

# CMA STUDENT E-Bulletin

VOL 09 | NO. 09 | SEPTEMBER 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](http://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, enrolls 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  
मृत्योर्मा मृतं 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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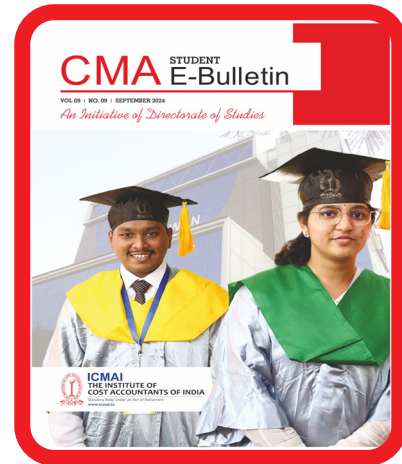
### Editorial Office

The Institute of Cost Accountants of India

CMA Bhawan

12, Sudder Street, Kolkata - 700016

✉ studies.ebulletin@icmai.in



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# CHAIRMAN'S COMMUNIQUE

**Dear Students,**

**I**t gives me immense pleasure to connect with you through the September 2024 issue of the CMA Student E-Bulletin. As the Chairman of the Training & Educational Facilities Committee of ICAI, I am excited to share the latest developments and initiatives that aim to enhance your learning experience and professional growth.

At ICAI, our commitment to excellence in education and training remains unwavering. We continuously strive to provide you with the best resources, state-of-the-art facilities, and cutting-edge training programs that will prepare you to excel in the field of cost and management accounting. Your success is our primary motivation, and we are dedicated to supporting you every step of the way.

In today's digital age, leveraging technology to facilitate learning is paramount. We have introduced several innovative learning platforms to ensure that you have access to high-quality education regardless of your location. Our online classes, interactive webinars, and virtual workshops provide you with the flexibility to learn at your own pace while maintaining the highest standards of education.

In addition to theoretical knowledge, practical skills are crucial for your professional development. We have designed a variety of skill development programs that focus on real-world applications and industry-relevant practices. These programs include case studies, simulation exercises, and hands-on training sessions that bridge the gap between academic knowledge and practical implementation.

Our collaborations with leading organizations and industry experts provide you with invaluable

insights and opportunities to apply your knowledge in real-world scenarios. Through internships, live projects, and guest lectures, you can gain practical experience and understand the nuances of the industry. These collaborations also open doors to networking opportunities that can be instrumental in your career growth.

At ICAI, we believe in the holistic development of our students. Alongside academic excellence, we emphasize the importance of soft skills such as communication, leadership, and teamwork. Our comprehensive training programs include workshops and seminars focused on developing these essential skills, ensuring that you are well-rounded professionals ready to take on leadership roles.

I am confident that the initiatives and programs we have implemented will significantly enhance your learning experience and prepare you for a successful career. I encourage you to take full advantage of these opportunities and remain dedicated to your goals.

I extend my best wishes to all of you. Your hard work, determination, and passion are the driving forces behind our efforts. Let us continue to work together to achieve excellence and elevate the standards of the cost and management accounting profession.

Warm regards,

**CMA Vinayranjan P.**

Chairman, Training & Educational Facilities  
Committee, ICAI

# CMA FOUNDATION COURSE

Syllabus 2022

## Topic

Fundamentals of  
Business Laws -

Module 2: Indian  
Contracts Act, 1872

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)

- A proposal when accepted becomes a \_\_\_\_\_ and an agreement enforceable by law is \_\_\_\_\_.
  - agreement, acceptance
  - promise, contract
  - contract, promise
  - acceptance, consideration
- An agreement which prevents a person from carrying a lawful business is \_\_\_\_\_ under \_\_\_\_\_ of the Indian Contract Act, 1872.
  - void/section 27
  - voidable/section 28
  - illegal/section 26
  - valid/section 10
- Which of the following statements is true?
  - Contract = agreement + enforceability at law
  - agreement = offer + acceptance
  - both (a) & (b)
  - none of the above
- A and B entered into an agreement for the share of profit, among them, which is to be acquired by them by fraud. It is not a valid argument because its -
  - object is unlawful
  - considerations is unlawful
  - offer is unlawful
  - an exceptional agreement
- Contracts classified on the basis of performance are-
  - Executed contract
  - executory contracts
  - partly executed or partly executory contracts
  - all of the above.
- Mistake of Fact can be two types-
  - Own and foreign
  - Unilateral & Bilateral
  - Unilateral & Foreign
  - Own and bilateral
- Section 68 to \_\_\_\_\_ the Indian Contract Act describes the cases which are deemed \_\_\_\_\_ contracts.
  - 72, Quasi
  - 73, Contingent
  - 74, Invalid
  - 75, Void
- Quantum Meruit means-
  - as much as earned
  - as much as performed
  - as much as found
  - as much as worked
- The bailment of \_\_\_\_\_ as security for payment of a debt or performance of a promise is called \_\_\_\_\_.
  - goods, pledge
  - rule, void
  - product, services
  - services, void
- Varun went to a cafe and took a cup of coffee. In this case, there is-
  - No contract by Barun to pay for the cup of coffee
  - An implied contract that he will pay for the cup of the coffee
  - An express contract to pay for the cup of the coffee
  - A quasi contract to pay for the cup of coffee
- The law of contract is contained in the Indian Contract Act, 1872 which came into force on—
  - 1st September, 1872
  - 15th September, 1873
  - 1st October, 1872
  - 15th October, 1874

12. Section 2(j) of the Indian Contract Act, 1872 defined -
- Valid contract
  - void contract
  - voidable contract
  - quasi contract
13. The breach of contract may be-
- Actual
  - Anticipatory
  - none of the above
  - either of the above
14. The person to whom the proposal is made is called the -
- offerer
  - offeree
  - proposer
  - promisor
15. Consideration can be classified into \_\_\_\_ types.
- eight
  - nine
  - six
  - three
16. An agreement with a party who is not competent to contract is-
- void
  - voidable
  - valid
  - illegal
17. Contingent contract is defined in section \_\_\_\_ of Indian Contract Act, 1872.
- 30
  - 31
  - 32
  - 34
18. Pledge is a special kind of-
- Bailment
  - Rule
  - Business
  - Product
9. Raj entered into a contract with Simran to marry her on a fixed date. However, before the marriage date Raj went mad. With reference to the Indian Contract Act which is the valid response?
- Simran can't marry till Raj dies
  - The executors of Raj can enforce the contract against Simran
  - The contract becomes void
  - All the statements are correct
20. Prem and Shakti agree to deal in smuggled goods and share the profits. Prem refuses to give Shakti's share of profit. In this case Shakti:
- can enforce the agreement in the court.
  - can only claim damages.
  - has no remedy as the contract is illegal.
  - can enforce the contact or claim damages
21. A and B agree that law of limitation shall not apply to them. A debt becomes time barred and A refuses to pay the amount. Can B recover the amount under the terms of the agreement?
- Yes, the agreement between them is valid and enforceable.
  - Yes, the agreement is not opposed to public policy.
  - No, the agreement is a voidable agreement I and can be avoided by A.
  - No, the agreement falls under section 23 and hence void
22. A borrows ₹ 5,000 from B to purchase a revolver to shoot C. Can B recover his loan of ₹ 5,000
- Yes, the agreement between them is valid and enforceable.
  - Yes, the agreement is not opposed to public policy.
  - No, the agreement is a voidable agreement and can be avoided by A.
  - No, the agreement falls under section 23 and hence void

23. X borrows from Y ₹500 to bet with Z. Can Y recover the amount of his loan?
- Yes, the agreement between them is collateral to a wagering agreement and hence enforceable
  - Yes, the agreement is not opposed to public policy
  - No, the agreement is a voidable agreement and can be avoided by X
  - No, the agreement is wagering agreement and falls under section 23 and hence void
24. A paid ₹ 800 to B, a Government servant, to get him a contract for the canteen. B could not get the contract. Can A recover ₹ 800 paid by him to the B?
- Yes, the agreement between them is valid and enforceable
  - Yes, the agreement is not opposed to public policy
  - No, the agreement is a voidable agreement and can be avoided by A
  - No, the agreement is void

## SECTION – B: BUSINESS COMMUNICATION

25. A cloud computing is availability of computer resources?
- Off demand
  - From demand
  - On demand
  - none of the above
26. The cost incurred in interacting with customers via video call has been \_\_\_\_\_?
- Constant
  - Reduced
  - Increased
  - None of the above
27. Providing Frequently Asked Questions (FAQs) to customers result in which of the following benefits of internet communication?
- Support care
  - Professional presentation
  - Personal touch
  - None of the above
28. Professional behaviour includes behave in a \_\_\_\_\_ manner in the workplace?
- Neutral
  - Positive
  - Negative
  - None of the above
29. Business attire refers to \_\_\_\_\_ in a professional conduct?
- Manners
  - Qualities
  - Clothing
  - None of the above
30. It is to interrupt people while they are speaking?
- Polite
  - Desirable
  - Rude
  - None of the above

### ANSWER:

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

25	26	27	28	29	30
c	c	a	b	c	c

## Topic

Fundamentals  
of Financial  
Accounting -

Module 1:  
Accounting  
Fundamentals

Fundamentals of  
Cost Accounting -

Module 4:  
Fundamentals of  
Cost Accounting

## FOUNDATION

### Paper-2

Fundamentals of  
Financial and Cost  
Accounting (FFCA)

In the following MCQs, only one answer is correct. Find out the same.

1. Which one of the following is not an accounting function-
  - (a) Recording of transactions
  - (b) Report cash verification discrepancy
  - (c) Classification of recorded transactions
  - (d) Identification of monetary transactions and events
2. Which of the following is a consequence of the Going Concern Concept?
  - (a) Assets are valued at liquidation value
  - (b) Financial statements are prepared on cash basis
  - (c) Assets and liabilities are recorded at historical cost
  - (d) Financial statements are prepared on an accrual basis
3. Who is responsible for evaluating the Going Concern assumption?
  - (a) Auditors
  - (b) Management
  - (c) Investors
  - (d) Regulators
4. What is the primary indicator that may suggest a company is not a going concern?
  - (a) Profitability
  - (b) Reduction of revenue
  - (c) Significant losses or cash flow problems
  - (d) Poor credit rating
5. Which of the following is a characteristic of the Cost Concept?
  - (a) Assets are recorded at fair market value
  - (b) Expenses are matched with revenues
  - (c) Costs are recorded when incurred, not when paid
  - (d) Assets are recorded at original purchase price
6. What is the threshold for determining materiality?
  - (a) 1-5% of total assets
  - (b) 5-10% of net income
  - (c) Depends on company size and industry
  - (d) Not precisely quantifiable
7. What is the accounting treatment for revenue expenditure?
  - (a) Capitalized and depreciated
  - (b) Expensed in the current period
  - (c) Recorded as a liability
  - (d) Recorded as revenue
8. What is the consequence of misclassifying revenue expenditure as capital expenditure?
  - (a) Overstated profits
  - (b) Understated assets
  - (c) Inaccurate tax liability
  - (d) All of the above
9. What is an example of a capitalized expenditure that is not immediately useful?
  - (a) Research and development costs
  - (b) Purchase of inventory
  - (c) Acquisition of a new building
  - (d) Training expenses
10. Which of the following statements is true about the Double Entry System?
  - (a) It records only financial transactions
  - (b) It records both financial and non-financial transactions
  - (c) It ignores non-cash transactions
  - (d) It is used only for small businesses
11. Who is responsible for maintaining the Journal?
  - (a) Accountant
  - (b) Bookkeeper
  - (c) Auditor
  - (d) Accounts Manager
12. Which of the following is a common reason for a difference between the company's cash book and bank statement?
  - (a) Error in recording transactions
  - (b) Bank charges
  - (c) Outstanding checks
  - (d) All of the above

13. What is the final result of preparing a Bank Reconciliation Statement?
- (a) Adjusted cash book balance equals adjusted bank statement balance
  - (b) Adjusted cash book balance is greater than adjusted bank statement balance
  - (c) Adjusted bank statement balance is greater than adjusted cash book balance
  - (d) No difference between cash book and bank statement
14. Which of the following is a characteristic of a Trial Balance?
- (a) Shows only debit balances
  - (b) Show sonly credit balances
  - (c) Shows both debit and credit balances
  - (d) Shows account transactions
15. What is the benefit of preparing a Trial Balance?
- (a) Ensures accounting accuracy
  - (b) Simplifies financial Reporting
  - (c) Reduce accounting errors
  - (d) All of the above
16. What is the relationship between Trial Balance and financial statements?
- (a) Trial Balance is prepared after financial statements
  - (b) Trial Balance is used to prepare financial statements
  - (c) Trial Balance is independent of financial statements
  - (d) Trial Balance replaces financial statement
17. Which method of depreciation assumes that depreciation is proportional to usage?
- (a) Straight-Line Method
  - (b) Declining Balance Method
  - (c) Units-of-Production Method
  - (d) Double Declining Balance Method
18. Which of the following is a factor in determining depreciation?
- (a) Cost of asset
  - (b) Useful life of asset
  - (c) Residual value of asset
  - (d) All of the above
19. What is the purpose of the Allowance for Doubtful Accounts?
- (a) To record bad debts
  - (b) To estimate potential bad debts
  - (c) To increase accounts receivable
  - (d) To decrease accounts payable
20. Which of the following is a characteristic of accounts receivable?
- (a) Asset account
  - (b) Liability account
  - (c) Revenue account
  - (d) Expense account
21. Which accounting principle requires that bad debts be matched with the revenue they help to generate?
- (a) Matching principle
  - (b) Materiality principle
  - (c) Consistency principle
  - (d) Accrual principle
22. Which of the following is an example of a cost driver?
- (a) Direct labour hours
  - (b) Sales revenue
  - (c) Number of employees
  - (d) All of the above
23. What is the purpose of identifying cost drivers?
- (a) To reduce costs
  - (b) To increase profits
  - (c) To accurately assign costs to products or services
  - (d) To simplify financial reporting

24. What type of costing system is often used to prepare cost sheets?
- Absorption costing
  - Marginal costing
  - Standard costing
  - All of the above
25. What type of cost is salaries of administrative staff?
- Direct cost
  - Indirect cost
  - Operating cost
  - Non-operating cost
26. Which of the following is a characteristic of variable costs?
- Remains constant Regard less of production
  - Increases as production increases
  - Decreases as production decreases
  - Remains constant regardless of sales
27. Which cost is NOT relevant for decision-making?
- Future costs
  - Past costs
  - Opportunity costs
  - Sunk costs
28. Which of the following is an opportunity cost?
- The value of goods sold
  - The cost of raw materials
  - The value of the next best alternative
  - The cost of labour
29. Which of the following is a limitation of batch costing?
- Ignores individual unit costs
  - Assumes equal production costs
  - Difficult to allocate overheads
  - All of the above
30. What type of costing system is batch costing suitable for?
- Job costing
  - Process costing
  - Absorption costing
  - Variable costing

## ANSWER

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

## Topic

Fundamentals  
of Business  
Mathematics -

Module 2:  
Algebra

Fundamentals of  
Business Statistics

Module 6:  
Correlation and  
Regression

## FOUNDATION

### Paper-3

Fundamentals  
of Business  
Mathematics and  
Statistics (FBMS)



In this issue we will carry out MCQs on Algebra & Correlation & Regression – refer Module 2 and Module 6 of Study guide.

