FINAL EXAMINATION
GROUP - IV
(SYLLABUS 2016)

SUGGESTED ANSWERS TO QUESTIONS

JUNE - 2018

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.
Answer Question No. 1 which is compulsory and carries 20 marks and any five questions from Question Nos. 2 to 8.

Section – A (20 Marks)

1. Choose the correct answer with short justification/working. (1mark for correct choice, 1 mark for justification/workings. 2x10=20

(i) In which CRA Form, is the Cost Audit Report of a company filed with the Central Government?
(a) CRA-4
(b) CRA-3
(c) CRA - 1
(d) CRA-2

(ii) CAS 23 deals with ....
(a) Quality Control
(b) Manufacturing Cost
(c) Overburden Removal Cost
(d) Treatment of Revenue in Cost Statements

(iii) As per the Cost Auditing Standard 101, the risk of Material Misstatements has two components, viz., ……………………………..
(a) Inherent Risk and Control Risk
(b) Detection Risk and Audit Risk
(c) Material Risk and Implicit Risk
(d) Financial Risk and Explicit Risk

(iv) As per Part D, Para 4 of the Companies (Cost Records and Audit) Rules, 2014, Value Addition and Distribution of Earnings are to be computed based on
(a) Audited Financial Data
(b) Cost Record Data
(c) Unaudited Financial Data
(d) Both (a) and (b)

(v) The audit of data or information, depicting social performance of a business in contrast to its normal economic performance as measured in financial audit, is
(a) Energy Audit
(b) Efficiency Audit
(c) Social Audit
(d) Propriety Audit

(vi) The figures below are available for Good Luck Limited.
Budgeted Production - 900 units, Standard Hours per unit -10, Actual Production - 720

units and Actual Working - 6000 hours. What is the Efficiency Ratio?
(a) 110%
(b) 120%
(c) 100%
(d) 125%

(vii) Which of the following is not a Professional Misconduct as per the First Schedule of The CWA Act, 1959, in relation to the Cost Accountants in Practice?
(a) Pays or allows or agrees to pay or allow, directly or indirectly, any share, commission or brokerage in the fees or profits of his/her professional work, to any person other than a member of the Institute or a partner or a retired partner or the legal representative of a deceased partner.
(b) Enters into a partnership, in or outside India, with any person other than a Cost Accountant in Practice or such other person who is a member of any other professional body having such qualifications as may be prescribed.
(c) Advertises his/her professional attainments or services or uses any designation or expression other than Cost Accountant on professional documents, visiting cards, letter heads or sign boards, unless it is a degree of a University established by law in India or recognised by the Central Government or a title indicating membership of The ICAI or any other institution that has been recognised by the Central Government or may be recognised by the Council.
(d) Expresses his/her opinion on cost or pricing statements of any business or enterprise in which, he/she, his/her firm or a partner in his/her firm has substantial interest.

(viii) Remuneration of the Non-Executive Directors is treated as...................
(a) Employee Costs
(b) Administrative Overheads
(c) Salaries and Wages
(d) Management Expenses

(ix) The process of determining the elements which correspond to the lines and the columns in a financial statement and the elements which must be created by extension is called as
(a) Mapping
(b) Name
(c) Concept
(d) Scaling

(x) As per the CAS 23, the activity of Overburden Removal that benefits the identified component of an ore to be mined by the entity is called as ......
(a) Mining Activity
(b) Overburden Removal
(c) Stripping Activity
(d) Advance Stripping

Answer:

1. (i) (a) **Reason:** Pursuant to Section 148 (6)of the Companies Act, 2013, and Rule 6 (6)of the Companies (Cost Records and Audit) Rules, 2014, the Cost Audit Report is to be filed in Form CRA-4 with the Central Government.

(ii) (c) **Reason:** Cost Accounting Standard (CAS) 23 is issued by the Council of The Institute of Cost Accountants of India on "Overburden Removal Cost". It is applicable from 1st April, 2017.

(iii) (a) **Reason:** As per the Cost Auditing Standard (CAS-101) on Planning an Audit of Cost Statements, the risk of material misstatement has two components, viz., Inherent Risk and Control Risk.

(iv) (a) **Reason:** As per part D, para 3 of the Companies (Cost Records and Audit) Rules, 2014, Value Addition and Distribution of Earnings are to be computed based on Audited Financial Accounts.

(v) (c) **Reason:** Social Audit is generally defined to be the audit of data or information depicting social performance of a business in contrast to its normal economic performance as measured in financial audit. A lot of research and experimentation have been conducted to devise techniques or models, which can measure the contribution of an enterprise to the Society.

(vi) (b) **Reason:** Efficiency ratio=(Standard Hours of actual Production)/(Actual Hours Worked)×100 = $\frac{(720\times10)}{6,000}\times100 = 120\%$

(vii) (d) **Reason:** As per the Second Schedule Part 1 of the Cost and Works Accountants Act,1959, a Cost Accountant in Practice shall be deemed to be guilty of Professional Misconduct, if he/she expresses his/her opinion on cost or pricing statements of any business or enterprise in which, he/she, his/her firm or a partner in his/her firm has substantial interest.

