CMA STUDENT E-Bulletin

VOL 09 | NO. 05 | MAY 2024

An Initiative of Directorate of Studies

ICMAI
THE INSTITUTE OF COST ACCOUNTANTS OF INDIA
Statutory Body under an Act of Parliament
www.icmai.in

About the Institute

The Institute of Cost Accountants of India (ICMAI) is a statutory body set up under an Act of Parliament in the year 1959. The Institute as a part of its obligation, regulates the profession of Cost and Management Accountancy, enrols students for its courses, provides coaching facilities to the students, organizes professional development programmes for the members and undertakes research programmes in the field of Cost and Management Accountancy. The Institute pursues the vision of cost competitiveness, cost management, efficient use of resources and structured approach to cost accounting as the key drivers of the profession. In today's world, the profession of conventional accounting and auditing has taken a back seat and cost and management accountants increasingly contributing towards the management of scarce resources like funds, land and apply strategic decisions. This has opened up further scope and tremendous opportunities for cost accountants in India and abroad.

The Institute is headquartered in Kolkata having four Regional Councils at Kolkata, Delhi, Mumbai and Chennai, 117 Chapters in India and 11 Overseas Centres. The Institute is the largest Cost & Management Accounting body in the world with about 1,00,000 qualified CMAs and over 5,00,000 students pursuing the CMA Course. The Institute is a founder member of International Federation of Accountants (IFAC), Confederation of Asian and Pacific Accountants (CAPA) and South Asian Federation of Accountants (SAFA). The Institute is also an Associate Member of ASEAN Federation of Accountants (AFA) and member in the Council of International Integrated Reporting Council (IIRC), UK.

Vision Statement

"The Institute of Cost Accountants of India would be the preferred source of resources and professionals for the financial leadership of enterprises globally."

Mission Statement

"The CMA Professionals would ethically drive enterprises globally by creating value to stakeholders in the socio-economic context through competencies drawn from the integration of strategy, management and accounting."

Institute Motto

असतोमा सद्गमय तमसोमा ज्योतिर् गमय मृत्योर्मामृतं गमय ॐ शान्ति शान्ति शान्तिः	From ignorance, lead me to truth From darkness, lead me to light From death, lead me to immortality Peace, Peace, Peace

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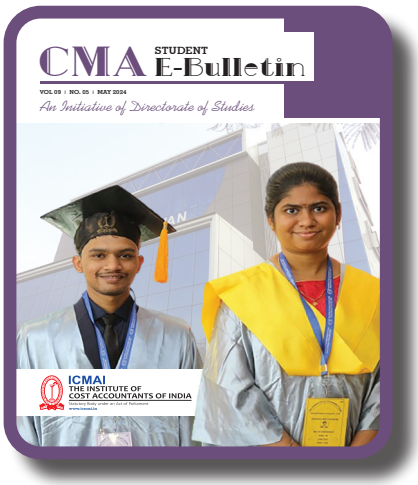
Editorial Office
The Institute of Cost Accountants of India
CMA Bhawan
12, Sudder Street, KolKata - 700016
studies.ebulletin@icmai.in



FROM THE DESK OF CHAIRMAN

Training & Educational Facilities Committee
The Institute of Cost Accountants of India

CMA Vinayaranjan P.

ICMAI's Latest Initiatives in Education and Training

Dear Students and Members,

I am pleased to share the latest updates and initiatives undertaken by the Training & Educational Facilities Committee to enhance the learning experience for our students under the Syllabus 2022:

1. **Model Questions with Answers (MQPs)**: For the June 2024 term of examinations, MQPs for all levels (Foundation, Intermediate, and Final) have been uploaded on the Institute's website. These resources are designed to aid students in their exam preparation.
2. **MCQ-Based Online Portal**: The Directorate of Studies has developed an exclusive MCQ-based online portal for all levels. This portal is intended to help students perform smoothly in their examinations.
3. **Online Classes**: Regular online classes for all papers of Foundation, Intermediate, and Final levels are being conducted by the Directorate of Studies. Reputed subject matter experts have been engaged to deliver these classes.
4. **Recorded Classes**: Recorded sessions are available on our YouTube channel, with links provided on the Institute's website to facilitate student access.
5. **Updated Study Materials**: Students have been provided with updated study materials. Applicable amendments are uploaded as supplementary resources from time to time to ensure thorough exam preparation.
6. **New TV Channel**: ICMAI has launched a new TV channel exclusively for the students of the Institute in association with JIO TV. The Directorate of Studies has been regularly providing selective online lecture sessions in this platform to facilitate the students.
7. **CMA Student E-Bulletin**: Since January 2024, the CMA Student E-Bulletin has been published regularly in a new format with attractive features to keep our students informed and engaged.
8. **Online Workshops**: Various online workshops such as Power BI, SAP S/4HANA, and Advanced Excel have been organized to support Final Level students in their studies and professional development.
9. **Webinar on 'Success Mantra for CMA Exam'**: To assist students in preparing for CMA examinations, a webinar on 'Success Mantra for CMA Exam' was conducted by the Training & Educational Facilities Committee.
10. **CMA Faculty Lounge**: We are excited to introduce the CMA Faculty Lounge, a vibrant and dynamic space where faculty members, educators, and industry experts can share insights, best practices, and resources related to management accounting and allied areas. This initiative aims to foster a culture of continuous learning and innovation, empowering our faculty members to stay abreast of the latest trends, developments, and advancements in professional education.
11. **ICMAI & NPTEL Initiative:** ICMAI has started a new initiative with NPTEL (National Programme on Technology Enhanced Learning), which is a joint venture of the IITs and IISc, funded by the Ministry of Education (MoE), Government of India. NPTEL is the largest online repository in the world of courses in engineering, basic sciences, and selected humanities and social sciences subjects. IIT Madras through NPTEL will carry out this initiative with ICMAI to promote Cost & Management Accounting education across the Globe through skill enhancement courses.

We are committed to providing the best possible resources and support to our students, ensuring a robust and enriching educational journey.

Best wishes for June 2024 examinations.

Warm regards,

CMA Vinayaranjan P.
June 04, 2024

CMA FOUNDATION COURSE

Syllabus 2022

Topic

Fundamentals of Business Laws -

Module 3: Sale of Goods Act, 1930

Business Communication -

Module 5: Business Communication

FOUNDATION

Paper-1

Fundamentals of Business Laws and Business Communication (FBLC)

SECTION – A: FUNDAMENTALS OF BUSINESS LAWS

MULTIPLE CHOICE QUESTIONS (MCQ)

1. The terms 'condition' and 'warranty' are respectively defined in section ___ and ____ of the Sale of Goods Act, 1930.

   (A) 12(1), 12(2)

   (B) 12 (2), 12(3)

   (C) 12 (3), 12(4)

   (D) 7 and 8

2. The loss of destruction of goods falls on___ in case of sale, and on___ in case of agreement to sell.

   (A) buyer, seller

   (B) seller, buyer

   (C) auctioner, agent

   (D) none of them

3. The doctrine of caveat emptor is given in section ___, and it implies _____.

   (A) 15, let the seller beware

   (B) 16, let the buyer beware

   (C) 18, let seller take care of buyer's interest

   (D) 17, let the buyer claim damages

4. The term 'Buyer' defined in section ___ of the Sale of Goods Act, 1930.

   (A) 2(1)

   (B) 2 (2)

   (C) 2 (3)

   (D) 4

5. A contract for the sale of 'future goods' is-

   (A) sale

   (B) agreement to sell

   (C) sale on approval

   (D) hire purchase agreement

6. Section _____ of the Sale of Goods Act defines delivery.

   (A) 2(3)

   (B) 2(2)

   (C) 2(4)

   (D) 2(5)

7. Buyer can suit for non-delivery u/s___ of Sale of Goods Act, 1930.

   (A) 57

   (B) 59

   (C) 58

   (D) 60

8. The Sale of Goods Act, 1930 relates to—

   (A) Movable goods only

   (B) immovable goods only

   (C) both A and B

   (D) all goods except gold

9. 'Contract of sale' is defined in Section 4(1) of the Sale of Goods Act, and it includes—

   (A) Sale

   (B) agreement to sell

   (C) barter

   (D) both A and B

10. A contract for the sale of 'future goods' is—

    (A) Sale

    (B) agreement to sell

    (C) sale on approval

    (D) hire-purchase agreement

11. The term, 'property', as used in the Sale of Goods Act, means—

    (A) Possession

    (B) subject matter of sale

    (C) ownership

    (D) possession and ownership

12. For the validity of a contract of sale, there must be transfer of—

    (A) custody of goods to the buyer.

    (B) property in the goods to the buyer.

    (C) possession of goods to the buyer.

    (D) possession and custody of goods to the buyer.

13. Gourav agrees to sell his old laptop valued at Rs. 20,000 to Santosh, a dealer, in exchange for a new laptop and agrees to pay the difference is cash, it is—

(A) barter

(B) exchange

(C) contract of sale

(D) invalid contract

14. The modes of making a contract of sale are provided in section____

(A) 5(1)

(B) 6(1)

(C) 7(1)

(D) 8(1)

15. Which of the following statements is false?

(A) A contract of sale which provides for the payment of price and delivery of goods in installment is a valid contract of sale.

(B) A contract of sale may be made partly in writing and partly by words of mouth.

(C) 'Money' and 'actionable claims' are included in the legal definition of goods.

(D) A contract for the sale of 'unascertained goods', is an agreement to sell.

16. Which of the following statements is not true?

(A) The goods identified at the time of contract of sale are known as specific goods.

(B) The goods which are identified after the formation of contract of sale, are known as ascertained goods.

(C) A contract of sale which provides that the buyer shall pay the price fixed by some third party, is valid.

(D) The things attached to or forming part of land which cannot be severed from land are included in the legal definition of goods.

17. The effects of destruction of goods are given in section_____

(A) 6 & 7

(B) 5 & 6

(C) 7 & 8

(D) 9 & 10

18. If the price of goods is not determined by the parties in any manner, then the contract of sale is and the buyer shall pay the .

(A) Voidable, token price

(B) valid, reasonable price

(C) void, no price

(D) unlawful, damages

19. Which of the following statements is not true as per Sale of Goods Act, 1930?

(A) 'Earnest money' is liable to be forfeited.

(B) 'Part-payment' cannot be forfeited.

(C) Were the third party fails to fix the price in a contract of sale, the contract of sale becomes void.

(D) The Sale of Goods Act, 1930 is validly applicable to contract for work and skill.

20. In Sale of Goods Act, 1930, 'Goods' defined under section—

(A) 2(7)

(B) 2(10)

(C) 2(8)

(D) 2(9)

21. Essential elements for a valid contract of sale -

(A) Property

(B) Movable goods

(C) Parties

(D) all of the above

22. The term 'Seller' is defined in section___ of the Sale of Goods Act, 1930.

(A) Section 2(1)

(B) Section 2(12)

(C) Section 2(3)

(D) Section 2(13)

23. In case of breach of condition, the buyer can reject the goods, but in case of breach of warranty, the buyer—
(A) has no remedy
(B) can claim damages only
(C) can get the seller arrested
(D) can either reject goods or claim damages

24. 'Sale' defined in Sale of Goods Act, 1930 in Section
(A) 4(1).
(B) 2(2).
(C) 2(4).
(D) 4(3).

SECTION – B: BUSINESS COMMUNICATION

1. _____Communication originates at a lower level and flows to a higher level.
(A) Upward
(B) Diagonal
(C) Downward
(D) Digital

2. Communication among employees at the same level in the organizational structure is called _____ Communication
(A) Grapevine
(B) Diagonal
(C) Lateral
(D) Upward

3. Which of the following should be avoided in the Group discussion?
(A) Positive body language
(B) Leadership initiative
(C) False statements
(D) Confidence

4. Which business communication usage provides a bird's eye view on a matter?
(A) Speech
(B) Group Discussion
(C) Debate
(D) Presentation

5. How many types of communication take place in an organisation?
(A) 5
(B) 1
(C) 3
(D) 4

6. In which business communication, a speaker has to clearly speak for or against a topic?
(A) Presentation
(B) Debate
(C) Speech
(D) Group discussion

ANSWER:

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
B	A	B	A	B	B	A	A	D	B	C	B	C	A	C
16	17	18	19	20	21	22	23	24						
D	C	B	D	A	D	D	B	D						

1	2	3	4	5	6
A	C	C	D	A	B

Topic

Fundamentals of Financial Accounting -

Module 3: Preparation of Final Accounts

Fundamentals of Cost Accounting -

Module 4: Fundamentals of Cost Accounting

FOUNDATION

Paper-2

Fundamentals of Financial and Cost Accounting (FFCA)

Find out the correct answer from the alternatives given -

1. Trading Account is a
   a. Nominal Account
   b. Real Account
   c. Personal Account
   d. Debits are Nominal Account and Credits are Personal Account
2. Capital Fund is actually the Capital of a
   a. Non-profit seeking Organization
   b. Non-trading Organization
   c. Not related to Sole Proprietorship
   d. Related to body Corporate
3. Rent paid equally to Plant and Office, will be debited to
   a. Equally to Manufacturing and Trading Account
   b. Equally to Trading Account and Profit & Loss Account
   c. Profit and Loss Account
   d. Equally to Manufacturing and Profit & Loss Account
4. Amortization is related to
   a. Tangible Assets
   b. Intangible Assets
   c. Both Tangible and Intangible Assets
   d. Fixed Assets
5. Closing Inventory is valued at
   a. Cost or NRV whichever Lower
   b. Cost minus abnormal loss
   c. Cost minus normal loss
   d. Cost and valuation price
6. Trading Account is debited/credited for
   a. Interest Received
   b. Wages
   c. Sales Commission
   d. None of the above
7. Which one of the following is not a Current Asset / Liability
   a. Furniture
   b. Debtors
   c. Creditors
   d. Bank Balance
8. Goods drawn by proprietor for personal use , will be treated as
   a. Capital contribution
   b. Drawings
   c. Sales
   d. Stock
9. High expenditure on new product launching to be treated as
   a. Capital Expenditure
   b. Deferred Revenue Expenditure
   c. Revenue Expenditure
   d. Added with product cost
10. General Reserve is debited to
    a. Trading Account
    b. Profit & Loss Account
    c. Profit & Loss Appropriation Account
    d. Balance Sheet
11. Only Provision Account to have a Debit Balance with respect to
    a. Assets
    b. Liabilities
    c. Expenses
    d. Incomes
12. Accrued Income means
    a. Income earned but not received
    b. Income received in advance
    c. Arrear Income
    d. Arrear Income received

13. Interest on Drawings is
    a. Expense for the Business
    b. Gain for the Business
    c. Loss for the Business
    d. Profit for the Business
14. Gross Profit of a Firm ₹45,000, expenses debited to Profit & Loss Account ₹23,000, Commission of 10% on Net Profit after charging such Commission is to be paid to the Manager. What will be the Net Profit?
    a. ₹19,700
    b. ₹20,000
    c. ₹24,300
    d. ₹65,700
15. Opening Stock ₹20,000; Purchases ₹80,000; Sales ₹1,00,000; Gross Profit on Sales 20%. Ascertain the value of Closing Stock.
    a. ₹10,000
    b. ₹20,000
    c. ₹15,000
    d. ₹25,000
16. Opening Stock ₹10,000; Closing Stock ₹20,000; Sales ₹47,500; Sales Returns ₹2,500. Gross Profit ₹9,000. What will be the Gross Profit ratio?
    a. 20%
    b. 30%
    c. 40%
    d. 50%
17. Accrued Income shown in Balance Sheet as
    a. Asset
    b. Liabilities
    c. Loss
    d. Profit
18. Find 'opening Capital Fund' from the following information:
    Assets ₹22,000; Liabilities ₹4,800 and Deficit ₹1,800
    a. ₹15,400
    b. ₹17,800
    c. ₹18,500
    d. ₹19,000
19. Interest worth ₹3,000 received @ 8% for the calendar year. What is the value of Investment?
    a. ₹37,500
    b. ₹24,000
    c. ₹40,500
    d. ₹30,000
20. Nature of Income and Expenditure Account is
    a. Real
    b. Nominal
    c. Personal
    d. Quasi-nominal
21. Subscription payable by each member of a Club @ ₹100/-. Subscription receivable from members on closing date ₹3,000/-. Subscription considered in 'Income Expenditure Account' is
    a. ₹53,000
    b. ₹47,000
    c. ₹50,000
    d. ₹3,000
22. Stock is valued at …….. in Cost Account
    a. Cost
    b. Transfer Price to Sales Dept.
    c. Work In Progress
    d. Net Value Realizable
23. Imputed Costs are ……
    a. Notional Cost
    b. Actual Cost
    c. Cash Cost
    d. Irrelevant Cost
24. Research Cost should not include
    a. New Product Development
    b. Quality Improvement drive
    c. Improved Machinery Procurement
    d. Cost of Scientists
25. Process Cost is applicable in
    a. Pharmaceutical Industry
    b. Printing Industry
    c. Projects
    d. Piling for Construction

26. Carriage outward is associated with
    a. Return of Goods
    b. Sale of Goods
    c. Part of prime cost
    d. None of the above
27. A Tourist Bus Company's Cost Unit is-
    a. Per Mt. per Km.
    b. Passenger per Km.
    c. Trips made
    d. Petrol consumption
28. Cost of Production of 1000 Units is ₹20,000, Units sold 800 Units. What is the cost of closing Stock?
    a. ₹4,000
    b. ₹8,000
    c. ₹16,000
    d. ₹40,000
29. Direct Material cost is part of
    a. Prime Cost
    b. Cost of Production
    c. Cost of Sales
    d. Overhead
30. A Supervisor looks after 20 Machines on a shop-floor. Salary of the Supervisor is ₹1,00,000 per month. What will be cost of Supervision per Machine annually.
    a. ₹5,000
    b. ₹60,000
    c. ₹12,00,000
    d. ₹12,000

ANSWER

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
a	a	d	b	a	b	a	b	b	c	b	a	b	b	b
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
a	a	d	a	b	c	a	a	c	a	b	b	a	a	b

Topic

Fundamentals of Business Mathematics -

Module 2: Algebra

Fundamentals of Business Statistics

Module 8: Index Numbers and Time Series

FOUNDATION

Paper-3

Fundamentals of Business Mathematics and Statistics (FBMS)

In this issue we will carry out MCQs on Algebras and Index Number/Time Series Module 2 and Module 8 of Study guide.

1. Find the value of (2+3+3)! – 7!-1!

(a) 35279

(b) 0

(c) 1

(d) 5039

2. In 3 bank accounts – SBI, ICICI and PNB, the available balances are ₹10 Lakhs, ₹9 Lakhs and ₹24 Lakhs respectively. In how many ways can ₹1 Lakh be withdrawn from each bank account?

(a) 2106

(b) 2160

(c) 1920

(d) 1902

3. Compute $\frac{18!}{13!*2!}$

(a) 514080

(b) 1028160

(c) 2227680

(d) 171360

4. Find the value of $\frac{1}{6!}+\frac{1}{4!}+\frac{1}{5!}$

(a) 37 / 6!

(b) 36 / 6!

(c) 1 / 4!

(d) 1 / 5!

5. Find the number of permutations for 10 cars if 4 cars are to be selected at a time.

(a) 5040

(b) 4050

(c) 5010

(d) 4030

6. When are roots of quadratic equation considered to be Rational?

(a) If Discriminant is negative

(b) If Discriminant is equal to 0

(c) If Discriminant is less than equal to 0

(d) If Discriminant is perfect square

7. For any sum of roots of quadratic equation, 'α' represents -

(a) Coefficient of x

(b) Coefficient of x^2

(c) Constant term

(d) None of the above

8. For what values of b and c, the sum of roots would be equal to product of roots?

(a) a=1,b=1,c=1

(b) a=-1,b=-1,c=1

(c) a=-1,b=-1,c=-1

(d) a=1,b=-1,c=1

9. For any product of roots of quadratic equation, 'c' represents -

(a) Constant term

(b) Coefficient of x

(c) Coefficient of x^2

(d) All of the above

10. If α and β are considered to be 2 roots of quadratic equation, how do they differ

(a) All signs are reversed

(b) All signs other than discriminant are reversed

(c) None of the signs are reversed

(d) None of the signs other than discriminant are reversed

11. Find the sum and product of roots of $11x^2 + 33x + 55 = 0$

(a) -3,-5

(b) -3, 5

(c) 33, 55

(d) -33, 55

12. Find the sum of difference of roots of $115 + 5(x^2 - 12x) = 0$

(a) 24

(b) 48

(c) 26

(d) 52

13. Which one of the following is correct?

(a) A Moving Average is used in smoothing a time series to see its trend;

(b) A Moving Average is used in smoothing a time series to see its fluctuations;

(c) A Moving Average is used in smoothing a time series to see its irregular variations;

(d) A Moving Average is used in smoothing a time series to see its expected values;

14. We have time series data on sales of a company. Secular trend of this time series data we can find by using

(a) (n-1) years Moving Average;

(b) n years Moving Average:

(c) (n+1) years Moving Average;

(d) n/2 years Moving Average;

For Q15 – Q16 refer the following data:

Production details of a company in MT are as follows:

Year	1	2	3	4	5	6	7	8
Production	15	16	18	20	15	12	17	20

15. 3 year's moving average corresponding to year 4 is

(a) 15.67

(b) 18.00

(c) 17.67

(d) 16.33

16. 5 year's moving average corresponding to year 6 is

(a) 16.2

(b) 16.4

(c) 17.2

(d) 16.8

For Q17 – Q19 refer the following data:

Sales details of a company in (₹ '000) are as follows:

Year	1	2	3	4	5	6	7	8	9
Sales	28	31	29	34	29	30	30	28	32

17. 4 year's centered moving average corresponding to year 3 is

(a) 28.675

(b) 30

(c) 29.625

(d) 30.625

18. 4 year's centered moving average corresponding to year 7 is

(a) 28.675

(b) 30

(c) 29.625

(d) 30.625

19. 4 year's moving average corresponding to sales related to years 2,3,4,5, 6 are

(a) 30.75 & 30.5

(b) 30

(c) 29.25

(d) 29.25 & 30

20. In weighted moving average method of time series analysis, the sum of weights is equal to

(a) ∞

(b) -1

(c) 1

(d) 0

21. Sales for the year 2019, 2020, and 2021 of a company are ₹1,000, ₹1,500 and ₹2,000. If weights are 0.1, 0.3 and 0.6 then weighted moving average of sales is

(a) ₹ 1,400

(b) ₹1,750

(c) ₹1,250

(d) ₹1,650

22. If 5 year's weighted moving total of production of a company is 5000MT, then for the company 5 year's weighted moving average of production is

(a) 5000MT

(b) 5500MT

(c) 4500MT

(d) 5850MT

23. Weighted moving average is less smooth than simple moving average because

(a) The farthest period is given the largest weight

(b) The most recent period is given the largest weight

(c) The sum of weights used is equal to 1

(d) All the above

24. Outstanding for a company for 5 years are as follows.

Years	1	2	3	4	5
Loan Outstanding (₹)	1000	2000	5000	7000	8000

If weights attached to years are 0.1, 0.2, 0.3, 0.4 respectively then, 4 year's weighted moving average is

(a) 4800, 6500

(b) 2700, 4500

(c) 4500, 6500

(d) 2700, 4800

For Q25 – Q27 consider the following table:

Year	1	2	3	4
Production	1000	1500	2000	2200

25. 3 year's moving average corresponding to year 3 is

(a) 2000

(b) 1800

(c) 1900

(d)1500

26. Under multiplicative model short term fluctuations corresponding to year 2 is

(a) 1

(b) 1.15

(c) 2

(d) 0

27. Under additive model short term fluctuations corresponding to year 3 is

(a) -121

(b) 115

(c) 225

(d) 100

28. Which one of the following is not a weighted method of finding Index number?

(a) Pearson's method

(b) Laspeyres' method

(c) Passchey's method

(d) Bowley's method

29. Price index formula using simple aggregative method:

(a) $P_{02} = \sum p_0 * p_2 * 100$

(b) $P_{02} = \sum p_0 * \sum p_2 / 100$

(c) $P_{02} = \frac{\sum p_0}{\sum p_2} * 100$

(d) $P_{02} = \frac{\sum p_2}{\sum p_0} * 100$

30. Under Laspeyres' method the influence of price changes on quantity demanded would not get reflected in index numbers because

(a) The quantities of the base year are used as weights,

(b) The quantities of the current year are used as weights,

(c) The prices of the base year are used as weights,

(d) The prices of the current year are used as weights,

Answer Keys:

1	a	(2+3+3)!-7!-1! = 40320 – 5040-1= 35279
2	b	$10C_1 * 9C_1 * 24C_1 = 10*9*24 = 2160$
3	a	18!/(13!*2!) = 18*17*16*15*14*13! / (13!*2*1) or, 18*17*16*15*14 /2 or, 1028160/2 or, 514080
4	a	1/6!+6*5/6!+6/6! = (1+30+6)/6! = 37/6!
5	a	
6	d	When discriminant is perfect square, roots are rational
7	b	Coefficient of x^2 ($ax^2 + bx + c = 0$)
8	d	a = 1, b = -1,c = 1 , Sum of roots = - b/a = - (-1/1) = -(-1) =1 Product of roots = c/a = 1/1 =1!

Answer Keys:

9	a	Constant term ($ax^2 + bx + c = 0$)
10	d	Only the discriminant sign is reversed.
11	b	Sum of roots = - 33/11= - 3, Product of roots = 55/11 = 5
12	d	$5x^2 - 60x + 115 = 0$ or, $x^2 - 12x + 23 = 0$ Sum ($\alpha+\beta$): 12, Product ($\alpha*\beta$) : 23, Square of Difference $(\alpha-\beta)^2 = \alpha^2 + \beta^2 - 2\alpha\beta$ $= (\alpha+\beta)^2 - 2\alpha\beta - 2\alpha\beta = (12)^2 - 4*(32) = 52$
13	a	
14	b	
15	c	
16	d	
17	d	
18	c	
19	a	
20	c	
21	b	Weights to year 2019, 0.1, Weights to year 2020, 0.3 & so on
22	a	
23	b	
24	a	
25	c	
26	a	
27	d	
28	a	
29	d	
30	a	

Suggestions:

The study guide needs to be read thoroughly. Supplementary readings could be made from other resources. In this issue MCQs are based on basic concepts developed in the respective modules/sub modules of the study guide. Students should try to solve individual questions with concepts developed from guide book to understand the correct answer of each question. For development of clear concept brief explanations are given in algebra portion. Formula used here are all covered in study guide.

Topic

Fundamentals of Business Economics -

Module 3: Money and Banking

Fundamentals of Management -

Module 5: Fundamentals of Management

FOUNDATION

Paper-4

Fundamentals of Business Economics and Management (FBEM)

TIPS ON BUSINESS ECONOMICS AND MANAGEMENT FOR THE MONTH OF MAY 2024

The first Prime Minister Pundit Jawaharlal Nehru believed that the Govt. should drive industrialization and control the economy. This approach culminated in the infamous "License Raj" and created the basis for an economy that grew at a snail's pace. It also stifled innovation and the entrepreneurial spirit and kept hundreds of millions of Indians in a state of abject poverty.

While his economic and agricultural policies were an unmitigated disaster, Nehru was more successful helping to create world-class institutes including the Indian Institute of Management and the Indian Institute of technology. These have been instrumental in creating a generation of talented professors, engineers and entrepreneurs who have been front runners of Indian economic revolution. Many of them have also played leading roles in the United States in Silicon Valley. We will continue to take a closer look into the Indian economic development. Now let us start our Mock test.