- Compute  $\frac{8! \cdot 3!}{7!}$ 
  - $4! \cdot 2!$
  - $8!$
  - $6!$
  - $3!$
- From among 28 members in a bank, one manager, one cashier and one teller needs to be appointed. In how many ways could this be done?
  - 19556
  - 19665
  - 19656
  - 19565
- Find the value of k, if  $(k-1)! \cdot 56 = (k+1)!$ 
  - 8
  - 7
  - 9
  - 6
- In how many ways can the below mentioned balls be arranged in a row, 3 yellow balls, 2 blue balls and 9 red balls?
  - 11460 ways.
  - 11550 ways.
  - 20020 ways.
  - None of the Above
- In 3 loan availed – Personal Loan, Car Loan and Home Loan, the outstanding balances are ₹ 6 Lakhs, ₹ 5 Lakhs and ₹ 11 Lakhs respectively. In how many ways can ₹ 1 Lakh be paid towards each loan availed?
  - 330
  - 320
  - 310
  - 340
- If  ${}^n P_{11} : {}^n P_{12} = 3:1$ , find the value of n.
  - 11
  - 12
  - 13
  - 15
- Find the value of  $\frac{1}{19!} + \frac{1}{21!} + \frac{1}{20!}$ 
  - $442 / 21!$
  - $441 / 21!$
  - $419 / 21!$
  - $439 / 21!$
- Find the value of:  $8^2 \cdot 8^1$ 
  - $2^9$
  - $8^3$
  - Both 'a' and 'b'
  - None of the above
- Find the value of  $23^{23} / 23^0$ 
  - $23^0$
  - $23^1$
  - 1
  - $23^{23}$
- Simplify  $2^{7/8} \cdot 2^{1/8} \cdot 2^{6/8} \cdot 2^{-2} \cdot 2^{-6/8}$ 
  - 2
  - $1/2$
  - $-1/2$
  - None of the Above
- What will be the value of  $19^{-7} \cdot 19^{-1} \cdot 1920 \cdot 19^{-11} \cdot 19^{-2}$ ?
  - 0
  - 1
  - $19^1$
  - $19^{-1}$
- Find the value of  $\log 2^4 + \log 2^2 - \log 2^3$ 
  - $3 \cdot \log \sqrt{2}$
  - $4 \cdot \log 2$
  - $\log 2^3$
  - $\log \sqrt{2^5}$
- If  $\Sigma X=30$ ,  $\Sigma Y=42$ ,  $\Sigma XY=199$ ,  $\Sigma X^2 = 184$ ,  $\Sigma Y^2 = 318$  &  $n = 6$ , then correlation coefficient between X & Y is
  - 0.324
  - 0
  - 0.458
  - 0.385

14. Plant capacity (in lakhs of Ton) and plant utilisation ((in lakhs of Ton) for last 10 years are given below:

Year	2000	2001	2002	2003	2004	2005	2006	2007	2008	2009
Plant Capacity	2.6	2.8	3.00	3.00	3.00	3.20	3.80	4.90	5.40	6.00
Plant Utilisation	2.00	2.00	2.60	2.50	2.40	2.80	3.00	3.90	4.80	5.00

The correlation coefficient between plant Capacity & Plant utilisation is

- (a) 0.987  
 (b) 0.913  
 (c) 0.934  
 (d) 0.956
15. Consider the following data

	X	Y
Number of pairs of observation	15	15
Arithmetic mean	25	18
Standard deviation	3.01	3.03
Sum of squares of deviations from arithmetic mean	136	138
Summation of product deviations of X and Y series from their respective arithmetic means	122	

Correlation coefficient between X and Y is

- (a) 0.67  
 (b) - 0.76  
 (c) 1  
 (d) 0.89
16. Given  $r = 0.8$ ,  $\Sigma xy = 60$ ,  $\sigma_y = 2.5$  and  $\Sigma x^2 = 90$ . If  $x$  and  $y$  are deviations from arithmetic average, then number of items is
- (a) 5  
 (b) 10  
 (c) 15  
 (d) 20
17. Given  $N = 11$ ,  $\Sigma X = 117$ ,  $\Sigma X^2 = 1313$ ,  $\Sigma Y = 260$ ,  $\Sigma Y^2 = 6580$ ,  $\Sigma XY = 2827$ . Correlation coefficient between X and Y is
- (a) 0.6729  
 (b) 0.9875  
 (c) 0.3566  
 (d) 0.2461
18. The deviations from their means of two series (X and Y) are respectively as given below:

X	-4	-3	-2	-1	0	1	2	3	4
Y	3	-3	-4	0	4	1	2	-2	-1

Correlation coefficient is

- (a) -1  
 (b) 1  
 (c) 0  
 (d) - 0.87

19. Following data are taken for X & Y

X	5	10	5	11	12	4	3	2	7	1
Y	1	6	2	8	5	1	4	6	5	2

Correlation coefficient between X & Y is

- (a) 0.575  
 (b) 0.892  
 (c) -0.158  
 (d) 0.346
20. An analysis for a certain company was studying the relationship between travel expenses in rupees (Y) for 102 sales trips and the duration in days (X) of these trips. He has found that relationship between Y and X is linear. A summary of the data is

$$\Sigma X = 510, \Sigma Y = 7140, \Sigma X^2 = 4150, \Sigma XY = 54900 \text{ \& } \Sigma Y^2 = 740200$$

A given trip has to take seven days. How much money should a salesman be allowed so that he will not run short of money?

- (a) 82  
 (b) 56  
 (c) 30  
 (d) 94
21. The following table gives the age of cars of a certain make and annual maintenance costs:

Age of Cars (years)	2	4	6	8
Maintenance cost (in hundreds of Rupees)	10	20	25	30

The regression equation for costs related to age is

- (a)  $Y = -4.1X + 12$   
 (b)  $Y = 3.25X + 5$   
 (c)  $Y = 5X + 10$   
 (d)  $Y = -2X + 1.86$
22. Summation of product deviations of X and Y series from their respective arithmetic means is 3.90, Sum of squares of deviations from arithmetic mean of X and Y series is 6.36 and 2.868. Regression coefficient of X on Y is
- (a) 15.1  
 (b) 5.2  
 (c) 0.61  
 (d) 1.36
23. For a data set of 9 data of X and Y series, Summation of product deviations of X and Y series from their respective arithmetic means is 193. Variance of X series is 13.3225 and  $r_{XY} = 0.9476$ . The standard deviation of Y series is
- (a) 3.65  
 (b) 8.1  
 (c) 6.2  
 (d) 4.32

24. The two regression equations are  $X = -0.234Y + 40.892$  &  $Y = -0.664X + 59.248$ . Correlation coefficient between X and Y is  
 (a)  $-0.178$   
 (b)  $-0.394$   
 (c)  $0.145$   
 (d)  $-0.456$
25. Average of X series is 35 whereas that of Y is 32.428. If regression coefficient  $b_{yx} = 0.587$  the regression equation of Y on X is  
 (a)  $Y = 0.587X + 9.560$   
 (b)  $Y = 0.587X + 11.883$   
 (c)  $Y = 0.587X - 10.113$   
 (d)  $Y = 0.587X + 1.876$
26. For 7 pair of observations between two series X and Y  $dx = X - 35$  &  $dy = Y - 32$ . If  $\sum dx dy = 121$ ,  $\sum dx = 0$ ,  $\sum dy = 3$ ,  $\sum dx^2 = 206$ ,  $\sum dy^2 = 145$ , then  $b_{xy}$  is  
 (a)  $0.842$   
 (b)  $0.567$   
 (c)  $0.134$   
 (d)  $0.432$
27. Equations of lines of regression is  $X = -0.26Y + 164.56$  &  $Y = -3.244X + 572.73$ . The arithmetic mean of X series is approximately  
 (a) 50  
 (b) 100  
 (c) 150  
 (d) 120

28. The following table gives the aptitude test scores and productivity indices of 10 workers selected at random:

Aptitude score (X)	60	62	65	70	72	48	53	73	65	82
Productivity Index (Y)	68	60	62	80	85	40	52	62	60	81

The productivity index of worker with aptitude test score 92 is

- (a) 91.15  
 (b) 82.12  
 (c) 96.53  
 (d) 43.89
29. We are given the total monthly expenditure E and family size N for five households as follows:

Expenditure E (R)	250	300	410	450	565
Family Size (N)	2	3	4	5	6

Expenditure for a family size of 8 is

- (a) R610  
 (b) R707  
 (c) R825  
 (d) R683
30. Given below are the data about income and consumption

Income (I) R	200	300	400	600	900
Consumption (C) R	180	270	320	480	700

When income is R450 consumption is approximately

- (a) R368  
 (b) R516  
 (c) R298  
 (d) R391

**Answer Keys:**

1	a	$(8! \cdot 3!)/7! = 8 \cdot 7! \cdot 3 \cdot 2 \cdot 1/7! = 8 \cdot 6 = 48 = 4! \cdot 2!$
2	c	$28 \cdot 27 \cdot 26 = 19656$
3	b	$(k-1)! \cdot 56 = (k+1)! \quad \text{Or, } (k-1)! \cdot 56 = (k+1) \cdot k \cdot (k-1)!$ Or, $56 = (k+1) \cdot k \quad \text{or, } 8 \cdot 7 = (k+1) \cdot k \quad \text{or, } k=7$
4	c	$14!/3! \cdot 2! \cdot 9! = 20020 \text{ ways.}$
5	a	$6C_1 \cdot 5C_1 \cdot 11C_1 = 6 \cdot 5 \cdot 11 = 330$
6	d	${}^n P_{11} : {}^n P_{12} = 3:1 \quad \text{or, } n!/(n-11)! : n!/(n-12)! = 3:1$ or, $n!/(n-11)! \cdot \{(n-12) \cdot (n-11)!\} / n! = 3/1$ or, $n-12 = 3 \quad \text{or, } n=3+12= 15.$
7	a	$(21 \cdot 20)/21! + 21/21! + 1/21! = (420+21+1)/21! = 442/21!$
8	c	$82 \cdot 81 = 82+1=83 = 512 (29)$
9	d	$2323 / 230 = 2323/1 = 2323$
10	b	$27/8 \cdot 21/8 \cdot 26/8 \cdot 2 \cdot 2 \cdot 2 \cdot 6/8 = 27/8 + 1/8 + 6/8 - 2 \cdot 6/8 = 2-1 = 1/2$
11	d	$19-7 \cdot 19-1 \cdot 1920 \cdot 19-11 \cdot 19-2 = 19-7-1+20-11-2 = 19-1$
12	c	$\log 2^4 + \log 2^2 - \log 2^3 = 4\log 2 + 2\log 2 - 3\log 2$ $= \log 2 \cdot (4+2-3) = 3 \cdot \log 2 = \log 2^3$
13	d	
14	a	
15	d	
16	b	
17	c	
18	c	
19	a	
20	b	
21	d	
22	d	
23	c	
24	b	
25	c	
26	a	
27	c	
28	c	
29	b	
30	a	

**Suggestions:**

*The study guide needs to be revised 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. Formula used here are all covered in study guide. Brief solutions on algebra part are given as keys in selected problems.*

## Topic

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 SEPTEMBER 2024

**S**oldiers of the British Indian Army, known as sepoys mutinied in Meerat, a fort 80 kilo meters northeast of Delhi, on May 10, 1857. The war raged for over a year, with numerous instances of heroism and compassion on the part of the Indian soldiers. In fact, on several occasions Indian soldiers escorted British noncombatants to safety. The British did not share the same sense of chivalry, often bayoneting the inhabitants of entire villages on vague accusations of collaboration. Indian prisoners were strapped to British cannons and blown to bits during countless summary executions. Even veterans of the British military were shocked by the level of ruthlessness displayed by British troops. On July 8th, 1858, after a year of vicious combat, the Indian forces were finally defeated and a peace treaty was signed, ending the war. What the British sought to deride as a mere “Sepoy mutiny” is now viewed by India as its First War of Independence, when people from all walks of life, irrespective of their caste, creed, religion or language, rose against the British rule. The British were shaken by the war and the tenacity of their Indian opponents and immediately began introducing reforms they hoped would reduce resentment. (to be continued)

**Let us start our mock test.**

### I. Choose the correct answer:

1. Who was the father of economics?
  - (a) Alfred Marshall
  - (b) Samuelson
  - (c) Lionel Robbins
  - (d) Adam Smith
2. An individual demand curve assumes that except the price of the commodity
  - (a) Money income of the consumer remains constant
  - (b) Taste and preference pattern of the consumer remains constant
  - (c) Prices of other related goods remain constant
  - (d) All the above should remain constant
3. Market demand curve for a commodity can be derived from the
  - (a) Horizontal summation of individual demand curves
  - (b) Vertical summation of individual demand curves
  - (c) Cumulative summation of individual demand curves
  - (d) None of the above
4. The negative slope of the normal demand curve can be explained by
  - (a) Only the substitution effect
  - (b) Only the income effect
  - (c) Both the income and substitution effect
  - (d) None of the above
5. The mid point of a linear demand curve shows a price elasticity of demand which is
  - (a) Relatively elastic
  - (b) Relatively inelastic
  - (c) Unit elastic
  - (d) Perfectly inelastic
6. If the demand curve is unit elastic, the shape of the curve
  - (a) Will be horizontal
  - (b) Will be upward rising
  - (c) Will be rectangular hyperbola
  - (d) None of the above
7. The demand for durable goods usually remains
  - (a) Relatively elastic( $e > 1$ )
  - (b) Relatively inelastic( $e < 1$ )
  - (c) Unitary elastic( $e = 1$ )
  - (d) None of the above