All the other options are Professional Misconduct as per the First Schedule of The Cost and Works Accountants Act, 1959 in relation to the Cost Accountants in Practice.

(viii) (b) **Reason:** As per the Generally Accepted Cost Accounting Principles (GACAP), Remuneration of the non-Executive Directors will not be considered as part of Employee Costs but will be treated as part of Administrative Overheads.

(ix) (a) **Reason:** As per the XBRL, Mapping is the process of determining the elements which correspond to the lines and the columns in a final statement and the elements which must be created by extension.

(x) (c) **Reason:** As per the Cost Accounting Standard on Overburden Removal Cost, the Stripping Activity refers to the activity of overburden removal that benefits the identified component of an ore to be mined by the entity.

Section - B (80 marks)

2. (a) (i) A Company meets the threshold limits for both maintenance of Cost Records and Cost Audit in 2015-16 and, consequently, comes under the purview of the Rules in the year 2016-17. If the turnover of the company gets reduced to lower than the prescribed threshold limit in 2016-17, state whether the Rules relating to Cost Records and Cost Audit will be applicable for the year 2017-18?

(ii) What would be the treatment of cost of consumption of electricity from a captive generating plant and the applicability of Cost Audit to such captive generating plants? 4+4=8

(b) Explain whether the following activities amount to Professional Misconduct on the part of a Cost Accountant:

(i) Mr. Arun, a CMA, is working as Manager-Cost Accounts of PQR Ltd. He accepts 10% of profits from his friend, Mr. Raju, a lawyer and a legal consultant for PQR Ltd. He is doing the job on retainership basis.

(ii) Mr. S, a CMA in Practice, certifies a cost and pricing statement of manufacturing of pipes for the supply relating to a contract. The statement is prepared by Mr. T, who is not a CMA or an employee of Mr. S. 4+4=8

Answer:

2. (a) (i) Rule 3 of the Companies (Cost Records and Audit) Rules, 2014, states that a company engaged in the production of the goods and/or rendering of the services as prescribed, having an overall turnover from all its products and/or services of Rupees thirty five crore or more during the immediately preceding financial year, shall include cost records for such products and/or services in their books of account. Since the threshold limit for applicability of maintenance of Cost Accounting Records is met in 2015-16 (Previous Year), the Cost Records are required to be maintained from 2016-17. Once the maintenance of Cost Records becomes applicable, it would be maintained on a continuous basis in the subsequent years also. Following the same line, Cost Audit will be applicable from 2016-17 and for every year thereafter. So Cost Audit is applicable in 2017-2018 also.

(ii) As per Rule 3(A)(2), of the Companies (Cost Records and Audit) Rules, 2014 amendment dated 14th July, 2016 dealing with generation, transmission, distribution and supply of electricity, all companies having captive generation of electricity, whether covered under Audit or not shall be required to maintain Cost Records. It may be noted that, in case of a company whose product(s)/service(s) are covered under the Rules and it consumes electricity from the captive generating plant, determination of cost of generation, transmission, distribution and supply of electricity as per CRA-I would be mandatory since the cost of consumption of electricity has to be at Cost. Hence, maintenance Cost Records for generation, transmission, distribution and supply of electricity would be applicable. However, Cost Audit will not be applicable to such captive plants, provided the entire generation is consumed captively and no portion is sold outside.

(b) (i) As per provisions of Clause 2 of Part II of The First Schedule of The Cost and Works Accountants Act, 1959, stipulates the Professional Misconduct in relation to Cost Accountants in Service. As per the provisions of Part II of the First Schedule of the Act, a Cost Accountant in Service shall be deemed to be guilty of Professional Misconduct, if he/she "accepts or agrees to accept any part of fees, profits or gains from a lawyer, a cost accountant or a broker engaged by such a company, firm or person or agent or customer of such company, firm or person by way of commission or gratification".

In the given case, Mr. Arun, who is working as a Manager—Cost Accounts of PQR Ltd., accepts 10% of profits from Mr. Raju, who is a legal consultant of the same company. This amounts to Professional Misconduct.

(ii) As per provisions of Clause 2 of Part I of The Second Schedule of The Cost and Works Accountants Act, 1959, stipulates, the Professional Misconduct in relation to Cost Accountants in Practice. As per the provisions of the Part I of the Second Schedule of the Act, a Cost Accountant in practice shall be deemed to be guilty of professional misconduct, if he/she "certifies or submits in his/her name, or in the name of his/her firm, a report of an examination of cost accounting and related statements unless the examination of such statements has been made by him/her or by a partner or an employee in his/her firm or by another Cost Accountant in Practice".