Chose the correct answer:

1. Who proposed the growth definition of economics?
   A. Keynes
   B. Marshall
   C. Samuelson
   D. Pigou
2. What is the normal shape of the PPF curve?
   A. Concave to the origin
   B. Convex to the origin
   C. Straight line rising upward to the right
   D. None of the above
3. If the seller sells at a fixed market price, then the MR curve will be
   A. Vertical
   B. Horizontal
   C. Upward rising
   D. Downward falling
4. If the seller has to reduce the price to increase sales, then with an increase in sales
   A. Both AR & MR will rise
   B. AR falls & MR rises
   C. Both AR & MR will fall
   D. MR falls & AR rises
5. Ceteris paribus means other things remaining
   A. Negatively changed
   B. Positively changed
   C. Constant
   D. None of the above
6. If the quantity demanded for good X is given by: $Qx = K/Px$, where, $K>0$, Px = Price of good X,

   Then the MR curve is
   A. Downward sloping
   B. Indeterminate
   C. Flat (horizontal) and lies above the horizontal axis
   D. Coincides with the horizontal axis
7. For a normal demand curve the MR curve will
   A. Appear below the demand curve
   B. Appear above the demand curve
   C. Parallel to the demand curve
   D. None of the above
8. When both AR and MR are downward sloping straight lines, then the absolute slope of the AR curve will be
   A. Twice that of the MR curve
   B. Half of that of the MR curve
   C. Equal to that of the MR curve
   D. None of the above
9. The third phase of returns to a variable factor shows
   A. Diminishing returns
   B. Increasing returns
   C. Negative returns
   D. None of the above

10. When TP curve becomes an upward sloping straight line passing through the origin, then the MP=AP curve becomes

    A. Horizontal

    B. Vertical

    C. Upward sloping

    D. Downward sloping

11. In the long run, the possibility of greater technical division of labour in any factory leads to

    A. Decreasing returns to scale

    B. Constant returns to scale

    C. Increasing returns to scale

    D. None of the above

12. The MR curve of a competitive firm becomes

    A. Vertical

    B. Horizontal

    C. Upward rising

    D. None of the above

13. The long run equilibrium of a firm under perfect competition indicates that the plant size will be

    A. Below optimum size

    B. Over optimum size

    C. Optimum size

    D. None of the above

14. If SAC=AR of a competitive firm at its short-run equilibrium point, then it is called

    A. Shut down point

    B. Break-even point

    C. Turning point

    D. None of the above

15. A monopoly firm sells equilibrium quantity corresponding to which the price elasticity of demand is

    A. Relatively inelastic

    B. Relatively elastic

    C. Unit elastic

    D. Perfectly inelastic

16. At the profit maximizing output level of a monopolist, the marginal cost curve has to be upward rising

    A. True

    B. False

    C. Not necessarily true

    D. Usually false

17. A monopolist does not have a supply curve for its product because

    A. It is a price taker in the product market

    B. It can select both its output and its price

    C. The price is always fixed by the Govt.

    D. None of the above

18. Inflation means

    A. High price situation

    B. Stable price situation

    C. Rising price situation

    D. None of these

19. Monetary policy means

    A. Change in money supply of the economy

    B. Change in the tax rate of the economy

    C. Change in the Govt. expenditure of the economy

    D. All of these

20. "Uber taxi service is user friendly" – which category this statement belongs to, in a PESTEL analysis?

    A. Political factor

    B. Economic factor

    C. Social factor

    D. Legal factor

21. The term "U" in VUCA stands for

    A. Universe

    B. Uncertainty

    C. Utopian

    D. None of the above

22. Leadership is a part of

    A. Organization

    B. Management

    C. Both A & B

    D. None of the above

23. Accountability is the liability created for the use of
    A. Authority
    B. Responsibility
    C. Accountability
    D. All of the above
24. The process of co-ordination must begin in the early stages of
    A. Control
    B. Planning
    C. Organizing
    D. Staffing
25. The premises which can be controlled by the management are known as
    A. Internal premises
    B. External premises
    C. Controllable premises
    D. Tangible premises
26. Which of the following is not an agency cost?
    A. Residual loss
    B. Bonding costs
    C. Concurrent loss
    D. Monitoring costs
27. Introduction of a person to the job and the organization is called
    A. Induction
    B. Placement
    C. Orientation
    D. None of the above
28. Which of the following are the methods of off-the-job training?
    A. Role playing
    B. Case studies
    C. Lectures and classroom instruction
    D. All of the above
29. Selection of language in which the message is to be given is called
    A. Medium
    B. Decoding
    C. Encoding
    D. Feedback
30. Informal means of circulating the information is called as
    A. Grapevine
    B. Verbal
    C. Horizontal
    D. Written

ANSWER

1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
C	A	B	C	C	D	A	B	C	A	C	B	C	B	B
16	17	18	19	20	21	22	23	24	25	26	27	28	29	30
C	D	C	A	C	B	B	A	B	C	C	A	D	C	A

So friends!!

Hope you have enjoyed this mock test. But please do not consult the key before you finish off solving all the problems given in this mock test. Keep a record of the test result so that you can measure your progress yourself.

Best of luck for your exam !!!

CMA INTERMEDIATE COURSE

Syllabus 2022

Topic

Module 12: Companies Act, 2013

INTERMEDIATE

Group I - Paper-5

Business Laws and Ethics (BLE)

BUSINESS LAWS AND ETHICS

It is expected that you - the students prepare a time-table with time allotted for each subject and read, write, revise and recapitulate all that you keep on reading. The first important point is that you must read the Bare Act and the Sections and start asking questions to yourself and find your own answers.

In this issue we shall deal with Companies Act, mainly formation and incorporation of a company as per Companies Act, 2013 with brief introduction of The Memorandum of Association.

Formation of a company

Section 3 of the Act provides for the formation of a company. This section provides that the company may be formed for any lawful purpose. The company cannot be formed for illegal purposes or unlawful purposes. The section further provides the number of members required for the formation of a company.

The public limited company requires seven or more persons. The minimum for the public limited company is seven and there is no limit for the higher number of persons.

The private limited company requires two or more persons. The minimum for the private limited company is two and the maximum number of members is 200.

One Person Company requires one person. The One Person Company is treated as private company. The proviso to this section requires that the memorandum of One Person Company shall indicate the name of other person, with his prior written consent.

The required persons for the formation of the above category of companies shall subscribe their name or his name to a memorandum and complying with the requirements of the Act in respect of registration.

Section 3(2) provides that a company so formed may be either-

- A company limited by shares;
- A company limited by guarantee; or
- An unlimited company.

Selection of name for the company

Before incorporation of a company, the promoter has to select a name for the company. While selecting the name of the company the promoter has to comply with the provisions of Rule 8 which gives the list of undesirable name that cannot be adopted. Section 9 provides for the reservation of name. An application for the reservation of name shall be made in Form – INC1 along with the fee.

Where the articles contain entrenchment, the company shall give notice to the Registrar of such provisions in Form No. INC- 2 or Form No. INC-7 along with the fee at the time of incorporation of the company. In case of existing company the same shall be filed in Form No. MGT – 14 within 30 days from the date of entrenchment of the articles, along with the fee.

Incorporation of company

Section 7 of the Companies Act, 2013 provides for the procedure to be followed for of a company. The promoter of the company shall submit the following documents to the registrar of companies, whose jurisdiction the registered office of the company is proposed to be situated for registration.

(a) Memorandum and articles of the company duly signed by all the subscribers to the memorandum in such manner as may be prescribed;

(b) A declaration in the prescribed form by an Advocate, a Chartered Accountant, Cost Accountant or Company Secretary in practice, who is engaged in the formation of the company and by a person named in the articles as a director, manager or secretary of the company;

(c) An affidavit from each of the subscribers to the memorandum and from persons named as the first directors, if any, in the articles stating that

  (1) he is not convicted of any offence in connection with the promotion, formation or management of any company, or

  (2) he has not been found guilty of any fraud or misfeasance or of any breach of duty to any company under this Act or any previous company law during the last five years.

  (3) and that all the documents filed with the Registrar for registration of the company contain information that is correct and complete and true to the best of his knowledge and belief;

(d) The address for correspondence till registered office is established;

(e) All particulars of every subscriber to the memorandum along with the proof of identity;

(f) The particulars of the persons mentioned in the articles as the first directors of the company;

(g) The consent to act as directors of company in such form as may be prescribed.

The memorandum of association and articles of association are the basic essential documents of the company.

Memorandum of Association

The Memorandum of Association of company is in fact its charter; it defines its constitution and the scope of the powers of the company with which it has been established under the Act. It is the very foundation on which the whole edifice of the company is built.

As per Section 4(1), the memorandum of a limited company must state the following:

(a) the name of the company with "Limited" as its last word in the case of a public company; and "Private Limited" as its last words in the case of a private company; (Name Clause)

This shall not apply in case of companies registered under section 8.

Similarly, in case of government companies the name of the company shall end with the words "Limited". This is as per the exemptions to Government Companies under Section 462 of Companies Act, 2013 vide notification dated June 5, 2013.

(b) the State in which the registered office of the company is to be situated; (Situation Clause)

(c) the objects for which the company is proposed to be incorporated and any matter considered necessary in furtherance thereof;(objects clause)

Provided that nothing in this clause shall apply to a company registered under section 8;

(d) the liability of members of the company, whether limited or unlimited, and also state,— (Liability Clause)

(i) in the case of a company limited by shares, that liability of its members is limited to the amount unpaid, if any, on the shares held by them; and

(ii) in the case of a company limited by guarantee, the amount up to which each member undertakes to contribute—

(A) to the assets of the company in the event of its being wound-up while he is a member or within one year after he ceases to be a member, for payment of the debts and liabilities of the company or of such debts and liabilities as may have been contracted before he ceases to be a member, as the case may be; and

(B) to the costs, charges and expenses of winding-up and for adjustment of the rights of the contributories among themselves;

(e) in the case of a company having a share capital,— (Capital Clause)

(i) the amount of share capital with which the company is to be registered and the division thereof into shares of a fixed amount and the number of shares which the subscribers to the memorandum agree to subscribe which shall not be less than one share per subscriber; and

(ii) the number of shares each subscriber to the memorandum intends to take, indicated opposite his name;

(f) in the case of a One Person Company, the name of the person who, in the event of the death of the subscriber, shall become the member of the company.

According to section 4(7), any provision in the memorandum or articles, in the case of a company limited by guarantee and not having a share capital, purporting to give any person a right to participate in the divisible profits of the company otherwise than as a member, shall be void.

Form of Memorandum

Section 4(6) provides that the memorandum of a company shall be in respective of forms specified in Tables A, B, C, D and E in Schedule I as may be applicable to the company.

- **Table A** – Memorandum of Association of a company limited by shares;
- **Table B** – Memorandum of Association of a company limited by guarantee and not having share capital;
- **Table C** – Memorandum of Association of a company limited by guarantee and having a share capital;
- **Table D** – Memorandum of Association of an unlimited company and not having share capital;
- **Table E** – Memorandum of Association of an unlimited company and having share capital.

Topic

Module 3: Preparation of Final Accounts of Commercial Organisations, Not-for-Profit Organisations and from Incomplete Records

INTERMEDIATE

Group I - Paper-6

Financial Accounting (FA)

VOL 09 I NO. 05

Preparation of Financial Statements of Commercial Organisations and Preparation of Financial Statements of Not-for-Profit Organisation

Preparation of Financial Statements of Commercial Organisations

Preparation of financial statements for commercial organizations is a vital aspect of financial reporting and provides a comprehensive view of a company's financial performance, position, and cash flows.

Preparing financial statements for commercial organizations involves several key steps and considerations.

Gather Financial Data: Collect all relevant financial information including transactions, receipts, invoices, bank statements, etc.

Organize Transactions: Categorize transactions into appropriate accounts such as assets, liabilities, equity, revenue, and expenses.

Recording Transactions: Enter transactions into the accounting system. This could be done manually or using accounting software like QuickBooks or Xero.

Adjusting Entries: Make any necessary adjusting entries to ensure that revenues and expenses are recorded in the correct accounting period and that assets and liabilities are properly recognized.

Prepare Trial Balance: Create a trial balance to ensure that debits and credits are equal and the books are in balance.

Prepare Financial Statements:

Income Statement (Profit and Loss Statement): Summarizes revenues and expenses over a period of time to determine the company's profitability.

Balance Sheet: Presents the company's financial position at a specific point in time, showing assets, liabilities, and equity.

Cash Flow Statement: Reports cash generated and used by operating, investing, and financing activities during a period.

Statement of Changes in Equity (if applicable): Shows changes in equity during the reporting period, including shareholder transactions and changes in retained earnings.

Analysis and Interpretation: Analyze the financial statements to assess the company's financial health, performance, and liquidity. Look for trends, ratios, and other indicators to understand the company's strengths and weaknesses.

Disclosure and Presentation: Ensure that the financial statements comply with relevant accounting standards (e.g., GAAP, IFRS) and include all necessary disclosures and footnotes.

Review and Audit: Review the financial statements for accuracy and completeness. In some cases, an external audit may be required by regulatory authorities or stakeholders.

Distribution and Communication: Share the financial statements with stakeholders such as investors, creditors, management, and regulatory bodies as required.

It's essential to follow accounting principles and standards relevant to your jurisdiction and industry while preparing financial statements to ensure accuracy, transparency, and compliance. Additionally, seeking assistance from accounting professionals or consultants can be beneficial, especially for complex accounting issues or regulatory requirements.

Preparation of Financial Statements of Not-for-Profit Organisation

Preparing financial statements for a not-for-profit (NFP) organization involves similar steps to those for commercial organizations, with some key differences due to the nature of NFP operations. Here's an overview tailored to NFPs:

Gather Financial Data: Collect all financial information including donations, grants, program revenues, expenses, and other income sources.

Organize Transactions: Categorize transactions into appropriate accounts such as contributions, program expenses, administrative expenses, fundraising expenses, and investment income.

Recording Transactions: Enter transactions into the accounting system, ensuring accurate recording of all income and expenses related to the organization's activities.

Adjusting Entries: Make any necessary adjustments to ensure that revenues and expenses are recorded correctly and in accordance with generally accepted accounting principles (GAAP) for not-for-profit organizations.

Prepare Trial Balance: Create a trial balance to verify that debits and credits are equal and that the accounting records are in balance.

Prepare Financial Statements:

Statement of Financial Position (Balance Sheet): Presents the organization's assets, liabilities, and net assets (equity) at a specific point in time.

Statement of Activities (Income Statement): Summarizes revenues and expenses for a period, showing the organization's financial performance.

Statement of Cash Flows: Reports cash inflows and outflows from operating, investing, and financing activities during the reporting period.

Statement of Functional Expenses: Breaks down expenses by function (e.g., program services, management and general, fundraising) to provide transparency on how resources are utilized.

Analysis and Interpretation: Analyze the financial statements to assess the organization's financial health, efficiency in resource utilization, and sustainability. Evaluate key ratios and metrics relevant to not-for-profit organizations, such as program expense ratios and fundraising efficiency ratios.

Disclosure and Presentation: Ensure that the financial statements comply with applicable accounting standards for not-for-profit organizations, such as the Financial Accounting Standards Board (FASB) Accounting Standards Codification (ASC) 958, and include all required disclosures and footnotes.

Review and Audit: Review the financial statements for accuracy and completeness. Depending on regulatory requirements and organizational policies, an external audit may be conducted to provide assurance to stakeholders.

Distribution and Communication: Share the financial statements with stakeholders such as donors, grantors, board members, and regulatory bodies as required. Transparent communication of financial information is crucial for maintaining trust and accountability in the organization.

It's essential for not-for-profit organizations to adhere to accounting standards specific to their sector and to accurately report on the allocation of resources towards achieving their mission and objectives. Seeking guidance from accounting professionals with expertise in not-for-profit accounting can ensure compliance and effective financial management.

Importance of preparation of Financial Statements for Commercial Organisations and Not-for-Profit Organisations

The preparation of financial statements holds significant importance for both commercial organizations and not-for-profit (NFP) organizations, albeit with some differences in their objectives and stakeholders. Here's a comparison of their importance:

Commercial Organizations:

Decision Making and Investor Confidence: Financial statements provide crucial information for decision-making by investors, creditors, suppliers, customers, and management in commercial organizations. Investors rely on financial statements to assess profitability, growth potential, and risks before making investment decisions. Transparent financial reporting enhances investor confidence and facilitates access to capital markets.

Creditworthiness and Financing: Financial statements play a vital role in determining a company's creditworthiness and ability to obtain financing from banks, financial institutions, and other creditors. Lenders analyze financial statements to evaluate the company's ability to repay loans, manage debt, and generate cash flows. Positive financial performance enhances the company's borrowing capacity and access to favourable financing terms.

Regulatory Compliance and Taxation: Commercial organizations are required to prepare financial statements in compliance with accounting standards and regulatory requirements, such as GAAP or IFRS. Accurate financial reporting ensures compliance with tax laws and facilitates tax planning strategies. Financial statements serve as the basis for tax assessment, auditing, and regulatory reporting.

Performance Evaluation and Benchmarking: Financial statements enable stakeholders to evaluate the company's financial performance, profitability, efficiency, and competitiveness over time. Comparative analysis with industry peers and benchmarks helps assess relative strengths and weaknesses and identify areas for improvement. Financial ratios and metrics derived from financial statements facilitate performance evaluation and benchmarking against industry standards.

Transparency and Accountability: Transparent financial reporting promotes accountability and integrity in commercial operations by providing stakeholders with clear, accurate, and timely information about the company's financial position and performance. Disclosure of significant accounting policies, assumptions, estimates, and risks enhances transparency and allows stakeholders to make informed decisions based on reliable financial information.

Not-for-Profit Organizations:

Stakeholder Trust and Accountability: Financial statements for NFP organizations are crucial for maintaining trust and accountability with donors, grantors, members, volunteers, and other stakeholders. Donors and grantors rely on financial statements to assess the organization's financial health, governance, and stewardship of resources before making contributions.

Transparency and Donor Confidence: Transparent financial reporting demonstrates the NFP organization's commitment to accountability, ethical stewardship, and mission fulfillment. Donors and grantors expect clear and detailed financial statements that provide insights into how their contributions are utilized and the impact achieved by the organization's programs and services.

Regulatory Compliance and Funding: NFP organizations are subject to regulatory requirements and reporting obligations imposed by governmental authorities, funding agencies, and oversight bodies. Compliance with accounting standards and regulatory requirements ensures transparency, credibility, and eligibility for funding, grants, and tax-exempt status.

Performance Evaluation and Impact Assessment: Financial statements enable stakeholders to evaluate the NFP organization's financial performance, efficiency, and effectiveness in delivering programs and services. Comparative analysis of financial data over time and benchmarking against industry standards help assess progress toward mission objectives and identify areas for improvement.

Mission fulfilment and Sustainability: Financial statements provide insights into the NFP organization's ability to achieve its mission, serve its beneficiaries, and sustain operations over the long term. Donors and stakeholders expect financial sustainability, prudent financial management, and accountability in the use of resources to ensure the organization's continued impact and relevance.

In summary, while the preparation of financial statements is essential for both commercial organizations and NFP organizations, the specific objectives, stakeholders, and regulatory environments may vary. Transparent financial reporting fosters trust, accountability, and informed decision-making in both sectors, contributing to organizational success and societal impact.

Questions:

1. Which financial statement summarizes a company's revenues and expenses over a specific period?

   a) Balance Sheet

   b) Income Statement

   c) Cash Flow Statement

   d) Statement of Changes in Equity

2. Which financial statement reports the cash inflows and outflows from operating, investing, and financing activities?

   a) Balance Sheet

   b) Income Statement

   c) Cash Flow Statement

   d) Statement of Changes in Equity

3. What is the purpose of adjusting entries in the preparation of financial statements?

   a) To correct errors in the trial balance

   b) To record transactions that were missed initially

   c) To ensure revenues and expenses are recognized in the correct accounting period

   d) To adjust the cash balance

4. Which financial statement reports changes in equity, including transactions with shareholders and changes in retained earnings?

   a) Income Statement

   b) Balance Sheet

   c) Cash Flow Statement

   d) Statement of Changes in Equity

5. Which of the following is NOT a purpose of financial statements for commercial organizations?
   a) Decision-making
   b) Regulatory compliance
   c) Stakeholder trust
   d) Identifying donors
6. What does the balance sheet of a not-for-profit organization primarily represent?
   a) Financial performance over a period
   b) Cash inflows and outflows
   c) Financial position at a specific point in time
   d) Sources and uses of cash
7. What is the purpose of the statement of changes in net assets for a not-for-profit organization?
   a) To disclose significant accounting policies
   b) To summarize program expenses
   c) To report changes in equity, including transactions with donors and changes in net assets
   d) To present the organization's financial position at a specific point in time
8. Which financial statement reports the organization's financial position, including its assets, liabilities, and net assets at a specific point in time?
   a) Income Statement
   b) Balance Sheet
   c) Cash Flow Statement
   d) Statement of Functional Expenses
9. What is the primary purpose of financial statements for not-for-profit organizations?
   a) Decision-making
   b) Regulatory compliance
   c) Stakeholder trust
   d) Maximizing shareholder wealth
10. Which of the following is NOT a characteristic of financial statements for not-for-profit organizations?
   a) Emphasis on transparency and accountability
   b) Focus on profitability and return on investment
   c) Presentation of financial position and performance
   d) Disclosure of significant accounting policies and estimates

ANSWER

1	2	3	4	5	6	7	8	9	10
b	c	c	d	d	c	c	b	c	b

Topic

Module 2: Heads of Income

INTERMEDIATE

Group I - Paper-7A

Direct Taxation (DT)

Income From Other Sources

1. A receipt shall be taxable under this head if such income does not specifically fall under any one of the other four heads of income.
2. **Basis of chargeability:** Income under this head shall be chargeable on 'accrual' or 'cash' basis depending on the method of accounting regularly followed by the assessee.
3. **Casual Income:** Winning from lotteries, crossword puzzles, etc. are taxable under this head. Tax is charged on such income at a flat rate of 30% plus surcharge (if any) plus cess.
4. **Income from letting of machinery, plant or furniture** is charged to tax under this head, if such income is not chargeable under the head "Profits and gains of business or profession".
5. **Composite rent:** If letting of building is inseparable from letting of machinery, furniture, etc. then income from such letting is charged to tax under the head "Income from other sources" otherwise Income from house property.
6. **Family pension:** It is taxable under the head "Income from other sources" after allowing standard deduction to the minimum of a) 1/3rd of such pension; or b) ₹ 15,000.
7. **Gift:** Following receipts by any person shall be considered as his income:
   a) If any sum is received without consideration in excess of ₹ 50,000 during the previous year;
   b) If an immovable property is received without consideration and the stamp duty value exceeds ₹ 50,000, the stamp duty value of such property;
   c) If an immovable property is received with consideration and the stamp duty value of such property exceeds such consideration by higher of the following:
      (i) ₹ 50,000; or
      (ii) An amount equal to 10% of the consideration
      - the difference between the stamp duty value and the consideration;
   d) If movable properties are received without consideration and the aggregate fair market value of such properties exceeds ₹ 50,000, the whole of aggregate fair market value of such properties;
   e) If movable properties are received for consideration which is less than the aggregate fair market value of properties by an amount exceeding ₹ 50,000, the difference between the aggregate fair market value and the consideration

   Exceptions:

   (a) Gift received from any relative.
   (b) Gift received on the occasion of the marriage of the individual.
   (c) Any sum of money which is received under a will or by way of inheritance.
   (d) Any sum of money which is received in contemplation of death of the payer
   (e) Any sum of money which is received from - local authority, any fund or foundation or university or other educational institutions or hospital or other medical institutions or any trust or institution referred u/s 10(23C) or a registered trust or institution;
   (f) Receipts from an individual by a trust created or established solely for the benefit of relative of the individual.
   (g) Receipts by way of distribution at the time of total or partial partition of HUF;
   (h) Shares received in a consequence of demerger or amalgamation of a company or business reorganization of a co-operative society
8. **Share premium received by a company,** not being a company in which public is substantially interested, in excess of fair market value of issued shares shall be considered as income of the issuing company.
9. **Interest on securities** is charged to tax u/s 56. However, if such securities are held as stock, then taxed u/s 28.

10. **Interest on delayed receipt of compensation or enhanced compensation** shall be taxable in the year of receipt after deducting standard deduction @ 50% of such income.

11. **Bonus Stripping:** Where any person acquires any unit (original unit) within a period of 3 months prior to the record date and is allotted bonus unit on such date and such person transfers original unit within a period of 9 months after such date, then any loss arising to him shall be ignored and the amount of loss so ignored shall be deemed to be the cost of acquisition of such bonus unit held by him on the date of such sale or transfer.

12. **Dividend:** As per sec. 2(22),

    (a) Any distribution of accumulated profits, which results in the release of assets of the company.

    (b) Any distribution of Debenture, debenture-stock, deposit certificates in any form whether with or without interest to its shareholders (equity as well as preference); and Shares to preference shareholders by way of bonus, to the extent to which company possess accumulated profit.

    (c) Distribution made on liquidation to the extent to which company possess accumulated profit immediately before liquidation.

    (d) Distribution made on reduction of capital of the company to the extent it possess accumulated profit.

    (e) Any loan or advance by a company (in which public are not substantially interested) to the extent of accumulated profit (excluding capitalized profit) to its equity shareholder holding not less than 10% of voting power in the company or to a concern of which such shareholder is a member and has substantial interest in such concern or to any person on behalf of or for the benefit of such specified shareholder.

    Tax treatment: Dividend or income from units shall be taxable in the hands of shareholders or unit holders at the applicable rate. No deduction shall be allowed from dividend income, or income in respect of units of mutual fund or specified company, other than deduction on account of interest expense and in any previous year. Further, such deduction shall not exceed 20% of the dividend income or income from units included in the total income for that year without this deduction

13. **Specific disallowance:** The following expenditures shall not be deducted from any income under this head

    - Any personal expenses of the assessee.
    - Any interest which is payable outside India on which tax has not been deducted at source.
    - Any salary payable outside India on which tax has not been deducted at source.
    - 30% of any payment made to a resident on which TDS provision is applicable without deducting TDS as referred u/s 40(a)(ia)
    - Any amount paid as Wealth tax or Income tax.
    - Any amount specified u/s 40A e.g. payment to relative in excess of requirement; or cash payment in excess of ₹ 10,000.
    - No deduction in respect of any expenditure shall be allowed in computing the income by way of any winnings from lotteries, etc.

14. **Deemed Profits:** Where an allowance or deduction has been allowed for any year in respect of loss, expenditure or trading liability incurred by the assessee; and subsequently, any amount is obtained, as revocation of such loss, expenditure or remission of liability, whether in cash or in any other manner, during any previous year, then such amount received or amount remitted shall be charged to tax.

Topic

Module 5: Goods and Services Tax (GST) Laws

INTERMEDIATE

Group I - Paper-7B

Indirect Taxation (IDT)

Tax Invoice

Tax invoices are essential documents under the Goods and Services Tax (GST) system, serving as a legal record of transactions between registered taxpayers. In this comprehensive note, we will explore the concept of tax invoices under GST, their significance, requirements, and implications for businesses and taxpayers.

An invoice is a commercial instrument issued by a seller to a buyer. It identifies both the trading parties and lists, describes, and quantifies the items sold, shows the date of shipment and mode of transport, prices and discounts, if any, and delivery and payment terms. In certain cases, (especially when it is signed by the seller or seller's agent), an invoice serves as a demand for payment and becomes a document of title when paid in full. An invoice does not bring into existence an agreement but merely records the terms of a pre-existing agreement (oral or written). An invoice can be understood as a document that is meant to serve a particular purpose.

Introduction to Tax Invoices under GST

Under GST a tax invoice is an important document.

- It not only evidences supply of goods or services, but is also an essential document for the recipient to avail Input Tax Credit (ITC). A registered person cannot avail input tax credit unless he is in possession of a tax invoice or a debit note.
- GST is chargeable at the time of supply. Invoice is an important indicator of the time of supply. Broadly speaking, the time of supply of goods or services is the date of issuance of invoice or receipt of payment whichever is earlier. However, a special procedure for payment of tax has been prescribed for registered persons (other than composition dealers) supplying goods. Such category of persons (suppliers of goods other than composition dealers) need to pay GST only at the time of issue of invoice irrespective of when they receive payment.

Suffice it to say, that the tax invoice is the primary document evidencing the supply and is vital for availing input tax credit.

The GST Law requires that an invoice – tax invoice or bill of supply – is issued on the occurrence of a certain event, being a supply, within the prescribed timelines. Therefore, an invoice, among other documents is required to be issued for every form of supply such as sale, transfer, barter, exchange, license, rental, lease or disposal. This chapter provides an understanding of the various documents required to be issued under the GST law, timelines to issue such document and the contents of every such document. It is to be noted that GST Law does not prescribe any specific format of invoice but mandates that certain field or information should be incorporated in the invoice.

Significance of Tax Invoices

Tax invoices serve several important purposes in the GST framework:

- **Legal Compliance:** Tax invoices are mandated by law under the GST regime, and failure to issue proper invoices can lead to penalties and legal consequences.
- **Input Tax Credit (ITC):** Tax invoices are necessary for claiming ITC, as they provide evidence of tax paid on inputs and input services used in the course of business.
- **Audit and Verification:** Tax authorities rely on tax invoices to audit and verify the accuracy of tax returns filed by taxpayers, ensuring compliance with GST laws and regulations.