8. A steeper demand curve implies
  - (a) Relatively inelastic demand
  - (b) Relatively elastic demand
  - (c) Perfectly elastic demand
  - (d) None of the above
9. If the price of a substitute good rises, the demand curve shifts to the
  - (a) Right
  - (b) Left
  - (c) Upward direction
  - (d) None of the above
10. When TR rises, then MR will be
  - (a) Positive
  - (b) Negative
  - (c) Zero
  - (d) None of the above
11. When  $e > 1$ , then with a fall in price, TR will
  - (a) Fall
  - (b) Rise
  - (c) Remains unchanged
  - (d) None of the above
12. For an inferior good, the value of income elasticity of demand is
  - (a) Positive
  - (b) Negative
  - (c) Unity
  - (d) Zero
13. When the price elasticity of demand is infinity, then MR will be
  - (a) Greater than price
  - (b) Equal to price
  - (c) Less than price
  - (d) None of the above
14. When AR curve is rising, what will be the behavior pattern of the MR curve?
  - (a) MR curve will be rising
  - (b) MR curve will be falling
  - (c) Nothing can be said definitely
  - (d) None of the above
15. The necessary condition for profit maximization of a competitive firm is
  - (a)  $P > MC$
  - (b)  $P = MC$
  - (c)  $P < MC$
  - (d)  $P = AC$
16. At the profit maximizing level of output of a competitive firm
  - (a)  $P = AVC$
  - (b)  $P \geq AVC$
  - (c)  $P > AVC$
  - (d)  $P < AVC$
17. If  $P < SAC$  at the profit-maximizing level of output of a competitive firm, then the firm
  - (a) Incurs a loss
  - (b) Earns excess profit
  - (c) Earns normal profit
  - (d) None of the above
18. In which market form, there is no distinction between the firm and the industry?
  - (a) Monopolistic competition
  - (b) Monopoly
  - (c) Perfect competition
  - (d) None of the above
19. Which institution controls the capital market in India?
  - (a) RBI
  - (b) IDBI
  - (c) SEBI
  - (d) None of the above
20. In quantity theory of money, a rise in money supply will result in
  - (a) Inflation
  - (b) Deflation
  - (c) Stagflation
  - (d) None of the above
21. What is the name of the central bank of America?
  - (a) Bank of America
  - (b) Reserve Bank of America
  - (c) Federal Reserve Bank of America
  - (d) None of the above



22. Which is inherent in managerial job and embodied in all the functions of management?
- Planning
  - Organizing
  - Control
  - Co-ordination
23. A manager has to exhibit the style of leadership depending on the
- Performance
  - Time
  - Situation
  - Period
24. The view that sees profit maximization as the main objective is known as
- Shareholder theory
  - Agency theory
  - Stakeholder theory
  - Stewardship theory
25. Which one of the following is not an agency cost?
- Residual loss
  - Bonding costs
  - Concurrent loss
  - Monitoring costs
26. Selection is a process of rejection and hence it is called a
- Positive process
  - Negative process
  - Either A or B
  - None of the above
27. The process of increasing the knowledge and skill of an employee is known as
- Training
  - Development
  - Education
  - None of the above
28. Training conducted away from the actual work setting is called
- On-the-job training
  - Off-the-job training
  - Step-by-step training
  - None of the above
29. Which of the following are the methods of off-the-job training?
- Role playing
  - Case studies
  - Lectures, classroom instruction
  - All of the above
30. External sources of recruitment include
- Employment Exchanges
  - Advertisements
  - Employee walk-ins
  - All of the above

## ANSWER

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

### *So friends!!*

*I hope you have enjoyed solving all the problems in the mock test. Try to give more attention to the problems concerning price elasticity of demand. This also involves a bit of mathematics. So it will be better if you brush up your mathematics knowledge.*

*It will be wise for you if you keep track of your progress in Business Economics and Management from the scores you have obtained in consecutive mock tests. Of course you can consult the KEY, but not before you finish answering all the questions in the test.*

*Wish you all the best !!!*

# CMA INTERMEDIATE COURSE

Syllabus 2022

## Topic

Module 4:  
Negotiable  
Instruments Act,  
1881

**INTERMEDIATE**

**Group I - Paper-5**

**Business Laws and  
Ethics (BLE)**

## BUSINESS LAWS AND ETHICS

**I**t 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 *The Negotiable Instrument Act, 1881*, with special emphasis on the concept of Negotiable Instrument and its different types.

### NEGOTIABLE INSTRUMENTS ACT, 1881

#### Negotiable Instrument and its Essential Features

Section 13 of the Act defines the terms ‘negotiable instrument’ as a promissory note, bill of exchange or either payable either to order or to bearer. A promissory note, bill of exchange or cheque-

- is payable to order which is expressed to be so payable or which is expressed to be payable to a particular person and does not contain words prohibiting transfer or indicating an intention that it shall not be transferable;
- is payable to the bearer which is expressed to be so payable or on which the only or last endorsement is an endorsement in blank;
- Either originally or by endorsement, is expressed to be payable to two or more payees jointly, or it may be made payable in the alternative to one of two, or one or some of several payees.

Section 13 shows that the Act is confined to three specific types of instruments most in common use, namely, promissory notes, bills of exchange and cheques. The Contract Act is a general statute dealing with contracts. The Negotiable instruments Act is a statute dealing with a particular form of the contract. The law laid down for special cases must always overrule the provisions of general character as held in ‘Kwong Hip Lone Saw Mill Co. V. C.A.M.A.L. Firms’ – AIR 1933 Rang.131. The following are not the negotiable instruments-

- Share certificate passing from hand to hand with blank transfers  
– *Hazarimaul V. Stasis Chandra* – ILR 46 Cal.331;

- Deposit receipts – *Anantharam V. O.L., of T.N.Q. Bank* – 1939 Mad W.N. 1096;
- Mate’s receipt – *Nacheppa Chetty V. Irravaddy Flotila & Co.*, - ILR 41 Cal. 670;
- Bill of lading – *United Bank of India V. N.S. Bank* – AIR 1959 Cal. 328;
- Promissory note - *Khirodnath Gountia V. Arjun Panda* – (1971) 2 Cut. W.R. 223
- A benefit under a letter of credit – *Joseph Pyke & Son V. Kedarnath*- AIR 1962 Cal.326.

#### Essential Features of a Negotiable Instrument:

1. It must be in writing.
2. It should be signed by the maker or drawer.
3. There must be a promise or order to pay.
4. The promise or order must be unconditional.
5. It must call for payment in money and money only.
6. It should call for payment of a certain sum.
7. The property in the instrument may be passed in two ways by:
  - (a) Mere delivery; and
  - (b) Endorsement and delivery.
8. The consideration is also presumed to have been passed

#### Distinction between Promissory Note and Bill of exchange

<u>Promissory Note</u>		<u>Bill of Exchange</u>	
1.	It is defined in Sec. 4 of NI Act, 1881.	1.	It is defined in Sec. 5 of the NI Act, 1881.
2.	There are <b>two</b> parties: • Maker. • Payee  If it is given a guarantee, then there will be a third person, who is called as “Guarantor” or “Surety”	2.	There are <b>three</b> parties: • Drawer. • Drawee. • Payee.

3.	It contains a <b>Promise</b> to pay.	3.	It contains an <b>order</b> to pay.
4.	<b>No conditions</b> shall be made in a promissory note.	4.	A bill may be <b>accepted conditionally</b> .
5.	The liability of a maker of the promissory note is primary and absolute.	5.	The liability of the drawee of a bill of exchange is secondary and conditional.

### Distinction between Promissory Note and Cheque

<u>Promissory Note</u>		<u>Cheque</u>	
1.	It is defined in Sec. 4 of NI Act, 1881.	1	It is defined in Sec. 6 of the NI Act, 1881.
2.	There are two parties: • Maker. • Payee  If it is given a guarantee, then there will be a third person, who is called as “Guarantor” or “Surety”.	2	There are three parties: • Drawer. • Drawee. • Payee.
3.	Promissory note contains a promise to pay the sum with interest or without interest at a later date.	3	A cheque is payable immediately on demand without any days of grace.
4.	Promissory note is not crossed.	4	Cheque can be crossed.
5.	No protection is available to the payee of note.	5	Statutory protection is given to the drawee banker. (Sec. 128)
6.	A promissory note cannot be self drawn.	6	A cheque can be self drawn or bearer cheque.
7.	No criminal liability shall be imposed on the maker.	7	Criminal Liability may be imposed on drawee for the dishonour of cheques in certain circumstances.
8.	Stamp is necessary.	8	Stamp is not necessary.
9.	Limitation: 3 years	9	Limitation: 6 months

### Distinction between bill of exchange and Cheque

<u>Bill of Exchange</u>		<u>Cheque</u>	
1.	It is defined in Sec. 5 of NI Act, 1881.	1.	It is defined in Sec. 6 of the NI Act, 1881.
2.	There are three parties: • Drawer. • Drawee. • Payee.	2.	There are three parties: • Drawer. • Drawee. • Payee.
3.	Bills of exchange are not crossed.	3.	Cheques may be crossed.
4.	Generally three days of grace are given for the payment in case of a bill of exchange. However, this convenience is not allowed in case of bill of exchange payable on demand.	4.	Immediate payment is required in case of cheque. No grace days are allowed.
5.	Anybody including banker may be a drawee in case of bill of exchange.	5.	The drawee is always a baker.
6.	It must be accepted before the acceptor can be made liable upon it.	6.	It requires immediate payment. It does not require acceptance of the maker. Thus the question of acceptance does not arise in case of cheque.
7.	Where a Bill of Exchange is not paid and not honoured, a notice of dishonour should be sent to the drawer to charge him.	7.	Where a cheque is dishonoured, Notice of Dishonour is not strictly necessary. The banker can return the cheque with the memo “Refer to Drawer” which is a sufficient notice.
8.	Statutory protection is not available.	8.	Sec. 85 of the N.I Act, 1881 affords protection to bankers.
9.	Civil Liability in case of dishonour of bill of exchange.	9.	Criminal liability in case of dishonour of a cheque/bouncing of a cheque and is liable to be prosecuted under Sec. 138 of the N.I. Act, 1881.

## Different types of Instruments as per Negotiable Instrument Act

There are various types of instruments mentioned in the NI Act as follows:

- **Inland instrument** – a promissory note, bill of exchange or cheque drawn or made in India and made payable in or drawn upon any person resident in, India shall be deemed to be an inland instrument.
- **Foreign instrument** – a promissory note, bill of exchange or cheque not drawn, made or made payable, in India, shall be deemed to be a foreign instrument.
- **Ambiguous instrument** – where an instrument may be construed either as a promissory note or bill of exchange, the holder may at his election, treat it as either and the instrument shall be thenceforward treated accordingly.
- **Instruments payable on demand** – A promissory note or bill of exchange, in which no time for

payment is specified, and a cheque, are payable on demand.

- **Inchoate stamped instruments** – Where one person signs and delivers to another a paper stamped in accordance with the law relating to negotiable instruments for the time being in force in India and either wholly blank or having written thereon an incomplete negotiable instrument, he thereby gives *prima facie* authority to the holder thereof to make or complete, as the case may be, upon it a negotiable instrument, for any amount specified therein and not exceeding the amount covered by the stamp. The person so signing shall be liable upon such instrument, in the capacity in which he signed the same, to any holder in due course for such amount provided that no person other than a holder in due course shall recover from the person delivering the instrument anything in excess of the amount intended by him to be paid there under.

## Topic

Module 2:  
Bills of Exchange,  
Consignment,  
Joint Venture

# INTERMEDIATE

## Group I - Paper-6

### Financial Accounting (FA)

## Bills of Exchange, Consignment & Joint Venture

### Bills of Exchange

**A** Bill of Exchange is a written, unconditional order by one party (the drawer) to another (the drawee), directing the drawee to pay a certain sum of money to a specified person (the payee) at a fixed or determinable future date. It is commonly used in trade transactions and serves as a negotiable instrument.

#### Features of a Bill of Exchange

- **In Writing:** The bill must be in writing.
- **Unconditional Order:** It contains an order to pay, which is unconditional.
- **Payment of Money:** The bill only deals with the payment of money, not goods or services.
- **Parties:** There are three parties involved:
  1. **Drawer:** The person who creates the bill.
  2. **Drawee:** The person upon whom the bill is drawn and who is ordered to pay.
  3. **Payee:** The person in whose favour the bill is drawn or who will receive the payment.
- **Certainty of Payment:** The sum of money to be paid must be certain.
- **Stamping:** The bill must be properly stamped, as per legal requirements.

#### Parties to a Bill of Exchange

- **Drawer:** The party who makes or draws the bill. In a trade transaction, the drawer is typically the seller or creditor.
- **Drawee:** The party who is ordered to pay the money. In most cases, the drawee is the buyer or debtor.
- **Payee:** The party who will receive the payment. The payee can be the drawer or a third party.

Additionally, in some cases:

- **Acceptor:** The drawee becomes the acceptor when they signify their consent to pay the bill by signing it.

- **Endorser:** If the bill is transferred to another party, the original holder who transfers it is called the endorser.
- **Endorsee:** The person to whom the bill is endorsed.

#### Types of Bills of Exchange

1. **Inland Bill:** A bill that is drawn and payable within the same country.
2. **Foreign Bill:** A bill that is drawn in one country and payable in another.
3. **Trade Bill:** A bill drawn and accepted for the purpose of settling trade-related transactions.
4. **Accommodation Bill:** A bill drawn and accepted not for a trade transaction, but to provide financial assistance to another party.
5. **Demand Bill:** A bill payable on demand or at sight.
6. **Usance Bill:** A bill payable after a specific period.

#### Advantages of Bills of Exchange

- **Credit Facility:** It provides credit to the buyer, allowing them time to pay.
- **Legal Proof:** It acts as legal evidence of a debt.
- **Negotiable:** It can be transferred to another party, providing liquidity.
- **Risk Management:** It reduces the risk of bad debts as it can be discounted or endorsed.

#### Disadvantages of Bills of Exchange

- **Strict Deadlines:** Bills have strict deadlines, and missing them can lead to dishonor.
- **Cost of Discounting:** Discounting a bill involves a cost to the drawer.
- **Legal Formalities:** Certain legal procedures (like noting and protesting) may increase complexity.



## Consignment

**C**onsignment is an arrangement where goods are sent by the owner (called the consignor) to an agent (called the consignee) for the purpose of sale. The ownership of the goods remains with the consignor until the goods are sold by the consignee. The consignee is responsible for selling the goods on behalf of the consignor and earns a commission on the sales made.

The key feature of a consignment is that it differs from a direct sale in that the goods are not sold to the consignee but only entrusted to them for sale. The consignee acts as an intermediary between the consignor and the customers.

### Features of Consignment

- **Ownership:** The ownership of goods remains with the consignor until the consignee sells them.
- **Risk and Reward:** The consignor bears the risk and rewards of the goods (profit or loss) until they are sold.
- **Commission-based:** The consignee earns a commission based on the sales, and there may be different types of commission structures.
- **Goods Returnable:** Unsold goods may be returned to the consignor, as the consignee has no obligation to purchase them.

### Difference between Consignment and Sale

Aspect	Consignment	Sale
Ownership of Goods	Ownership remains with the consignor.	Ownership is transferred to the buyer.
Risk and Rewards	Risk remains with the consignor.	Risk and rewards are transferred to the buyer.