In the given case, Mr. S. certifies the cost and pricing statement of a company, which is manufacturing pipes. The statement is to be submitted for a Contract and is not prepared by him. It is prepared by Mr. T. who is neither a CMA nor an employee of Mr. S. Hence, this amounts to Professional Misconduct.

3. (a) As the per CAS - 21, explain
(i) Quality Control.
(ii) Treatment of Quality Control Costs. 2+6=8

(b) ABC company is manufacturing Building Bricks and Fire Bricks. Both the products required two processes: Brick Forming and Heat Treating.

Time requirements for the two bricks	Building Bricks	Fire Bricks
Forming per 100 bricks	4Hrs.	3Hrs.
Heat Treatment per 100 bricks	3Hrs.	6Hrs.

Total Cost of the two departments in one month
Forming ₹ 40,000
Heat Treatment ₹ 90,000

Production during the month
Building Bricks 1,40,000 Nos.
Fire Bricks 80,000 Nos.

Prepare a Statement of Manufacturing Cost for the two varieties of Brick. 8

Answer:

3. (a) (i) Quality Control:
As per CAS 21, Quality Control is a procedure or a set of procedures exclusively designed to ensure that the manufactured products or performed service(s) adhere to a defined set of quality criteria or meet requirements of the client or the customer.

(ii) Treatment of Quality Control Cost:

a) Quality Control Costs incurred in-house shall be the aggregate of the costs of resources consumed in the Quality Control activities of the entity. The costs of resources procured 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 discounts), taxes and duties refundable or to be credited by the Tax Authorities. Such costs shall include Cost of Conformance to Quality: (a) Prevention Cost and (b) Appraisal Cost.
b) Identification of Quality Control Costs shall be based on traceability in an economically feasible manner.
c) Quality Control Costs, other than those referred to above, shall be determined on the basis of amount incurred in connection therewith.
d) Finance Costs incurred in connection with the self-generated or procured resources shall not form part of the Quality Control Costs.
e) Quality Control Costs do not include imputed costs.
f) Any Subsidy/Grant/Incentive or any such payment received/receivable with respect to any Quality Control Cost shall be deducted for ascertainment of the cost of the cost object to which such amounts are related.
g) Any abnormal portion of the Quality Control Costs where it is material and quantifiable shall not form part of the Costs of Quality Control.
h) Penalties and damages paid to statutory authorities or other third parties shall not form part of the Quality Control Cost.
i) Any change in the cost accounting principles applied for the measurement of the Quality Control Costs shall be made only if it is required by law or for compliance with the requirements of a Cost Accounting Standard or the change would result in a more appropriate preparation or presentation of cost statements of an organization.

(b) Working Notes:

Brick forming:

(a)	Time required for Building Bricks (140000x4)/100	5600 Hrs
(b)	Time required for Fire Bricks (80000x3)/100	2400 Hrs.
	Total	8000 hrs.
	Total Cost for Brick Forming	₹ 40000
	Cost per Hour of Brick Forming (40000/8000)	₹ 5

Heat Treatment:

a) Time required for Building Bricks (140000x3)/100	4200 Hrs
b) Time required for Fire Bricks (80000x6)/100	4800 Hrs.
Total	9000 Hrs.
Total Cost for Heart Treatment	₹ 90,000
Cost per Hour of Heat Treatment (90000/9000)	₹ 10

Statement Showing Manufacturing Cost of Building Bricks Units-1,40,000				
Process	Time for 100 units (Hrs)	Rate per hour (₹)	Cost per 100 units (₹)	Total cost (₹)
Brick Forming	4	5	20	28000
Heat Treatment	3	10	30	42000
Total				70000

Statement Showing Manufacturing Cost of Fire Bricks Units-80000				
Process	Time for 100 units (Hrs.)	Rate per Hr. (₹)	Cost per 100 units (₹)	Total cost (₹)
Brick Forming	3	5	15	12,000
Heat Treatment	6	10	60	48,000
Total				60,000

4. (a) (i) What do you mean by Key Performance Indicators (KPIs)? What are the Key Performance Indicators for a company?

(ii) What are the additional references for a Cost Auditor available for Management Reporting? 4+4=8

(b) Explain Corporate Development Audit. Prepare a checklist for various areas of Corporate Development, which may be helpful in appraising the structural aspect of a corporation. 8

Answer:

4. (a) (i) Key performance indicators (KPIs) are simply the variables, independent or interdependent, in respect of which the goals can be set and performance can be measured to assess whether these are furthering the enterprise objectives. Hence, for evaluation of performance, the selection of KPIs must be made correctly in tune with the objectives.

The KPI measurement should not be a static computation. It always needs to be compared with a benchmark set.

The key performance indicators for a company could be as below:

a) Quantitative - These can be financial or non-financial
b) Qualitative - These are often lead indicators i.e. these influence future performance
c) Actionable - Those which can be influenced by enterprise actions or are

controllable.

d) Trending- Those which need to be assessed over a period of time to observe whether they are improving or not.