Key Components of a Tax Invoice

A tax invoice under GST must contain specific details to be considered valid. These include:

- **Supplier's Details:** Name, address, GSTIN (Goods and Services Tax Identification Number), and State code of the supplier.

- **Recipient's Details:** Name, address, GSTIN (if registered), and State code of the recipient.
- **Invoice Number and Date:** A consecutive serial number and date of issue of the invoice.
- **Description of Goods or Services:** Details such as quantity, unit price, total value, and applicable GST rate for each item supplied.
- **Taxable Value and Tax Amount:** Separate disclosure of the taxable value, CGST (Central Goods and Services Tax), SGST (State Goods and Services Tax), IGST (Integrated Goods and Services Tax), and cess, if applicable.
- **Place of Supply:** Indicates whether the supply is intra-state (within the same state) or inter-state (between different states).
- **Shipping and Billing Address:** If different from the supplier's and recipient's addresses.
- **Payment Terms:** Terms and conditions of payment, including payment due date and mode of payment.

Types of Tax Invoices

Under GST, there are different types of tax invoices based on the nature of the transaction:

- **Tax Invoice:** Issued for taxable supplies of goods or services.
- **Bill of Supply:** Issued when GST is not applicable or when the supplier is registered under the composition scheme.
- **Credit Note:** Issued to reduce the taxable value or tax amount in case of goods returned or services cancelled.
- **Debit Note:** Issued to increase the taxable value or tax amount due to additional goods supplied or services provided.

Timeline for issuance of invoice

In general, time of issue of tax invoice for:

- **Supply of Goods:** A registered person supplying taxable goods shall issue a tax invoice, before or at the time of:

Where the supply involves the movement of goods	Removal of goods for supply to the recipient
Where the supply does not involve the movement of goods	Delivery of goods or making available thereof to the recipient

- **Supply of Services:** Invoice is required to be issued within 30 days from the date of the supply of service. However, in the case of an insurance/ banking company or a financial institution, including NBFC, the invoice is required to be issued within 45 days

Implications for Businesses and Taxpayers

For businesses and taxpayers, compliance with tax invoice requirements under GST is crucial for several reasons:

- **Input Tax Credit (ITC) Claim:** Proper maintenance and issuance of tax invoices enable businesses to claim ITC, reducing the overall tax liability.
- **Audit and Assessment:** Tax authorities may conduct audits or assessments based on tax invoices to verify the accuracy of tax returns and ensure compliance with GST laws.
- **Legal Compliance:** Failure to issue valid tax invoices or maintain proper records can lead to penalties, interest, and other legal consequences.
- **Business Relationships:** Clear and accurate tax invoices enhance transparency and trust in business transactions, fostering better relationships with customers and suppliers.

Conclusion

Tax invoices are fundamental documents under the GST regime, serving as the backbone of the tax system by providing evidence of transactions and enabling the claiming of input tax credit. Businesses must understand the requirements and significance of tax invoices to ensure compliance with GST laws and regulations. By issuing proper tax invoices, businesses can streamline their operations, minimize tax risks, and contribute to the overall efficiency and integrity of the GST system.

Topic

Module 6: Cost Accounting Techniques

INTERMEDIATE

Group I - Paper-8

Cost Accounting (CA)

COST ACCOUNTING

Budget and Budgetary Control is an important chapter in Intermediate Examination and almost every year a question is set in the examination. here student should first learn how to prepare financial budget like Cash Budget Sales Budget , Purchase Budget , Production Budget Expenditure Budget etc., Again, Master Budget is to be prepared by considering the results of Functional Budgets and Flexible Budget is prepared to show the expenditure appropriate to various levels of output in the same period.

Budgetary Control and Standard Costing are the two different tools used widely for assisting management in planning and control. In practice budget is used in various fields viz. in our private life, in business and also in the Government departments.

Budget is a plan expressed in monitory terms. It is prepared and approved prior to the budget period and may show income, expenditure and capital to be employed. May be drawn up showing incremental effects on formal budget or actual figures or be complied by zero-based budgeting.

Budgetary Control is designed to assist management in carrying out its functions by allocating responsibility and authority , to aid in making plans and estimates for the future and to assist in the analysis of variation between the actual and estimates in order to develop the basis for measurement with the standard for the purpose of measuring efficiency of operations. Thus budgetary control is a system of planning and controlling cost through continuous comparison of actual with budgeted result. Thus, it is the establishment of budgets relating to responsibilities of executives to the requirement of a policy and the continuous comparison of actual with budgeted results either to secure by individual action the objective of the policy or to provide a basis for revision.

Budgetary control have following objectives:-

1) A budget forces a manager to plan ahead.
2) It smoothen seasonal variations in production and sale
3) Budget assists to coordinate the activities of various divisions according to the policy of the organization.
4) It establishes the divisional responsibilities.
5) It demands the most economic use of resources.
6) It facilitates periodic comparison of activities.
7) It provides a method of measurement of operational efficiency.
8) The system centralizes control and decentralizes operational responsibilities.
9) It acts as an aid for better use of infrastructural facilities.
10) It reveals the variations of actual performance from budgetary performance through a process of management by exception.

Functional Budget is a budget of income and expenditure relates to any of the functions of an enterprise. There are various types of Functional budgets depending on size and policy of the organization. The functional budgets which are prepared frequently are:-

a) Sales Budget.
b) Selling and Distribution Cost Budget.
c) Purchase Budget
d) Production Budget
e) Production Cost Budget
f) Personnel Budget
g) Plant Utilization Budget
h) Capital Expenditure Budget.
i) Maintenance Cost Budget
j) Material Cost Budget
k) Administration Cost Budget
l) Research and Development Cost Budget.

Irrespective of the functional budgets, there are some budgets that are used for controlling operations, that are:-

Cash Budget –

It is the forecast of cash receipts and payments for a given period. This budget is prepared after preparation of functional budget. For efficient running of a business the anticipated cash requirements should be known in advance.

Master Budget -

This is a budget which summarizes all functional budgets of an organization. A master budget normally includes:

a) A Budgeted Profit and Loss Account.

b) A Budgeted Profit and Loss Appropriation Account.

c) Budgeted Balance Sheet.

d) A Budgeted Cash Flow statement.

After preparing Master Budget it is to be submitted by the Budget Committee to the top management for their approval. Budgeted costs are classified and summarized by types of expenses as well as by departments.

Flexible Budget -

A flexible budget has been defined as a budget which is designed to change in accordance with the activities attained. Practically it is a series of fixed budgets for different level of activities. Here cost are analyzed behavior wise, viz. variable, fixed and semi-variable.

Now I am presenting an example of Cash Budget for clearing the concept.

Problem:

Based on the following information, prepare a Cash Budget for Anindita Ltd.

	Q1	Q2	Q3	Q4
Opening Balance Cash	10,000			
Collection from customers Payments	1,25,000	1,50,000	1,60,000	2,21,000
Purchase of materials	20,000	35,000	35,000	54,200
Other Expenses	25,000	20,000	20,000	17,000
Salary and Wages	90,000	95,000	95,000	1,09,200
Income Tax	5,000	-----	-----	-----
Purchase of Machinery	-----	-----	-----	20,000

The Company desires to maintain a cash balance of ₹15,000 at the end of each Quarter. Cash can be borrowed or repaid in multiple of ₹500at an interest of 10%p.a. Management does not want to borrow cash what is necessary and wants to repay as early as possible. In any event loans cannot be extended beyond 4 Quarters. interest is computed and paid when the principal is repaid assume that borrowings taken place at the beginning and repayments are made at the end of the Quarter.

The Problem can be solved in the following manner---

CASH BUDGET

	Q1	Q2	Q3	Q4
Opening Balance Cash	10,000	15,000	15,000	15,325
Collection	1,25,000	1,50,000	1,60,000	2,21,000
(A) Total Receipts	1,35,000	1,65,000	1,75,000	2,36,325
Payments :-				
Purchase of materials	20,000	35,000	35,000	54,200
Other Expenses	25,000	20,000	20,000	17,000
Salary and Wages	90,000	95,000	95,000	1,09,200
Income Tax	5,000	-----	-----	-----
Purchase of Machinery	-----	-----	-----	20,000
(B) Total Payments	1,40,000	1,50,000	1,50,000	2,00,400
Minimum Balance	15,000	15,000	15,000	15,000
Total Cash Required	1,55,000	1,65,000	1,65,000	2,15,400
Excess/ (deficit)	(20,000)	Nil	10,000	20,925
Borrowings	20,000			
Payments			9,000	11,000
Interest Payments (Note1)			675	1,100
(D) Total			9,675	12,100
Closing Cash Balance (A+B+C-D)	15,000	15,000	15,325	23,825

Note :1

₹20,000 borrowed at the beginning of first Quarter 1 ₹ 9,000 repayment made at the end of third year and the Interest is computed and paid when the principal is repaid.

Hence Interest on ₹9,000 for three Quarter 3 at 10% is calculated as:-

9,000 x 9/12 x 10/100 = ₹675

₹11,000 repaid at the end of Quarter 4. Hence Interest on ₹11,000 for Quarter 4 i.e. for one year at 10% will be ₹1,100.

From Contract Costing one question may be expected in Intermediate Examination. Here distinction between Job /Batch /Contract is an important factor. You should be very careful in determining the profit of an incomplete Contract and for Escalation clause both changed quantity and price should be considered.

The term Contract Costing is used by Contractors, builders, and engineers, who under take definite Contracts such as building construction, ship building, bridge construction and so on. the term Contract Costing refers to the form of specific order costing which applies where work is undertaken to customer's special requirements and each order is of long duration.

Escalation Clause is a clause, which safeguards the interest of both the contractor and contractee against unfavorable price change in future. By virtue of this clause, the contractee has to bear the additional cost arising out of such inflation. Such clause may also apply where material and labour utilization exceeds a particular limit, often there might be a De-escalation or Reverse Clause, providing for reduction in Contract price and passing on the benefit to the Contractee.

Cost-plus –contract is the reverse of fixed price contract. Here contractor is paid the actual cost incurred plus a certain percentage of profit over the cost of production. Generally, it is provided in the agreement as to items of expenditure to be included in the actual cost and the percentage of profit to be added to the actual cost. This type of contract is suitable in those cases where probable cost of the contract cannot be estimated with a reasonable degree of accuracy in advance due to various reasons.

There are some important Guidelines for Transferring Profit of an Incomplete Contract, that are as follows:--

A) When the Contract has just started :--

In such case no profit should be taken into account, as it is impossible to locate future position clearly. Generally, up to 25% of completion of the contract, this principle is followed.

B) When the contract has sufficiently advanced (more than 25% completed) :--

A reasonable portion of the Notional Profit should be credited to Profit and Loss Account and the balance is carried forward in same contract as a profit in suspense as adequate re3serve for future losses and contingencies. The portion of notional profit to be taken will depend upon the progress of the work.

1) For completion less than 50% of contract ------ Profit

   = 1/3 of Notional Profit

2) For completion 50% or more ---------- Profit

   = 2/3 of Notional Profit

Cash Received/value of Work Certified may be multiplied with the above two equations, if cash received is less.

C) When the Contract is almost complete :--

Profit may be taken by adopting any one of the following formula:-

a) Estimated Profit x Value of work Certified / Contract Price

b) Estimated Profit x Value of Work certified / Contract Price x Cash Received / Work Certified

c) Estimated Profit x Cost of Work to date / Estimated Total cost

d) Estimated Profit x Cost of work to date / Estimated Total cost x Cash Received / Value of work Certified.

In this way a reasonable portion of profit should be transferred to Profit and Loss Account year wise, during the period of Contract.

Topic

Module 7: Economics of Maintenance and Spares Management

INTERMEDIATE

Group II - Paper-9

Operations Management and Strategic Management (OMSM)

Operations Management

This time we will discuss on Preventive Maintenance Policy (PMP) vs. Repair Policy (RP). Refer sub module 7.4 of the guide book.

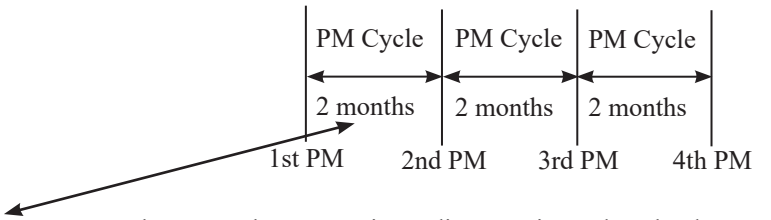
Preventive maintenance policy provides, after machines & equipment run for a fixed time, for inspections and replacement of weak parts if required.

The fixed time interval is called Preventive maintenance cycle *(PM cycle)* like PM cycle for 1 month, PM cycle for 2 months, PM cycle for 1 year etc.

PM cycle for 2 months mean particular machine or equipment, after a run of 2 months, will be inspected and replacement of weak parts if any.

PM cycle requires an average cost say CPM.

But breakdowns may occur on the particular machine or equipment before completion of the 2 months i.e. before completion of PM cycle. That is situation may be like following:



Breakdowns may occur here. For these cases immediate repair needs to be done at an average cost of say CR. This is Repair cycle.

Therefore management has to take decision whether a Preventive Maintenance policy would be a better option than simply repairing each machine when it breaks down.

To have this decision management needs probability distribution of the time between machine breakdown and the length of the standard PM cycle.

Let us take following examples to understand how management takes decision on the issue.

Question: 1

Assume the following three breakdown probability distribution

Month following Maintenance	Probability of Breakdown		
	(1)	(2)	(3)
1	0.4	0.4	0.1
2	0.1	0.2	0.1
3	0.1	0.1	0.1
4	0.1	0.1	0.5
5	0.1	0.1	0.1
6	0.2	0.1	0.1

Which, if any, of these distributions lend themselves to a preventive maintenance program? Why?

Answer:

Policy 1:

Month following Maintenance (i)	Probability of Breakdown (p)	Average free run time ($i * p$)
1	0.4	0.4
2	0.1	0.2
3	0.1	0.3
4	0.1	0.4
5	0.1	0.5
6	0.2	1.2
		∑ 3 months/breakdown/machine

Therefore the average number of breakdowns for the pool of say 100 machines per month will be:

For 1 machine in 3 months 1 breakdown

So for 1 machine in 1 month (1/3) breakdown

So for 100 machines in 1 month (100/3) = 33.33 breakdowns

Policy 2:

Month following Maintenance (i)	Probability of Breakdown (p)	Average free run time ($i * p$)
1	0.4	0.4
2	0.2	0.4
3	0.1	0.3
4	0.1	0.4
5	0.1	0.5
6	0.1	0.6
		∑ 2.6 months/breakdown/machine

Therefore the average number of breakdowns for the pool of say 100 machines per month will be:

For 1 machine in 2.6 months 1 breakdown

So for 1 machine in 1 month (1/2.6) breakdown

So for 100 machines in 1 month (100/2.6) = 38.46 breakdowns

Policy 3:

Month following Maintenance (i)	Probability of Breakdown (p)	Average free run time ($i * p$)
1	0.1	0.1
2	0.1	0.2
3	0.1	0.3
4	0.5	2.0
5	0.1	0.5
6	0.1	0.6
		∑ 3.7 months/breakdown/machine

Therefore the average number of breakdowns for the pool of say 100 machines per month will be:

For 1 machine in 3.7 months 1 breakdown

So for 1 machine in 1 month (1/3.7) breakdown

So for 100 machines in 1 month (100/3.7) = 27.03 breakdowns

Preventive maintenance programs are generally applicable to breakdown distributions with low variability. Policy 3 has the lowest variability as no of breakdowns in a month for a pool of say 100 machines are 27.03---the lowest among three policies.

Therefore we may conclude that policy 3 could lead to a preventive maintenance program.

Question: 2

Assume the following breakdown probability distribution

Month following Maintenance	Probability of Breakdown
1	0
2	0.1
3	0.1
4	0.2
5	0.1
6	0.5

Let us take Average Repair Cost on breakdown CR = ₹120 & Cost of Preventive maintenance CPM = ₹75, Cost of Individual Replacement CI = ₹100, Cost of Group Replacement = ₹50/machine

For a pool of 100 machines, Could you recommend PM? When you will go for Replacement?

Answer:

Month following Maintenance (i)	Probability of Breakdown (p)	Average free run time ($i * p$)
1	0.0	0.0
2	0.1	0.2
3	0.1	0.3
4	0.2	0.8
5	0.1	0.5
6	0.5	3.0
		∑4.8 months/breakdown/machine

Therefore the average number of breakdowns for the pool of say 100 machines per month will be:

For 1 machine in 4.8 months 1 breakdown

So for 1 machine in 1 month (1/4.8) breakdown

So for 100 machines in 1 month (100/4.8) = 20.83 breakdowns

Repair Policy Cost = Average number of repairs per month × Average repair cost on breakdown = 20.83×120 = ₹2499.6

Preventive Maintenance Costs for the Six Preventive Maintenance Cycles: Table-I

Preventive Maintenance Cycle (n), months	Expected Breakdowns in PM Cycle	Average No of Breakdowns per month (Col.2/Col.1)	Expected Monthly Breakdown Cost (Col.3 x R120)	Expected Monthly PM Cost (R75 x 100)/ Col.1	Expected Monthly Cost of each PM cycle (Col.4 + Col.5)
1	0	0	0	7500	7500
2	10	5	600.00	3750	4350
3	20	6.667	800.04	2500	3300.04
4	41	10.25	1230	1875	3105
5	53	10.6	1272	1500	2772
6	108.1	18.017	2162.04	1250	3412.04

Computation of Col. 2:

Month 1: 100*0.0 =0

Month 2: 100*(0.0+0.1) +0*0.0 = 10

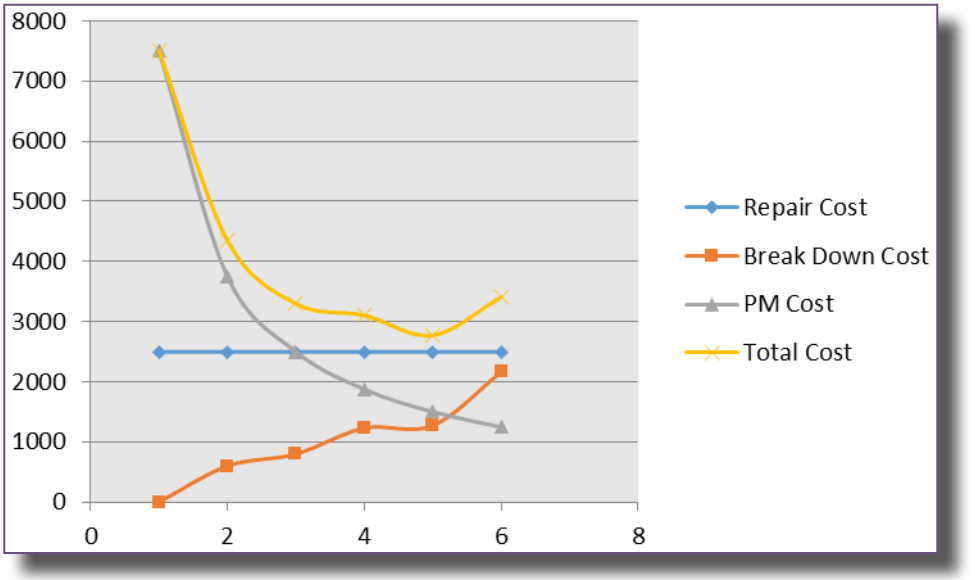
Month 3: 100*(0.0+0.1+0.1) + 0*0.1 +10*0.0 = 20

Month 4: 100*(0.0+0.1+0.1+0.2) + 0*0.1+10*0.1+20*0.0 = 41

Month 5: 100*(0.0+0.1+0.1+0.2+0.1) +0*0.2+10*0.1+20*0.1+41*0.0 = 53

Month 6: 100*(0.0+0.1+0.1+0.2+0.1+0.5) +0*0.1+10*0.2+20*0.1+41*0.1+53*0.0 = 108.1

Graphical Representation Policy 1:



So from the above it is clearly observed that PM policy is inferior to Repair policy. But will repair policy sustainable?

Answer is NO. After continuing for some time with repair policy cost effectiveness of the policy will be lost and at this stage we have to replace ---either individual machines or in blocks.

To do this analysis we will follow the steps below mentioned:

Step-I: Determination of Number of failures in different weeks. Table-II

Preventive Maintenance Cycle (n) , months	Probability of Breakdown (*p*)	Expected Breakdowns in PM Cycle
1	0.0	0
2	0.1	10
3	0.1	20
4	0.2	41
5	0.1	53
6	0.5	108.1

↓

Column 2 of Table 1

Step-2: Determination of Average Cost of Different Policies Table-III

Months	No of Individual Replacements	Cost of Replacements			
		Individual (Col2 × 100)	Group (100 × 50)	Total (Col3 + Col4)	Average Cost (Col5/Col1)
1	0	0	5000	5000	5000
2	10	1000	5000	6000	3000
3	20	2000	5000	7000	2333
4	41	4100	5000	9100	2275
5	53	5300	5000	10300	2060
6	108.1	10810	5000	15810	2635

From the table it is observed that the minimum cost per month is obtained by replacing all the machines (whether failed or not) after every 5 months. Thus optimal replacement time interval = 5 months.

But we can go for a policy "Replace as and when a machine fail" and in that case there will not be any group replacement.

To check the feasibility of "Replace as and when a machine fails" the computation will be as following:

Life (months)	Mean value (Xi)	Probability (pi)	pi x Xi
0-1	0.5	0.0	0
1-2	1.5	0.1	0.15
2-3	2.5	0.1	0.25
3-4	3.5	0.2	0.7
4-5	4.5	0.1	0.45
5-6	5.5	0.5	2.75
			4.4

Mean life of a machine is = 4.4

Expected no of failures of a machine during a week = No of Machines/ Mean life of a machine

= 100/4.4 = 22.727

Weekly replacement cost = Expected no of replacements X cost of replacements

= 22.727 X 100 = 2272.7

Since the cost of the policy of individual replacement i.e. "Replace as and when a machine fail" is greater than that of the group replacement, it is advisable to go for group replacement.

Question: 3

Refer Q1. Let us take Average Repair Cost on breakdown CR = ₹100 & Cost of Preventive maintenance CPM = ₹35

Could you prove your conclusion given in A1 for a pool of 100 machines?

Answer:

Repair Policy Cost of Policy 1 = Average number of repairs per month X Average repair cost on breakdown = 33.33 X 100 = ₹3333

Data taken from Answer 1.

Preventive Maintenance Costs for the Six Preventive Maintenance Cycles: Table-I

Preventive Maintenance Cycle (n), months	Expected Breakdowns in PM Cycle	Average No of Breakdowns per month (Col.2/Col.1)	Expected Monthly Breakdown Cost (Col.3 x R100)	Expected Monthly PM Cost (R35 x 100)/ Col.1	Expected Monthly Cost of each PM cycle (Col.4 + Col.5)
1	40	40	4000	3500	7500
2	66	33	3300	1750	5050
3	90.4	30.13	3013	1167	4180
4	116.76	29.19	2919	875	3794
5	146.34	29.27	2927	700	3627
6	189.85	31.64	3164	583	3747

Computation of Col. 2:

Month 1: 100*0.4 = 40

Month 2: 100*(0.4+0.1) +40*0.4 = 66

Month 3: 100*(0.4+0.1+0.1) + 40*0.1 +66*0.4 = 90.4

Month 4: 100*(0.4+0.1+0.1+0.1) + 40*0.1+66*0.1+90.4*0.4 = 116.76

Month 5: 100*(0.4+0.1+0.1+0.1+0.1) +40*0.1+66*0.1+90.4*0.1+116.76*0.4 = 146.344

Month 6: 100*(0.4+0.1+0.1+0.1+0.1+0.2) +40*0.1+66*0.1+90.4*0.1+116.76*0.1+146.344*0.4 = 189.8536

Graphical Representation Policy 1:

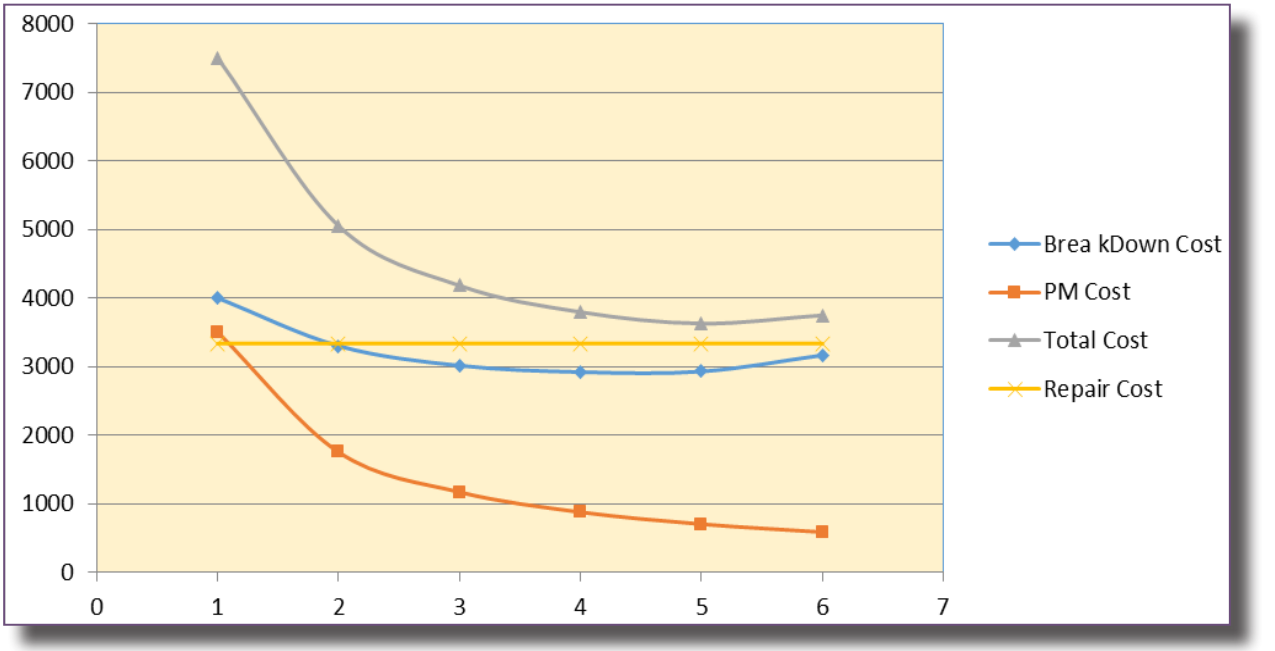


Fig -I

Repair Policy Cost of Policy 2 = Average number of repairs per month X Average repair cost on breakdown = 38.46 ×100 = ₹3,846 (Data taken from Ans 1).