Aspect	Consignment	Sale
Return of Goods	Unsold goods can be returned to the consignor.	Goods once sold cannot be returned unless defective.
Revenue Recognition	Revenue is recognized when the consignee sells the goods.	Revenue is recognized at the point of sale.
Nature of Transaction	It is an agency relationship.	It is a principal-to-principal relationship.

### Advantages of Consignment

- **Risk Mitigation:** The consignor retains ownership and risk until the goods are sold, protecting the consignor from immediate loss.
- **Market Reach:** Consignment helps the consignor expand into new markets without the need for physical presence.
- **Flexibility:** The consignee does not have to purchase the goods outright, reducing the financial burden on the consignee.
- **Commission-Based Payment:** The consignee earns income through commission, motivating them to make sales.

### Disadvantages of Consignment

- **Risk of Non-Sale:** There is no guarantee that the consignee will be able to sell the goods, and unsold goods may need to be returned.
- **Delayed Revenue:** The consignor does not receive payment until the goods are sold, which may delay cash inflows.
- **Control Issues:** The consignor has limited control over how the consignee handles the goods or manages sales.

## Joint Venture

**A** joint venture (JV) is a business arrangement in which two or more parties agree to pool their resources for the purpose of accomplishing a specific task. This task can be a new project or any other business activity. Each party in the joint venture is responsible for profits, losses, and costs associated with it. However, the joint venture is its own entity, separate from the participants'

other business interests.

### Features of a Joint Venture

- **Temporary Partnership:** A joint venture is usually formed for a specific project or limited time frame. Once the project ends, the venture dissolves.
- **Profit and Loss Sharing:** All parties involved share the profits or losses based on the agreement, which could be proportional or otherwise.

- **Shared Control and Management:** The parties involved usually share decision-making responsibilities, though one party may assume a leadership role.
- **Separate Legal Entity:** A joint venture may be considered a separate legal entity with its own accounting and reporting obligations.
- **Limited Scope:** Unlike partnerships or corporations, the scope of a joint venture is typically focused on a particular project or activity.

### Types of Joint Ventures

There are several types of joint ventures, depending on the structure and nature of the collaboration:

- **Equity-Based Joint Ventures:** In this type, both parties contribute capital to a new or existing entity and receive equity in return. Profits and losses are shared according to ownership interests.
- **Contract-Based Joint Ventures:** Here, the parties enter into a contractual arrangement to collaborate without forming a new entity. This structure is common for short-term projects where forming a new business is not necessary.
- **Project-Based Joint Ventures:** Common in industries like construction or engineering, project-based joint ventures are formed to execute a specific project and are dissolved once the project is completed.

### Differences Between Joint Venture and Partnership

Though often confused, joint ventures and partnerships have distinct differences:

- **Duration:** A partnership is typically ongoing, while a joint venture is temporary and project-specific.
- **Scope:** Partnerships involve a broader, ongoing range of business activities, while joint ventures focus on a specific task or project.
- **Legal Entity:** Partnerships are usually separate

legal entities, while joint ventures may or may not create a new entity.

- **Regulation:** Partnerships are generally regulated under specific partnership laws, whereas joint ventures are governed by contract law and the terms of the joint venture agreement.

### Advantages of Joint Ventures

- **Shared Risks:** The risks of the business are shared between the parties, reducing individual exposure to loss.
- **Access to New Knowledge and Expertise:** Parties gain access to the specialized knowledge, skills, and resources of the other party.
- **Financial Synergy:** Joint ventures provide access to additional financial resources and capital.
- **Market Expansion:** Partners can enter new markets or expand their reach more effectively than they could individually.
- **Efficiency:** A joint venture can create operational efficiencies by pooling resources, technology, or infrastructure.

### Disadvantages of Joint Ventures

- **Complex Decision-Making:** As multiple parties are involved, decision-making may be more complex and slower.
- **Potential Conflicts:** Conflicts can arise if the objectives or strategies of the parties differ.
- **Unequal Efforts:** One partner may contribute more effort or resources, leading to disputes over profit distribution.
- **Limited Flexibility:** Once a joint venture is established, partners may find it difficult to exit or change their roles.
- **Risk of Failure:** If the joint venture fails, all parties share the financial loss.

### Questions:

1. Who is the person that is required to pay the amount of the Bill of Exchange?
  - a) Drawer
  - b) Drawee
  - c) Payee
  - d) Endorser

2. What is the maximum number of days allowed as “Days of Grace” in a Bill of Exchange?
  - a) 2 days
  - b) 5 days
  - c) 3 days
  - d) 7 days

3. Which of the following is true about a Demand Bill?
  - a) It is payable on demand or sight.
  - b) It is payable after a fixed period.
  - c) It is only used in foreign trade.
  - d) It is used for securing loans.
4. Who is responsible for selling goods on behalf of the consignor in a consignment transaction?
  - a) Consignee
  - b) Customer
  - c) Debtor
  - d) Creditor
5. Which of the following is true about consignment transactions?
  - a) Goods are sold to the consignee
  - b) Consignee purchases goods from the consignor
  - c) Goods are sent for sale, and ownership remains with the consignor
  - d) Ownership is transferred to the consignee at the time of consignment
6. What type of commission is paid when the consignee takes responsibility for bad debts?
  - a) Ordinary Commission
  - b) Del-credere Commission
  - c) Overriding Commission
  - d) Trade Commission
7. A joint venture is typically formed for:
  - a) A long-term, ongoing partnership
  - b) A specific project or limited duration
  - c) Tax-saving purposes
  - d) Merging two companies permanently
8. In a joint venture, the amount of profit to be shared by each party is usually based on:
  - a) A fixed rate set by the government
  - b) The amount of time invested by each party
  - c) An agreement between the parties
  - d) Market share percentages
9. Which of the following is true about the difference between a partnership and a joint venture?
  - a) Both are formed for ongoing business activities
  - b) A partnership is for ongoing activities, while a joint venture is for a specific project
  - c) Joint ventures have fewer legal formalities compared to partnerships
  - d) Partnerships do not share profits, while joint ventures do
10. Which of the following statements about joint ventures is incorrect?
  - a) Joint ventures are formed to undertake specific projects
  - b) Joint ventures are usually dissolved after the project is completed
  - c) Joint ventures must always result in the formation of a new entity
  - d) The profits of a joint venture are shared among participants as agreed

**ANSWER**

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

## Topic

Module 2:  
Heads of Income

INTERMEDIATE

Group I - Paper-7A

Direct Taxation (DT)

## Profits and Gains of Business or Profession

Profits and Gains of Business or Profession (PGBP) is a crucial head of income under the Income Tax Act, 1961. Here's a summary of the provisions:

Sec.	Particulars
28	<p>Income chargeable under the head Profits &amp; gains of business or profession:</p> <p>a) Profits &amp; gains of any business or profession b) Compensation to Management agency c) Income of trade or professional associations d) Export incentive e) Value of any Perquisite from business or profession convertible into money or otherwise f) Remuneration to partner g) Amount received or receivable for certain agreement h) Keyman Insurance Policy i) The fair market value of inventory as on the date on which it is converted into a capital asset. j) Recovery against any capital asset being covered by sec. 35AD</p> <p>Income not taxable under the head "Profits and gains of business or profession are a) Rent of house property b) Dividend on shares even though the assessee deals in shares c) Winning from lotteries, races etc. d) Exempted income e) Sum taxable under the head 'Capital gains'</p>
30	Rent, rates, taxes, current repairs & insurance for premises used for the purpose of business or profession shall be allowed.
31	Current repairs & insurance of plant, machinery & furniture are allowed as deduction.
32	<p><b>Depreciation</b></p> <p><b>Conditions</b></p> <ol style="list-style-type: none"> <li>Assets must be owned by the assessee</li> <li>Asset must be used (including passive use) for the purpose of business / profession during previous year.</li> </ol> <p><b>Block of Assets:</b> To fall in the same block, the following two conditions are to be satisfied) Assets must be of same nature; b) Rate of depreciation on such asset must be same.</p>

Calculation of depreciation (at a glance)	
Particulars	Amount
W.D.V of the block at the beginning of the previous year	***
<i>Add:</i> Purchase during the previous year	***
	***
<i>Less:</i> Net Sale consideration of assets sold during the previous year	(***)
Value of block before depreciation	XYZ
<i>Less:</i> Depreciation (as a % on XYZ)	(***)
WDV of the block at the end of the year	****

**When depreciation is not charged:**

a) When 'XYZ' (Value of block before depreciation) as computed above is negative. The negative value is to be treated as short term capital gain. b) When 'XYZ' (Value of block before depreciation) is positive but the block does not have any real asset. In such case, the positive value shall be treated as short term capital loss. No depreciation is available on goodwill.

Significance of date of purchase: Where an asset is acquired by the assessee during the previous year and is put to use in the same previous year for less than 180 days, the depreciation in respect of such asset is restricted to 50% of the normal depreciation.

**Additional depreciation:** Additional depreciation is applicable on any industrial undertaking or assessee engaged in the business of generation, transmission or distribution of power. [Available under old tax regime only]

	<p>Rate of additional depreciation is 20% (10% if the asset is put to use for less than 180 days + balance 10% is available in the next year) of actual cost of such plant or machinery.</p> <p><i>Terminal Depreciation and Balancing Charge:</i> Applicable to assessee engaged in generation or generation and distribution of power and following straight-line method of depreciation.</p> <p>Terminal depreciation = + ve value of [WDV of assets – (Sale value or Scrap value)]</p> <p>Balancing Charge = - ve value of [WDV of assets – (Sale value + Scrap value)] to the extent of accumulated depreciation.</p> <p><b>Unabsorbed depreciation:</b> Depreciation remaining unabsorbed, can be carried forward for <i>indefinite period</i> and can be set off against <i>any income</i> of the assessee.</p>
35	<p><b>Scientific research:</b> In-house scientific research expenditure whether revenue or capital (except land) shall be allowed if the research is related to business. Expenditures incurred 3 years prior to date of commencement of business shall be allowed in the year of commencement of business.</p> <p>Contribution for scientific research to outside approved research institution, National laboratory, approved University, etc. is eligible for deduction under the old tax regime.</p>
41(3)	<p><b><u>Sale of asset used for scientific research</u></b></p> <p><u>Without having been used for other purpose</u>, sale consideration to the extent of cost of such asset shall be taxable as business income in the year of sale. The excess of sale consideration over original cost (or indexed cost of acquisition) is taxable as capital gain u/s 45.</p> <p><u>After being used for other purposes</u>, sale consideration shall be subtracted from relevant block of assets.</p>

35CCC	Expenditure incurred on notified agricultural extension project is eligible for deduction [only under the old regime]
35CCD	Any expenditure incurred by a company on notified skill development project is eligible for deduction
35D	An Indian company or a resident non-corporate assessee, who has incurred certain amount as preliminary expenditure, can claim the total eligible preliminary expenditure as deduction in 5 equal installments. The total eligible preliminary expenditure cannot exceed 5% of cost of project (in case of company, 5% of cost of project or capital employed, whichever is higher). In the first year, audit report must be submitted along with the return.
35DDA	Voluntary retirement compensation shall be allowed to all assessee in 5 equal installments commencing from the year in which such expenditure was paid.
36(1)(i)	Insurance premium for stocks & stores is allowed as deduction.
36(1)(ia)	Insurance premium for life of cattle is allowed as deduction
36(1)(ib)	Insurance premium for health of employees is allowed as deduction if the payment has been made by any mode other than cash.
36(1)(ii)	Bonus or commission to employees is allowed as deduction subject to sec.43B
36(1)(iii)	Amount of interest paid in respect of capital borrowed for the purposes of business or profession shall be allowed as deduction.
36(1)(iiia)	Discount on issue of ZCB shall be allowed on pro rata basis having regard to the period of life of such bond.
36(1)(iv)	Subject to sec.43B, contribution towards RPF & approved superannuation fund is allowed as deduction
36(1)(iva)	Contribution (subject to max. of 10% of salary of an employee) by an employer towards notified pension scheme u/s 80CCD is allowed as deduction

36(1)(v)	Contribution towards approved gratuity fund created by him exclusively for the benefit of his employees under an irrevocable trust is allowed as deduction subject to sec.43B.
36(1)(va)	Any sum received by an employer from his employees as contribution towards Provident Fund; or Superannuation Fund; or any other fund set up under the provision of the Employee's State Insurance Act, 1948; or any other fund for the welfare of such employees is treated as an income of the employer if it is not credited by the employer to the employee's account in the relevant fund <i>on or before the due date of crediting such contribution prescribed under the relevant Act.</i>
36(1)(vi)	Any loss on sale of animals or carcasses is allowed as deduction, provided such animals are used for the purpose of business or profession and either have died or become permanently useless for such purpose.
36(1)(vii)	Any debt or part thereof, which becomes bad shall be allowed as deduction subject to following conditions – a) Debt must be incidental to the business or profession b) The debt has been considered as income of the assessee c) It must have been written off in the accounts of the assessee (or as per ICDS) d) Business must be carried on during the previous year or any part of the previous year e) It must be of a revenue nature
41(4)	Bad debt recovery: Taxable amount shall be [Amount recovered – (Bad debt claimed – Bad debt earlier allowed as deduction)]
36(1)(ix)	Any expenditure incurred by a company for promotion of family planning among its employees shall be allowed as deduction as under - <i>Revenue Expenditure:</i> Full amount. <i>Capital Expenditure:</i> In 5 equal installments.
36(1)(xv)	Securities transaction tax shall be allowed as deduction
36(1)(xvi)	Commodities transaction tax shall be allowed as deduction

36(1)(xvii)	Expenditure incurred by a co-operative society engaged in the business of manufacture of sugar for purchase of sugarcane at a price which is equal to or less than the price fixed or approved by the Government shall be allowed.
36(1)(xviii)	Marked to market loss or other expected loss as computed in accordance with the ICDS shall be allowed.
37(1)	General deductions: Any expenditure which is not specifically provided in any provisions of the Act shall be allowed as deduction subject to the conditions that a) It must be real and not notional, fictitious or in lieu of distribution of profit. b) It must be expended wholly & exclusively for the purpose of business or profession carried on by the assessee. c) It must have been incurred in the previous year. d) It must not be a personal expenditure. e) It must not be a capital expenditure f) It must be lawful and not have been incurred for any purpose, which is an offence or prohibited, under any law. Expenditure incurred by a company as Corporate Social Responsibility is not allowed as deduction u/s 37(1)
37(2B)	Expenditure incurred by an assessee on advertisement in any souvenir, brochure, tract, pamphlet or like, published by a political party is disallowed.
40	Disallowed Expenditure: The following amounts shall not be deducted while computing income under the head Profits & gains of business or profession – <ul style="list-style-type: none"> <li>• Interest, royalty, fees for technical services payable to a non-resident or outside India without TDS &amp; its payment;</li> <li>• 30% of any sum payable to a resident on which TDS is deductible but tax has not been deducted or deducted but tax has not been paid within due date of furnishing return of income.</li> <li>• Any consideration to a non-resident without payment of equalization levy, if applicable</li> </ul>