(ii) Additional References for a Cost Auditor available for Management Reporting are enumerated below:

1. Annual Reports of the Company for the current year and the past years.
2. Guidance given by the company to the stock markets.
3. Written policy documents of the company.
4. Company Websites.
5. Website of the industry associations.
6. Macro-economic data from the RBI, Ministry of Finance, Ministry of Commerce and Industry, etc.
7. Management Accounting Tools and Techniques- references and hand books.
8. Cost Accounting Standards issued by The ICAI.
9. Generally accepted cost accounting principles (GACAP) published by The ICAI.
10. Stock market information on prices, market capitalisation, market returns.
11. Minutes of the board meetings to the extent relevant.
12. Personal meetings with the CEO/MD of the organisation and members of the Audit Committee and the Board.
13. The cost accounting policy of the company.
14. The cost accounting system of the Company-costing methods.
15. GST records maintained by the Company.
16. The monthly MIS reports- particularly exceptional reports.

(b) Corporate Development Audit is an independent objective study of an organization's capabilities. It aims at identifying strengths and weaknesses and moving toward the state of the art performance. Corporate Development Audit gives a comprehensive picture of the status of corporate development effectiveness and highlights the developmental needs.

Checklists in the areas of Corporate Development Audit:

Checklists on various areas of Corporate Development may be helpful in appraising the structural aspect of a Corporation are stated below:

A. Check list on Corporate Planning:

a) Whether SWOT Analysis has been made?
b) What are the corporate strengths and weaknesses in relation to price, quality, market share, distribution network, after-sales services, technology improvement, corporate structure and qualities of members?
c) What are the opportunities and threats in relation to rivalry among the existing firms, threat of new entrants, threat or opportunity of technical know-how, and strategy of suppliers?
d) How were the threats overcome and opportunities availed of in the past?
e) Whether the "corporate image} is going to improve in the near future?
f) What specific techniques are applied by the management for corporate planning (long term and short term)?
g) Whether the corporate objectives and goals are clearly defined?
h) Whether the corporate planning premises and plans have been drawn up based on adequate information?

B. Check list on Corporate Objectives:

a) Whether the corporate objectives are clear and explicit?
b) Whether the different component of the enterprise have separate objectives?
c) Whether these objectives are clearly defined?
d) Is there sufficient flexibility in the organizational design in the form of the

responsiveness to changes taking place from time to time?

C. Checklist on Delegation of Authority:
   a) Whether there are clear lines of authority from top to bottom in the corporate enterprise?
   b) Whether accountability has been properly coupled with corresponding authority?
   c) Whether responsibility and authority in each position are clearly defined in writings?
   d) Whether the number of levels of authority have been kept minimum?
   e) Whether the duties assigned to the subordinates are indicative of the exact activities expected of them?
   f) Whether responsibility via Delegation of Authority has been created among the subordinates to complete the given task?
   g) Whether the methods of Delegation of Authority are Compatible with the organization structure?

D. Checklist of span of Management
   a) Whether span of Management has been recognised in the organization?
   b) Whether everybody in department reports only to one supervisor?
   c) Whether the accountability of the higher authority for the acts of its subordinate is in accordance with the current practices?
   d) Whether the corporate management recognizes the following factors that affect the span of Management?
      (i) Degree of interaction between the units or the personnel being supervised
      (ii) The incidence of new problems in any department
      (iii) The extent of standard procedures adopted
      (iv) The extent of non-managerial responsibilities

   e) Whether the different activities and functions are grouped together in order to:
      (i) Obtain the most effective use of men and facilities
      (ii) Meet the objective in the optimum way
      (iii) Run the operation most economically

   f) Whether responsibilities are grouped, wherever possible, so that the overall control of a function can be established so as to hold the superior manager accountable?

5. (a) Prepare an Internal Control Questionnaire relating to Inventory. 8

(b) What are the important points to be considered for conducting Audit of a Hospital? 8

Answer:

5. (a) Internal control questionnaire relating to inventory:
   1. Is the storage accommodation adequate to provide protection against
      - deterioration?
      - access by unauthorized persons?
      - any other local hazards?
   2. Are issues from the stores made only against properly authorized requisition(s)?
   3. Who are authorized to sign requisition? Specify name, position, etc.
   4. Are bin cards or similar records maintained at the stores location?
   5. Are continuous stock records maintained for
      - raw materials?
      - bought out components?
      - consumable stores?
      - finished goods?
      - stocks held on behalf of third parties?