Preventive Maintenance Costs for the Six Preventive Maintenance Cycles

Preventive Maintenance Cycle (n) , months	Expected Breakdowns in PM Cycle	Average No of Breakdowns per month (Col.2/Col.1)	Expected Monthly Breakdown Cost (Col.3 x R100)	Expected Monthly PM Cost (R35 x 100)/ Col.1	Expected Monthly Cost of each PM cycle (Col.4 + Col.5)
1	40	40	4000	3500	7500
2	76	38	3800	1750	5550
3	108.4	36.13	3613	1167	4780
4	142.56	35.64	3564	875	4439
5	180.28	36.06	3606	700	4306
6	223.06	37.18	3718	583	4301

Computation of Col. 2:

Month 1: 100*0.4=40

Month 2: 100*(0.4+0.2) +40*0.4 = 76

Month 3: 100*(0.4+0.2+0.1) + 40*0.2 +76*0.4 = 108.4

Month 4: 100*(0.4+0.2+0.1+0.1)+ 40*0.1+76*0.2+108.4*0.4 = 142.56

Month 5: 100*(0.4+0.2+0.1+0.1+0.1) +40*0.1+76*0.1+108.4*0.2+142.56*0.4 = 180.28

Month6:100*(0.4+0.2+0.1+0.1+0.1+0.1)+40*0.1+76*0.1+108.4*0.1+142.56*0.2+180.28*0.4= 223.06

Graphical Representation Policy 2:

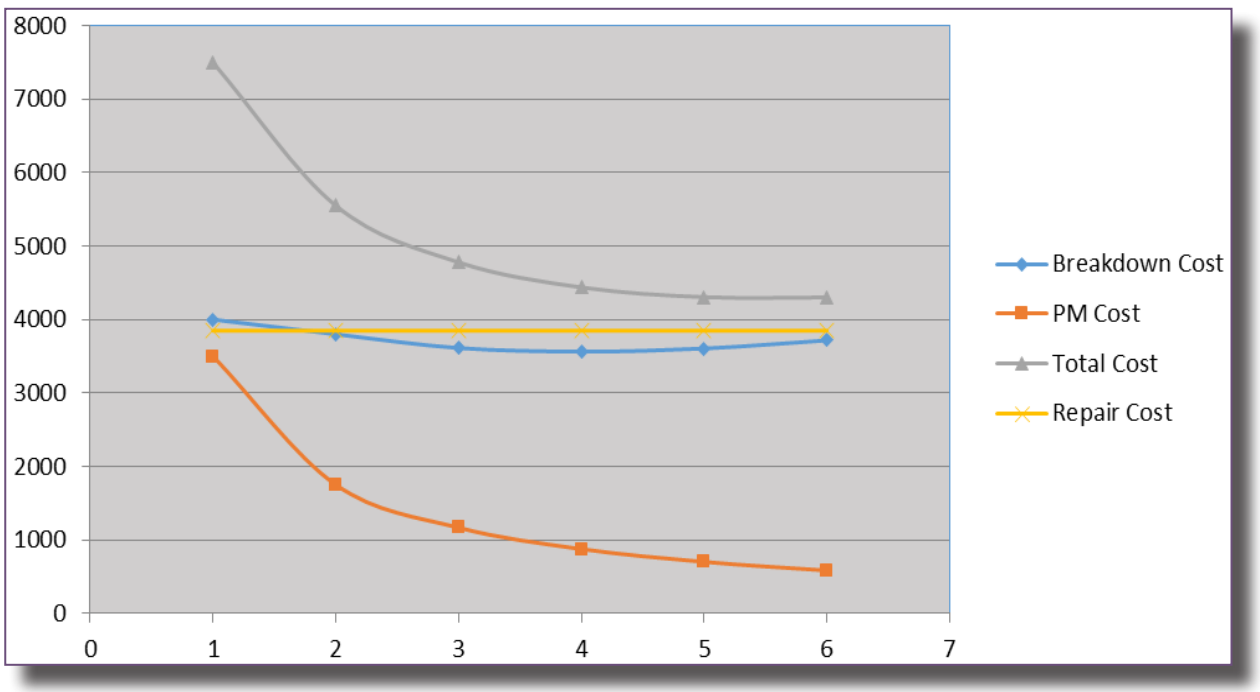


Fig -II

Repair Policy Cost of Policy 3 = Average number of repairs per month X Average repair cost on breakdown = 27.03 X 100 = ₹2,703 (Data taken from Ans 1)

Preventive Maintenance Costs for the Six Preventive Maintenance Cycles

Preventive Maintenance Cycle (n), months	Expected Breakdowns in PM Cycle	Average No of Breakdowns per month (Col.2/Col.1)	Expected Monthly Breakdown Cost (Col.3 x R100)	Expected Monthly PM Cost (R35 x 100)/ Col.1	Expected Monthly Cost of each PM cycle (Col.4 + Col.5)
1	10	10	1000	3500	4500
2	21	10.5	1050	1750	2800
3	33.1	11.03	1103	1167	2270
4	86.41	21.60	2160	875	3035
5	109.05	21.81	2181	700	2881
6	134.36	22.39	2239	583	2822

Computation of Col. 2:

Month 1: 100*0.1=10

Month 2: 100*(0.1+0.1) +10*0.1 = 21

Month 3: 100*(0.1+0.1+0.1) + 10*0.1 +21*0.1 = 33.1

Month 4: 100*(0.1+0.1+0.1+0.5) + 10*0.1+21*0.1+33.1*0.1 = 86.41

Month 5: 100*(0.1+0.1+0.1+0.5+0.1) +10*0.5+21*0.1+33.1*0.1+86.41*0.1 = 109.051

Month 6:100*(0.1+0.1+0.1+0.5+0.1+0.1)+10*0.1+21*0.5+33.1*0.1+86.41*0.1+109.051*0.1= 134.3561

Graphical Representation Policy 3:

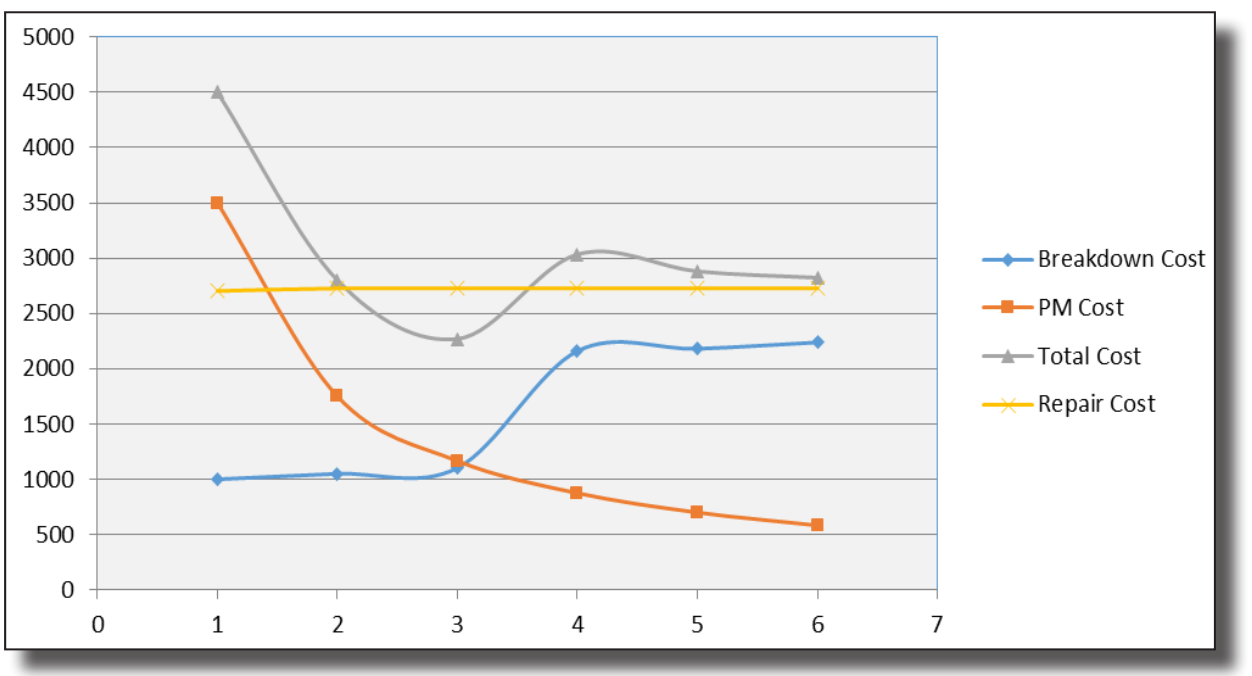


Fig-III

If we refer three graphs it is clear that –

Under Policy 1 (Fig –I) Repair cost ₹3,333 is always less than cost of all PM cycles -Refer Col.6 of Table-I. Therefore if breakdown probability distribution is like under Policy 1, management will opt for policy of repairing machine when it breaks down.

Under Policy 1 (Fig –II) Repair cost ₹3,846 is always less than cost of all PM cycles -Refer Col.6 of Table-I. Therefore if breakdown probability distribution is like under Policy 1, management will opt for policy of repairing machine when it breaks down.

Under Policy 3 (Fig –III) PM cycle of 3 months with the cost of ₹2,270 - Refer Col.6, Row 4 of Table-II, is less than Repair cost ₹2,703. Therefore if breakdown probability distribution is like under Policy 3, management will opt for PM policy of 3 months instead of going for policy of repairing machine when it breaks down. This way management can save ₹433

The decision concerning preventive maintenance versus Repair depends on i) factor costs CR and CPM ii) the breakdown probability distribution; besides other sensitivities.

Suggestions:

This lesson could be used as an aid to teaching on Maintenance in study notes. Concept of Preventive maintenance, Breakdown maintenance & replacement is vital in studying Operations Management. These discussions are in addition to knowledge imparted by study guide. For Proper understanding read supplementary readings by referring Operations Management by R.S. Russell & B.W. Taylor, Operations Management by J Stevenson.

Topic

Module 5:
Accounting Standards

Module 8:
Auditing of Different Types of Undertakings

INTERMEDIATE

Group II - Paper-10

Corporate Accounting and Auditing (CAA)

Section A: Corporate Accounting

Topic: Accounting Standards

- **Comprehensive Problems on Ind AS**
- **Ind AS 2 – Valuation of Inventories**

Problem:

State with reference to Ind AS 2, how will you value the inventories in the following cases:

(i) Raw materials were purchased at ₹ 200 per kilo. Price of the raw material is on decline. Finished goods in which raw materials were incorporated are expected to be sold at below cost. 5,000 kg of raw materials are on stock at the year end. Replacement cost is ₹ 160 per kg.

(ii) In a production process, normal wastage is 5% of input. 10,000 MT of input were put in process resulting in a wastage of 600 MT. Cost per MT of input is ₹ 1,000. The entire quantity of waste is on stock at the year end.

(iii) Per kg. of finished goods consisted of:

Material cost ₹ 200 per kg.

Direct labour cost ₹ 40 per kg.

Direct variable production overhead ₹ 20 per kg.

Fixed production charges for the year on normal capacity of one lakh kg. is ₹ 20 lakhs. 4,000 kg. of finished goods are in stock at the year end.

Solution:

(i) As per Ind AS 2, when there has been a decline in the prices of materials and it is estimated that the cost of the finished products will exceed net realisable value, the materials are written down to net realisable value. In such circumstances, the replacement cost of the materials may be the best available measure of their net realisable value.

Therefore, in this case, the materials will be valued at ₹ 160 per kg. Total value ₹ 8,00,000 (i.e., 5000 x 180).

(ii) Input : 10,000 MT; Normal wastage : 5%, i.e., 5% of 10,000 MT = 500 MT.

Actual wastage : 600 MT; Abnormal wastage 600 MT -- 500 MT = 100 MT.

As per Ind AS 2, in determining the cost of inventories, it is appropriate to exclude abnormal amounts of wasted materials or expenses in the period in which they are incurred.

Therefore, in this case, the entire cost of abnormal wastage, i.e., 100 x ₹1,000 = ₹ 1,00,000 should be charged to the Profit and Loss Account.

(iii) As per Ind AS 2, the allocation of fixed production overheads for the purpose of their inclusion in the costs of conversion is based on the normal capacity of the production facilities.

Therefore, in this case, the cost per kg. of finished goods will be calculated as under:

Materials	₹200
Direct labour	₹40
Direct variable production overheads	₹20
Fixed production overheads	₹20*
	₹280

*Fixed production overheads per kg. = ₹20,00,000/ 1,00,000 = ₹20 per kg.

Therefor e, the value of 4,000 kg. of finished goods = 4,000 x ₹280 = ₹ 11,20,000.

- **Ind AS 19 – Employee Benefits**

Problem:

From the following information, calculate the actual return on pension plan assets:

Fair market value of plan assets on 1st April, 2023	₹45,00,000
Fair market value of plan assets on 31st March, 2024	₹51,20,000
Employee's contribution	₹6,65,000
Benefit paid to retirees	₹7,60,000

Fair market value of plan assets on 1st April, 2023

Solution:

Computation of actual return on pension plan assets:

Particulars	₹	₹
Fair value of plan assets on 31.3.2014		51,20,000
Less: Fair value of plan assets on 1.4.2013		45,00,000
Change in fair value of plan assets		6,20,000
Adjustments:		
Employer's Contribution	6,65,000	
Less: Benefit paid to retirees	7,60,000	95,000
Actual return on plan assets		7,15,000

- **Ind AS 33 – Earnings Per Share**

Problem: Neel Limited issued 5,00,000 equity shares of ₹10 each, fully paid amounting to ₹50,00,000. It issued right shares among the existing shareholders, on 31st July, 2023 in the proportion of one new share for two outstanding shares at ₹50 each. Market price of the company's share prior to right issue was ₹90. Net profit before tax for the year ending on 31st March, 2023 and 31st March, 2024 was ₹11,00,000 and ₹13,50,000 respectively. Corporate tax rate is 30%. You are required to compute the basic earnings per share for the financial years 2022-23 and 2023-24 and restated EPS for 2022-23.

Solution:

1. Calculation of Theoretical Ex-Right Price

$$= \frac{\text{(Fair value of all outstanding shares immediately prior to exercise of right + Total amount received from exercise of rights)}}{\text{No. of shares outstanding prior to exercise of right + No. of shares issued in the exercise}}$$

$$= \frac{(5,00,000 \times 90)+(250000\times 50)}{500000+250000} = ₹76.67$$

2. Calculation for Adjustment Factor.

Fair value per share immediately prior to exercise of rights ÷ Theoretical Ex-right fair value per share

= ₹ 90 / ₹ 76.67 = ₹ 1.1739

3. Computation of EPS

Particulars	2022-23 (₹)	2023-24 (₹)
Profit before tax	1100000	1350000
Less: Corporate tax @ 30%	330000	405000
Profit after tax (profit attributable to equity shareholders)	770000	945000
EPS for 2022-23 (770000/500000)	1.54	---
EPS restated for 2022-23 for right issue = 770000/500000 ×1.1739	1.31	---
EPS for 2023-24 including right issue = 945000/[(500000 ×1.1739 × 4/12)+(750000 × 8/12)] = 945000/(195650 + 500000) = 945000/695650		1.36

Section B: Auditing

Topic: Auditing of Different Types of Undertakings

- **Multiple Choice Questions**

1. The rural self-governance in India is structured in _____ layers.

   A. Two

   B. Three

   C. Four

   D. Five

2. Which of the following is a part of urban self-governance system in India?

   A. Gram Panchayat

   B. Municipal Corporation

   C. Zilla Parishad

   D. Panchayat Samiti

3. Out of the profit remaining after compulsory transfer to Reserve Fund, the maximum amount of profit that can be transferred by a co-operative society for charitable purpose is restricted to _____.

   A. 8%

   B. 10%

   C. 12%

   D. 15%

4. The audit of the balance sheet and profit and loss account of a banking company is mandatory under _____ .

   A. RBI Act

   B. Payment and Settlement Act, 2007

   C. Banking Regulation Act, 1949

   D. Companies Act, 2013

Answer:

1	2	3	4
B	B	B	C

- **Comprehensive Questions**

Question:

How will an auditor conduct the audit of income and expenditure of an educational institution?

Solution:

In order to audit the income and expenditure of an education institution, the following steps must be undertaken.

I. Audit of Income

1. **Tuition fees received:** The auditor should check the fees received by comparing counterfoils of receipts granted against entries in the cash book. He must ensure that the revenue from this source has been duly accounted for.
2. **Admission fees received:** The auditor should check admission fees based on admission slips signed by the concerned authority of the institution. He must ensure that the amount has been appropriately credited to a capital fund,. If the managing committee has decided any other treatment, he must enquire into the same and see that the policy has been carried out.
3. **Government grants:** He should verify the grant from the government or any local authority with the memo of grant. He must see that the accounting entry for the same has been done appropriately and the same has been utilized for the stated purpose only.
4. **Fine for late payments, etc.:** The auditor should check all the late fines have been appropriately calculated, waiver, if any, has been properly authorised and all the collections have been duly accounted for under the proper authority.
5. **Income from other sources:** The auditor should check income from other sources such as, rental income from landed property, interest and dividends from investments, etc. with reference to documentary evidence available.

II. Audit of Expenditure

1. **Distinction between capital and revenue expenditure:** The auditor must ensure that proper distinction has been made between capital expenditure and revenue expenditure in the books of accounts.
2. **Vouching of expenses:** The auditor needs to check all expenses with reference to the entries in the cash book with the help of bills, etc.
3. **Purchase of fixed assets:** Purchase of fixed assets should be verified with the help of relevant documents. The auditor should assure himself about their existence through physical verification at a particular interval of time. He must also see that the purchase has been properly authorised by appropriate authority.
4. **Depreciation of fixed assets:** The auditor should examine whether proper depreciation has been charged on the fixed assets of the institute including furniture and buildings.

Topic

Module 6:
Working Capital Management

Module 9:
Data Processing, Organisation, Cleaning and Validation

INTERMEDIATE

Group II - Paper-11

Financial Management and Business Data Analytics (FMDA)

Subject: Financial Management and Business Data Analytics

Financial Management

Working Capital Management

Working capital has two concepts:

(i) Gross working capital and

(ii) Net working capital.

Gross working capital refers to the total of the current assets. Net working capital refers to the excess of the current assets over current liabilities. Net working capital (NWC) can alternatively define as the part of the current assets which are financed with the long-term funds. Since, current liabilities represent sources of short-term funds, as long as the current assets exceeds the current liabilities, the excess must be financed with the long-term funds.

Determinants of Working Capital:

(i) Nature and size of the Business; (ii) Production Policies; (iii) Process of Manufacture; (iv) Growth and Expansion of Business; (v) Fluctuations in the Trade Cycle; (vi) Terms and conditions of Purchases and Sales; (vii) Dividend Policy; (viii) Price Level Changes; (ix) Operating Efficiency**; (x)** Percentage of Profits and Appropriation out of Profits

Example 1

PQR Ltd. has furnished information of a product (per unit):

(a) Raw material cost	₹ 150
(b) Direct labour cost	₹ 40
(c) Overhead cost	₹ 60
(d) Total Cost	₹ 250
(e) Profit	₹ 50
(f) Selling Price	₹ 300

Other information:

(i) The company keeps raw material in stock on an average for 2 months; work in progress on an average for 3 months and finished goods in stock on an average 1 month.

(ii) Credit allowed by suppliers is 1.5 months;

(iii) Company allows 2 months credit to its debtors.

(iv) The lag in payment of wages is 1 month and lag in payment of overhead expenses is 1.5 months.

(v) The company sells 25% of the output against cash and maintain cash in hand at bank put together at ₹ 1,50,000.

Production is carried on evenly throughout the year and wages and overheads also similarly. Work in progress stock is 75% complete in all respects.

Prepare statement showing estimate of working capital requirements to finance an activity level of 15,000 units of production.

Solution:

(Receivables (Debtors) are calculated based on Cost of goods sold)

		(₹)	(₹)
A.	**Current Assets**		
(i)	Inventories:		
	Raw material (2 months) $= \frac{15{,}000 \text{ units} \times ₹150}{12 \text{ Months}} \times 2 \text{ Months}$	3,75,000	
	WIP Inventory (3 months) $= \left(\frac{15{,}000 \text{ units} \times ₹250}{12 \text{ Months}} \times 3 \text{ Months}\right) \times 0.75$	7,03,125	
	Finished goods inventory (1 month) $= \frac{15{,}000 \text{ units} \times ₹250}{12 \text{ Months}} \times 1 \text{ Month}$	3,12,500	13,90,625

(ii)	Receivables (Debtors) (2 months) $= (\frac{15{,}000 \text{ units} \times ₹250}{12 \text{ Months}} \times 3 \text{ Months}) \times 0.75$		4,68,750
(iii)	Cash and bank balance		1,50,000
	Total Current Assets		20,09,375
B.	Current Liabilities:		
(i)	Payables (Creditors) for materials (1.5 months) $= \frac{15{,}000 \text{ units} \times ₹150}{12 \text{ Months}} \times 1.5 \text{ Months}$		2,81,250
(ii)	Outstanding wages (1 month) $= \frac{15{,}000 \text{ units} \times ₹40}{12 \text{ Months}} \times 1 \text{ Month}$		50,000
(iii)	Outstanding overheads (1.5 months) $= \frac{15{,}000 \text{ units} \times ₹150}{12 \text{ Months}} \times 1.5 \text{ Months}$		1,12,500
	Total Current Liabilities		4,43,750
	Net Working Capital Needs (A – B)		15,65,625

Example 2

In order to increase sales from the normal level of ₹ 2.4 lakh per annum, the marketing manager of X Ltd. submits a proposal for liberalising credit policy as under:

Normal sales: ₹ 2.4 lakh

Normal credit period: 30 days.

Proposed increase in credit period beyond normal 30 days	Increase in normal sales (₹)
15	12,000
30	18,000
45	21,000
60	24,000

The contribution to volume/profit-volume ratio is 33.33 per cent. The company expects a pre-tax return of 20 per cent on investment. Evaluate the above 4 alternatives and advise the management (assume 360 days a year).

Solution:

Effect of extending credit period to customers (Amount in lakh of rupees)

Particulars	Credit period (days)				
Days	30	45	60	75	90
Sales	2.4	2.52	2.58	2.61	2.64
Variable costs (2/3)	1.6	1.68	1.72	1.74	1.76
Contribution (1/3)	0.8	0.84	0.86	0.87	0.88
Less: Cost of investment in debtors at variable costs (as data related to fixed cost is not given)	0.027	0.042	0.057	0.0725	0.088
(Total VC/Debtors turnover) × 0.20					
Profit	0.773	0.798	0.803	0.7975	0.792

Comment: The company is advised to extend credit for 60 days.

Multiple Choice Questions

1. The basic objectives of Working Capital Management are:

   (a) Optimum utilization of resources for profitability

   (b) Ensuring marginal return on current assets is always more than cost of capital

   (c) To meet day-to-day current obligations

   (d) Select any one of the above statements

Answer (c)

2. Trade credit is a

   (a) Negotiated source of finance

   (b) Spontaneous source of finance

   (c) Hybrid source of finance

   (d) None of the above

Answer (b)

3. In Miller - ORR Model of Cash Management is:

   (a) The lower, upper limit, and return point of Cash Balances are set out

   (b) Only lower limit and return point are decided

   (c) Only upper limit and return point are decided

   (d) None of the above are decided.

Answer (a)

4. Conversation of marketable securities into cash entails a fixed cost of ₹1,000 per transaction. What will be the optimal conversation size as per Baumol model of cash management?

   (a) ₹315,628

   (b) ₹316,228

   (c) ₹317,678

   (d) ₹318,426

Answer: (b)

5. The term Float is used in

   (a) Receivable Management

   (b) Cash Management

   (c) Marketable Management

   (d) Inventory Management

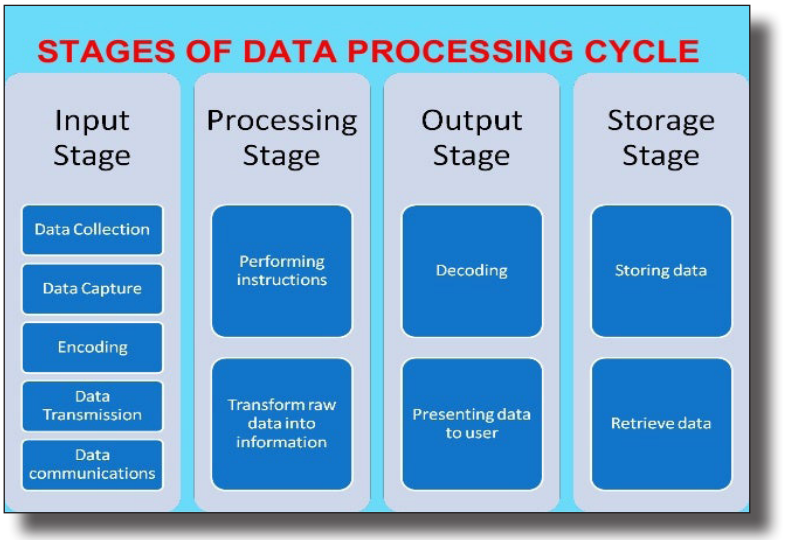
Answer (b)

Data Analytics
(Data Processing, Organisation, Cleaning and Validation)

Data Processing

Data processing is the method of collecting raw data and translating it into usable information. It is usually performed in a step-by-step process by a team of data scientists and data engineers in an organization. The stages of data processing cycle are mentioned below:

Stages of data processing cycle



Source: https://peda.net/kenya/ass/subjects2/computer-studies/form-3/data-processing

Significant areas of data processing where data science play important role

Risk analytics	Real time analytics	Customer data management:
Consumer Analytics	Customer segmentation	Personalized services
Advanced customer service	Predictive Analytics	Fraud detection
Anomaly detection	Algorithmic trading	

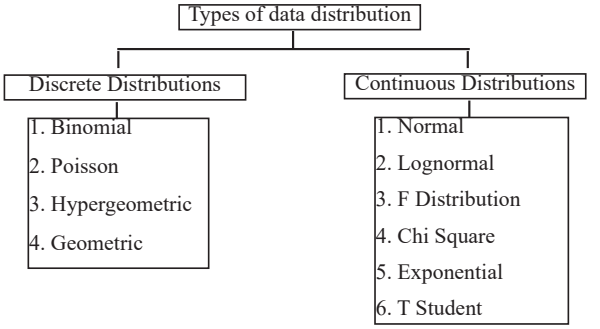
Data Organization

Data organisation is the classification of unstructured data into distinct groups. This raw data comprises variables' observations. As an illustration of data organisation, the arrangement of students' grades in different topics is one example.

Good data organization strategies are important because your data contains the keys to managing your company's most valuable assets. Getting insights out of this data could help you obtain better business intelligence and play a major role in your company's success.

Data distribution

Data distribution is a function that identifies and quantifies all potential values for a variable, as well as their relative frequency (probability of how often they occur). Any population with dispersed data is categorised as a distribution. It is necessary to establish the population's distribution type in order to analyse it using the appropriate statistical procedures.



Type of data distribution

Data Cleaning

Data cleansing is the process of correcting or deleting inaccurate, corrupted, improperly formatted, duplicate, or insufficient data from a dataset.

How to Clean Data

(a) Identify data discrepancies using data observability tools.

(b) Remove unnecessary values.

(c) Remove duplicate data.

(d) Fix structural errors.

(e) Address any missing values.

(f) Standardize data entry and formatting.

(g) Validate and correct values against a known list of entities.

(h) Develop a data quality strategy.

Data validation

Data validation is a crucial component of any data management process, whether it is about collecting information in the field, evaluating data, or preparing to deliver data to stakeholders. If the initial data is not valid, the outcomes will not be accurate either. It is therefore vital to check and validate data before using it.

Data validation steps

- Gather program requirements from technical and business stakeholders.
- Define validation rules and criteria.
- Collect and organize datasets.
- Verify data against defined rules and criteria.
- Identify errors or inconsistencies and determine how to handle them.

Topic

Module 5: Transfer Pricing

Module 8: Divisional Performance Measurement

INTERMEDIATE

Group II - Paper-12

Management Accounting (MA)

Module 5: Transfer Pricing

In the domain of cost and management accounting, transfer pricing serves as a crucial mechanism for allocating costs and assessing performance within multinational corporations. It involves determining the prices at which goods, services, or intangible assets are transferred between different segments or subsidiaries of the organization. The objective is to accurately reflect the costs associated with these transactions and ensure that they are fairly allocated among the various entities involved. By adhering to the principles of cost and management accounting, companies can make informed decisions regarding pricing strategies, resource allocation, and performance evaluation.

Methods and Techniques

Cost and management accountants employ various methods and techniques to determine transfer prices that align with the organization's strategic objectives and regulatory requirements. These methods include traditional approaches such as the Cost-Plus Method, which adds a markup to the cost of production, as well as more advanced techniques like Activity-Based Costing (ABC), which allocates costs based on the activities that drive them. By utilizing these methods, companies can derive transfer prices that accurately reflect the underlying costs and provide meaningful insights for decision-making purposes.

Divisional Performance and Problem of Goal Congruence

Transfer pricing has a significant impact on divisional performance evaluation within organizations. Cost and management accountants play a crucial role in ensuring that transfer prices align with the company's performance metrics and promote goal congruence across different segments. However, challenges may arise when divisional managers prioritize their own performance objectives over the broader goals of the organization. Cost and management accountants must address these issues by designing performance measures that incentivize collaboration and alignment with overall corporate objectives.

Determination of Inter-departmental or Inter-company Transfer Price

Cost and management accountants are responsible for determining inter-departmental or inter-company transfer prices that facilitate efficient resource allocation and promote coordination among various units. These transfer prices should reflect the true costs of the goods or services exchanged, taking into account factors such as production costs, overhead expenses, and market conditions. By establishing transparent and equitable transfer pricing mechanisms, cost and management accountants can ensure that resources are allocated effectively and that the organization operates efficiently as a whole.