	<ul style="list-style-type: none"> <li>Income-tax;</li> <li>Wealth-tax;</li> <li>Any payment which is chargeable under the head “Salaries”, if it is payable outside India, or to a non-resident, and the tax has neither been paid in India nor deducted there from;</li> <li>Any payment to a provident fund or any other fund established for the benefit of employees of the assessee in respect of whom the assessee has not made effective arrangement to secure that tax shall be deducted at source from any payment made from the fund, which are taxable under the head ‘Salaries’; and</li> <li>Any tax on non-monetary perquisite actually paid by employer on behalf of employee.</li> </ul>	
40A(2)	Any payment made by an assessee to a related person shall be disallowed to the extent it is excess or unreasonable as per the Assessing Officer. Related person includes both “Relative” and “Person having substantial interest”	
40A(3)	Where any expenditure in respect of which payment is made in excess of ₹ 10,000 (₹ 35,000 in case of payment made to Road transporter) at a time otherwise than by an account payee cheque or account payee bank draft or use of electronic clearing system through a bank account or other electronic mode, such expenditure shall be disallowed.	
40A(7)	No deduction shall be allowed in respect of any provision made by assessee for the payment of gratuity to his employees provided such contribution is not towards an approved gratuity fund or for the purpose of payment of gratuity, that has become payable during the previous year.	
40A(9)	No deduction shall be allowed in respect of any sum paid by the assessee as an employer towards setting up or formation of, or as contribution to, any fund, trust, company, AOP, BOI, society or other institution for any purpose provided such sum is not by way of contribution towards approved superannuation fund, recognised provident fund, approved gratuity fund.	
43B	<p>Deduction in respect of following expenses are allowed only if payment is made on or before the due date for furnishing return of income -</p> <ul style="list-style-type: none"> <li>Any sum payable by way of tax, duty, cess, fee, etc.</li> <li>Bonus or commission to employees.</li> <li>Interest on loan or borrowing from any public financial institutions, NBFC, etc.</li> <li>Interest on any loans and advances from a scheduled bank.</li> <li>Leave encashment.</li> <li>Contribution to any P.F., superannuation fund, gratuity fund, etc.</li> <li>Any sum payable by the assessee to the Indian Railways for the use of railway assets.</li> </ul> <p>Deduction in respect of the following expenses are allowed only if payment is made within previous year or within specified time -</p> <ol style="list-style-type: none"> <li>Any sum payable by the assessee to a micro or small enterprise (not being trader) beyond the time limit specified in section 15 of the Micro, Small and Medium Enterprises Development Act, 2006 would be allowed as deduction only in that previous year in which such sum is actually paid.</li> </ol>	
	Deemed Profit Chargeable to tax as Business Income	
41(1)	Recovery against any deduction	
176(3A) & (4)	Any recovery after discontinuance of business or profession shall be taxable in the hands of recipient.	
41(5)	Losses (not being a speculation loss) which arose during the previous year in which business ceased to exist and which could not be set off against any other income of that previous year or any subsequent years. Such loss can be set off against income chargeable to tax u/s 41(1), (3), (4), (4A) without restriction of number of years.	



44AA	<p><b>Maintenance of accounts</b></p> <p><b>A. Person carrying specified profession:</b></p> <ul style="list-style-type: none"> <li>Gross receipts &gt; ₹ 1,50,000 in all 3 years immediately preceding the previous year: Maintain accounts as per Rule 6F.</li> <li>Any other case: Maintain such books of account and other documents as may enable the AO to compute their taxable income under the Income-tax Act.</li> </ul> <p><b>B. Any persons carrying on a non-specified profession or any business</b></p> <ul style="list-style-type: none"> <li>Profit &gt; ₹ 1,20,000 (In case of individual and HUF: ₹ 2,50,000); or total sales &gt; ₹ 10,00,000 (In case of individual and HUF: ₹ 25,00,000), in any of the three years immediately preceding the previous year: Maintain such books of account and other documents as may enable the Assessing Officer to compute their taxable income under the Income-tax Act.</li> <li>Any other case: Not required to maintain any books of account.</li> </ul> <p>Penalty for non-compliance of sec.44 AA : ₹ 25,000</p>
44AB	<p>Following assessee are required to get their accounts audited</p> <p>a) Assessee carrying on business: if turnover exceeds ₹ 1 crore (for person covered u/s 44AD: ₹ 2 crore)</p> <p>b) Assessee carrying on profession: if gross receipts exceeds ₹ 50 lacs.</p> <p>c) Assessee covered u/s 44AE, 44BB or 44BBB: if declaring lower income.</p> <p>d) Assessee covered u/s 44ADA: if declaring lower income and having income exceeding basic exemption limit.</p> <p>e) Assessee covered u/s 44AD(4)</p> <p>Penalty: Lower of the following</p> <p>a) ½ percent of turnover or gross receipt; or</p> <p>b) ₹ 1,50,000.</p> <p><b>Exception:</b> If the following conditions are satisfied, then the higher threshold limit of ₹ 10 crore shall be applicable for tax audit for a person carrying on business:</p>

	<p>a) aggregate of all amounts received including amount received for sales, turnover or gross receipts during the previous year, in cash, does not exceed 5% of the said amount; <b>and</b></p> <p>b) aggregate of all payments made including amount incurred for expenditure, in cash, during the previous year does not exceed 5% of the said payment.</p>
145A	The valuation of inventory shall be made at lower of actual cost or net realisable value computed in accordance with the ICDS
	In following cases if assessee offers no explanation then the amount involved in it shall treated as income of that previous year:
68	If any sum is credited in the books of account of the assessee
69	Unrecorded investments
69A	Unrecorded money, bullion, jewellery, or other valuable article, which is not recorded in the books of account.
69B	Any investments or bullion, jewellery or other valuable article if the assessing Officer finds that the amount expended on making such investments bullion, jewellery exceeds the amount recorded in this behalf in the books of account.
69C	Any expenditure of which source is unexplained.
69D	Any amount is borrowed on a hundi from, or any amount due thereon is repaid to, any person otherwise than through an account payee cheque.

Understanding PGBP is essential for accurate tax computation and compliance. It helps in identifying the taxable income and the permissible deductions, ensuring that businesses and professionals can optimize their tax liabilities.

## Topic

Module 5:  
Goods and  
Services Tax  
Laws

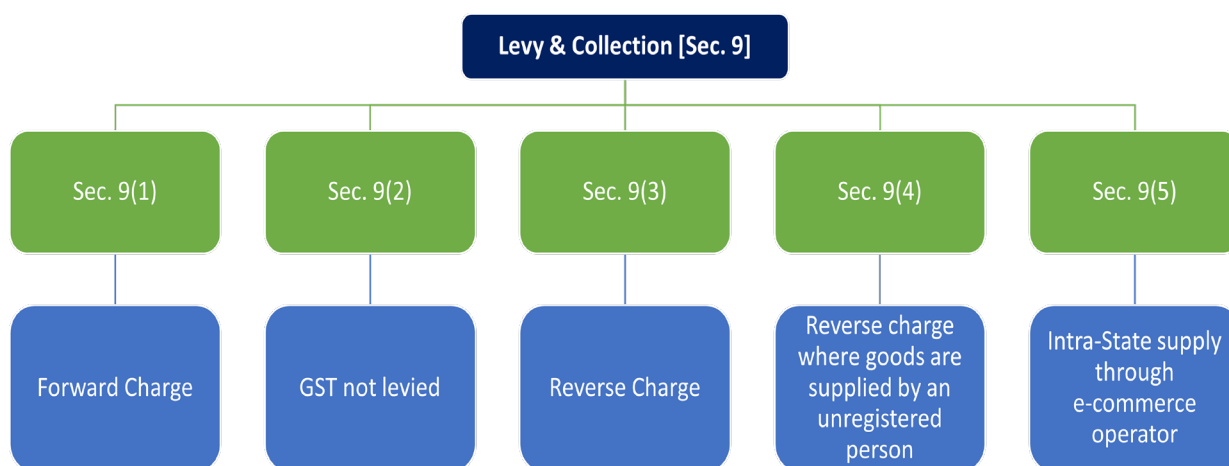
# INTERMEDIATE

## Group I - Paper-7B

### Indirect Taxation (IDT)

## Levy and Collection

**A**rticle 265 of the Constitution of India mandates that no tax shall be levied or collected except by the authority of law. The charging section is a must in any tax law for levy and collection of tax. Before imposing any tax, it must be shown that the transaction falls within the ambit of the taxable event and that the person on whom the tax is so imposed also gets covered within the scope and ambit of the charging section. The scope of the taxable event being ‘supply’ has been discussed in the earlier Chapter. This chapter will provide an insight into the chargeability of tax on a supply. Sec. 9<sup>1</sup> is the charging provision of the CGST Act. It provides the maximum rate of tax that can be levied on supplies leviable to tax under this law, the manner of collection of tax and the person responsible for paying such tax. There are four aspects of levy viz taxable event, tax rate, collection or levy, and the person liable to pay. Sec. 9 of the CGST Act covers all these aspects.



### Tax payable on Forward Charge Basis [Sec. 9(1) and 9(2)]

A tax called the central goods and services tax shall be levied

- on all intra-State supplies of goods or services or both,
- except on the supply of alcoholic liquor for human consumption,
- on the value determined u/s 15; and
- at such rates, not exceeding 20%, as may be notified by the Government on the recommendations of the Council; and
- collected in such manner as may be prescribed; and
- shall be paid by the taxable person.



**Alcohol for human consumption**

Power to tax remains with the State



**Five petroleum products – crude oil, diesel, petrol, natural gas and ATF**

GST Council to decide the date from which GST will be applicable



**Tobacco**

Part of GST but power to levy additional excise duty with Central Government



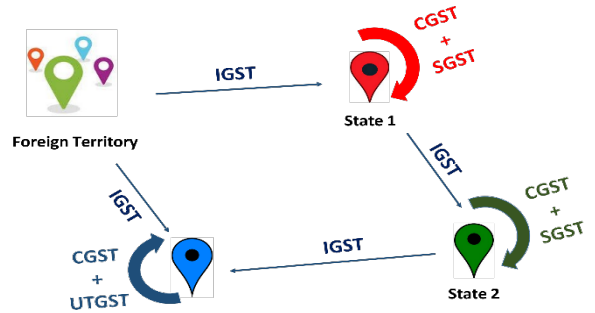
**Entertainment tax levied by local bodies**

Power to tax remains with the State

<sup>1</sup> Sec. 5 in case of IGST Act

**Taxpoint**

- As per sec. 5 of the IGST Act, IGST shall be levied on all inter-State supplies and on goods imported into India. In case of IGST, maximum rate of tax would be 40% (20% for CGST + 20% for SGST/UTGST)
- SGST / UTGST shall also be levied on all intra-State supplies
- The central tax on the supply of
  - a. petroleum crude,
  - b. high speed diesel,
  - c. motor spirit (commonly known as petrol),
  - d. natural gas and
  - e. aviation turbine fuel



shall be levied with effect from such date as may be notified by the Government on the recommendations of the Council. That means, GST is not leviable on aforesaid items.

***Some important definition***

Sec.	Term	Meaning
2(107)	Taxable person	<i>Taxable person</i> means a person who is registered or liable to be registered u/s 22 or sec. 24
2(78)	Non-taxable supply	Non-taxable supply means a supply of goods or services or both which is not leviable to tax under this Act or under the Integrated Goods and Services Tax Act.
2(105)	Supplier	<p><i>Supplier</i> in relation to any goods or services or both, shall mean the person supplying the said goods or services or both and shall include an agent acting as such on behalf of such supplier in relation to the goods or services or both supplied.</p> <p>Further w.e.f. <b>01-10-2023</b>, a person who organises or arranges, directly or indirectly, supply of specified actionable claims, including a person who owns, operates or manages digital or electronic platform for such supply, shall be deemed to be a supplier of such actionable claims, whether such actionable claims are supplied by him or through him and whether consideration in money or money’s worth, including virtual digital assets, for supply of such actionable claims is paid or conveyed to him or through him or placed at his disposal in any manner, and all the provisions of this Act shall apply to such supplier of specified actionable claims, as if he is the supplier liable to pay the tax in relation to the supply of such actionable claims.</p>
2(108)	Taxable supply	<i>Taxable supply</i> means a supply of goods or services or both which is leviable to tax under this Act
2(56)	India	<p>“India” means</p> <ul style="list-style-type: none"> <li>- the territory of India as referred to in article 1 of the Constitution,</li> <li>- its territorial waters, seabed and sub-soil underlying such waters, continental shelf, exclusive economic zone or any other maritime zone as referred to in the Territorial Waters, Continental Shelf, Exclusive Economic Zone and other Maritime Zones Act, 1976, and</li> <li>- the air space above its territory and territorial waters;</li> </ul>

**Rate of GST**

GST Rates for various goods	GST Rates for various services
0.25%	1.5%
3%	5%
5%	7.5%
12%	12%
18%	18%
28%	28%

**Taxpoint:**

- These rates are IGST rate i.e., combined rate of CGST and SGST/UTGST
- Where services being not covered under any specific heading shall be taxable @ 18%
- Item wise applicable rate of GST are provided at portal of CBIC.

**Tax payable on Reverse Charge Basis [Sec. 9(3)]**

Generally, the supplier of goods or services is liable to pay GST. However, in specified cases like imports and other notified supplies, the liability may be cast on the recipient under the reverse charge mechanism. Reverse Charge means the liability to pay tax is on the recipient of supply of goods or services instead of the supplier of such goods or services in respect of notified categories of supply.

As per sec. 2(98), reverse charge means the liability to pay tax by the recipient of supply of goods or services or both instead of the supplier of such goods or services or both u/s 9(3) or 9(4), or u/s 5(3) or 5(4) of the Integrated Goods and Services Tax Act.

The Government may, on the recommendations of the Council, by notification, specify categories of supply of goods or services or both, the tax on which shall be paid on reverse charge basis by the recipient of such goods or services or both and all the provisions of this Act shall apply to such recipient as if he is the person liable for paying the tax in relation to the supply of such goods or services or both.

**Tax payable on Reverse Charge where the supplies are made by unregistered person [Sec. 9(4)]**

The Government may, on the recommendations of the Council, by notification, specify a class of registered persons who shall, in respect of supply of specified

categories of goods or services or both received from an unregistered supplier, pay the tax on reverse charge basis as the recipient of such supply of goods or services or both, and all the provisions of this Act shall apply to such recipient as if he is the person liable for paying the tax in relation to such supply of goods or services or both.

**Tax on intra-State supply through e-commerce operator [Sec. 9(5)]**

The Government is empowered to notify categories of services wherein the person responsible for payment of taxes would neither be the supplier nor the recipient of supply, but the e-commerce operator through whom the supply is effected liable to pay tax.