6. Are these records maintained
   - in quantity only?
   - in value only?
   - in both quantity and value?
7. Are stores records maintained by a person independent of
   - the store keepers?
   - those responsible for physically counting or checking stocks?
8. Are independently maintained control accounts kept for each category of stock mentioned in 5?
9. Is the counting system fully integrated with the financial records?
10. If not are totals of various categories of costs (including overheads) regularly reconciled with the actual costs in the financial records?
11. Are work orders issued
- against specific orders?
- on the basis of pre-determined production targets?
- on some other basis?
12. How are work orders authorized? Specify.
13. On what basis are materials, labour and other direct costs charged to the work-in-progress accounts? Specify.
14. Are Overheads clearly divided into fixed and variable overheads?
15. What is the basis of allocation of overheads to costs and recovery of overheads ? Specify.
16. Does the system ensure that excess or abortive costs are written off and not carried forward in the work in progress?

(b) Audit of Hospitals:

The points stated below are to be considered for conducting audit of a hospital.

(i) Check the letter of appointment to ascertain the scope of responsibilities .

(ii) Study the Charter or Trust Deed under which the hospital has been set up and take a special note of the provisions affecting the accounts.

(iii) Examine, evaluate and verify the system of internal check and internal control and determine the nature, timing and extent of the audit procedures.

(iv) Vouch the entries in the Patient's Bill Register with the copies of the bills issued. Test check the selected bills to see that these have been correctly prepared taking into consideration the period of stay of each patient as recorded in the Attendance schedule.

(v) Vouch the collection from patients with the copies of the bills and entries in Bills Register. Arrears of dues should be properly carried forward. Where these are deemed to be irrecoverable, these be written off under due authorizations.

(vi) Interest and /or dividend income should be vouched with reference to the Investment Register and the interest dividend warrants.

(vii) In case of legacies and donations which are received for specific purposes, it should be ensured that any income therefrom is not utilized for any other purposes.

(viii) Where receipts of subscription show significant deviations from the budgeted figures, these should be thoroughly inquired into and the matter should be brought to the notice of the trustees or the Managing Committee.

(ix) Government grants or grants from local bodies should be verified with reference to the correspondence with the concerned authorities.

(x) Clear distinction should be made between the capital and revenue items.

(xi) The capital expenditure should be incurred under the proper authorization of a valid resolution of the trustees or the Managing Committee.

(xii) Verify the system of internal check as regards purchase and issue of stores, medicine, etc.

(xiii) Examine that the appointment of the staff, payment of salaries etc., are duly - authorized.

(xiv) Physically verify the investments, fixed assets and inventories.

(xv) Check that adequate depreciation has been provided on all the depreciable assets.

6. (a) The financial statements of PQR Ltd. contain the information given below for the years ended on 31st March, 2017 and 31st March, 2018.

Particulars	31.03.17 (₹)	31.03.18 (₹)
Cash	1,50,000	1,75,000
Sundry Debtors	4,20,000	4,50,000
Short-term Investment	3,35,000	3,75,000
Stock	21,72,000	22,80,000
Prepaid Expenses	15,000	22,000
Total Current Assets	30,92,000	33,02,000
Current Liabilities	10,50,000	12,72,000
10% Debentures	18,00,000	18,00,000
Equity Share Capital	25,00,000	25,00,000
Retained Earnings	9,00,000	10,00,000

Statement of Net Profits for the years ended on 31st March, 2017 and 31 March, 2018.

Particulars	31.03.2017	31.03.2018
Sales (20% cash sales)	48,00,000	51,60,000
Less : Cost of Goods Sold	33,60,000	36,12,000
Profits before Interest and Tax	14,40,000	15,48,000
Less: Interest	1,80,000	1,80,000
Profits before Tax	12,60,000	13,68,000
Less: Tax @ 30%	3,78,000	4,10,400
Profits after Tax	8,82,000	9,57,600

You are required to calculate the following for the years ending 31.03.2017 and 31.03.2018:
(i) Quick Ratio
(ii) Current Ratio
(iii) Debt-Equity Ratio
(iv) Return on Capital Employed
(v) Average Collection period (assuming 360 days a year) **10**

(b) The following are the process-wise wastages on inputs in a Spinning Mill in the year 2017-18:

Process	% of Wastages on Input
Blow Room	9.13
Carding	7.14
Drawing	1.20
Roving (Simplex)	0.25
Ring Frame (Spinning)	7.11
Reeling and Winding	1.35

From the above, calculate the process-wise Waste Multiplier Factor. **6**

Answer:

6. (a) (i) Quick Ratio = Quick Assets/Current Liabilities
Quick Assets = Current Assets - Stock-Prepaid Expenses

31.03.2017 = (30,92,000-21,72,000-15,000)/10,50,000
= 9,05,000/10,50,000 = 0.86:1

31.03.2018 =(33,02,000-22,80,000-22,000)/12,72,000

= 10,00,000/12,72,000 = 0.79:1

(ii) Current Ratio:
= Current Assets/Current Liabilities

31.03.2017 = 30,92,000/10,50,000 = 2.94:1
31.03.2018 = 33,02,000/12,72,000 = 2.60:1

