800
Power	200
Rent	500
Heat and light	50
Total	32,550

(c) The opportunity cost of accepting the order is the net cash flow given up:

Sales of standard products	4,000	12,500
Less: Material	4,000	
Labour	4,500	
Power	200	
Other costs	450	9,150
Opportunity cost of special order		3,350