**Taxpoint**

- As per sec. 2(44), “electronic commerce” means the supply of goods or services or both, including digital products over digital or electronic network.
- As per sec. 2(45), “electronic commerce operator” means any person who owns, operates or manages digital or electronic facility or platform for electronic commerce.
- However, where an electronic commerce operator does not have a physical presence in the taxable territory, any person representing such electronic commerce operator for any purpose in the taxable territory shall be liable to pay tax.

- Further, where an electronic commerce operator does not have a physical presence in the taxable territory and also he does not have a representative in the said territory, such electronic commerce operator shall appoint a person in the taxable territory for the purpose of paying tax and such person shall be liable to pay tax.

The following services are specified:

1. Services by way of transportation of passengers by a radio-taxi, motor-cab, maxi-cab, motor-cycle, omnibus or any other motor vehicle
  - Radio taxi means a taxi including a radio cab, by whatever name called, which is in two-way radio communication with a central control office and is enabled for tracking using Global Positioning System (GPS) or General Packet Radio Service (GPRS).
  - Motor cab means any motor vehicles constructed or adapted to carry not more than 6 passengers, excluding the driver, for hire or reward
  - Maxi cab means any motor vehicle constructed or adapted to carry more than 6 passengers but not more than 12 passengers, excluding the driver, for hire or reward
  - Motorcycle means at two-wheeled motor vehicle, inclusive of any detachable side-car having an extra wheel, attached to the motor vehicle
  - Omnibus means any motor vehicle constructed or adapted to carry more than 6 persons excluding the driver
2. Services by way of providing accommodation in hotels, inns, guest houses, clubs, campsites or

other commercial places meant for residential or lodging purposes, except where the person supplying such service through electronic commerce operator is liable for registration u/s 22(1) of the CGST Act

3. Services by way of house-keeping, such as plumbing, carpentering etc., except where the person supplying such service through electronic commerce operator is liable for registration u/s 22(1) of the CGST Act.
4. Supply of restaurant service other than the services supplied by restaurant, eating joints etc. located at specified premises
  - Specified premises means premises providing hotel accommodation service having declared tariff of any unit of accommodation above ₹ 7,500 per unit per day or equivalent.

**W.e.f. 20-10-2023, serial number 1 of the specified services has been amended and amended provision are as under:**

- Services by way of transportation of passengers by a radio-taxi, motorcab, maxicab, motorcycle, or any other motor vehicle **except omnibus.**

Further, following services are also specified from **20-10-2023:**

- Services by way of transportation of passengers by **an omnibus except where the person supplying such service through ECO is a company.**

Thus, w.e.f. 20-10-2023, the tax on services by way of transportation of passengers by an omnibus provided by a company through ECO is not payable by ECO. It will be payable by the supplier i.e., company itself under forward charge.

## Topic

Module 5:  
Methods of  
Costing

# INTERMEDIATE

## Group I - Paper-8

### Cost Accounting (CA)

## COST ACCOUNTING

### Job Costing:-

It is a particular form of specific order costing which applies where work is undertaken to customer's specific requirements and each order is of comparatively shorter duration than contract costing. Under the method costs are collected in respect of each job separately. The method is used in such industries as printing, foundry, repair shop, engineering, readymade garments, shoes etc.

### Batch Costing:-

It is a special type of job costing. here a batch of similar products is treated as a job. This type of costing applies where similar articles are manufactured in batches either for sale or for use within the undertakings. Under this method cost are collected and analysed according to batch numbers allotted. The method is suitable for making component parts, pharmaceutical industries, spare parts, watches, radio-sets, cycles etc.

Some of the **special features** of Job Costing are;--

- 1) A separate job cost sheet is to be prepared for calculating cost in respect of each job.
- 2) A separate work-in-progress ledger is to be maintained for each job, as W.I.P. differs from period to period depending on the number of jobs on hand.
- 3) Production is always against customer's orders.
- 4) Each job is of shorter duration, compared to contract costing.
- 5) Each job has its own characteristics and needs separate treatment.
- 6) The distinction between direct and indirect costs is more urgent under the method.
- 7) There is no uniformity in the flow of production from one department to another in respect of jobs.
- 8) This method is labour intensive.

**There are some specific advantages of job costing,** that are listed below: -

- 1) Here profitability can be analysed job-wise.
- 2) It helps the management in preparing estimates for like jobs. For the purpose of submitting quotations.

- 3) It helps in producing detailed analysis of materials, labour and overheads as the distinction between direct and indirect costs is more important here.
- 4) Spoilage and defective work is easily identified with each job.
- 5) The management can fix selling prices more easily for each job.
- 6) Job costing is particularly helpful for cost-plus contracts, where contract price is determined directly on the basis of costs.
- 7) It helps in the introduction of budgetary control of overheads, since the overhead is applied on the basis of predetermined overhead rates.
- 8) It helps management to know the cost trends in respect of jobs and the efficiency of operation.

**Some of the shortcomings under this method are:--**

As it requires more critical works, and hence, very much expensive. Again, chances of errors are increased because of increasing clerical work.

**Job Cost Card/Job Cost Sheet** is a document that records in details the cost incurred for direct materials, direct labour, factory overhead, administrative overheads etc. for a particular job. It accumulates the total cost assigned to the job. It also serves as the subsidiary ledger for work-in-progress inventory control account.

### Batch Costing:--

It is a specific form of costing which applies where similar articles are produced in batches either for sales or for other purposes. There are two types of cost generally found in batch costing viz. Setup or Preparation Cost and Carrying Cost.

Setting-up cost means the cost involved in setting up the machines or tools for production which is fixed in nature and it should be computed after taking into consideration the time lost due to change over from one batch to another, loss of speed due to change over material wastage etc. On the other hand, Carrying Cost means the Costs which are related to the cost of manufacture, storage, interest on capital invested, depreciation etc.



For easier understanding I am setting an example, which can clear the concept of Job or Batch Costing.

### PROBLEM

A manufacturing unit has predetermined the overhead rates as 400% on direct wages, 20% on Works cost and 25% on cost of production for works expenses, management expenses and commercial expenses, respectively.

At the end of the year, it has been found that the works overhead stand under-absorbed to the extent of 30% of the total productive wages. Management overhead show under-recovery of 1/8th of the absorbed amount and the recovery of the commercial expenses results in an over absorption of 1/3rd of the total amount absorbed.

If the prime cost of three jobs are as under, find the profit/loss on the respective selling prices (both on the basis of standard cost and on the basis of full absorption of overheads):

Particulars	JOB A	JOB B	JOB C
	₹	₹	₹
Direct Materials	40.50	32.60	26.80
Direct Wages	15.20	8.60	7.20
<b>Total</b>	<b>60.70</b>	<b>41.20</b>	<b>34.00</b>
Selling Price	200.00	130.00	90.00

### SOLUTION -

Under-absorption in works overheads is 30% on wages. Under-absorption in management overheads is 1/8th of the absorbed amount and over absorption in commercial expenses is 1/3rd of the total amount absorbed.

Particulars	JOB A	JOB B	JOB C
	₹	₹	₹
Direct Materials	45.50	32.60	26.80
Direct Wages	15.20	8.60	7.20
Works Overhead	60.80	34.40	28.80
<b>Works Cost</b>	<b>121.50</b>	<b>75.60</b>	<b>62.80</b>
Management Expenses (20% on Works Cost)	24.30	15.12	12.56
<b>Cost of Production</b>	<b>145.80</b>	<b>90.72</b>	<b>75.36</b>
Commercial expenses (25% of cost of product)	36.45	22.68	18.84
<b>Cost of Sales (at standard recovery)</b>	<b>182.25</b>	<b>113.40</b>	<b>94.20</b>
Add : Under-recovery of works Overhead (30% of total Productive wages)	4.56	2.58	2.16
Add : Under-recovery of Management Expenses (1/8th of the absorbed amount)	3.04	1.89	1.57
	<b>189.85</b>	<b>117.87</b>	<b>97.93</b>
Less: Over-absorption of Commercial expenses (1/3rd of the absorbed amount)	12.15	7.56	6.28
<b>Cost of Sales (on full absorption of Overheads)</b>	<b>177.70</b>	<b>110.31</b>	<b>91.65</b>

### Statement of profit / Loss

Particulars	JOB A	JOB B	JOB C
	₹	₹	₹
Selling Price (1)	200.00	130.00	90.00
Cost of sales (2)	182.25	113.40	94.20
Profit / loss at Standard Cost (1 – 2)	17.75	16.60	4.20

Students are suggested that, generally one question either from JOB /Batch or from Contract Costing is being set from this chapter for all Examinations.

## Topic

Module 4:  
Application of  
Operation Research  
- Production  
Planning and  
Control

# INTERMEDIATE

## Group II - Paper-9

Operations  
Management  
and Strategic  
Management  
(OMSM)

## Operations Management

In this issue let us discuss Management of Waiting Lines with numerical illustration.

As already told many queuing models are available to choose from. The following is the list of symbols, already discussed in last issue used in doing analysis with queuing models:

Symbol	Represents	Diagrammatic Representation
$\lambda$	Customer arrival rate	
$\mu$	Service rate per server	
$L_q$	The average number of customers waiting for service	<div style="text-align: center;"> <p>Line + Service = System</p> <p style="text-align: center;"><math>L_q + r = L_s</math></p> </div>
$L_s$	The average number of customers in the system (waiting and/or being served)	
$r$	Average number of customers being served	
$\rho$	The system utilization	
$W_q$	The average time customers wait in line	<div style="text-align: center;"> <p>Line + Service = System</p> <p style="text-align: center;"><math>W_q + \text{Service time} = W_s</math></p> </div>
$W_s$	The average time customers spend in the system (waiting in line and service time)	
$M$	No of servers	
$L_{max}$	The maximum expected number waiting in line	
$L'_q$	Expected length of non-empty queues	$\frac{1}{1-\rho}$ or $\frac{1}{1-\rho}$

### Basic relationship--

- (a) System utilisation: This reflects the ratio of demand (as measured by the arrival rate) to supply or capacity (as measured by the product of the number of servers,  $M$  and the service rate,  $\mu$ )

$$\rho = \frac{\lambda}{M\mu} \dots\dots\dots (1)$$

- (b) Average number of customers being served:

$$r = \frac{\lambda}{\mu} \dots\dots\dots (2)$$

- (c) For a stable system average number of customers in line or in the system is equal to the average customer arrival rate multiplied by the average time in line or in the system. That is

$$L_s = \lambda * W_s = \frac{\lambda}{\mu - \lambda} \quad \& \quad L_q = \lambda * W_q = \frac{\lambda^2}{\mu(\mu - \lambda)} \dots\dots\dots (3)$$

- (d) The average time customers are waiting in line  $W_q = \frac{L_q}{\lambda} \dots\dots\dots (4)$

- (e) The average time customers are in the system  $W_s = W_q + \frac{1}{\mu} = \frac{L_s}{\lambda} \dots\dots\dots (5)$

### Illustration 1:

Customers arrive at a bakery at an average rate of 15 per hour on weekday mornings. The arrival distribution can be described by a Poisson distribution with a mean of 15. Each staff can serve a customer in an average of three minutes. This time can be described by an exponential distribution with a mean of 3 minutes.

- (a) What are the arrival and service rates?
- (b) Compute the average number of customers being served at any time
- (c) Suppose it has been determined that the average number of customers waiting in line is 9. Compute the average number of customers in the system (i.e. waiting in line or being served), the average time customers wait in line and the average time in the system
- (d) Determine the system utilisation for  $M = 1, 2$  and 3 servers

**Answer:**

- (a) As per question  $\lambda =$  Customer arrival rate = 15 customers per hour.

Each staff can serve a customer in an average of 3 minutes.

In 3 minutes ----- 1 customer

In 1 minute ----- 1/3 customer

In 60 minute, i.e. in 1 hour -----  $60/3 = 20$  customers =  $\mu$

- (b) Average number of customers being served at any time  $r = \frac{\lambda}{\mu} = \frac{15}{20} = 0.75$

- (c) The average number of customers in the system  $L_s = \lambda * W_s$

Where  $W_s = W_q + \frac{1}{\mu} = \frac{L_s}{\lambda}$  &  $W_q = \frac{L_q}{\lambda}$

By question the average number of customers waiting for service (waiting in line) = 9

So  $W_q = \frac{L_q}{\lambda} = \frac{9}{15}$

Then  $W_s = W_q + \frac{1}{\mu} = \frac{9}{15} + \frac{1}{20} = 0.65$

So  $L_s = \lambda * W_s = 15 * 0.65 = 9.75$

- (d) From equation (1) we could write  $\rho = \frac{\lambda}{M\mu} = \frac{15}{1 * 20} = 0.75$  for 1 server. Similarly for 2 and 3 servers  $\rho = 0.375$  & 0.25 respectively.

**Illustration 2:**

Customers arrive at a bakery at an average rate of 18 per hour on weekday mornings. The arrival distribution can be described by a Poisson distribution with a mean of 18. Each staff can serve a customer in an average of three minutes. This time can be described by an exponential distribution with a mean of 3 minutes.

- (a) What are the arrival and service rates?
- (b) Compute the average number of customers being served at any time
- (c) Suppose it has been determined that the average number of customers waiting in line is 8. Compute the average number of customers in the system (i.e. waiting in line or being served), the average time customers wait in line and the average time in the system
- (d) Determine the system utilisation for  $M = 1, 2$  and 3 servers

**Answer:**

- (a) As per question  $\lambda =$  Customer arrival rate = 18 customers per hour.

Each staff can serve a customer in an average of 3 minutes.

In 3 minutes-----1 customer

In 1 minute-----1/3 customer

In 60 minute, i.e. in 1 hour----- $60/3 = 20$  customers =  $\mu$

(b) Average number of customers being served at any time =  $r = \frac{\lambda}{\mu} = \frac{18}{20} = 0.9$  customers

(c) The average number of customers in the system  $L_s = \lambda * W_s = L_q + r = 8 + 0.9 = 8.9$

Where  $W_s = W_q + \frac{1}{\mu} = \frac{L_s}{\lambda}$  &  $W_q = \frac{L_q}{\lambda}$

By question the average number of customers waiting for service (waiting in line) = 8

So  $W_q = \frac{L_q}{\lambda} = \frac{8}{18} = 0.44$  hour

Then  $W_s = W_q + \frac{1}{\mu} = \frac{8}{18} + \frac{1}{20} = 0.49$  hour

So  $L_s = \lambda * W_s = 18 * 0.49 \sim 8.9$

(d) From equation (1) we could write  $\rho = \frac{\lambda}{M\mu} = \frac{18}{1 * 20} = 0.9$  for 1 server. Similarly for 2 and 3 servers  $\rho = 0.45$  &  $0.3$  respectively.