(iii) Debt-Equity Ratio:
= Long Term Debt/Shareholder's Fund

31.03.2017 = 18,00,000/34,00,000 = 0.53:1
31.03.2018 = 18,00,000/35,00,000 = 0.51:1

(iv) Return on Capital Employed = (Profit after tax +Interest)/Capital Employed) x 10

31.03.2017: (882000+180000)/5200000) x 100 = 20.42%
31.03.2018: (957600+180000)/530000) x 100 = 21.46%

Alternative Answer

(iv) Return on Capital employed:
(Profit after Tax+ Interest- Tax Advantage on Interest)/Capital employed × 100

31.03.2017: [(882000+180000-54000)/5200000/ x 100 = 19.38%
(957600+180000-54000)/5300000] x 100 = 20.45%

(v) Average Collection Period:
=(Sundry Debtors/Credit Sales) × 360

31.03.2017 = (4,20,000/38,40,000) × 360 = 39 days
31.03.2018 = (4,50,000/41,28,000) × 360 = 39 days

(b)

Process	% of Wastages in input	Net output for 100 units of input	Waste multiplier factor
Total		100	1.3122
Blow room	9.13	100 - 9.13 = 90.87	1.1924
Carding	7.14	90.87 - 6.49 = 84.38	1.1072
Drawing	1.20	84.38 – 1.01 = 83.37	1.0940
Roving (Simplex)	0.25	83.37 - 0.21 = 83.16	1.0912
Ring frame (spinning)	7.11	83.16 - 5.91=77.25	1.0136
Reeling and winding	1.35	77.25 - 1.04 =76.21	1.0000

7. (a) ABC Ltd. is engaged in the manufacture of an electronic gadget. It produces 30,000 gadgets per annum. The company also manufactures the component needed for gadgets - 30,000 units of component.

The departmental expenses per annum are as follows:

Direct Material	**39,60,000**
Direct Labour	**14,48,000**
Indirect Labour	**8,40,000**
Inspection and Testing	**4,70,000**
Lighting	**45,000**
Power	**4,90,000**
Insurance	**30,000**
Depreciation (fixed)	**98,000**
Miscellaneous Fixed Expenses	**56,000**

If the company stops manufacturing the components and buys the same from market, the saving in the departmental budget will be as under.

Direct Material	**20%**
Direct Labour	**25%**
Indirect Labour	**20%**
Inspection and testing	**25%**
Power	**25%**

The purchase price of each component is ₹ 60.

Required :

(i) State whether the company should make or buy the component.

(ii) The company has received an export order of 15000 units of the electronic gadget at a price of ₹ 270 each. If the offer is accepted by the company, the capacity will be fully utilised and the component will have to be purchased. Should the company then make or buy the component? 10

(b) The following data are available for Limelight Limited:

Particulars	**2015-16**	**2016-17**	**2017-18**
Installed Capacity (tonnes)	**320**	**320**	**320**
Production (tonnes)	**310**	**300**	**160**
Cost Per tonne (₹)	**1,000**	**1,070**	**1,641**

The poor capacity utilisation in 2017-18 was due to abnormal power cut. The escalation in costs were 5% in 2016-17 and 7% in 2017-18 (based on 2015-16).

Required:

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

(ii) How would you treat the Abnormal Cost? 6

Answer:

7. (a) (i) Departmental Expenses Budget

Particulars	Total (₹)	Allocation Ratio (₹)	Gadgets (₹)	Components (₹)
Direct Material	39,60,000	80:20	31,68,000	7,92,000
Direct Labour	14,48,000	75:25	10,86,000	3,62,000
Indirect Labour	8,40,000	80:20	6,72,000	1,68,000
Inspection and Testing	4,70,000	75:25	3,52,500	1,17,500
Power	4,90,000	75:25	3,67,500	1,22,500
	72,08,000		56,46,000	15,62,000

Fixed Costs:	₹
Lighting	45,000
Insurance	30,000
Depreciation	98,000
Miscellaneous fixed expenses	56,000
	2,29,000
Total Cost	74,37,000

Cost per unit = 7437000/30000 = ₹ 247.90.

Variable Cost per unit:

Gadgets = 56,46,000/30000 = ₹ 188.20

Components = 15,62,000/30000 = ₹ 52.07

The variable cost per unit of the component is ₹ 52.07. The purchase price of the component is ₹ 60 per unit. For each unit additional cash out flow will be ₹ 7.93. Therefore, the company should take decision to make/manufacture the component.

(ii) Evaluation of decision for Export:

Inflow		₹
(i)	Additional Profit due to export order [15,000 units × (270 - 247.90)]	3,31,500
(ii)	Saving in variable cost of components (30000 × 52.07)	15,62,000
		18,93,500
Less: Outflow		
	Payment to be made to supplier (30,000 × ₹ 60)	18,00,000
	Net Cash inflow (Net profit)	93,500

Hence the export order should be accepted and the components should be bought/purchased.