International Transfer Pricing

In the context of cost and management accounting, international transfer pricing poses unique challenges due to differences in tax regulations, currency fluctuations, and regulatory requirements across jurisdictions. Cost and management accountants must navigate these complexities to develop transfer pricing strategies that optimize tax efficiency while ensuring compliance with regulatory standards. By leveraging their expertise in cost analysis and performance evaluation, cost and management accountants can help multinational corporations navigate the complexities of international transfer pricing and achieve their strategic objectives.

Transfer pricing is a critical aspect of multinational business operations, encompassing various concepts and techniques. At its core, it involves pricing transactions within a company to ensure fairness and compliance with the arm's length principle. Methods such as Comparable Uncontrolled Price (CUP), Resale Price Method, Cost-Plus Method, and Profit Split Method are utilized to determine appropriate transfer prices. However, these methods must be applied carefully to address divisional performance metrics and promote goal congruence across the organization. Inter-departmental or inter-company transfer pricing further complicates the issue, requiring careful consideration to balance divisional profitability with overall company objectives. Moreover, international transfer pricing introduces additional complexities due to differing tax regulations and compliance requirements across jurisdictions. Navigating these challenges effectively is essential to ensure efficient resource allocation, compliance with tax laws, and alignment with corporate goals.

MCQ

1. What is the primary objective of transfer pricing in cost and management accounting?
   a) Maximizing shareholder wealth
   b) Ensuring fairness and accuracy in cost allocation
   c) Minimizing tax liabilities
   d) Increasing market share
2. In cost and management accounting, transfer pricing is most closely associated with:
   a) Allocating indirect costs
   b) Assessing divisional performance
   c) Budgeting and forecasting
   d) Financial statement analysis
3. What challenge does transfer pricing pose in relation to divisional performance evaluation?
   a) Incentivizing collaboration
   b) Ensuring compliance with tax regulations
   c) Addressing goal congruence issues
   d) Minimizing production costs
4. What issue arises when divisional managers prioritize their own performance objectives over the broader goals of the organization?
   a) Goal congruence
   b) Transfer pricing compliance
   c) Tax optimization
   d) Resource allocation
5. What role do cost and management accountants play in determining transfer prices?
   a) Implementing tax strategies
   b) Evaluating market share
   c) Allocating production costs
   d) Analyzing financial statements
6. What is the primary challenge associated with international transfer pricing?
   a) Allocating overhead costs
   b) Navigating differences in tax regulations
   c) Determining divisional performance metrics
   d) Setting transfer prices based on market conditions
7. Which of the following situation is considered under negotiated transfer pricing?
   a) Divisions are not forced to purchase internally
   b) When external market does not exist and market prices are not available
   c) Increase sales revenue
   d) Existence of export market
8. The problem of goal congruence in transfer pricing refers to:
   a) Ensuring compliance with tax regulations
   b) Maximizing shareholder wealth
   c) Minimizing production costs
   d) Aligning divisional goals with corporate objectives
9. In which of the following situation 'Market Based Transfer Prices' method will be used?
   a) When a competitive external market for the product exists.
   b) When managers have the autonomy to purchase externally or internally.
   c) When transferring and receiving divisions are treated as a profit or investment centre and, therefore, are evaluated on profit based measures, such as ROI or residual income.
   d) When the transferring division is treated as a cost centre. In this case, a profit is not

necessary, as performance evaluation is based on cost control.

10. What is the key consideration when determining inter-departmental or inter-company transfer prices?
    a) Maximizing divisional profits
    b) Ensuring compliance with tax regulations
    c) Promoting collaboration and efficiency
    d) Reducing market competition
11. Which of the following is not the objective of international transfer pricing?
    a) Repatriation of profits in kind
    b) Maximization of import duties
    c) Management of direct and indirect taxation
    d) To disguise profitability of a subsidiary
12. Division R transfers its output to Division S at variable cost. Once a year R charges a fixed fee to S, representing an allowance for R's fixed costs. This type of transfer pricing system is commonly known as:
    a) Dual pricing
    b) Negotiated transfer pricing
    c) Opportunity cost-based transfer pricing
    d) Two-part tariff transfer pricing

Answer:

1	2	3	4	5	6	7	8	9	10	11	12
b	b	c	a	c	b	b	d	d	d	b	a

True and False

1. Opportunity Cost Based Transfer Pricing is not considered as a method of Transfer Pricing.
2. Dual pricing is the method of transfer pricing used to price transfer of products from one subunit to another.
3. The creation of foreign subsidiaries and bases of operation for cross-border flow of products is having a significant impact on the issue of transfer pricing.
4. The decision-making and the performance evaluation objectives for establishing a transfer pricing system does not conflict with each other.
5. Divisional profits are a reasonable measure of the managerial performance of the division.

Answer

1. False
2. True
3. True
4. False
5. True

Fill in the blanks

1. Division under transfer pricing system is treated as _____.
2. _____ is the most popular method of transfer pricing.
3. _____ can be helpful in proper utilization of work force.
4. Domestic transfer pricing is concerned with fairly compensating an _____ for products.
5. A company can choose a _____ to locate profit in a division in a country with a low corporate tax rate.

Answer

1. Profit Centre
2. Market based pricing
3. Cross training
4. internal division
5. transfer price

Module 8: Divisional Performance Measurement

Organizations transition from centralized to decentralized structures as they grow, aiming to adapt to dynamic needs effectively. Decentralization empowers lower levels with decision-making authority, fostering agility in response to local conditions. Responsibility centers, including cost, revenue, profit, and investment centers, are established to evaluate performance. The extent of decentralization is determined by managerial traits, growth demands, and organizational activities. Despite decentralization, top management maintains overall accountability, facilitated by sophisticated accounting systems for oversight. Centralizing functions such as treasury management enhances cash control and cost efficiency. Ultimately, decentralization seeks to strike a balance between decision-making efficiency and organizational accountability across the continuum of growth and change.

Disadvantages of Decentralization:

- Risk of goal incongruence or sub-optimization by sub-unit managers.
- Increased need for effective communication due to decision-making being distant from the home office.
- Potential personnel challenges upon implementation, especially if managers struggle to delegate effectively.
- Can be costly, including expenses for training and potential poor decision-making.

Divisionalization and Decentralization:

- Many large organizations adopt divisional structures, with a focus on measuring divisional and managerial performance.
- Decentralization involves decision-making at divisional and departmental levels, while centralization sees decisions made by top management and implemented by subordinates.
- Decentralization aids in recognising and developing managerial talent, addressing local problems, and reducing stress for senior management. It also fosters job satisfaction and facilitates the achievement of organisational goals.

DuPont Methodology Overview: The DuPont methodology, developed by the DuPont Corporation, analyses fundamental results by breaking down Return on Equity (ROE) into its components. This allows for a deeper understanding of financial performance and helps investors identify strengths and weaknesses accurately.

Components of DuPont Analysis:

1. **Operating Performance:** This measures profitability by dividing net profit by total revenues. Maintaining healthy profit margins is essential for improving ROE.
2. **Asset Usage Performance:** Assessed through the Total Asset Turnover ratio, indicating how efficiently assets are being utilised. Higher asset turnover positively impacts ROE.
3. **Financial Leverage:** This involves using debt to finance assets. While leverage can enhance ROE, excessive debt can pose risks to the company's financial health.

Significance of DuPont Analysis:

- A high Net Profit Margin, effective asset usage, and appropriate financial leverage can increase ROE.
- It helps divisional managers understand their segment's contribution to overall ROE and aids top management in capital allocation decisions.
- Increasing ROE solely through leverage is not advisable, as it can elevate risk levels.

Performance Measurement and ROI:

Successful performance measurement aligns with an organisation's objectives, typically centred around shareholder wealth maximisation. Profit-based measures are common but overlook the cost of equity capital, leading to incomplete wealth assessment.

Divisional Structure:

In divisional structures, divisions operate autonomously, necessitating clear strategy communication for goal congruence. Performance data must flow freely to all levels for effective budgeting and monitoring.

ROI as a Performance Measure:

Return on Investment (ROI) is crucial, expressing divisional profit as a percentage of assets employed. It aids comparison across divisions and facilitates planning for profit improvement by focusing on margin, turnover, or both.

Use of ROI:

ROI serves financial reporting and aggregation purposes, allowing comparisons between units. However, it may encourage short-termism due to non-current asset measurement complexities and target return policies.

Challenges with ROI Policies:

Policies setting minimum ROI thresholds for investments may overlook risk variations and impose uniform standards on diverse businesses within a conglomerate, potentially incentivising short-term decisions.

Residual Income (RI)

Definition: Residual income is the profit left over after deducting a cost of capital charge from the divisional profit, providing a more accurate measure of performance than ROI.

Calculation: RI = Divisional profit - (Percent capital charge × Divisional investment)

Advantages:

1. **Avoids Suboptimal Decisions:** Investments are accepted if they exceed the cost of capital, preventing ROI-centric rejections.
2. **Maximises Growth:** Accepts opportunities exceeding the cost of capital, enhancing shareholder wealth.
3. **Awareness of Opportunity Cost:** Capital charge ensures managers consider the opportunity cost of funds.
4. **Alignment with Organisational Interests:** Charging each division with the company's cost of capital ensures decisions align with organisational goals.

Managerial Impact:

- **ROI Method:** Managers accept investments only if returns exceed divisional ROI to avoid decreasing it.
- **RI Method:** Accepts investments exceeding the minimum required rate of return, increasing the division's overall RI.

Disadvantage:

- **Absolute Measure:** Difficult to compare divisions of different sizes; setting targeted RI levels can mitigate this issue.
- **Short-term Orientation:** Like ROI, can encourage short-term focus, potentially overlooking long-term benefits.

Economic Value Added (EVA)

EVA is a value-based financial performance measure that assesses a company's ability to generate returns exceeding its cost of capital.

Calculation: EVA = Net Operating Profit After Tax (NOPAT) - (Weighted Average Cost of Capital (WACC) × Economic Capital Employed)

Significance:

- **Performance Measurement:** EVA measures a company's economic profit, indicating whether it surpasses shareholder expectations.
- **Incentive Compensation:** Used to set and assess incentive compensation payments, encouraging a balance between short-term results and long-term performance.
- **Decision Making:** Provides managers with valuable information for making decisions and formulating strategies that enhance EVA.

Components:

- **Cost of Equity:** Determined using the Capital Asset Pricing Model (CAPM), representing the return investors seek when buying common shares.
- **Cost of Debt:** Rate of return debt-holders require, typically calculated using discounted cash flow analysis.
- **Cost of Tax:** Adjusted after-tax cost of debt.

Advantages:

- **Wealth Creation Focus:** Emphasizes creating wealth exceeding the cost of capital, essential for economic survival and shareholder value.
- **Performance Comparison:** Enables comparison of companies' performance by removing accounting anomalies.
- **Encourages Correct Decisions:** Encourages managers to make decisions and strategies that enhance EVA by considering incremental wealth creation.

Limitations:

- **Absolute Measure:** Difficulty in comparing divisions or companies of different sizes.
- **Short-Term Focus:** Like ROI, may encourage a short-term orientation, potentially overlooking long-term benefits.

MCQ

1. In a centralized organizational structure, the majority of decision-making authority lies in the hands of _____.
   a) Top level management
   b) Middle level management
   c) Low level management
   d) None of the above
2. Which one is not a benefits of decentralized organization structure?
   a) Helps top management recognizes and develop managerial talent
   b) Greater awareness of local problems
   c) Requires more effective communication abilities
   d) Develops skill level of junior managers
3. Which one is not the formula of ROE under DuPont analysis?
   a) Net Profit Margin × Asset Turnover Ratio × Financial Leverage
   b) (Net Income ÷Sales) × Asset Turnover Ratio × Financial Leverage
   c) Net Profit Margin × Asset Turnover Ratio × (Total Assets ÷ Total Equity)
   d) Gross Profit Margin × (Sales ÷Total Assets) × Financial Leverage
4. In DuPont analysis Net profit margin measures the _____.
   a) Operating performance
   b) Asset usage performance
   c) Amount of debt used to acquire assets or fund project
   d) Efficiency of the company in using its assets
5. Which one is not the importance of Du Pont analysis
   a) Generates a high Net Profit Margin
   b) Effectively uses its assets so as to generate more sales
   c) Has a high Financial Leverage
   d) Relies on accounting equations
6. A company has Net profit Margine is 0.25, total asset turnover is 1.6 times and equity multiplier is 2.5 Calculate ROE as per Du Pont analysis.
   a) 0.625
   b) 4
   c) 1
   d) 1.5
7. Return on investment (ROI) is calculated as
   a) (Profit before interest and tax ÷ Operations management capital employed) × 100
   b) (Profit after tax ÷ Operations management capital employed) × 100
   c) (Profit before interest and tax ÷ Operating profit) × 100
   d) (Profit after interest and before tax ÷ Operating profit) × 100
8. Residual Income (RI) can be calculated as
   a) (Profit before interest and tax ÷ Operations management capital employed) × 100
   b) Divisional profit - (Percent capital charge × Divisional investment)
   c) Divisional profit + (Percent capital charge × Divisional investment)
   d) (Profit after interest and before tax ÷ Operating profit) × 100
9. Which one of the following is not the advantage of Residual Income (RI)
   a) It maximizes growth of the company and increases shareholders' wealth
   b) The cost of capital charge on divisional investments ensures that divisional managers are aware of the opportunity cost of funds.
   c) Charging each division with the company's cost of capital ensures that decisions taken by different divisions are compatible with the interests of the organization as a whole
   d) Residual income is an absolute measure which helps to compare the performance of a division with that of other divisions or companies of a different size

10. A company has gross margin of ₹ 258,000, Selling and administrative expense ₹ 210,000, January 1 net book value of operating assets Rs. ₹2,77,000, December 31 net book value of operating assets ₹3,23,000 and Minimum rate of return 12%. Calculate Residual Income from the above details.
    a) 12,000
    b) 15,000
    c) 16,000
    d) 2,19,240
11. Acme, a division of Ace Manufacturing, has assets of ₹2,25,000 and an operating income of ₹55,000. What is the division's ROI and RI?
    a) 24.44% and 24000
    b) 24.44% and 28,000
    c) 20.11% and 28000
    d) 20.11% and 24000
12. An investment center has net assets of ₹8,00,000, and made profits before interest and tax of ₹1,60,000. The notional cost of capital is 12%. Calculate RI (Residual Income).
    a) 54,000
    b) 64,000
    c) 80,000
    d) 19,200

Answer

1. a
2. c
3. d
4. a
5. d
6. c
7. a
8. b
9. d
10. a
11. b
12. b

Fill in the blanks

1. The process of delegating decision authority and responsibility in an organization is known as _____.
2. Economic Value Added = NOPAT – (WACC x _____)
3. The main disadvantage of the DuPont analysis is that it still relies on _____equations.
4. The essence of decentralization is _____ freedom.
5. Total Assets Turnover ratio depicts the efficiency of the company in using its_____.

Answer

1. decentralization
2. capital employed
3. accounting
4. decision-making
5. assets

True & False

1. To increase overall efficiency, many companies choose to decentralize.
2. Companies only generate wealth when they generate a return in excess of the return required by providers of capital.
3. In calculation of EVA the cost of debt should be considered as before tax.
4. Decentralization can be extremely cheap, including costs of training and of making poor decisions.
5. Negative EVA indicates that a company surpassed the expectations of its shareholders

Answer

1. True
2. True
3. False
4. False
5. False

CMA FINAL COURSE

Syllabus 2022

Topic

Module 8:

Laws and Regulations related to Insurance Sector

FINAL

Group III - Paper-13

Corporate and Economic Laws (CEL)

LAW RELATED TO INSURANCE SECTOR

Constitution of IRDA

Chairman and Members of Authority

As per the section 4 of IRDAI Act 1999, Insurance Regulatory and Development Authority of India (IRDAI, specify the composition of Authority with 10 members all appointed by Central Govt.

MISSION STATEMENT OF THE AUTHORITY

- To protect the interest of and secure fair treatment to policyholders .
- To bring about speedy and orderly growth of the insurance industry (including annuity and superannuation payments), for the benefit of the common man, and to provide long term funds for accelerating growth of the economy;
- To set, promote, monitor and enforce high standards of integrity, financial soundness, fair dealing and competence of those it regulates;
- To ensure speedy settlement of genuine claims, to prevent insurance frauds and other malpractices and put in place effective grievance redressal machinery;
- To promote fairness, transparency and orderly conduct in financial markets dealing with insurance and build a reliable management information system to enforce high standards of financial soundness amongst market players;
- To take action where such standards are inadequate or ineffectively enforced;
- To bring about optimum amount of self-regulation in day-to-day working of the industry consistent with the requirements of prudential regulation.

Regulation of Insurance Business

Under Section 14 of the IRDA Act, IRDA is the Authority to regulate, promote and ensure orderly growth of the insurance business and re-insurance business, with following powers.

(a) Issue of Certificate of Registration to insurance companies, renew, modify, withdraw, suspend or cancel the certificate of registration

(b) Protection of interests of policyholders

(c) Specification of requisite qualifications, practical training and code of conduct for insurance agents and intermediaries

(d) Specification of code of conduct for surveyors and loss assessors (e) Promoting efficiency in insurance business

(f) Levying fees and other charges for carrying out the purposes of the Act

(g) manner of keeping books of account shall be maintained by insurance companies and intermediaries

(h) Calling for information from or undertaking inspection of insurance companies, intermediaries and other oganisations connected with insurance business

(i) Control and regulation of rates, advantages, terms and conditions that may be offered by general insurance companies

Insurance Regulatory and Development Authority Fund:

According to Section 16(1) of Insurance Regulatory and Development Authority Act, 1999, there shall be constituted a fund to be called the Insurance Regulatory and Development Authority Fund where following funds shall be credited.

(a) all Government grants, fees and charges received;

(b) all sums received from such other source as may be decided upon by the Central Government;

(c) the percentage of prescribed premium income received from the insurer.

The Fund shall be applied for incurring expenses for (a) remuneration of the members, and employees of the Authority; (b) the other expenses of the Authority.

The Authority shall furnish to the Central Government at such time and in such form and manner as may be prescribed, as the Central Government may, from time to time, require.

(2) The Authority shall, within nine months after the close of each financial year, submit to the Central Government a report giving a true and full account of its activities including the activities for promotion and development of the insurance business during the previous financial year.

(3) Copies of the reports received, shall be laid, as soon as may be after they are received, before each House of Parliament.

Investment of assets of insurance companies.

Investment of Assets is stipulated under Section 27 of

the Insurance Act. Every insurer shall invest and at all times keep invested assets equivalent to not less than the sum of the amount of his liabilities to holders of life insurance policies in India on account of matured claims, and the amount required to meet the liability on policies of life insurance maturing for payment in India, less the amount of premiums which have fallen due to the insurer on such policies but have not been paid and the days of grace for payment of which have not expired, and any amount due to the insurer for loans granted on and within the surrender values of policies of life insurance maturing for payment in India issued by him or by an insurer whose business he has acquired and in respect of which he has assumed liability in the following manner namely: (a) 25% of the said sum in Government securities, a further sum equal to not less than twenty-five per cent of the said sum in Government securities or other approved securities, and (b) the balance in any of the approved investments as may be specified by the regulations subject to the limitations, conditions and restrictions specified therein. In the case of an insurer carrying on general insurance business, 25% of the assets in Government Securities, a further sum equal to not less than ten per cent of the assets in Government Securities or other approved securities and the balance in any other investment in accordance with the regulations of the Authority and subject to such limitations, conditions and restrictions as may be specified by the Authority in this regard. No insurer carrying on life insurance business shall invest or keep invested any part of his controlled fund and no insurer carrying on general business shall invest or keep invested any part of his assets otherwise than in any of the approved investments as may be specified by the regulations subject to such limitations, conditions and restrictions therein. (Section 27A). All assets of an insurer carrying on general insurance business shall subject to such conditions, if any, as may be prescribed, be deemed to be assets invested or kept invested in approved investments specified in section 27. (Section 27B).

An insurer may invest not more than five per cent in aggregate of his controlled fund or assets in the companies belonging to the promoters, subject to such conditions as may be specified by the regulations. (Section 27C) (f) Prohibition of loans (Section 29).

No insurer shall grant loans or temporary advances either on hypothecation of property or on personal security or otherwise, except loans on life insurance policies issued by him within their surrender value, to any director, manager, actuary, auditor or officer.

MCQ

1. IRDA shall, within _____ after the close of each financial year, submit to the Central Government a report giving a true and full account of its activities.

   (a) nine months

   (b) three months

   (c) one month

   (d) six months

Answer: (a)

2. The principle of _____ ensures that an insured does not profit by insuring with multiple insurers.

   (a) Subrogation

   (b) Contribution

   (c) Co-insurance

   (d) Indemnity

Answer: (b)

3. An actuary is expected to:

   (a) Make an exact forecast of the future liabilities of policies

   (b) Make a reasonable forecast of the future liabilities of policies

   (c) Calculate the premium required to cover a risk on a long-term basis

   (d) Find the probability of an insured event to happen in non-life policies

Answer: (b)

4. The amount credited to The Insurance Regulatory and Development Authority Fund shall consist of:

   (a) all Government grants, fees and charges received by the Authority;

   (b) all sums received by the Authority from such other source as may be decided upon by the Central Government;

   (c) the percentage of prescribed premium income received from the insurer;

   (d) all of the above

Answer: (d)

Topic

Module 6 :

Equity and Bond Valuation and Evaluation of Performance

FINAL

Group III - Paper-14

Strategic Financial Management (SFM)

Section: International Financial Management
Topic: Equity and Bond Valuation and Evaluation of Performance

- **Multiple Choice Questions:**

1. The equity share of C Limited is currently selling for ₹30 per share. The dividend expected next year is ₹2.00. The investors' required rate of return on this stock is 15 percent. If the constant growth model applies to Rax Limited, what is the expected growth rate ?

   (A) 7.5%

   (B) 8.1%

   (C) 8.3%

   (D) 9.2%

Answer: (C)

Since $P_0 = \frac{D_1}{r - g}$

So, $g = r - D_1/P_0$

Or, $g = 0.15 - 2.00/30.00 = 0.0833$ or 8.33%

Comprehensive Problems

Problem

A Ltd.'s earnings and dividends have been growing at a rate of 18 per cent per annum. This growth rate is expected to continue for 4 years. After that the growth rate will fall to 12 per cent for the next 4 years. Thereafter, the growth rate is expected to be 6 per cent forever. If the last dividend per share was ₹4.00 and the investors' required rate of return on A Ltd.'s equity is 15 per cent, what is the intrinsic value per share ?

Solution:

The intrinsic value per share of A Ltd. may be computed using a 3-step procedure.

Step 1: The dividend stream during the first eight years when A Ltd. would enjoy a relatively high rate of growth will be:

$D_1 = 4.00\ (1.18) = 4.72$

$D_2 = 4.00\ (1.18)^2 = 5.56$

$D_3 = 4.00\ (1.18)^3 = 6.58$

$D_4 = 4.00\ (1.18)^4 = 7.76$

$D_5 = 4.00\ (1.18)^4\ (1.12) = 8.68$

$D_6 = 4.00\ (1.18)^4\ (1.12)^2 = 9.72$

$D_7 = 4.00\ (1.18)^4\ (1.12)^3 = 10.90$

$D_8 = 4.00\ (1.18)^4\ (1.12)^4 = 12.20$

The present value of this dividend stream is:

4.72 (PVIF15%, 1 yrs) + 5.56 (PVIF15%, 2 yrs)

+ 6.58 (PVIF15%, 3 yrs) + 7.76 (PVIF15%, 4 yrs)

+ 8.68 (PVIF15%, 5 yrs) + 9.72 (PVIF15%, 6 yrs)

+ 10.90 (PVIF15%, 7 yrs) + 12.20 (PVIF15%, 8 yrs)

= 4.72 (0.870) + 5.56 (0.756) + 6.58 (0.658)

+ 7.76 (0.572) + 8.68 (0.497) + 9.72 (0.432)

+ 10.90 (0.376) + 12.20 (0.327)

= 4.10 + 4.20 + 4.32 + 4.44 + 4.32 + 4.20 + 4.10 + 3.98

= ₹ 33.66

Step 2: The price of the share at the end of 8 years, applying the constant growth model at that point of time, will be:

$$P_8 = \frac{D_9}{r - g_n} = \frac{D_8\ (1+g_n)}{r - g_n} = \frac{12.20\ (1.06)}{0.15 - .006} = ₹143.69$$

The present value of this price is = $143.69/ (1.15)^8$

= ₹ 46.98

Step 3 : The sum of the above components is :

P_0 = ₹33.66 + ₹46.98 = ₹80.64.

Topic: Mutual Funds

- **Multiple Choice Questions:**

1. The following information is extracted from MF, a mutual fund scheme. NAV on 01-11-2023 is Rs.65.78, annualized return is 15%. Distributions of income and capital gains were ₹0.50 and ₹0.30 per unit in the month. What is the NAV on 30-11-2023?

   (A) ₹67.50

   (B) ₹66.14

   (C) ₹65.80

   (D) ₹66.96

   Answer: (C) 65.80

   Monthly return = 1.25%

   So, 0.0125 = (NAV – 65.78 + 0.5 + 0.3)/65.78

   Or, 0.82225 = NAV – 64.98

   NAV = 65.80225 = 65.80

2. An investor has invested in a mutual fund when the NAV was ₹ 15.50 per unit. After 90 days the NAV was ₹ 14.45 per unit. During the period the investor got a cash dividend of ₹1.35 per unit and capital gain distribution of ₹ 0.20. The annualized return based on 360 days year count will be _____.

   (A) 3.23%

   (B) 12.92%

   (C) 0.8075%

   (D) 16.45%

   Answer: (B)

   Return = (14.45-15.50) +1.35 + 0.20 = +0.50

   Annualized return = 0.50/15.5 x (360/90) =12.92%

3. A certain mutual fund has a return of 17% with standard deviation of 3.5% and the Sharpe ratio is 4. The risk-free rate is _____.

   (A) 12.5%

   (B) 4%

   (C) 3%

   (D) 7.5%

   Answer: (C)

   Sharpe ratio = $(R_p – R_f)/\sigma_p = 4$

   Or, $(0.17 – R_f)/0.035 = 4$

   Or, $0.17 – R_f = 0.14$

   Or, $R_f = 0.03 = 3\%$

Comprehensive Problems

Problem 1

Mr. NK has categorized stock in the market into four types, viz. Small cap growth stocks, Small cap value stocks, Large cap growth stocks and Large cap value stocks.

Mr. NK also estimated the weights of the above categories of stocks in the market index. Further, the sensitivity of returns on these categories of stocks to three important factors are estimated to be:

Category of Stocks	Weight in the Market Index	Factor I (Beta)	Factor II (Book Price)	Factor III (Inflation)
Small cap growth	25%	0.80	1.39	1.35
Small cap value	10%	0.90	0.75	1.25
Large cap growth	50%	1.165	2.75	8.65
Large cap value	15%	0.85	2.05	6.75
Risk Premium		6.85%	– 3.5%	0.65%

The rate of return on treasury bonds is 4.5%.

(i) Using Arbitrage Pricing Theory, determine the expected return on the market index.

(ii) Mr. NK wants to construct a portfolio constituting only the 'small cap value' and 'large cap growth' stocks. If the target beta for the desired portfolio is 1, determine the composition of his portfolio.

Solution:

(i) Calculation for expected return on the market index

Category	Wts	Factor I	Factor II	Factor III	Wts x FI	Wts x FII	Wts x FIII
S Cap Gr	0.25	0.80	1.39	1.35	0.2	0.3475	0.3375
S Cap V	0.10	0.90	0.75	1.25	0.09	0.075	0.125
L Cap Gr	0.50	1.165	2.75	8.65	0.5825	1.375	4.325
L Cap Va	0.15	0.85	2.05	6.75	0.1275	0.3075	1.0125
Total					1	2.105	5.8
Risk Premium					6.85	-3.5	0.65
Product					6.85	-7.3675	3.77
Total					3.2525		

Expected Return on market index under APT = 4.5 + 3.2525 = 7.7525%

Let S be the investment in small cap value and L in large cap growth Thus,

(0.9S + 1.165L)/(S+L) = 1

S (0.9-1) = L (1-1.165)

0.1S = 0.I 65L, or S = 1.65L, i.e. 1/1 + 1.65 = 1/2.65 = 37.74% in Land 62.26 or 62.3% in S.