The simplest model involves a system that has one server. The queue discipline is first come first served and it is assumed that the customer arrival rate can be approximated by a Poisson distribution and service time by negative exponential distribution. There is no limit on length of queue. The following table lists the formulas for the single server model which should be used in conjunction with the formulas already discussed above:

Performance Measure	Equation
Average number in line .i.e. waiting to be served	$L_q = \frac{\lambda^2}{\mu(\mu - \lambda)}$ ..... (6)
Probability of zero units in the system	$P_0 = 1 - (\frac{\lambda}{\mu})$ ..... (7)
Probability of n units in the system	$P_n = P_0 (\frac{\lambda}{\mu})^n$ .....(8)
Probability of less than n units in the system	$P_{<n} = 1 - (\frac{\lambda}{\mu})^n$ ..... (9)

**Illustration 3:**

On an average, 10 customers reach a movie ticket counter every hour. Determine the probability that exactly 4 customers will reach in a 30 minutes period, assuming that the arrivals follow Poisson distribution

**Answer:**

By question  $\lambda$  = Customer arrival rate = 10 customers/hour. So in a 30 minute (T = 0.5 hour) period  $m = \lambda T = 10 * 0.5 = 5$  customers.

So by formula (10)  $P = e^{-m} \frac{m^n}{n!} = 2.7183^{-5} \frac{5^4}{4} = 0.175$

Similarly when the time taken to serve different customers are independent, the probability that no more than T periods would be required to serve a customer is given by exponential distribution as follows:

$P$  (no more than T time period needed to service a customer) =  $1 - e^{-\mu T}$  ..... (11)

**Illustration 4:**

The manager of a bank observes that on an average, 18 customers are served by a cashier in an hour. Assuming that the service time has an exponential distribution what is the probability that (a) a customer shall be free within 3 minutes (b) a customer shall be serviced in more than 12 minutes?

**Answer:**

(a) By question  $\mu$  = Service rate per server = 18 customers/hour, T = 3 minutes = 0.05 hour

So  $P(<3) = 1 - e^{-18*0.05} = 0.593$

(b) By question  $\mu$  = Service rate per server = 18 customers/hour,  $T = 12$  minutes = 0.2 hour

So  $P(\geq 12) = e^{-18 \times 0.2} = 0.027$

$P(\text{a customer shall wait for } t \text{ minutes or more in the queue}) = \rho e^{-\rho W_s} \dots\dots\dots (12)$

$P(\text{a customer shall be in the system for more than } t \text{ minutes}) = e^{-\rho W_s} \dots\dots\dots (13)$

**Illustration 5:**

A tailor specializes in ladies' dresses. The number of customers approaching the tailor appear to be Poisson distributed with a mean of 6 customers per hour. The tailor attends the customers on a first come first served basis and the customers wait if the need be. The tailor can attend the customers at an average rate of 10 customers per hour with the service time exponentially distributed. Required:

- (a) Find the probability of the number of arrivals (0 through 5) during (i) a 15 minute interval and (ii) a 30 minute interval
- (b) The utilisation parameter
- (c) The probability that the queuing system is idle
- (d) The average time that the tailor is free on a 10 hour working day
- (e) The probability associated with the number of customers (0 through 5) in the queuing system
- (f) What is the expected number of customers in the tailor shop?
- (g) What is the expected number of customers waiting for tailor's services?
- (h) What is the average length of queues that have at least one customer?
- (i) How much time should a customer expect to spend in the queue?
- (j) What is the expected time a customer would spend in the tailor's shop?
- (k) Assuming that  $n > 0$  (i.e. customers are in the system) what is the probability that the waiting time (excluding the service time) of a customer in the queue shall be more than 10 minutes?
- (l) Assuming that the customers are in the system, what is the probability that a customer shall be in the shop for more than 15 minutes?

**Answer:**

(a) By question  $\lambda$  = Customer arrival rate = 6 customers/hour. So in a 15 minute (0.25 hour) period  $m = 6 * 0.25 = 1.5$  customers. Similarly in a 30 minute (0.5 hour) period  $m = 6 * 0.5 = 3$  customers.

So by formula (10)  $P = e^{-m} \frac{m^n}{n!}$  the probabilities are:

n	T = 1/4 hr	T = 1/2 hr
0	0.2231	0.0498
1	0.3347	0.1494
2	0.2510	0.2240
3	0.1255	0.2240
4	0.0471	0.1680
5	0.0141	0.1008

(b) From equation (1) we could write  $\rho = \frac{\lambda}{M\mu} = \frac{6}{1 * 10} = 0.6$

(c) From equation (7) we could write  $P_0 = 1 - (\frac{\lambda}{\mu}) = 1 - \frac{6}{10} = 0.4$

(d) Average time that the tailor is free on a 10 hour working day =  $P_0 * 10 = 4$  hrs

(e) From equation (8) we could write  $P_n = P_0 \left(\frac{\lambda}{\mu}\right)^n$ . So the requisite probabilities are

n	$P_0 \left(\frac{\lambda}{\mu}\right)^n$
0	0.4
1	0.24
2	0.144
3	0.0864
4	0.05184
5	0.031104

(f) The average number of customers in the system (waiting and/or being served)  $L_s = \frac{\rho}{1-\rho} = \frac{0.6}{1-0.6} = 1.5$

(g) The expected number of customers waiting for tailor's services  $L_q = \frac{\lambda^2}{\mu(\mu-\lambda)} = \frac{\rho^2}{1-\rho} = \frac{0.36}{1-0.6} = 0.9$

(h) Average length of queues that have at least one customer = Expected length of non-empty queues =

$$L_q' = \frac{1}{1-\rho} = \frac{1}{1-0.6} = 2.5$$

(i) The average time customers wait in line =  $W_q + \frac{L_q}{\lambda} = \frac{1}{\lambda} * \frac{\lambda^2}{\mu(\mu-\lambda)} = \frac{\lambda^2}{\mu(\mu-\lambda)} = \frac{6}{10(10-6)} = 0.15$  hour

(j) The average time customers spend in the system (waiting in line and service time)  
 $= W_s = W_q + \frac{1}{\mu} = \frac{L_s}{\lambda} = 0.15 + \frac{1}{10} = 0.25$  hour

(k) Probability that a customer shall wait for more than 10 minutes in the queue

$$P(t \geq 10) = \rho e^{-t w_s} = 0.6 * e^{-10/15}$$

(l) Probability that a customer shall be in the shop for more than 15 minutes =  $e^{-t W_s} = e^{-15/15} = 0.368$

### Illustration 6:

The Taj Service station has a central store where service mechanics arrive to take spare parts for the jobs they work upon. The mechanics wait in queue if necessary and are served on a first cum first served basis. The store is manned by one attendant who can attend 8 mechanics in an hour on an average. The arrival rate of the mechanics averaging 6 per hour. Assuming that the pattern of mechanic's arrivals is Poisson distribution and the servicing time is exponentially distributed, determine  $W_s$ ,  $W_q$ ,  $L_q$  where the symbols carry their usual meaning.

### Answer:

(a) As per question  $\lambda$  = Mechanics arrival rate = 6 per hour.

Service rate =  $\mu$  = 8 per hour

Average number of customers being served at any time =  $r = \frac{\lambda}{\mu} = \frac{6}{8} = 0.75$  mechanics

$$L_q = \frac{\lambda^2}{\mu(\mu-\lambda)} = \frac{\rho^2}{1-\rho} = \frac{6^2}{8(8-6)} = \frac{0.75^2}{1-0.75} = 2.25 \text{ mechanics}$$

(c) The average number of customers in the system  $L_s = \lambda * W_s = L_q + r = 2.25 + 0.75 = 3$

Where  $W_s = W_q + \frac{1}{\mu} = \frac{L_s}{\lambda}$  &  $W_q = \frac{L_q}{\lambda}$

By question the average number of mechanics waiting for service (waiting in line) = 2.25

So  $W_q = \frac{L_q}{\lambda} = \frac{2.25}{6} = 0.375$  hour = 22.5 minutes

Then  $W_s = W_q + \frac{1}{\mu} = 0.375 + \frac{1}{8} = 0.5$  hour =  $\frac{1}{\mu-\lambda} + \frac{1}{8-6} = 0.5$  hour = 30 minutes

So  $L_s = \lambda * W_s = 6 * 0.5 = 3$

**Illustration 7:**

Arrivals at a telephone booth are considered to be Poisson, with an average time of 12 minutes between one arrival and the next. The length of a phone call is assumed to be distributed exponentially, with mean 3 minutes. Find (a) The probability that an arrival finds that four persons are waiting for their turn; (b) The average number of persons waiting and making telephone calls; (c) The average length of the queue that is formed from time to time.

**Answer:**

The average inter arrival time being 12 minutes, the average arrival rate =  $60/12 = 5$  customers /hour =  $\lambda$ .

The length of a phone call is assumed to be distributed exponentially with mean 3 minutes, the service time =  $60/3 = 20$  customers/hour =  $\mu$

Therefore,  $\rho = \frac{\lambda}{\mu} = \frac{5}{20} = 0.25$

(a) Probability of n units in the system =  $P_n = P_0 \left(\frac{\lambda}{\mu}\right)^n$

Now from (7) we can write . So  $P_0 = 1 - \left(\frac{\lambda}{\mu}\right)$ . So  $P_0 = 1 - \left(\frac{5}{20}\right) = 0.75$

So  $P_n = P_0 \left(\frac{\lambda}{\mu}\right)^n = P_4 = P_0 \left(\frac{5}{20}\right)^5 = 0.75 \left(\frac{5}{20}\right)^5 = 0.000732$  [One arrival sees 4 waiting. So there are  $4+1 = 5$  units]

(b) The average number of customers in the system (waiting and/or being served)  $L_s = \lambda * W_s + \frac{\rho}{1 - \rho} = \frac{0.25}{0.75} = 0.33$

(c) Expected length of non-empty queues  $\frac{1}{1 - \rho} = \frac{1}{0.75} = 1.33$

**Illustration 8:**

The Maruti service station has a central store where service mechanics arrive to take spare parts for the jobs they work upon. The mechanics wait in queue if necessary and are served on a first come first served basis. The store is manned by one attendant who can attend 10 mechanics in an hour on an average. The arrival rate of the mechanics averages 6 per hour. Assuming that the pattern of mechanics' arrivals is Poisson distribution and the servicing time is exponentially distributed, determine  $W_s$ ,  $W_q$  &  $L_q$  , where the symbols carry their usual meaning.

**Answer:**

The average arrival time  $\lambda = 6$ , and the service time =  $\mu = 10$

So  $\frac{\lambda}{\mu} = \frac{6}{10} = 0.6$  hour

So  $W_s = W_q + \frac{1}{\mu} = \frac{L_s}{\lambda} = \frac{1}{\mu - \lambda} = \frac{1}{10 - 6} = 0.25$  hour

$W_q = \frac{L_q}{\lambda} = \frac{\lambda}{\mu(\mu - \lambda)} = \frac{6}{10(10 - 6)} = 0.15$  hour

$L_q = \frac{\lambda^2}{\mu(\mu - \lambda)} = \frac{36}{10(10 - 6)} = 0.90$

**Illustration 9:**

Customers arrive at the first class ticket counter of a theatre at a rate of 12 per hour. There is one clerk serving the customers at a rate of 30 per hour. (a) What is the probability that there is no customer in counter? (b) What is the probability that there are more than 2 customers in the counter? (c) What is the probability that there is no customer waiting to be served? (d) What is the probability that a customer is being served and nobody is waiting?

**Answer:**

By question  $\lambda = 12$ /hour,  $\mu = 30$ /hour . So  $\rho = \lambda/\mu = 12/30 = 0.4$

(a) Probability of zero units in the system  $P_0 = 1 - (\lambda/\mu) = 1 - 0.4 = 0.6$



(b) The probability that there are more than 2 customers in counter =  $1 - P(0) - P(1) - P(2)$

We know that Probability of n units in the system  $P_n = P_0 \left(\frac{\lambda}{\mu}\right)^n$ . In this case  $n = 0, 1, 2$

$$P(1) = P_0 \left(\frac{\lambda}{\mu}\right)^1 = 0.6 * (0.4)^1 = 0.24$$

$$P(2) = P_0 \left(\frac{\lambda}{\mu}\right)^2 = 0.6 * (0.4)^2 = 0.096$$

So probability that there are more than 2 customers in counter =  $1 - 0.6 - 0.24 - 0.096 = 0.064$

(c) A case of no customer waiting to be served happens only either there will be no customer  $P(0)$  or One customer being served (As there is only one serving clerk)  $P(1)$

So required probability  $P(0) + P(1) = 0.6 + 0.24 = 0.84$

(d) Customer is being served and nobody is waiting- In this case there will be only 1 customer in the system.

We know that Probability of n units in the system  $P_n = P_0 \left(\frac{\lambda}{\mu}\right)^n$ . So  $P(1) = 0.24$

#### Illustration 10:

Assume at a bank teller window the customers arrive in their cars at the average rate of 20/hour according to a Poisson distribution. Assume also that the bank teller spends an average of 2 minutes per customer to complete a service and the service time is exponentially distributed. Customers who arrive from an infinite population are served on a first come first served basis and there is no limit to possible queue length. (a) What is the expected waiting time in the system per customer? (b) What is the mean number of customers waiting in the system? (c) What is the probability of zero customers in the system? (d) What value is the utilisation factor?