(b) Statement showing calculation of abnormal costs due to power cut:

Particulars	2015-16	2016-17	2017-18
Installed capacity (Tonnes) (a)	320	320	320
Production (Tonnes) (b)	310	300	160
Percentage of Capacity utilization (b/a x 100)	97%	94%	50%
Cost per unit (₹/tonne)	1000	1070	1641
Escalation Factor	100	105	107
Cost (at base year price)	1000	1019	1534
Total cost of production	310000	305700	245440
Variable cost per Tonne (working note 1)	430	430	430
Fixed cost	570	589	1104
Fixed cost @ 100% utilization			552
Increase in Fixed Cost			552

Note: Hence increase in Fixed Cost/Tonne due to abnormal power cut resulting in poor capacity utilization in 2017-18 is 1104-552= ₹ 552. Working note 1: Calculation of Variable Cost:

Particulars	2016-17	2017-18
Difference in total cost	3,10,000	3,10,000
	-3,05,700	-2,45,440
	4,300	64,560
Difference in Production	10	150
Variable Cost=difference in cost/difference in production	430	430

(i) Total abnormal costs due to power cut= 160 × 552= ₹ 88,320/-

(ii) The abnormal costs must be excluded from the computation of Product Cost. Such abnormal costs are charged directly to Costing Profit and Loss Account.

8. Answer any four. 4x4=16

(a) As per the CAS-12, how should high value spare, when replaced by a new spare and reconditioned, be treated? 4

(b) What do you mean by Internal Check? Is it different from Internal Audit? Explain. 4

(c) Explain the Adequacy of Budgetary Control System. 4

(d) PQR Ltd. has received an enquiry for supply of 2,50,000 special type of machine parts. Capacity exists for manufacture of the machine parts but a fixed investment of ₹ 1,20,000 and working capital to the extent of 25% of sales value will be required to undertake the job.

The cost estimated is as follows:
Raw Materials - 25000 kgs. at ₹ 3.00 per kg.
Labour Hours - 10000 hrs. of which 1500 would be overtime hours payable at double the labour rate.

Labour Rate – ₹ 3 per hour
Factory overheads – ₹ 3.50 per direct labour hour
Selling and Distribution overheads – ₹ 32,000
Materials recovered at the end of the operation will be ₹ 10,000 (estimated).
The company expects a net return of 25% on capital employed.

You are the Management Accountant of the company. The Managing Director requests you to prepare a cost and price statement, indicating the price which should be quoted to the customer. **4**

(e) The following figures are taken from the accounts of Best Ltd. for the year ended on 31.03.2018:

Particulars	₹ (in lakh)
Gross Fixed Assets	5,600
Cumulative Depreciation	1,300
Investment in Shares and Debentures	650
Inventories	545
Sundry Debtors	347
Advances for Purchase of Capital Equipment	38
Other Loans and Advances	72
Other Current Assets	37
Sundry Creditors	229
Provision for Expenses	34
Net Sales	4,152
Depreciation	54
Interest	704
Profits before Tax	318

Compute the following under the Companies (Cost Records and Audit) Rules:
(i) Profit as a percentage of capital Employed
(ii) Profit as a percentage of Net Sales **4**

Answer:

(8) (a) As per CAS-12 on Repairs and Maintenance Cost, high value Spare, when replaced by a new spare and reconditioned, should be recognised as property, plant and equipment when they meet the definition of property, plant and equipment and depreciated accordingly. Otherwise, such items are to be classified as inventory and recognised in cost as and when they are consumed.

Example: A Company purchased equipment for ₹10 crore and the insurance spare was ₹ 1 crore. If the company is covered under INDAs, such spare is capitalized as Property,/Plant and/equipment. After use for five years, the equipment broke down and a part was replaced with the aforesaid insurance spare. After 5 years, the depreciated value of equipment is ₹5 crore. As property, plant and equipment are depreciated when they are available for use, accordingly the depreciated value of new spare is ₹50 lakh. The old spare was reconditioned and the cost of reconditioning is ₹10 lakh. As per the estimated life of the old spare for future economic benefits, the current market value of the reconditioned old spare has been estimated at ₹25 lakh. The amount to be treated in repairs and maintenance is ₹ 35 lakh as follows:

		(₹ In Crores)
A. Equipment Cost		10.00
B. Cost of New Spare		1.00
Total Cost		11.00
Depreciation for 5 years		5.50

Depreciated value of equipment and spare		5.50
Reconditioning cost of old spare	0.10	
Depreciated value of old spare	0.50	
Book value reconditioned spare	0.60	
Current market value of reconditioned spare to be restated in		
Books of Account		0.25
Amount to be treated in Repairs and Maintenance		0.35

(b) Internal Check is a system of instituting checking of the day-to-day transactions as part of the routine system, whereby the work of one person is checked independently or is complimentary to the work of another person i.e. resulting in the prevention and early detection of errors or fraud. Therefore, the systems are so designed that no single individual is responsible for all the stages involved in a transaction, i.e. duties are allocated in such a way that no single individual has an exclusive control over any one transaction or a group of transactions. Internal Auditing on the other hand is 'an independent appraisal function established within an organisation to examine and evaluate its activities as a service to the Organisation. The objective of Internal Auditing is to assist members of the organisation in the effective discharge of their responsibilities. Internal auditing furnishes them with analyses, appraisals, recommendations, counsel and information concerning the activities reviewed. Internal Check and Internal Audit are two important ingredients of Internal Control. Internal Checks are procedures in-built in the overall system itself and take place concurrently with the execution of the transactions, whereas Internal Audit is a distinct function which is carried out after the transactions have taken place.