Problem 2

The following are the data on five mutual funds:

Mutual Fund	Return	Standard Deviation	Beta
A	15	7	1.25
B	18	10	0.75
C	14	5	1.40
D	12	6	0.98
E	16	9	1.50

(i) Compute the Sharpe Ratio and Treynor's Ratio and rank these funds assuming the risk-free rate as 6% .

(ii) Compute the unsystematic risk of these funds.

(iii) Which of the two measures in (i) is more appropriate? Why ?

(iv) Assuming that the risk-free rate is not known, would you still be able to rank the funds using the Sharpe's and Treynor's ratios ? Why?

Solution:

(i) and (ii) Calculation of Sharpe and Treynor Ratio and Ranks

	Return	Rf	R- Rf	Std. dev.	Sharpe ratio	Sharpe rank	Beta	Treynor ratio	Rank Treynor	Unsystematic risk
A	15	6	9	7	1.285714	2	1.25	7.2	2	5.75
B	18	6	12	10	1.2	3	0.75	16	1	9.25
C	14	6	8	5	1.6	1	1.4	5.714286	5	3.6
D	12	6	6	6	1	5	0.98	6.122449	4	5.02
E	16	6	10	9	1.111111	4	1.5	6.666667	3	7.5

(iii) Treynor's method assumes that there is no unsystematic risk and that there is full diversification, whereas Sharpe's method does not assume this. Moreover, as is seen, standard deviation represents the total risk consisting of systematic and unsystematic risk. Unsystematic risk is high and hence, Treynor's assumption is not satisfied. Hence Sharpe's method results in a more appropriate ranking.

(iv) In practical application, the mean return and the standard deviation are estimated.

Topic

Module 12: Double Taxation and Avoidance Agreements (DTAA)/ GAAR

FINAL

Group III - Paper-15

Direct Tax Laws and International Taxation (DIT)

FINAL

Double Taxation Avoidance Agreement

In home country, tax is an obligation, while in the host country, tax is a cost.

Generally, income is taxable on two basis viz. i) Source of income basis and ii) Residential Status basis. Double Taxation Avoidance Agreements (DTAA) play a crucial role in the realm of international taxation, facilitating smoother transactions between countries and preventing individuals and businesses from being taxed twice on the same income.

What is Double Taxation?

Double taxation occurs when an individual or a business is taxed twice on the same income in two or more countries. This can happen due to conflicting tax laws and regulations between nations. For instance, if a person earns income in one country but is also considered a tax resident in another, they may be subject to taxation on the same income by both countries. For instance, Mr. X, an ordinarily resident in India, earned bank interest of ₹ 1,00,000 on his money deposited into a bank located in US. In that case, such income is taxable in US on the Source of income basis and again in India as he is an ordinarily resident India.

In times when economies are going global and borders fading, double taxation is still one of the major obstacles to the development of inter-country economic relations. In order to prevent this hardship or to avoid double taxation, relief is provided to the tax-payer.

Introduction to Double Taxation Avoidance Agreements (DTAA)

DTAA, also known as tax treaties, are bilateral agreements between two countries aimed at preventing double taxation and promoting cooperation in tax matters. These agreements delineate the taxing rights of each country concerning various types of income, such as dividends, interest, royalties, and capital gains.

Significance of DTAA

DTAA serves several significant purposes:

- **Preventing Double Taxation:** The primary purpose of DTAA is to eliminate or mitigate double taxation, thereby promoting cross-border trade, investment, and economic activities.
- **Promoting Investment:** By providing certainty and clarity on tax matters, DTAA encourages foreign investment by reducing the tax burden on investors and businesses operating across borders.
- **Facilitating Exchange of Information:** DTAA facilitates the exchange of information between tax authorities of different countries, promoting transparency and combating tax evasion and avoidance.

Key Components of DTAA

DTAA typically includes the following key components:

- **Residency Rules:** Defines the criteria for determining an individual's tax residency status, which is essential for determining the country's right to tax.
- **Permanent Establishment (PE):** Establishes the threshold for determining when a business activities in one country constitute a permanent establishment, subject to taxation in that country.
- **Taxation of Various Income Sources:** Specifies the rules for taxing different types of income, such as dividends, interest, royalties, and capital gains, ensuring that each country has the right to tax certain types of income.
- **Tax Rates and Tax Credits:** Prescribes the applicable tax rates for various types of income and provides mechanisms for granting tax credits or exemptions to prevent double taxation.
- **Mutual Agreement Procedure (MAP):** Sets out procedures for resolving disputes between tax authorities of the treaty countries and ensuring the consistent application of the treaty provisions.

Mode of providing relief

As per Article 2 of the Vienna Convention on Laws of Treaties, 1969, "Treaty" means an international agreement concluded between States in written form and governed by international law, whether embodied in a single instrument or in two or more related instruments and whatever its particular designation. The two countries' government agrees to provide relief against double taxation of the same income. The relief is granted based on the terms of such agreement. Generally, such an agreement provides relief through the following methods:

Exemption Method

In this method, one country provides an exemption to such type of income. Generally, the residence country gave up its right and the country of source is then given the exclusive right to tax such incomes.

a. Full Exemption Method: Under this method, income earned in the State of Source is fully exempt in the State of Residence.
b. Exemption with Progression: Under this method, income from the State of Source is considered by the State of Residence only for the rate purpose.

Credit Method

In this method, the resident remains liable in the country of residence on its global income, however as far as the quantum of tax liabilities is concerned credit or deduction for tax paid in the source country is given by the residence country against its domestic tax as if the foreign tax were paid to the country of the residence itself.

a. **Full Credit:** Total tax paid in the State of Source is allowed as a credit against tax payable in the State of Residence.
b. **Ordinary Credit:** The state of Residence allows credit of tax paid in the state of Source restricted to that part of income tax which is attributable to the income taxable in the state of Residence.
c. **Tax Sparing:** The state of Residence allows credit for deemed tax paid on income which is otherwise exempt from tax in the State of Source.
d. **Underlying Tax Credit:** In this method attempts to mitigate the economic double taxation. Economic double taxation occurs when the same income is taxed more than once in the hands of different persons in the same tax jurisdiction.

DTAA can be of two types, limited or comprehensive. Limited DTAA are those which are limited to certain types of incomes only e.g. DTAA between India and Pakistan is limited to shipping and aircraft profits only. Comprehensive DTAAs are those which cover almost all types of incomes covered by any model convention.

Impact on Taxpayers and Businesses

DTAA has a profound impact on taxpayers and businesses engaged in cross-border transactions:

- **Reduced Tax Liability:** Taxpayers benefit from reduced tax liability on income derived from foreign sources, as DTAA often lowers the withholding tax rates on dividends, interest, royalties, and other income.
- **Certainty and Predictability:** Businesses enjoy greater certainty and predictability regarding their tax obligations in foreign jurisdictions, enabling better tax planning and investment decisions.
- **Enhanced Compliance:** DTAA promotes compliance with tax laws by providing clear rules and procedures for determining tax liability, reducing the risk of unintentional non-compliance.
- **Dispute Resolution:** The inclusion of a Mutual Agreement Procedure (MAP) in DTAA provides a mechanism for resolving disputes between taxpayers and tax authorities, ensuring fair and impartial resolution of tax disputes.

Conclusion

In conclusion, Double Taxation Avoidance Agreements (DTAA) play a pivotal role in facilitating cross-border trade and investment by preventing double taxation and promoting cooperation between countries in tax matters. These agreements provide taxpayers and businesses with certainty, predictability, and transparency regarding their tax obligations, thereby fostering economic growth and international cooperation. As globalization continues to drive interconnectedness between economies, DTAA will remain a cornerstone of international tax policy, ensuring fair and equitable taxation in an increasingly globalized world.

Topic

Module 4: Activity Based Management and Just in Time (JIT)

FINAL

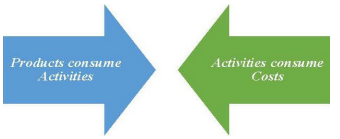
Group III - Paper-16

Strategic Cost Management (SCM)

Activity Based Cost Management

01.00 Concept

Activity Based Costing (ABC) system assumes that products consume activities and activities consume costs. ABC emphasises direct tracing of costs to the maximum extent and, thus, enables to more precise apportionment of overheads amongst the products. It facilitates collection of indirect costs in multiple categories and then applies the results individually to the products and services.



The focus of ABC is on accurate information about the true cost of products, services, processes, activities, distribution channels, customer segments, contracts, projects, and so on. ABC helps managers to make better decisions about what they offer and at what price. This process also encourages continual operating improvements. Once business process costs are known with reasonable accuracy, activity-based budgeting can set realistic goals for improving the processes and for identifying those processes that are no longer needed or are unprofitable.

02.00 Important Terms

The operation of the ABC system involves the use of the following terms:

(i) Activity: An activity means an aggregate of closely related tasks having some specific functions which are used for completion of a goal or objective. For example; customer order processing is an activity. It includes receiving an order from customer, interacting with production department regarding capacity to produce and giving commitment to the customer regarding delivery time. Other activities may be assembling, packaging, advertising, etc.

(ii) Resource: Resources are elements that are used for performing the activities or factors helping in the activities. For example; order receiver, telephone, computers, etc., are resources in customer order processing activity. It may include material, labour, equipment, office supplies, etc.

(iii) Cost: Cost is the amount paid for the resources consumed by the activity. For example; salaries, telephone bill, printing stationary, etc. are cost of customer order processing activity. It is also known as activity cost pool.

(iv) Cost Object: Cost Object refers to an item for which cost measurement is required. e.g., a product, a service, or a customer.

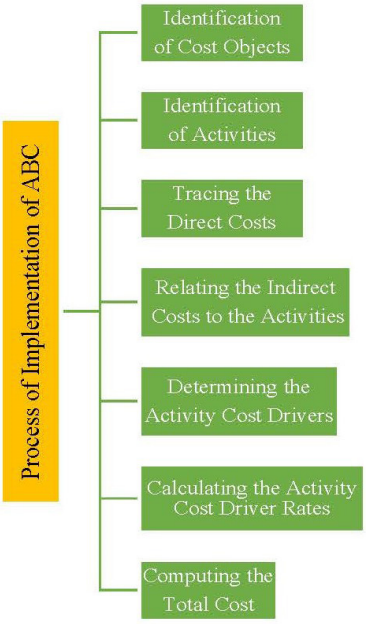
(v) Cost Pool: A cost pool is a term used to indicate grouping of costs incurred on a particular activity which drives them.

(vi) Cost Driver: Any element that would cause a change in the cost of an activity is cost driver. Cost drivers are the basis of charging cost of an activity to a cost object. Cost drivers are used to trace the costs to a product or service by using them as a measure of the resources consumed by each activity. For example, frequency of orders, number of orders, etc. may be the cost drivers of customer order processing activity. A Cost Driver may be a Resource Cost Driver or an Activity Cost Driver. A resource cost driver is a measure of the quantity of resources consumed by an activity. An activity cost driver is a measure of the frequency and intensity of the demand placed on activities by cost objects.

03.00 Process of Implementation

There are seven vital steps to the implementation of ABC.

1. **Identification of Cost Objects:** The process to ABC starts with the identification of the cost objects. The cost objects of any organization are the products or services.



2. **Identification of Activities:** Identification of the activities is the next step. Identification of the main activities can be done by carrying out an in-depth analysis of the operating processes of each responsibility segment.

Usually, the number of activities in ABC will be much more as compared to traditional overhead system. The exact number will depend on how the management subdivides the organization's activities.

3. **Tracing the Direct Costs**: The third step relates to identification of Direct Costs. The direct costs of products or objects may comprise direct material cost, direct labour cost and direct expenses. Classification of as many of the total costs as direct costs as is economically feasible should be made. Classification as direct costs reduces the amount of costs to be classified as indirect costs.

4. **Relating the Indirect Costs to the Activities:** The fourth step is relating the indirect costs to activities. Here, various items of indirect costs are related to activities, viz. both support and primary, which caused them. As a result of relating the items of indirect costs to various activities, cost pools or cost buckets are created.

5. **Determining the Activity Cost Drivers:** The determination of the activity cost drivers is done in order to relate the overheads collected in cost pools to the cost objects of products. It is done on the basis of the factor that drives the consumption of the activities.

6. **Calculating the Activity Cost Driver Rates**: The activity cost driver rates for each activity are calculated in the way in which overhead absorption rates would be calculated under the traditional system. It can be formulated as: Activity Cost Driver Rate = (Total Cost of Activity ÷ Activity Driver). These activity cost driver rates are to be used for ascertaining the amount of overhead chargeable to various cost objects or products.

7. **Computing the Total Cost:** The last step is computing the total cost. The total costs of the products shall be computed by adding all direct and indirect costs assigned to them. The amount of overhead chargeable to a product or cost object shall be calculated by multiplying the respective activity cost driver rate by the quantum of the activity that the product or other cost object consumes.

The introduction of ABC system in an organization can be either supplementary to the traditional cost accounting system as an offline system or it can be fully integrated with the decision support systems such as ERP. Management practices and methods have changed a lot over the last decades and will continue to change. Organisations are moving from managing vertically to managing horizontally. It is a move from a function orientation to a process orientation. Total quality management (TQM), just-in-time (JIT), benchmarking and business process reengineering (BPR) are all examples of horizontal management improvement initiatives. These initiatives are designed to improve an organisation's work processes and activities to effectively and efficiently meet or exceed changing customer requirements. ABC continues to maintain the momentum of change.

04.00 Illustrative Example

04.01 Problem

A company produces four products, viz. P, Q, R and S. The data relating to production activity are as under

Product	Quantity of production	Material cost- Rs. per unit	Direct labour hours / unit	Machine Hours / unit	Direct Labour cost- Rs. per unit
P	4,500	12	0.2	1.50	8
Q	13,640	15	0.2	0.75	9
R	2,340	25	0.5	2.50	27
S	18,350	21	0.4	4.00	25

Production overheads are as under:

(i)	Overheads applicable to machine-oriented activity:	1,65,900
(ii)	Overheads relating to ordering materials	8,760
(iii)	Set up costs	21,400
(iv)	Administration overheads for spare parts	44,690
(v)	Material handling costs	25,545

The following further information have been compiled:

Product	No. of set up	No. of Material-Orders	No. of times materials handled	No. of spare parts
P	3	3	6	6
Q	18	12	30	15
R	5	3	9	3
S	24	12	36	12

Required:

(i) Select a suitable cost driver for each item of overhead expense and calculate the cost per unit of cost driver.

(ii) Using the concept of activity-based costing, compute the factory cost per unit of each product.

04.02 Solution

(i) **Computation of Cost Driver Rates**

(a) Overheads relating to Machinery oriented activity

Cost Driver: Machine Hour Rate

Machine Oriented Overheads = ₹ 1,65,900

Total Machine hours = {(4500 x 1.5) + (13640 x 0.75) + (2340 x 2.5) + (18350 x 4)}

= 6750 + 10230 + 5850 + 73400 = 96230

Cost Driver Rate = (Machinery Overheads ÷ Total Machine Hours)

= (1,65,900÷96,230) = ₹ 1.724 per machine hour

(b) Overheads relating to ordering materials

Cost driver: No. of Material-Orders

Material Ordering Overheads = ₹ 8,760

No. of Material orders = (3+12+3+12) = 30

Cost Driver Rate = (Material Ordering Overheads ÷ No. of Material Orders)
= (8760÷30) = ₹ 292 per order

(c) Set up costs

Cost driver: No. of set ups

Set Up Overheads = ₹ 21,400

No. of set ups = (3+18+5+24) = 50

Cost Driver Rate = (Set Up Overheads ÷ No. of set ups)

= (21,400÷50) = ₹ 428 per set up

(d) Administrative Overheads for spare parts

Cost driver: No. of spare parts

Administrative Overheads = 44,690

No. of spare parts = (6+15+3+12) = 36

Cost Driver Rate = (Administrative Overheads ÷ No. of spare parts)

= (44690 ÷ 36) = ₹ 1,241.39 per spare part

(e) Material Handling costs

Cost driver: No. of times materials are handled

Material Handling Overheads = 25,545

No. of times materials are handled = (6+30+9+36) = 81

Cost Driver Rate = (25545÷81) = ₹315.37 per material handling

(ii) **Computation of factory cost for each product**

(a) **Apportionment of Overheads on the basis of Cost Driver Rate**

Activity	**P**	**Q**	**R**	**S**
Number of Units of Production	4,500	13,640	2,340	18,350
Machinery oriented activity				
Number of Machine Hours	6750	10230	5850	73400
Total Cost @ ₹ 1.724 per hour	11,637	17,637	10,085	1,26,542
Cost per Unit (₹)	2.586	1.293	4.31	6.896
Material Ordering				
Number of Material Orders	3	12	3	12
Total Cost @ ₹ 292/- per order	876	3,504	876	3,504
Cost per Unit (₹)	0.195	0.257	0.374	0.191

Set Up Cost				
Number of Set Ups	3	18	5	24
Total Cost @ ₹ 428/- per set up	1,284	7,704	2,140	10,272
Cost per Unit (₹)	0.285	0.565	0.915	0.56
Admn. Costs for Spare Parts				
No. of spare parts	6	15	3	12
Total Cost @ ₹1,241.39 per spare part	7,449	18,621	3,724	14,897
Cost per Unit (₹)	1.655	1.365	1.591	0.812
Material Handling Costs				
No. of times materials are handled	6	30	9	36
Total Cost @ ₹315.37 per handling	1,892	9,461	2,838	11,353
Cost per Unit (₹)	0.42	0.694	1.213	0.619
Total Overheads	23,138	56,927	19,663	1,66,568
Overhead Cost per Unit (₹)	5.142	4.174	8.403	9.078

Note:

Cost per Unit under each of the activities has been derived by the formula:

Cost per Unit = (Total Cost ÷ **No. of Units** of Production)

Check

Total Overheads = (1,65,900 + 8,760 + 21,400 + 44,690 + 25,545) = 2,66,295

Overheads Apportioned = (23,138 + 56,927 + 19,663 + 1,66,568) = 2,66,296

Overheads Apportioned are equal to Total Overheads but for a difference of ₹1/- which is on account of rounding off.

(b) **Cost per Unit (₹)**

Particulars	P		Q		R		S	
Materials		12.00		15.00		25.00		21.00
Labour		8.00		9.00		27.00		25.00
Overheads								
Machine oriented activity	2.586		1.293		4.310		6.896	
Ordering of Materials	0.195		0.257		0.374		0.191	
Set up costs	0.285		0.565		0.915		0.560	
Administrative Spare Parts	1.655		1.365		1.591		0.812	
Material handling	0.420	5.14	0.694	4.17	1.213	8.40	0.619	9.08
Factory Cost (₹)		25.14		28.17		60.40		55.08

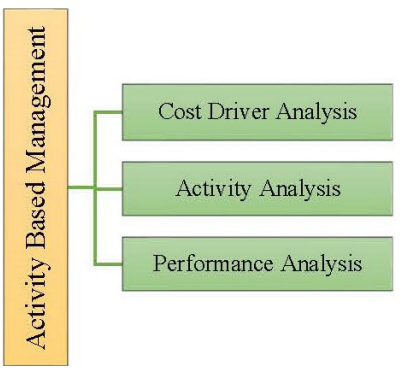
05.00 Activity Based Management

Activity Based Management is a tool of management that involves analysing and costing activities with the goal of improving efficiency and effectiveness. Activity Based Management is a set of actions that management can take, based on information from an Activity Based Costing system, to improve profitability. Towards a continuous improvement, Activity Based Management keeps on carrying out three vital functions comprising:

(i) Cost Driver Analysis,

(ii) Activity Analysis, and

(iii) Performance Analysis.



Cost Driver Analysis: The factors that cause activities to be performed need to be identified in order to manage activity costs. Cost driver analysis identifies these casual factors. For example, in a stores department, it may be observed that slow moving and obsolete stock is not disposed of in time, the reason being the staff in the stores is not trained properly in this area. Managers have to address this cost driver to correct the root cause of this problem and take proper action.

Activity Analysis: Activity Analysis identifies value added and non-value-added activities and efforts are made to eliminate the non-value adding activities.

Performance Analysis: Performance analysis involves the identification of appropriate measures to report the performance of activity centers or other organizational units consistent with each unit's goals and objectives. Performance Analysis aims to identify the best ways to measure the performance of factors that are important to organizations in order to stimulate continuous improvement.

06.00 Assimilation

Managers and employee teams are seeking more transparency and visibility of their costs. Just reliably knowing ABCM's per-each-unit costs of their outputs of work is useful for benchmarking to search for best practices or monitor trends to measure performance improvement. ABCM removes the illusion that support overhead (i.e., indirect) expenses are necessary and, therefore, appear to be free — they are not free.

The costs of an output, product, or service (i.e., a final cost object) can be reduced by:

- Reducing the quantity, frequency, and/or intensity of the activity driver (e.g., fewer inspections reduce the "inspect product" activity cost);
- Lowering the activity driver cost rate by productivity improvements (e.g., shorten the time for each "inspect product" event); and
- Understanding the sources and causes of waste leading to nonvalue-adding activities to reduce or eliminate them (e.g., solve the problem that requires an inspection in the first place).

These three are examples of how ABCM data leads to cost management for productivity improvement. The idea is to do more with less (or at least with the same). That is, produce more outputs with the same amount of resources or the same amount of outputs with fewer resources. Noteworthy is the fact that these actions support the continuous improvement principles of the Six Sigma quality and lean management initiatives that are embraced by the operations and quality communities.

07.00 Quick Take

ABC enables better accuracy in cost computations.

Topic

Module 6:

Cost Audit Programme

FINAL

Group IV - Paper-17

Cost and Management Audit (CMAD)

Cost Audit Program for Cost Elements

1. **Production –Product-wise**
   - o Whether appropriate cut-offs are observed to identify calendar dates with stages of production?
   - o Whether organizational guideline is in place to identity percentage completion in different product stages?
   - o Whether Finished products, Work In Progress -WIP (SFG Semi Finished Goods) are segregated and considered Accordingly?
   - o Whether products manufactured and capacity available are compared to find out utilization?
   - o Whether only Quality approved products are declared as 'production' and considered for further analysis?
   - o Whether any incremental capacity reckoned for actual product-wise higher output?
   - o Whether technological improvement caused higher product-wise output?
   - o Whether efficiency enhancement of labour force resulted in higher output?
   - o Whether production tracking over a period of time (say 5-years) captured for further analysis?
2. **Raw Material (RM)Cost**
   - ► Whether BOM (Bill Of Materials) includes every element/item required to carry out Production with Product-wise details.
   - ► Whether a Budget with expected price is made for all key raw material?
   - ► Whether any subsequent changes in BOM are updated for considering consumption?
   - ► Whether a variance analysis is carried out at periodical intervals to assess actual cost is within a reason level?
   - ► Whether high difference is analysed to pre-empt any possibility to avoid/reduce such implications?
   - ► Whether receipting process is in place and inventory updation carried out on real time basis?
   - ► Whether storage is made appropriately without any possibility of mix-up, spilling over and losses due to airborne?
   - ► Whether inventory movements are made against approvals of appropriate authority?
   - ► Whether raw materials including bulks are issued for consumption/kept in storage against a proper method of measurement?
   - ► Whether perpetual and/or quarterly physical verification process is in place?
   - ► Whether the difference between Book Stock and physical stock adjusted in the relevant period of accounting?
   - ► Whether the Ordering process considers , (a) EOQ (b) Lead Time (c) effective life of RM etc.
   - ► Whether the entity having a policy to identify slow and non-moving raw materials and fixing level for provision against such items?
   - ► Whether a material codification logic is followed for identification of imported and local raw materials (having similar look but difference in price and effectiveness)?
   - ► Whether abnormal loss of material is appropriately treated?
3. **Key RM Inventory Status**
   - ► Whether by value or volume the list of materials qualified as 'key' Raw Material ?
   - ► Whether the entity having a stocking / holding policy for such items for continuity of production?
   - ► Whether the prevalent consumption pattern justifies the pre-determined inventory holding policy?

- Whether any improvement in lead time , delivery conditions etc. explored to reduce the volume at hand /yard?
- Whether low inventory ever caused production stoppages?
- Whether comparison made for holding cost over a period of time (say 3-years)?

4. **Electricity Cost**

- Whether all Cost Centres (Production and Utility) are mapped for electricity consumption, e.g Kiln, Grinding , Packer (Production) and Air Compressor, Chilling Plant etc.(Utilities)
- Whether Electricity consumption standard and required heat is mapped against each of the facilities.
- Whether actual electricity consumption is in tandem with output/Production from each of the facility e.g Packing Volume vs. electricity consumption, Kiln consumption vs. Clicker produced , Grinding Mill electricity consumption vs. Cement manufactured.
- Whether difference between actual consumption and Standard mapped and reason for such differences are validated.
- Whether self generation of electricity for captive consumption and buying are appropriate metered and allocated to cost centres.
- Whether calibration and certification there of obtained for entire metering process.
- Whether appropriate allocation methodology is followed for common area of consumption.
- Whether source-wise electricity cost is analysed for appropriate cost allocation and product-wise absorption purposes.
- Whether cost trend over a period (say 5-years) is analysed planning power cost scenario and possible requirement of Capex in the area.

5. **Electricity Cost 'DG'**

- Whether fuel (diesel) , repair and maintenance and other running expenses are captured and monitored properly?
- Whether DG run Hours and purpose are recorded ?
- Whether record for units generated and purpose of usage are maintained ?
- Whether meter readings are recorded at specified periods?
- Whether fuel consumption vs. units generated are maintained over a period to measure (a)fuel efficiency (b) DG efficiency
- Whether appropriate consumption points are mapped and DG distributes electricity accordingly?
- Whether consumables are properly allocated and certified as usage to run DG Facility.
- Whether depreciation and other overheads are charged to appropriate Machine (where multiple DGs are used)
- Whether calibration of meters and reading accuracy is ensured?
- Whether DG Cost and other source-wise cost is captured , compared to assess alternate possibilities?

6. **Demineralized Water (DM)cost**

- Whether allotment of 'Cost Centre' and capturing of cost is carried out properly?
- Whether element-wise cost with volume of consumption is maintained ?
  - Volume of filtered water
  - Volume of chemicals
  - Electricity used in TP (Treatment Plant)
- Whether volume of DM Water generated are captured correctly?

- Whether use points are mapped and consumption of DM Water captured appropriately?
- Whether a proper cost structure is in place and DM Water consumption data ensures accuracy?
- Whether all relevant cost including deprecation captured in DM Water Cost Centre?

7. **Steam cost**

- Whether running hours of Boiler and Stem generated are (Mt.) are recorded ?
- Whether all relevant Boiler running expenses/ consumptions like DM Water (Ltr.), Electricity (KWH), Fuel (Light Diesel Oil , Coal (Mt.) , Steam consumption etc. are recorded and maintained.
- Whether line losses are measured for future corrective actions.
- Whether standard requirement (Mt.)of Product (Mt.) are compared for any probable variance.
- Whether high consumption areas are covered by Meters and meter readings obtained at fixed intervals.
- Whether consumption variance, if any, is analysed for understanding the reason (e.g leakage in pipe lines, erroneous reading of meters, inactive meters etc.)
- Whether manpower cost, consumables and other Boiler House related cost (e.g repair, maintenance etc.) are booked timely and correctly.

8. **Stores and Spares cost**

- Whether Cost Centre-wise Requisition for Spares are maintained to arrive at total requirement of Spares at Unit/Entity level.
- Whether to support the above and to avail 'price advantage', appropriate codification logic is in place?
- Whether Spares are classified under A, B, C Category to exercise proper supervision and control.
- Whether there exists any organizational Guideline to differentiate between Slow, Non-moving spares based yearly consumption history?
- Whether appropriate valuation methodology exists for Stores and Spares falling under Slow, Non-moving category?
- Whether Product-wise, Plant-wise, Cost Centre-wise Spares issues and consumption are tracked ?
- Whether accounting guidance for recording Stores and Spares to appropriate 'cost centres' / 'Plants' in place?
- Whether the 'Spares Control Account' is reflected in Trial Balance and tallied.

9. **Repairs and Maintenance Cost**

- Whether Repair and Maintenance Costs are attached/tied against each of the 'Cost Centres'?
- Whether age of plant along-with 'Repair Maintenance expenditure '(R&M spent trending higher) compared to 'Plant Value and remaining life' decide on replacement of the asset.
- Whether all 'R & M Expenditure' booked to appropriate 'cost centres'?
- Whether 'Repair and Maintenance cost' per Mt. of Product indicating a 'rising , falling or constant' trend?
- Whether a 'R & M Budget' is prepared to keep the expenses within the limit?
- Whether 'R&M Cost' is bifurcated into "Normal, Special, Shut-down, Break-down" etc. to have (R & M) better visibility on normal and abnormal Cost hike.

10. **Employee Cost**

- Whether employees whose names are appearing in the 'pay roll ' only considered for 'employee cost'?

- Whether permanent deployment with contractual pay, also clubbed as 'employee cost'?
- Whether employees are tagged against each of the 'cost centre' whereby cost centre-wise 'pay roll' cost can be validated?
- Whether any employee movement, A-D-C (Addition–Deletion-Change) tracked immediately against relevant 'cost centre'?
- Whether 'product cost build up' considers 'cost centre-wise' employee cost?
- Whether trend analysis is carried out for employee cost captured over a period?
- Whether such trend indicated employee performance improvement overriding 'inflationary / statutory increases?'
- Whether industry-wide bench marking applied for 'employee cost' of the relevant industry?
- Whether 'employee cost' as percentage of product cost analysed for cost reduction/ minimization purposes?

11. **Insurance Cost**

- Whether 'cost centre-wise' Assets are identified and tagged?
- Whether abovesaid Assets are covered against insurable perils obtaining appropriate policy cover under individual policy or 'umbrella policy' ?
- Whether Premia cost against each of the Asset/ Cost Centre are identifiable and captured?
- Whether new assets are also covered immediately and premia cost allocated to appropriate asset cost centre?
- Whether 'cost centre-wise' insurance cost allocation being checked and any Y-O-Y variance can be validated with proper reasoning?
- Whether monetary impact of insurance cost with product-wise absorption compared for product cost movement purposes?
- Whether impact of changed output considered to measure movement of 'product-wise insurance' cost?

12. **Depreciation Cost**

- Whether 'Cost Centre-wise' Assets are identified and depreciation against those are captured for the period under review?
- Whether new installations are mapped and considered on the depreciation schedule?
- Whether 'product cost' includes depreciation as per aforesaid calculation?
- Whether individual asset performance and remaining life considered for depreciation assessed?
- Whether reason for sudden increase or decrease in depreciation cost w.r.t 'cost centre'/s analysed for the 'root cause'?

13. **Administrative overhead Cost**

- Whether specific guideline is available for the heads of expenditure to be considered as 'Administrative Overhead'?
- Whether Year-wise administrative cost break-up is available w.r.t Product, Cost Centre ?
- Whether allocation/apportionment of administrative expenses are carried out logically and consistently the same followed?
- Whether any abnormal increase/decrease noticed in administrative overhead cost and also in the Product?

14. **Selling & Distribution O/H Cost**

- Whether categorization of Selling and Distribution (S & D)cost available at the organizational level and Product, cost centre-wise also?
- Whether Selling and Distribution cost at product level as a percentage of COGS is fixed?
- Whether Y-O-Y (year on year) S & D Cost trend over a period is analyzed to get a feedback on the responsible account head, where expenditure trend is much higher/lower than anticipated?

- Whether sound logic based allocation / apportionment principle is followed for overhead cost division?
- Whether the principle followed for allocation/ apportionment is consistently followed year after year?
- Whether per Unit increase/decrease in S & D Cost at each of the Product level considered for 'price fixation' ?
- Whether infrastructural improvement and/or change in sales policy evaluated for increase/ decrease of S & D Expenditure.

15. **Packing Material Cost**

- Whether Primary and Secondary Packing Materials are identified based on usage purpose?
- Whether special packing opted by bulk buyers are recovered via Invoice Price?
- Whether proper consumption record is maintained and the same compared with standard set for Packing Materials?
- Whether any abnormality being noticed in the Packer , which resulted in high abnormal consumption of packing materials.
- Whether quality of packing materials ensured before they issued to 'shop floor' for consumption.
- Whether consumption trend is examined for the Products which are 'key products' at least for last five years.
- Whether packing material rates , examined for last few years (say five) and how packing materials can be replaced to withstand price pressure.
- Whether separate codification logic is followed for 'self produced' packing materials and cost for the same.
- Whether Inventory records are maintained for above 'self produced' items w.r.t generation, Issue and Consumption.
- Whether change in procurement cost of packing items are accumulated for impact analysis and examine the possibility of pass on to consumer.
- Whether any abnormal cost is identified for appropriate treatment?

16. **Sales value**

- Whether Product portfolio/Product Basket considered entirely to arrive at sales value?
- Whether increase/decrease in volume of the Product portfolio impacting sales value?
- Whether market price movement, discount structure etc. attributing to sales revenue fluctuation?
- Whether product-wise contribution is analysed to improve sales performance?
- Whether new launches, change in product portfolio results in higher sales volume/value?
- Whether higher sales value achievement is at the cost of higher Sales and Distribution expenses/expenditure?
- Whether appropriate cut-off being observed to determine sales value for the relevant period?
- Whether sales return and defective supplies are netted off for the purpose of sales value declaration?
- Whether sales value trend is considered for equivalent periods of different accounting periods?
- Whether sales budget is realistically set for comparison with actual achieved?
- Whether analysis along-with root cause carried out to observe sale value variance on Y-O-Y basis?

Topic

Module 2: Valuation of Shares

Module 6 : Consolidated Financial Statements and Separate Financial Statements

FINAL

Group IV - Paper-18

Corporate Financial Reporting (CFR)

The major three approaches to valuation of shares are:

A. Income Approach

B. Net Assets Approach

C. Market Approach

In this issue I would discuss about market-based share valuation approach.

Under market-based valuation approach, market value of shares is related to any of the accounting measures (like Profits, Cash Flows, Sales or Net Asset Value) and a relative or multiple is computed for each of the companies in peer group. Thus, relative or multiple is the ratio of market price of equity to some accounting variable of the company taken as the base value. Most common multiples are price-earnings (P/E) ratio, price-sales (P/S) ratio, price-cash flow from operations (P/CFO) ratio etc. The average relative of all the companies in peer group is computed and named as Comparator. The company going for market based valuation applies the Comparator to its base accounting value (for instance, Profits, Cash Flows, Sales or Net Asset Value).

Thus, the steps involved to find value per share based on market approach:

1. Market capitalisation of each of the peer group of companies is related to any fundamental element of that company (called base value such as Profits, Cash Flows, Net assets, Sales). The ratio obtained is called relative or multiple.
2. For each of the companies in peer group there may be different values of relative or multiple based on different fundamental accounting variables. More than one multiple is usually considered in practice.
3. To compute the average of the multiples of the peer group of companies (we call it as Comparator) separately for each base value.
4. To apply the average multiple (Comparator) based on a particular base value to the same base value of the required company for valuation of its equity. Then to find average of the different equity values based on different base values.
5. To divide average value of equity by the no. of shares in order to find value per share.

Market capitalisation (MC) is the product of market price of shares and the number of shares outstanding. Thus, it represents market value of equity. In computation of relative we may find some popular ratios also such as Price Earnings ratio where base value is Earnings and Market to Book Value ratio where base value is Net Assets. But in all circumstances, the different base values are related to market value of equity only. Relatives or multiples are the ratios where market capitalisation is the numerator and any of the alternative fundamental accounting variables is the denominator.

Relative or multiple = Market Capitalisation/Base value. [where, alternative base values are EAT, EBIT, NOPAT, CF, FCFF, FCFE, Net Assets, Enterprise Value, Sales, or any other fundamental variable]

Illustration 1

X Ltd. has EPS ₹ 16 and number of equity shares is 2000. Its Cash Flow ₹ 24,000 and Sales ₹ 1,00,000. Find value per share of X Ltd. under Market approach based on the data of similar other companies as provided below:

Companies	PAT ₹	CF ₹	Sales ₹	MC ₹
A Ltd.	40,000	32,000	1,20,000	1,60,000
B Ltd.	48,000	60,000	2,00,000	2,40,000
C Ltd.	32,000	64,000	1,60,000	1,92,000
D Ltd.	36,000	45,000	1,20,000	1,80,000

Solution:

For the 4 companies in the peer group Relatives (or Multiples) are computed as MC/ Base Value

For PAT as base value M1 is the multiple.

For CF as base value M2 is the multiple.

For Sales as base value M3 is the multiple.

Comparator is the average value of the multiples for the 4 companies.

Companies	PAT (₹)	CF (₹)	Sales (₹)	MC (₹)	M1=MC/PAT	M2=MC/CF	M3=MC/S
A	40,000	32,000	1,20,000	1,60,000	4	5	1.3333
B	48,000	60,000	2,00,000	2,40,000	5	4	1.2
C	32,000	64,000	1,60,000	1,92,000	6	3	1.2
D	36,000	45,000	1,20,000	1,80,000	5	4	1.5
				Comparator	5	4	1.308325

Value of equity share of X Ltd. for each base = Base Value of X * Comparator

X Ltd.	M1=MC/PAT	M2=MC/CF	M3-MC/S
Base Value of X Ltd. (₹)	EPS = 16	CF = 24000	Sales = 100000
Value of equity share for each Base (₹)	EPS*Comparator = 16*5 = 80	CF*Comparator/2000 = 48	Sales*Comparator/2000 = 65.41625
Average value of equity shares of X Ltd. (₹)		(80 +48 + 65.4)/3 = 64.47	

Consolidated financial statements are prepared for complying with the requirements of:

- Ind AS 110 when control of the subsidiary is acquired by the parent and
- Ind AS 28 when joint control of the joint venture or significant influence on the associate is obtained by the investor company.

Separate financial statements are prepared for complying with the requirements of Ind AS 27.

Further, for the transaction of acquiring control of the acquiree (subsidiary), the acquirer (parent) is required to recognise and measure identified assets, assumed liabilities, goodwill and non-controlling interest for complying with the requirements of Ind AS 103.

Thus, if consolidated balance sheet is prepared on the date of acquisition as per Ind AS 110, the identified assets and assumed liabilities of the acquiree, goodwill and non-controlling interest as recognised and measured under Ind AS 103 will be taken into consideration. For preparing consolidated balance sheet on a subsequent reporting date, goodwill as measured on acquisition date shall remain unchanged, but assets, liabilities and non-controlling interest will be adjusted for post-acquisition changes and parent's equity will also be adjusted for its share in post-acquisition profits of the subsidiary.

If consolidated balance sheet is prepared on a subsequent reporting date as per Ind AS 28, Investment account, profit and loss and other comprehensive income in the books of the investor company will be adjusted for the post-acquisition profits of the joint venture or associate under Equity Method.

Whenever a company prepares consolidated financial statements, separate financial statements have to be prepared by it as per Ind AS 27.

With this brief introduction, let me directly go for illustrative examples.

Ex 1. X Ltd. acquires 40% of equity share capital of Y Ltd. on 01-04-2023 by issue of 4 lakh equity shares of ₹ 10, market price ₹ 25. X Ltd. had previously acquired 30% of equity share capital of Y Ltd. carried in balance sheet at a value of 56 lakhs. Other relevant data are presented below.

(Before acquisition)

Items	X Ltd.		Y Ltd.	
	Book Value	Fair Value	Book Value	Fair Value
Assets	400	500	200	280
Liabilities	100	90	80	70

Pass journal entries in the books of X Ltd. and prepare separate and consolidated balance sheets as at 01-04-2023.

Solution:

Rupees in lakhs

Purchase consideration (for 40%) = 4* 25 = 100

Equity Share Capital = 100*(10/25) = 40

Security premium = 100*(15/25) = 60

X Ltd. balance sheet	Book Value
Assets	400
Liabilities	100
Equity before acquisition (400 – 100)	300
Purchase consideration paid by new issue	100
Equity after acquisition (300 + 100)	400

NCI (30%) at Fair Value = (30/40)*100 = 75

Fair Value (FV) of previously held shares (30%) = 75

Goodwill = Purchase Consideration + Liabilities + NCI + FV of previously held investment - Assets =100 + 70 + 75 + 75 – 280 = 40

Revaluation Profit of previously held Investment

= 75 – 56 = 19

Consolidated Equity = 300 + 19 = 319

For consolidated financial statements:

Investment A/C	Dr.	19	
To, P&L A/C			19
Assets	Dr.	280	
Goodwill	Dr.	40	
To, Liabilities			70
To, Non-Controlling Interest			75
To, Investment A/C			75
To, Purchase Consideration			100
Purchase Consideration		100	
To, Equity Share Capital			40
To, Security Premium			60

For separate financial statements:

Investment A/C	Dr.	100	
To, Equity Share Capital			40
To, Security Premium			60

Balance sheet as at 01-04-2023 (Rupees in lakh)

Items	Workings	Separate	Consolidated
Assets (excluding Investment, 400 – 56)	344+280	344	624
Investment	56 + 100	156	
Goodwill			40
Total Assets		**500**	**664**
Equity	300+100	400	419
NCI			75
Liability	100+70	100	170
Total Equity and Liability		**500**	**664**

Ex-2. The parent and the subsidiary of Ex-1 have balances as at 31-03-2024 as presented below.

Items	X Ltd.		Y Ltd.	
	Book Value	Fair Value	Book Value	Fair Value
Assets	550	640	260	350
Liabilities	120	115	90	85

Prepare separate and consolidated balance sheets as at 31-03-2024.

Solution:

Items	X Ltd.	Y Ltd.
	Book Value	Change in Book Value
Assets	550	260 – 200 = 60
Liabilities	120	90 – 80 = 10
Equity	430	
Change in equity	430 – 400 = 30	60 – 10 = 50

Consolidated equity = Opening consolidated Equity + change in equity of X + share of post-acquisition profits of Y (0.7*50) = 419 + 30 + 35 = 484

NCI = 75 + 0.3*50 = 90

Balance sheet as at 31-03-2024 (Rupees in lakh)

Items	Workings	Separate	Consolidated
Assets (excluding Investment, 550 – 156)	394+280 +60 =734	394	734
Investment	56 + 100 = 156	156	
Goodwill			40
Total Assets		**550**	**774**
Equity	419+30 +35 = 484	430	484
NCI	75 + 15 = 90		90
Liability	120+70 + 10 = 200	120	200
Total Equity and Liability		**550**	**774**

Topic

Module 15: Inspection, Search, Seizure, Arrest and Prosecution

FINAL

Group IV - Paper-19

Indirect Tax Laws and Practice (ITLP)

ARREST AND PROSECUTION

Section 69 of CGST Act, 2017 Power to arrest:

As per Section 69(1) of CGST Act, 2017, where the Commissioner has reasons to believe that a person has committed any offence specified in clause (a) or clause (b) or clause (c) or clause (d) of sub-section (1) of section 132 which is punishable under clause (i) or (ii) of sub-section (1), or sub-section (2) of the said section, he may, by order, authorise any officer of central tax to arrest such person.

As per section 69(2) of CGST Act, 2017, where a person is arrested under sub-section (1) for an offence specified under sub-section (5) of section 132, the officer authorised to arrest the person shall inform such person of the grounds of arrest and produce him before a Magistrate within twenty-four hours.

As per Section 69(3) of CGST Act, 2017, Subject to the provisions of the Code of Criminal Procedure, 1973, --

- Where a person is arrested under sub-section (1) for any offence specified under sub-section (4) of section 132, he shall be admitted to bail or in default of bail, forwarded to the custody of the Magistrate;
- In the case of a non-cognizable and bailable offence, the Deputy Commissioner or the Assistant Commissioner shall, for the purpose of releasing an arrested person on bail or otherwise, have the same powers and be subject to the same provisions as an officer-in-charge of a police station.

Section 70 of CGST Act 2017 – Power to summon persons to give evidence and produce documents:

As per Section 70(1), The proper officer under this Act shall have power to summon any person whose attendance he considers necessary either to give evidence or to produce a document or any other thing in any inquiry in the same manner, as provided in the case of a civil court under the provisions of the Code of Civil Procedure, 1908.

As per Section 70(2) Every such inquiry referred to in sub-section (1) shall be deemed to be a "judicial proceedings" within the meaning of section 193 and section 228 of the Indian Penal Code.

The person committing the offence will be punishable depending on the amount involved which is as follows:

Prosecution is the conducting of legal proceedings against someone in respect of a criminal change.

Any person committing the following offences (i.e., deliberate intention of fraud) becomes liable to prosecution, i.e., face criminal charges Section 132(1) of the CGST Act, 2017;

The following are cognizable offences if the tax evaded > ₹500 lakh (Section 132(5) of the following offences), namely (Section 132(1) of the CGST Act, 2017):-

- supplies any goods or services or both without issue of any invoice, in violation of the provisions of this Act or the rules made thereunder, with the intention to evade tax;
- issues any invoice or bill without supply of goods or services or both in violation of the provisions of this Act, or the rules made thereunder leading to wrongful availment or utilisation of input tax credit or refund of tax;
- avails input tax credit using such invoice or bill referred to in clause (b), (this clause shall be substituted from the Finance Act, 2020 dated 27-2-2020 namely – avails input tax credit using the invoice or bill referred to in clause (b) or fraudulently avails input tax credit without any invoice or bill;
- collects any amount as tax but fails to pay the same to the Government beyond a period of three months from the date of which such payment becomes due;

Note: all the above offences shall be non-cognizable and bailable where tax evaded ≤ ₹500 lakh (Section 132(4) of the CGST Act, 2017).

The following are non-cognizable and bailable offences irrespective of the tax amount evaded (Section 132(4) of the CGSG Act, 2017):

Whoever commits any of the following offences, namely (Section 132(1) of the CGST Act, 2017):--

- evades tax, (fraudulently avails input tax credit omitted from the Finance Act, 2020, dated 27-3-2020) or fraudulently obtains refund and where such offence is not covered under clauses (a) to (d);

- falsifies or substitutes financial records or produces fake accounts or documents or furnishes any false information with an intention to evade payment of tax due under this Act;
- obstructs or prevents any officer in the discharge of his duties under this Act;
- acquires possession of, or in any way concerns himself in transporting, removing, depositing, keeping, concealing, supplying, or purchasing or in any other manner deals with, any goods which he knows or has reasons to believe are liable to confiscation under this Act or the rules made thereunder;
- receives or is in any way concerned with the supply of, or in any other manner deals with any supply of services which he knows or has reasons to believe are in contravention of any provisions of this Act or the rules made thereunder;
- tampers with or destroys any material evidence or documents;
- fails to supply any information which he is requird to supply under this Act or the rules made thereunder or (unless with a reasonable belief, the burden of proving which shall be upon him, that the information supplied by him is true) supplies false information; or
- attempts to commit, or abets the commission of any of the offences mentioned to clauses (a) to (k) of this section,

Cognizable or non-cognizable:

Section	Tax amount involved	Quantum of punishment by imprisonment	Cognizable or non-cognizable	Bailable or non-bailable
132(1)(I)	> ₹500 lakhs	Upto 5 years with fine	Cognizable	Non-bailable
132(1)(ii)	> ₹200 lakhs ≤ ₹500 lakhs	Upto 3 years with fine	Non-cognisable	Bailable
132(1)(iii)	> ₹100 lakhs ≤ ₹200 lakhs	Upto 1 years with fine	Non-cognisable	Bailable
132(1)(iv)	Offfence specified in clauses (f), (g) or i) of section 132(1) of the CGST Act, 2017	Upto 6 months or with fine or with both	Non-cognisable	Bailable

Second and subsequent offence

Section 132(2) of the CGST Act, 2017 where any person convicted of an offence under this section is again convicted of an offence under this section, then, he shall be punishable for the second and for every subsequent offence with **imprisonment for a term which may extend to five years and with fine.**

Minimum imprisonment is 6 months

Section 132(3) of the CGST Act, 2017 the imprisonment referred to in clauses (i), (ii) and (iii) of sub-section (1) and sub-section (2) shall, in the absence of special and adequate reasons to the contrary to be recorded in the judgment of the Court, be for a term not less than six months.

Prior permission from the Commissioner

Section 132(6) of the CGST Act, 2017 a person shall not be prosecute4d for any offence under this section except with the previous sanction of the Commissioner.

Topic

Module 4: Enterprise Risk Management

Module 7: Business Valuation Methods and Approaches

ELECTIVES

Paper-20A

Strategic Performance Management and Business Valuation (SPMBV)

FINAL

Module 4: Enterprise Risk Management

LANVINNER Corporation, established in the 1980s, is a leading manufacturer of electronic components used in various industries, including automotive, telecommunications, and consumer electronics. With operations in over 30 countries, LANVINNER Corporation faces a complex risk landscape encompassing operational, financial, strategic, and compliance risks. Recognizing the need for a structured approach to risk management, the company's board of directors decided to implement an ERM framework in 2017.

The first step in implementing ERM at LANVINNER Corporation involved identifying potential risks. The company employed a bottom-up approach, engaging employees at all levels to report risks within their areas of responsibility. Additionally, a top-down perspective was adopted, where senior management identified strategic and emerging risks. The risk identification process included workshops, interviews, and surveys to gather comprehensive risk data. A significant scenario arose when a key supplier faced bankruptcy, threatening to disrupt the supply chain. This highlighted the importance of robust supplier risk assessments.

Once risks were identified, the next phase involved assessing their potential impact and likelihood. LANVINNER Corporation used a risk matrix to categorise risks based on their severity and probability. This matrix helped prioritise risks, focusing on those with the highest potential to affect the company's objectives. Each risk was evaluated in terms of financial impact, operational disruption, reputational damage, and regulatory implications. An interesting scenario occurred during this phase when an emerging technology presented both an opportunity and a risk. The company needed to balance the potential market gains against the technological and operational challenges it posed.

After assessing the risks, the company developed mitigation strategies. This involved identifying existing controls and determining their effectiveness. For significant risks, new controls were introduced, and contingency plans were developed. For example, to address supply chain risks, LANVINNER Corporation diversified its supplier base and implemented robust supplier risk assessments. Another scenario involved cyber security threats. The company invested heavily in upgrading its IT infrastructure and employee training programs to prevent data breaches and ensure compliance with international data protection standards.

Continuous monitoring and reporting are critical components of an effective ERM framework. LANVINNER Corporation established a risk management committee responsible for overseeing the ERM process. This committee, comprising senior executives and risk managers, met quarterly to review risk reports, assess the effectiveness of mitigation strategies, and update the risk register. Additionally, the company developed a risk dashboard to provide real-time risk information to decision-makers. A notable scenario here was the implementation of a predictive analytics tool, which enabled the company to anticipate and mitigate risks more effectively.

One of the significant challenges faced by LANVINNER Corporation was fostering a risk-aware culture. Initially, there was resistance from employees who perceived ERM as an additional bureaucratic process. To address this, the company invested in training and awareness programs to educate employees about the importance of risk management and their role in the ERM process. Another challenge was ensuring that risk management practices were consistently applied across all international operations, which required tailored training sessions and localized risk management policies.

Integrating ERM with existing processes and systems posed another challenge. LANVINNER Corporation had to align its ERM framework with other management systems, such as quality management, internal audit, and strategic planning. This required significant coordination and process re-engineering to ensure seamless integration. A specific scenario involved aligning ERM with the company's sustainability initiatives. The integration ensured that environmental risks, such as those related to climate change and resource scarcity, were adequately addressed in the overall risk management strategy.

Effective ERM relies on accurate and timely risk data. LANVINNER Corporation faced challenges

in consolidating risk data from various sources and ensuring its quality. To overcome this, the company implemented a centralised risk management information system (RMIS) to capture, store, and analyse risk data. This system facilitated better data management and reporting. During this phase, the company encountered a scenario where discrepancies in data quality across different regions necessitated the development of a standardized data collection protocol.

The implementation of ERM at LANVINNER Corporation led to heightened risk awareness across the organization. Employees at all levels became more proactive in identifying and reporting risks, contributing to a more resilient organizational culture. The training programs and continuous communication efforts played a crucial role in embedding risk awareness into the corporate ethos. An illustrative scenario involved a new market entry where local teams identified specific regulatory risks early on, allowing the company to adapt its strategy accordingly.

ERM provided LANVINNER Corporation with a structured approach to risk assessment and management, leading to more informed decision-making. The risk matrix and dashboard enabled management to prioritise risks and allocate resources effectively. As a result, the company was better equipped to navigate uncertainties and capitalize on opportunities. For instance, a strategic decision to enter the renewable energy market was guided by thorough risk assessments, ensuring a balanced approach to innovation and risk.

With operations in multiple jurisdictions, LANVINNER Corporation faced a complex regulatory environment. The ERM framework helped ensure compliance with various regulations by systematically identifying compliance risks and implementing appropriate controls. This proactive approach to regulatory compliance reduced the likelihood of legal penalties and reputational damage. A relevant scenario involved changes in international trade policies, where the company's proactive risk assessments allowed it to swiftly adapt to new regulatory requirements.

One of the tangible benefits of ERM was its positive impact on financial performance. By identifying and mitigating risks early, LANVINNER Corporation was able to avoid significant financial losses. For instance, the diversification of suppliers reduced the impact of supply chain disruptions, ensuring steady production and delivery of products. Additionally, the enhanced risk management practices contributed to improved credit ratings, reducing the cost of capital. A specific scenario involved a natural disaster affecting one of the major manufacturing plants. Due to pre-established contingency plans, the company could swiftly relocate production and mitigate financial losses.

The success of ERM at LANVINNER Corporation was largely due to strong leadership commitment. The board of directors and senior management played an active role in driving the ERM initiative, demonstrating its importance to the entire organization. Their involvement was crucial in overcoming resistance and ensuring the necessary resources were allocated to the ERM process. This commitment was evident in a scenario where the CEO personally led a series of workshops to emphasize the strategic importance of ERM.

ERM is not a one-time project but an ongoing process. LANVINNER Corporation recognised the need for continuous improvement and regularly updated its risk management practices to adapt to changing risk landscapes. The company conducted annual reviews of its ERM framework, incorporating feedback from stakeholders and benchmarking against industry best practices. A key scenario involved responding to the COVID-19 pandemic, where the company had to rapidly adapt its risk management practices to address new health and safety risks, supply chain disruptions, and changing market dynamics.

Effective ERM requires collaboration and communication across all levels of the organization. LANVINNER Corporation fostered a culture of open communication, encouraging employees to share risk-related information without fear of retribution. This collaborative approach enhanced the quality of risk data and the effectiveness of risk mitigation strategies. A noteworthy scenario was the establishment of cross-functional risk teams that brought together experts from different departments to address complex, multi-dimensional risks.

What approach did LANVINNER Corporation use to identify potential risks?

A) Top-down approach only

B) Bottom-up approach only

C) Combination of top-down and bottom-up approaches

D) External consultant review

Answer:

C) Combination of top-down and bottom-up approaches

How did LANVINNER Corporation prioritize the risks identified?

A) By financial impact only

B) By probability and severity using a risk matrix

C) By senior management decision

D) By random selection

Answer:

B) By probability and severity using a risk matrix

What system did LANVINNER Corporation implement to manage and analyze risk data?

A) Enterprise Resource Planning (ERP) system

B) Customer Relationship Management (CRM) system

C) Risk Management Information System (RMIS)

D) Business Intelligence (BI) system

Answer:

C) Risk Management Information System (RMIS)

What major benefit did the ERM framework provide to LANVINNER Corporation in terms of financial performance?

A) Increased revenue

B) Improved credit ratings and reduced cost of capital

C) Higher stock prices

D) Increased employee salaries

Answer:

B) Improved credit ratings and reduced cost of capital

Which scenario demonstrated the importance of strong leadership commitment in the success of ERM at LANVINNER Corporation?

A) Implementation of predictive analytics tool

B) CEO leading a series of workshops

C) Investment in new technology

D) Supplier bankruptcy issue

Answer:

B) CEO leading a series of workshops

Module 7 : Business Valuation Methods and Approaches

Risks in Valuation Using Modern Valuation Techniques

Valuation is a critical component of financial decision-making, impacting investment choices, corporate strategies, and regulatory compliance. Modern valuation techniques, such as discounted cash flow (DCF) analysis, comparable company analysis, and precedent transactions, aim to provide accurate and reliable estimates of an asset's worth. However, these methods are not without their risks. This essay explores the various risks inherent in using modern valuation techniques, including assumptions and inputs, model risk, market risk, and behavioral biases, while highlighting the importance of vigilance and rigorous analysis in mitigating these risks.

Assumptions and Inputs

One of the most significant risks in modern valuation techniques is the reliance on assumptions and inputs. Valuations often require forecasts of future cash flows, discount rates, and growth rates, among other variables. The accuracy of these forecasts is crucial, yet they are inherently uncertain and subject to change.