(c) Adequacy of Budgetary Control System:
While determining the adequacy of the budgetary control system of an organisation, it is essential that the Management Auditor should evaluate its coverage and effectiveness, i.e. whether the system in operation covers all functions rather than an accounting exercise. For this purpose, he/she should examine whether the system contributes towards accomplishing the basic task of planning, coordinating and controlling the activities of the organisation in relation to the product under Management Audit.

The Management Auditor should examine and appraise the points as stated below:

a) In the area of Planning:
   1. Whether it covers all interrelated functions like production, sales, purchasing and financed
   2. Whether it determines the linkage between the budget centres and the responsibility centres.
   3. Whether it establishes definite goals and limits for these functions well in advance
   4. Whether there are imbalances in the fixation of performance levels of functional budgets in relation to sales budgets.
   5. Whether a budget monitoring cell exists for operating the system in the right perspective

b) In the area of coordination:
   1. Whether the budget monitoring cell holds its meeting regularly with a view to ensuring performance evaluation
   2. Whether it helps to prevent waste that results in duplication or cross-purpose activities.
   3. Whether it reveals timeline in the process of preparation and approval of all the functional budgets and the master budget.

c) In the area of Control:

1. Whether system exists for measuring, comparing and quantifying the results of all functional areas.
2. Whether the budget incorporates a degree of flexibility with a provision for its periodical review.
3. Whether the variance reports are prepared and appropriate corrective actions are taken on the variances.

(d) Statement of Estimate Cost and Price to be quoted:
Product Quantity - 2,50,000

		Amount (₹)
Materials(25,000×3)	75,000	
Less: Estimated Scrap Value	10,000	65,000
Labour: 8,500 hrs × 3	25,500	
1,500 hrs × 6	9,000	34,500
Prime Cost		99,500
Add. Factory Overheads (10,000x3.50)		35,000
Factory Cost		1,34,500
Add. Selling and Distribution overheads		32,000
Total Cost		1,66,500
Profit		43,100
Sales		2,09,600
Calculation of Sales:		
Let Sales be S		
S= Total Cost +25% of Capital Employed		
S=1,66,500+0.25x(120000+0.25S)		
= l,66,500+30000+0.0625S		
Or, S-0.0625S=196500		
Or, 0.9375S= 196500		
Or S=(196500)/(0.9375)=209600		
Sales= ₹ 2,09,600		
Profit = (172400x0.25) = ₹ 43,100		
Working Capital = (0.25x209600)= ₹ 52,400		

(e)

Statement showing Computation of Capital Employed		(₹ in Lakh)
Gross Fixed Assets		5600
Less: Depreciation		1300
Net Fixed Assets (A)		4300
Gross Current Assets:		
Inventories		545
Sundry Debtors		347
Advance for Purchase of Capital Equipment		38
Other Loans and Advances		72
Other Current Assets		37
Total current assets		1039
Current Liabilities:		
Sundry Creditors		229
Provision for Expenses		34
Total current liabilities		263
Net Current Assets (B)		776
Total Capital Employed (A+B)		5076
Profit before tax (PBT)		318
Net Sales		4152

(i) Profit as percentage of Capita Employed: = (318/5076)×100 =6.26%
(ii) Profit as percentage of Net Sales: = (318/4152)×100 = 7.66%

Alternative Answer to Question (e):

Statement showing Computation of Capital Employed		(₹ in Lakh)
Gross Fixed Assets		5,600
Less: Depreciation		1,300
	Net Fixed Assets (A)	4,300
Gross Current Assets:		
Inventories		545
Sundry Debtors		347
Other Loans and Advances		72
Other Current Assets		37
	Total current assets	1,001
Current Liabilities:		
Sundry Creditors		229
Provision for Expenses		34
	Total current liabilities	263
	Net Current Assets (B)	738
Total Capital Employed (A+B)		5,038
Profit before tax (PBT)		318
Net Sales		4,152

Working notes: Capital works in progress, investment outside business and Advance for purchase of Capital equipment do not enter into the calculation of capital employed.

(i) Profit as percentage of Capita Employed: = (318/5038)×100 = 6.31%
(ii) Profit as percentage of Net Sales: = (318/4152)×100 = 7.66%