For instance, the DCF method relies heavily on projected future cash flows and the discount rate. If the assumptions about future revenue growth, operating margins, or capital expenditures are overly optimistic or pessimistic, the resulting valuation will be skewed. Similarly, the choice of discount rate, which reflects the time value of money and the risk associated with the investment, can dramatically alter the valuation

outcome. A small change in the discount rate can lead to significant differences in the present value of future cash flows, thereby affecting the overall valuation.

Moreover, inputs such as market multiples in comparable company analysis or historical transaction prices in precedent transactions can be influenced by market conditions and investor sentiment. These inputs may not always reflect the true value of the company or asset being valued, especially during periods of market volatility or economic uncertainty. The reliance on historical data also poses a risk, as past performance may not necessarily predict future results, leading to potential inaccuracies in the valuation.

Model Risk

Model risk arises from the possibility that the valuation model itself may be flawed or inappropriate for the specific context. Each valuation technique has its strengths and limitations, and applying the wrong model can lead to erroneous valuations. For example, the DCF model is highly sensitive to the assumptions of future cash flows and discount rates, making it less suitable for companies with unstable or unpredictable cash flows.

Comparable company analysis and precedent transactions, while useful in providing market-based valuations, assume that the selected comparables are truly comparable to the subject company. In practice, finding exact comparables can be challenging, and even minor differences in business models, market positioning, or growth prospects can render the analysis less reliable.

Additionally, model risk can be exacerbated by the use of overly complex or sophisticated models that are not well understood by the user. Financial models often incorporate numerous variables and assumptions, and if the user lacks a thorough understanding of how these elements interact, there is a higher risk of errors and misinterpretations. Over-reliance on quantitative models without sufficient qualitative analysis can also lead to misleading conclusions.

Market Risk

Market risk, or systematic risk, refers to the risk of valuation inaccuracies due to changes in market conditions. Factors such as interest rates, inflation, economic cycles, and geopolitical events can significantly impact valuations. For instance, an unexpected rise in interest rates can increase the discount rate used in DCF models, thereby reducing the present value of future cash flows and lowering the valuation.

Market risk also affects the availability and reliability of market data used in comparable company analysis and precedent transactions. During times of market turmoil, valuation multiples can fluctuate widely, making it difficult to derive accurate and stable valuations. The timing of the valuation is crucial, as valuations conducted during bull markets may overestimate value, while those conducted during bear markets may underestimate it.

Moreover, market risk is often beyond the control of individual investors or analysts, making it a pervasive and persistent challenge in valuation. While diversification and hedging strategies can mitigate some aspects of market risk, they cannot eliminate it entirely.

Behavioral Biases

Behavioral biases represent another significant risk in valuation. These biases can distort judgment and lead to systematic errors in valuation. Common biases include overconfidence, anchoring, herd behavior, and confirmation bias.

Overconfidence can lead analysts to overestimate their ability to forecast future cash flows and undervalue the uncertainties involved. This can result in overly optimistic valuations that do not adequately account for risk. Anchoring refers to the tendency to rely too heavily on initial information or previous valuations, which can skew subsequent analyses. For instance, if an analyst becomes anchored to a high initial valuation, they may insufficiently adjust their estimates even when new information suggests a lower value.

Herd behavior occurs when analysts and investors follow the actions of others rather than relying on their own analysis. This can lead to valuation bubbles, where assets are priced well above their intrinsic value due to collective optimism or speculation. Conversely, it can also result in undervaluation during periods of widespread pessimism.

Confirmation bias involves the tendency to search for, interpret, and remember information that confirms pre-existing beliefs while disregarding information that contradicts them. This bias can lead analysts to selectively use data and assumptions that support their desired valuation outcome, rather than conducting an objective and balanced analysis.

Mitigating Valuation Risks

To mitigate the risks associated with modern valuation techniques, it is essential to adopt a rigorous and disciplined approach. This includes conducting thorough due diligence, using multiple valuation methods, and continuously updating and revising assumptions based on new information.

Thorough due diligence involves scrutinizing the assumptions and inputs used in the valuation, cross-checking them against multiple sources, and considering a range of scenarios. Sensitivity analysis can help assess how changes in key variables impact the valuation, providing insights into the robustness of the estimates.

Using multiple valuation methods can also enhance reliability. By triangulating valuations from different approaches, analysts can cross-validate results and identify discrepancies. This helps ensure that the final valuation is not overly dependent on a single method or set of assumptions.

Continuous updating and revision of assumptions are crucial in a dynamic and uncertain environment. Regularly revisiting and adjusting forecasts, discount rates, and market data can help maintain the relevance and accuracy of the valuation. Staying informed about market trends, economic indicators, and industry developments is essential for making timely and informed adjustments.

Additionally, fostering a culture of critical thinking and objectivity can help mitigate behavioral biases. Encouraging analysts to question assumptions, seek diverse perspectives, and challenge their own conclusions can lead to more balanced and accurate valuations. Training programs and awareness initiatives can also enhance understanding of behavioral biases and their impact on valuation.

Topic

Module 5: Operational Risk and Off-Balance Sheet Risk

Module 8: Managing Risk in Insurance Business

ELECTIVES

Paper-20B

Risk Management In Banking and Insurance (RMBI)

FINAL

Guidelines of RBI to Conduct of Guarantee Business of Banks (Off-Balance Sheet Exposure Risks-RBI Directions)

The 'Off-balance sheet' description denotes that the activities involve contingent commitments or contracts which generate income to a bank, but are normally not captured as Assets or Liabilities under conventional accounting procedure. Contingent items may be recorded in a bank's accounts as 'Notes to Balance Sheet', 'Contingent Commitment Banking', 'Assetless Banking' or even 'Invisible Banking'.

Norms for Unsecured Advances & Guarantees:

Until June 17, 2004, banks were required to limit their commitments by way of unsecured guarantees in such a manner that 20 percent of a bank's outstanding unsecured guarantees plus the total of its outstanding unsecured advances should not exceed 15 percent of its total outstanding advances. In order to provide further flexibility to banks on their loan policies, the above limit on unsecured exposure of banks was withdrawn and banks' Boards have been given the freedom to fix their own policies on their unsecured exposures. "Unsecured Exposure" is defined as an exposure where the realisable value of the security, as assessed by the bank/ approved valuers / Reserve Bank's inspecting officers, is not more than 10 per cent, ab-initio, of the outstanding exposure. Exposure shall include all funded and non-funded exposures (including underwriting and similar commitments). 'Security' will mean tangible security properly charged to the bank and will not include intangible securities like guarantees (including State government guarantees), letter of comfort, etc.

For determining the amount of unsecured advances for reflecting in schedule 9 of the published balance sheet of Banks, the rights, licenses, authorisations, etc., charged to the banks as collateral in respect of projects (including infrastructure projects) financed by them, should not be reckoned as tangible security. Banks, may however, treat annuities under build-operate –transfer (BOT) model in respect of road/highway projects and toll collection rights where there are provisions to compensate the project sponsor if a certain level of traffic is not achieved, as tangible securities, subject to the condition that banks' right to receive annuities and toll collection rights is legally enforceable and irrevocable.

All exemptions allowed for computation of unsecured advances stand withdrawn.

Precautions for Issuing Guarantees:

Banks should adopt the following precautions while issuing guarantees on behalf of their customers.

(i) As a rule, banks should avoid giving unsecured guarantees in large amounts and for medium and long-term periods. They should avoid undue concentration of such unsecured guarantee commitments to particular groups of customers and/or trades.

(ii) Unsecured guarantees on account of any individual constituent should be limited to a reasonable proportion of the bank's total unsecured guarantees. Guarantees on behalf of an individual should also bear a reasonable proportion to the constituent's equity.

(iii) In exceptional cases, banks may give deferred payment guarantees on an unsecured basis for modest amounts to first class customers who have entered into deferred payment arrangements in consonance with Government policy.

(iv) Guarantees executed on behalf of any individual constituent, or a group of constituents, should be subject to the prescribed exposure norms.

(v) It is essential to realise that guarantees contain inherent risks and that it would not be in the bank's interest or in the public interest, generally, to encourage parties to over-extend their commitments and embark upon enterprises solely relying on the easy availability of guarantee facilities.

Precautions for Averting Frauds:

While issuing guarantees on behalf of customers, the following safeguards should be observed by Banks:

(i) At the time of issuing financial guarantees, banks should be satisfied that the customer would be in a position to reimburse the bank in case the bank is required to make payment under the guarantee.

(ii) In the case of performance guarantee, banks should exercise due caution and have sufficient experience with the customer to satisfy themselves that the

customer has the necessary experience, capacity and means to perform the obligations under the contract, and is not likely to commit any default.

Bank guarantees issued for ₹ 50,000/- and above should be signed by two officials jointly. A lower cut-off point, depending upon the size and category of branches, may be prescribed by banks, where considered necessary. Such a system will reduce the scope for malpractices / losses arising from the wrong perception / judgement or lack of honesty / integrity on the part of a single signatory. Banks should evolve suitable systems and procedures, keeping in view the spirit of these instructions and allow deviation from the two signatures discipline only in exceptional circumstances. The responsibility for ensuring the adequacy and effectiveness of the systems and procedures for preventing perpetration of frauds and malpractices by their officials would, in such cases, rest on the top managements of the banks. In case, exceptions are made for affixing of only one signature on the instruments, banks should devise a system for subjecting such instruments to special scrutiny by the auditors or inspectors at the time of internal inspection of branches.

Precautions to be taken in the case of Letter of Credit:

In the case of LCs for import of goods, banks should be very vigilant while making payment to the overseas suppliers on the basis of shipping documents. They should exercise precaution and care in comparing the clients. The payments should be released to the foreign parties only after ensuing that the documents are strictly in conformity with the terms of the LCs. There have been many irregularities in the conduct of LC business, such as the LC transactions not being recorded in the books of the branch by officials issuing them, the amount of LCs being much in excess of the powers vested in the officials, fraudulent issue of LCs involving a conspiracy/ collusion between the beneficiary and the constituent. In such cases, the banks should take action against the concerned officials as well as the constituent on whose behalf the LCs were opened and the beneficiary of LCs, if a criminal conspiracy is involved.

Goal of Risk Management
(Insurance is only a Portion of What Risk Management is all About)

The Goal of Risk Management is to "Protect not only the assets and income of an organization from the potential of accidental loss, but also other stake holder's dependent upon the organization". The steps of Risk Management are the same whether in the private sector or public sector.

Insurance is only a portion of what Risk Management is all about. Whether a loss is insured or uninsured, a loss is a loss. The financial consequences of a loss will impact the organization and it may result in further significant costs such as repair, loss of income and additional expense.

Identifying the risks of potential loss requires an assessment of not only the services provided, but also, the assets owned. In addition, the organization needs to identify where they have legal obligations and what level of funding is required to operate the various services and facilities.

Once the exposures have been identified by department, the department must evaluate how these services are managed or provided and how a loss in their department will effect not only their operations, but also the overall organization, including other departments.

Risk management is a management tool, which can be used by any organization or department, regardless of size, for the purpose of minimizing the adverse financial effects of accidental loss.

In its most basic application, risk management is an ongoing systematic effort to identify and control the risk of losses to which an organization is exposed and to finance those losses, which do occur, in a cost-effective manner.

Benefits of Risk Management

Improved Risk Assessment:

One of the most significant reasons why risk management is a must for insurance companies is its enhanced risk

assessment techniques. Risk Management comes with a series of steps with the first one being rigorous risk assessment. When company opts for the inception of the risk management strategy, we will have a frequent and extensive assessment of the entire system within the organization. The tests performed are done with the core idea of detecting gaps and finding peaks within data.

This information is vital considering the fact that having knowledge about what's going wrong helps risk management managers to proactively employ measures to deal with them and mitigate the effects of the risk. In fact, risk assessment helps keep the organizational system free from theft and threats.

Ensures Compliance:

The inability to comply with the rules and regulations posed by the government with respect to security is one reason why insurance companies fail to grab user attention. When opting for risk management strategies, their infrastructure is then modified to be under intense scrutiny.

Also, all of the companies are expected to be totally aware of changes occurring at the Central and State level that might have a direct or indirect impact on the organization. The risk managers then need to align their business operations in terms of the rules, turning 100% compliant.

Certain organizations mandate risk managers to assess their system and find all possible risks that might occur in the foreseeable future. In case, these affect the ability of the insurer to map the policyholder obligations, the company needs to take certain steps to curb the same.

There are Risk Maturity Models developed by the Insurance Companies, which determines how well the company is managing risks. These models generate report's highlighting what are the weak areas that are prone to thefts so that the managers could then optimize it for better infrastructure.

Prioritize Risks:

In simple terms, risk management is nothing but assessing and identifying areas within the organization that might be vulnerable to hacks. A well-drafted risk management strategy uses standardizes risk assessment programs. These programs are designed to highlight the top potential areas of risk and further sort them based on their relevancy.

This helps risk managers know which of the risks have the most destructive impact on the business and then take certain steps to deal with the same.

For instance, be it insurance or any other company, customer service is of paramount importance. In the absence of risk management methodology, it might so happen that certain customer complaints go unnoticed. This is fatal for the organization as customers can make or break a brand.

When organizations use risk management strategies, the programs detect all possible areas of risk and surface the ones that are most important at the top. Here, customer complaints would lead to the charts. So, the managers can identify them and take measures to deal with the issue at the earliest.

Topic

Module 5: Scalability, Scaling up and Stabilisation of Sustainable Business

ELECTIVES

Paper-20C

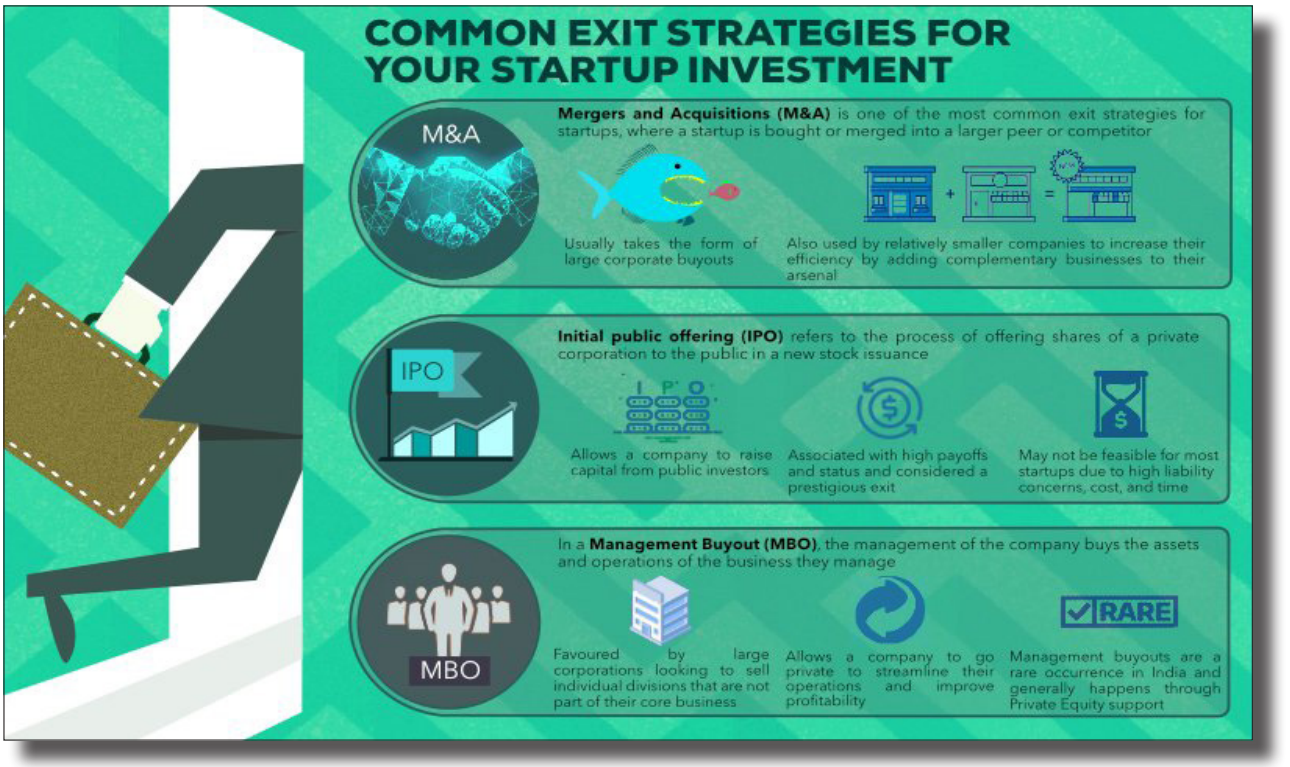
Entrepreneurship and Start Up (ENTS)

Paper 20C : Entrepreneurship and Startup
Stabilisation of Sustainable Business and Risk Management Strategies

Exit Strategies of Fund Houses in Starups

Exit strategies are plans executed by business owners, investors, traders, or venture capitalists to liquidate their position in a financial asset upon meeting certain criteria. An exit plan is how an investor plans to get out of an investment. An exit strategy gives a business owner a way to reduce or liquidate his stake in a business and, if the business is successful, make a substantial profit.

An exit occurs when an investor sells part or all of his or her ownership. In a healthy or growing company, an investor may exit to gain a return on investment. In other cases, the investor may simply want to access cash to invest elsewhere. Investors can exit by: Selling shares to another investor (or investors).



Source: https://www.smergers.com/blog/exit-from-startup-investment/

1) Mergers and Acquisitions (M&A)

One of the most common exit strategies for startups with venture capital or angel investor funding is through M&A. In an M&A, a startup is bought or merged into a larger peer or competitor. It is a common occurrence and can take the form of large corporate buyouts such as in the case of Walmart's acquisition of a 77% stake in Flipkart for USD 16 billion.

2) Initial Public Offering (IPO)

An initial public offering (IPO) refers to the process of offering shares of a private corporation to the public in a new stock issuance. Public share issuance allows a company to raise capital from public investors. An IPO is often considered one of the most prestigious forms of exit as it is associated with high payoffs and status. A public offering is a rare form of exit that requires a lot of work and time. Due to the high liability concerns, shareholder demands and high costs, a public offering may not be feasible for most startups.

3) Management Buyout (MBO)

In an MBO, the management of the company buys purchases the assets and operations of the business they manage. This type of exit strategy is favoured by large corporations looking to sell individual divisions that are not part of their core business or by private businesses whose owners wish to retire. An MBO allows a company to go private in an effort to streamline its operations and improve profitability. one of the more well-known cases of a management buyout in India would be in the instance of Capital First. In 2012, the MD of the NBFC,

Future Capital effected a takeover of the company with an equity backing of USD 159 million from Warburg Pincus and renamed the company Capital First. The company has since merged with IDFC Bank to form IDFC First which has the distinction of being the first management buyout converted into a bank.

Other Alternative Exit Strategies

Source: https://www.smergers.com/blog/exit-from-startup-investment/

1) Private Offerings or Secondary Sales

Private offerings allow shares to be offered to individuals or a select group of investors to raise funds. These types of offerings do not need to be registered with SEBI and are exempt from reporting arrangements.

2) Cash Cow

Cash cows are firms that can generate a steady cash flow for investors and pay an appropriate dividend through the years. This is typical with firms which command a high market share in an industry dominated by low growth. They can sustain enough capital to stay afloat for the foreseeable future as they promise years of increased profits.

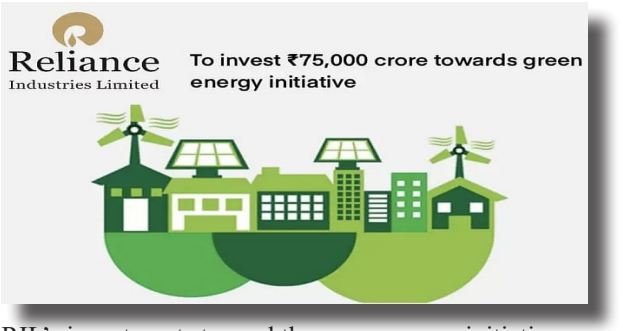
3) Asset Liquidation or Write-Offs

It is widely believed that more than 99% of startups fail and, in such cases, the only recourse for investors is to write off such investments, liquidate any assets held by the startup and recoup its salvage value. In this method, the assets of the business are liquidated, and the funds acquired are used to cash out investors. This is not usually a recommended strategy as it used mainly in distressed situations where the business can no longer continue to function.

Case Study:

Reliance Industries' Green Energy Innovation

Reliance Industries, one of India's largest private sector companies, has significantly contributed to sustainable energy and green innovation. The company has been collaborating with Indian startups to drive innovation for sustainability. Reliance Industries has collaborated with some organisations, including Indian Oil, NTPC, Adani Enterprises, JSW Energy, ReNew Power, and Acme Solar. Reliance Industries aims to build one of the world's leading new energy and new materials businesses to bridge India's global green energy divide. The company has been investing heavily in renewable energy. In January 2022, Reliance Industries announced it would invest roughly $80 billion in renewable energy push, including new power manufacturing-integrated renewable manufacturing. The company has also signed an MoU with the government of Gujarat state to invest 5.9 trillion rupees ($80 billion) to help make Gujarat net-zero carbon by 2035.



RIL's investments toward the green energy initiative.

Reliance Industries has been collaborating with various startups for its green energy initiatives —

1. **Integrated Solar Photovoltaic Factory**: With plans to construct an integrated solar photovoltaic factory to produce ingots and wafers, Reliance Industries will be able to make low-cost solar cells and modules
2. **Green Hydrogen and Carbon Dioxide**: The company plans to use green hydrogen and carbon dioxide as raw materials to produce green fertilisers and e-fuels.
3. **Rooftop Solar and Decentralized Solar Installations**: Reliance Industries aims to build solar capacity of at least 100 gigawatts (GW) by 2030, accounting for over a fifth of India's target of installing 450 GW by the end of this decade. Most of this will come from rooftop solar and decentralised solar installations.
4. **Energy Storage and Green Hydrogen Production:** Reliance Industries will leverage its ecosystem for manufacturing integrated solar and wind energy storage. It will also create a fully integrated, automated giga-scale electrolyser manufacturing facility for large-scale and cost-competitive green hydrogen production.
5. **Collaboration with Danish Stiesdal A/S:** Reliance Industries has collaborated with Denmark's Stiesdal A/S on technology development and manufacturing of hydrogen, which can produce hydrogen at a significantly lower cost compared to current levels

Reliance Industries' contributions to sustainable energy and green innovation have been significant, and the company's investments in renewable energy and collaborations with startups have been driving innovation for sustainability. The company's efforts also contribute to the United Nations' Sustainable Development Goal 7, which aims to ensure access to affordable, reliable, sustainable, and modern energy for all.

(Source: Driving Sustainability through Indian Innovation: A Confluence of Entrepreneurship and Corporate Action, The Nexus of Entrepreneurship and Innovation: Susan Joseph)
https://medium.com/@susj98)

MCQs:

1. Which of the following is not a renewable energy source?
   (a) Solar
   (b) Natural Gas
   (c) Wind
   (d) Biomass
   Answer: (b) Natural Gas
2. Which of the following statements are true of innovations?
   A. Innovations are a must to survive.
   B. Discontinuous innovations lead to failures.
   C. Continuous innovations do not disrupt established usage and behaviour patterns.
   D. Line extensions are discontinuous innovations.
   Choose the correct answer from the options given below:
   (a) A, B, C only (b) B, C, D only
   (c) B and D only (d) A and C only
   Answer (d)
3. Which one of the following statements is not correct?
   (a) Reliance Industries has been collaborating with integrated solar photovoltaic factory to produce ingots and wafers.
   (b) Reliance Industries aims to build solar capacity of at least 10 gigawatts (GW) by 2040.
   (c) Reliance Industries will leverage its ecosystem for manufacturing integrated solar and wind energy storage.
   (d) Reliance Industries plans to use green hydrogen and carbon dioxide as raw materials to produce green fertilisers and e-fuels.
   Answer (b)
4. Atal Innovation Mission is set up under the (2019)-
   (a) Department of Science and Technology
   (b) Ministry of Labour and Employment
   (c) NITI Aayog
   (d) Ministry of Skill Development and Entrepreneurship
   Answer: (c)
5. Which term refers to startups that aim to disrupt traditional industries or business models?
   (a) Conservative startups
   (b) Established startups
   (c) Legacy startups
   (d) Disruptive startups
   Answer: (d)

NOTES

Invitation to Contribute Articles for CMA Student E-Bulletin - Showcasing Your Expertise!

Dear CMA Student,

We are excited to extend an invitation to you to contribute an article for the **CMA Student E-Bulletin,** our esteemed monthly e-journal exclusively crafted for CMA students. This platform, managed by the Directorate of Studies at ICMAI, aims to provide a space for your insights, experiences and knowledge-sharing within the CMA community.

Submission Guidelines:

- **Article Length:** Please prepare articles ranging between 1200 to 1500 words.
- **Topic:** The articles can cover a wide spectrum of subjects, including but not limited to advancements in finance, industry insights, case studies, personal experiences and emerging trends in the field.
- **Originality:** We encourage you to share your unique perspectives and experiences. Ensure that your submission has not been published elsewhere.

Submission Deadline: We kindly request you to submit your article by **20th of the previous month of publication.** This will allow us ample time to review and prepare the upcoming issues of the CMA Student E-Bulletin.

Submission Process: Please send your article to ***studies.ebulletin@icmai.in*** with the subject line **"CMA Student E-Bulletin Submission - [Your Name, Registration No.]".** Include a brief author bio and a high-resolution photograph to be featured alongside your article.

Recognition and Rewards: Selected articles will be featured prominently in the CMA Student E-Bulletin, providing you with a valuable platform to showcase your expertise. Additionally, authors of published articles will be acknowledged and the top contributors may be eligible for special recognition and rewards.

We believe that your unique insights and experiences will contribute significantly to the enrichment of the CMA Student E-Bulletin. Your participation will not only enhance your visibility within the CMA community but also foster a culture of knowledge-sharing and collaboration.

Best Regards,

Team DoS
The Institute of Cost Accountants of India

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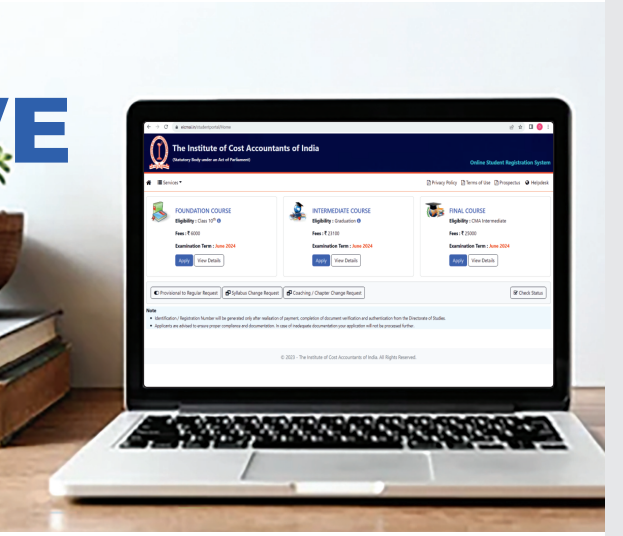
NEW IT INITIATIVE TO PROVIDE ENHANCED FACILITIES TO CMA STUDENTS



A login feature has been integrated into the **ONLINE REGISTRATION APPLICATION SYSTEM** enabling students to access various services through their accounts.

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- Request changes in Oral / Postal Coaching and opt for Chapter-to-Chapter Conversion
- Convert from Provisional to Regular status

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Campus Placement Statistics

Organized 1st Overseas Campus Placement Drive in December 2023

Career Counselling & Placement Committee
The Institute of Cost Accountants of India

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+91 94323 82747 / 98308 86751 / 98748 57118

Headquarters:
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Delhi Office:
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Admission Deadlines

- For June Exam - 31st January of same Calendar Year
- For December Exam - 31st July of same Calendar Year

Eligibility

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- Passed Class 10 (Require to pass 10+2 before appearing in CMA Examination)
- 10+2 Pass or its equivalent (Students appearing for 10+2 also apply on provisional basis)

Registration to Intermediate Course

- Passed CMA Foundation Examination
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- Qualified CA Intermediate
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033-40364777/40364722/40364726

Delhi Office
CMA Bhawan, 3, Institutional Area, Lodhi Road
New Delhi - 110003
011-24622156/24622157/24622158

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Headquarters

CMA Bhawan, 12, Sudder Street, Kolkata - 700016

Ph: 033-40364777/40364722/40364726

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