#### Answer:

By question  $\lambda = 20/\text{hour}$ ,  $\mu = 60/2 = 30/\text{hour}$ . So  $\rho = \lambda/\mu = 20/30 = 0.67$

(a) The average time customers are in the system  $W_s = W_q + \frac{1}{\mu} = \frac{L_s}{\lambda} = \frac{1}{\mu - \lambda} = \frac{1}{30 - 20} = 0.1 \text{ hour}$

(b) The average number of customers waiting in the system =  $L_q = \frac{\lambda^2}{\mu(\mu - \lambda)} = \frac{20 * 20}{30(30 - 10)} = 1.33 \text{ hour}$

(c) Probability of zero units in the system  $P_0 = 1 - (\lambda/\mu) = 1 - 0.67 = 0.33$

(d) Utilisation factor =  $\rho = \lambda/\mu = 20/30 = 0.67$

#### Suggestions:

*This lesson could be used as an aid to teaching on queuing models in study notes. Concept of waiting line is vital for analysis of queuing models under module 4.7- Scheduling and Queuing Models. These discussions are in addition to knowledge imparted by study guide. For Proper understanding of waiting line all possible formulas are again given in this issue. Attempts are made here to indicate few important symbols used in model on infinite source. For supplementary readings one can refer Operations Management by R.S. Russell & B.W. Taylor; Operations Management by J Stevenson, Productions and Operations management by R.B. Khanna & Quantitative Techniques in Management by N. D. Vora.*

*Best Wishes.*

## Topic

Module 3:  
Cash Flow  
Statement

Module 7:  
Provisions Relating  
to Audit under  
Companies Act,  
2013

**INTERMEDIATE**

**Group II - Paper-10**

Corporate  
Accounting and  
Auditing (CAA)

## Section A: Corporate Accounting

### Topic: Cash Flow Statement

#### • Multiple Choice Questions

1. AS 3 allows preparation of Cash Flow Statements under \_\_\_\_\_.
    - A. Only Direct Method
    - B. Only Indirect Method
    - C. Both Direct Method and Indirect Method
    - D. Neither Direct Method nor Indirect Method
  2. Which of the following items does not appear in a company's Cash Flow Statement prepared under AS - 3 "Cash Flow Statement"?
    - A. Dividend received;
    - B. Dividend paid
    - C. Loan repayment
    - D. Bonus issue of shares
  3. Which of the following items does not appear in a company's Cash Flow Statement prepared under AS - 3 "Cash Flow Statement"?
    - A. Interest received
    - B. Surplus on revaluation of a non-current asset
    - C. Issue proceeds of equity shares
    - D. Purchase of old machinery
  4. Which of the following items does not appear in a company's Cash Flow Statement prepared under AS - 3 "Cash Flow Statement"?
    - A. Accumulated profit
    - B. Loan raised from bank
    - C. Redemption proceeds of preference shares
    - D. Payment of interest on debenture
- (iii) Trade payables on 31.03.2024 was ₹2,00,000 more than the balance on 31.03.2023.
  - (iv) Closing inventory was higher than the opening inventory by ₹75,000
  - (v) Suppliers were paid ₹71,00,000 during the year
  - (vi) Operating expense of ₹7,20,000 were paid during the year.
  - (vii) Taxes paid during the year were ₹3,00,000
  - (viii) The company paid equity dividend of ₹2,40,000 during the year.
  - (ix) The company acquired a land for ₹800000 and bought a new machinery for ₹4,00,000 during the year.
  - (x) Interest was received on investment for ₹20,000
  - (xi) Cash and cash equivalent on 01.04.2023 was ₹80,000
  - (xii) Cash and cash equivalent on 31.03.2024 was ₹1,40,000

You are required to prepare a Cash Flow Statement for the year ended on 31.03.2024 as per AS 3.

#### Solution:

#### Cash Flow Statement for the year ended on 31.03.2021

Particulars	₹	₹
<b>I. Cash flow from operating activities:</b>		
Sales (all in cash)	9600000	
Less: Payment to suppliers	7100000	
	2500000	
Less: Operating expenses	720000	
	1780000	
Less: Taxes paid	300000	1480000
<b>II. Cash flow from investing activities:</b>		
Purchase of land	(800000)	
Purchase of Machinery	(400000)	
Interest received on investment	20000	(1180000)

**Answer: 1 – C; 2 – D; 3 – B; 4 – A**

#### • Comprehensive Problem 1

The following information has been provided by P Ltd. for the year ended on 31.03.2024.

- (i) Sales for the year ₹96,00,000 entirely made in cash.
- (ii) Cost of goods sold was 75% of the sales.

<b>III. Cash flow from financing activities:</b>		
Equity Dividend paid		(240000)
		60000
Add: Opening cash and cash equivalent		80000
Closing cash and cash equivalent		140000

**• Comprehensive Problem 2**

From the following information calculate the amount of net cash flows from investing activities:

Particulars	2023	2024
Plant and Machinery	17,00,000	20,00,000
Investments (Long-term)	80,000	2,00,000
Land (at Cost)	4,00,000	2,00,000

Additional information:

- (1) Depreciation charged on Plant and Machinery ₹ 1,00,000.

- (2) Plant and Machinery with a book value of ₹ 1,20,000 was sold for ₹ 80,000.  
 (3) Land was sold at a profit of ₹ 1,20,000.  
 (4) No investment was sold during the year.

**Solution:**

Calculation of Net Cash Flows from Investing Activities

Particulars	₹	₹
Cash payment to acquire Plant and Machinery (Note 1)	(5,20,000)	
Cash receipts from sale of Plant and Machinery	80,000	
Cash payment to acquire Investments	(1,20,000)	
Cash receipts from sale of Land	3,20,000	
Net Cash Flows from Investing Activities		(2,40,000)

**Working Note:**

Dr.		Plant and Machinery Account		Cr.	
Date	Particulars	₹	Date	Particulars	₹
	To balance b/d	17,00,000		By Bank A/c	80,000
	To Bank (Purchase – b.f)	5,20,000		By Loss on Sale of Plant & Machinery A/c	40,000
				By Depreciation A/c	1,00,000
				By Balance c/d	20,00,000
		22,20,000			22,20,000

**Section B: Auditing**

**Topic: Provisions Relating to Audit under Companies Act, 2013**

**Multiple Choice Questions**

1. Any casual vacancy in a govt. company is filled by the CAG of India within \_\_\_\_\_ days.
- A. 15  
 B. 30  
 C. 45  
 D. 60

2. Which of the following is not a duty of the company auditor as per section 143 of the Companies Act, 2013?
- A. Duty to make enquiry  
 B. Duty to prepare financial statements  
 C. Duty to give reasons for negative reporting  
 D. Duty to comply with the directions of CAG

3. Which of the following is not a content of audit report as per SA 700 (Revised)?
- Addressee
  - Auditor's opinion
  - Basis of opinion
  - Management discussion and analysis
4. If any money transferred to the Unpaid Dividend Account remains unpaid or unclaimed for a period of seven years from the date of such transfer, the same must be transferred to \_\_\_\_\_.
- Investor Education Fund
  - Investor Protection Fund
  - Investor Education and Protection Fund
  - Investor Empowerment and Protection Fund

**Answer: 1 – B; 2 – B; 3 – D; 4 - C**

### Comprehensive Question

#### Question:

**Discuss the provisions of the Companies Act, 2013 regarding appointment of a statutory company auditor.**

#### Answer:

Section 139 of the Companies Act, 2013 provides for appointment of the first and subsequent auditors of a company. The provisions are discussed below:

#### **Appointment of the First Auditor by a Company other than a Government Company [Sec. 139(6)]**

- The first auditor of a company, other than a Government company, shall be appointed by the Board of Directors within thirty days from the date of registration of the company.
- In the case of failure of the Board to appoint such auditor, it shall inform the members of the company, who shall within ninety days at an extraordinary general meeting appoint such auditor.
- The first auditor shall hold office till the conclusion of the first annual general meeting.

#### **Appointment of the First Auditor of Government Company [Sec. 139(7)]**

- In the case of a Government company or any other company owned or controlled, directly or indirectly, by the Central Government, or by any State Government, or Governments, or partly by the Central Government and partly by one or more State Governments, the first auditor shall be appointed by the Comptroller and Auditor-General of India within sixty days from the date of registration of the company.
- In case the Comptroller and Auditor-General of India does not appoint such auditor within the said period, the Board of Directors of the company shall appoint such auditor within the next thirty days.
- In the case of failure of the Board to appoint such auditor within the next thirty days, it shall inform the members of the company who shall appoint such auditor within the sixty days at an extraordinary general meeting.
- The auditor so appointed shall hold office till the conclusion of the first annual general meeting.

**Note:** "Government company" means any company in which not less than fifty-one per cent. of the paid-up share capital is held by the Central Government, or by any State Government or Governments, or partly by the Central Government and partly by one or more State Governments, and includes a company which is a subsidiary company of such a Government company.

#### **Appointment of Subsequent Auditor/Reappointment of Auditor [Section 139(1) & Rules 3 and 4 of Companies (Audit and Auditors) Rules, 2014]**

- Every company shall, at the first annual general meeting, appoint an individual or a firm (including LLPs) as an auditor.
- The auditor shall hold office from the conclusion of that meeting till the conclusion of its sixth annual general meeting and thereafter till the conclusion of every sixth meeting (i.e. for a period of five years).
- The manner and procedure of selection of auditors by the members of the company at such meeting shall be such as may be prescribed.

## Topic

Module 3:  
Tools for Financial  
Analyses

Module 10:  
Data Presentation:  
Visualisation  
and Graphical  
Presentation

# INTERMEDIATE

## Group II - Paper-11

Financial  
Management and  
Business Data  
Analytics (FMDA)

**Subject: Financial Management and Business Data Analytics****Financial Statements Analysis****Example 1**

Income Statement of XYZ Ltd. for the years ended 31 December 2019 to 2023 are given below:

**For the years ended 31 December**

(₹ in Crore)

	2019	2020	2021	2022	2023
Total Sales	2,002	1,990	2,220	2,701	3,240
Cost of Sales	460	358	377	432	551
<b>Gross Profit</b>	<b>1,542</b>	<b>1,632</b>	<b>1,843</b>	<b>2,269</b>	<b>2,689</b>
Selling and administrative expenses	701	697	821	1,026	1,166
Research and development expenses	320	358	400	513	617
Other deduction (income) net	40	40	44	136	32
<b>Operating Income</b>	<b>481</b>	<b>537</b>	<b>578</b>	<b>594</b>	<b>874</b>
Interest expense	21	20	10	10	12
<b>EBT</b>	<b>460</b>	<b>517</b>	<b>568</b>	<b>584</b>	<b>862</b>
Provision for tax	160	159	168	189	251
<b>Income from continuing operations</b>	<b>300</b>	<b>358</b>	<b>400</b>	<b>395</b>	<b>611</b>

You are requested to examine the trend of the business activities of the company on the basis of vertical and horizontal common-size data of the statement over the years.

**Solution:****Vertical Common-size Income Statements**

As percentage (%) of total sales for years ended 31 December

	2019	2020	2021	2022	2023
Total Sales	100%	100%	100%	100%	100%
Cost of Sale	23	18	17	16	17
<b>Gross Profit</b>	<b>77</b>	<b>82</b>	<b>83</b>	<b>84</b>	<b>83</b>
Selling and administrative expenses	35	36	37	38	36
Research and development expenses	16	18	18	19	19
Other deduction (income) net	2	2	2	5	1
<b>Operating Income</b>	<b>24</b>	<b>26</b>	<b>26</b>	<b>22</b>	<b>27</b>
Interest expense	1	1	0	0	0
<b>EBT</b>	<b>23</b>	<b>25</b>	<b>26</b>	<b>22</b>	<b>27</b>
Provision for tax	8	7	8	7	8
<b>Income from continuing operations</b>	<b>15</b>	<b>18</b>	<b>18</b>	<b>15</b>	<b>19</b>

**Horizontal Common-size Statements of Selected Items of Income Statements**

For the years ended 31 December

(As percent of 2019 level)

Particulars	2019	2020	2021	2022	2023
Total Sales	100	99	111	135	162
Cost of Sales	100	78	82	94	120
Gross Profit	100	106	120	147	174
Selling and administration expenses	100	99	117	146	166
Research and development cost	100	112	125	160	193
Operating Income	100	112	120	123	182
Interest expenses	100	95	48	48	57
Income before tax	100	112	123	127	187
Income from continuing operations	100	119	133	132	204

**Trend analysis:**

From the above traditional, common-size vertical and horizontal income statements, it appears that during past five years sale increased from ₹ 2,002 crores to ₹ 3,240 crores i.e. sales increased by 62%, but income from continuing operations increased from ₹ 300 crores to ₹ 611 crores i.e. increased by 104%. The main reason behind this is that during 2019 the cost of goods sold was 23% of sales, but it became 17% of sales in 2023, whereas selling and administrative expenses increased from 35% in 2019 to 36% of sales in 2023. Thus, though sales have increased during the period by 62%, such expenses increased only by 66%.

The company spends a considerable amount on research and development (R&D). During 2019, it spent 16% of sales on R&D, but in 2023 it spent only 19%. During these five years, the company enhanced its expense on this head by 93%, and as a consequence, it reduced cost of goods sold since the latter has increased only by 20%. This is why, though sales have increased by 62%, its operating income has increased by 82%.

Interest payments during the last five years have decreased by 43%. This might be due to decrease in debt burden and rate of interest or in both. Its operating income has increased by 82%, but its EBT has increased by 87%. It may be due to the enhancement of income from unusual sources. It requires further investigation. This may be enquired from Balance Sheet data. Anyway, this is a favourable indication.

It is found from both vertical and horizontal common-size statements that all the items show a continuously favourable trend over the years. Most of the expenses

have decreased. But R&D cost have increased at higher rate in comparison to changes in sales. Perhaps that is the reason for which the company has acquired comparative advantages in the market. It is expected that sales volume will increase and profitability prospect will be bright.

**Risk-Return Trade Off**

Risk-return trade-off states that the potential return rises with an increase in risk. Using this principle, individuals associate low levels of uncertainty with low potential returns, and high levels of uncertainty or risk with high potential returns. To calculate an appropriate risk-return trade-off, investors must consider many factors, including overall risk tolerance, the potential to replace lost funds, and more. Investors consider risk-return trade-off on individual investments and across portfolios when making investment decisions.

**Capital Asset Pricing Model (CAPM)**

CAPM explains the behavior of security prices and provides a mechanism whereby investors could assess the impact of a proposed securities are determined in such a way that the risk premium or excess return are proportional to systematic risk, which is indicated by the beta coefficient.

We can use CAPM to understand the basic risk-return trade-offs involved in various types of investment decisions.

Using Beta as the measure of non-diversifiable risk, the CAPM is used to define the required rate of return on a security



$$E(R_s) = R_f + \{\beta_s \times (R_M - R_f)\}$$

$E(R_s)$  = Expected Return on the Security or Investment

$R_f$  = Risk Free Rate of Interest/ Return

$\beta_s$  = Security Beta or Risk Premium

$R_M$  = Expected Return on all securities or Market Return

### Example 2

The risk-free return is 9 percent and the expected return on a market portfolio is 12 percent. If the required return on a stock is 14 percent, what is its beta?

**Answer:**

$$E(R_s) = 14\%$$

$$R_f = 9\%$$

$$\beta_s = ?$$

$$R_M = 12\%$$

$$14\% = 9\% + \{\beta_s \times (12\% - 9\%)\}$$

$$\beta_s = 1.67$$

## Data Analytics

### Data Presentation: Visualisation and Graphical Presentation

#### Data Presentation Architecture (DPA)

Data presentation architecture (DPA) is a set of skills that aims to identify, find, modify, format, and present data in a manner that ideally conveys meaning and provides insight.

DPA focuses on the effective communication of information by transforming raw data into visual representations, such as charts, graphs, and tables, that can be easily interpreted by users. The primary goal of DPA is to facilitate decision-making, analysis, and communication by presenting data in a clear, concise, and visually appealing manner.

#### Objectives of DPA

There are following objectives of DPA:

- (i) Utilize data to impart information in the most efficient method feasible (provide pertinent, timely and comprehensive data to each audience participant in a clear and reasonable manner that conveys important meaning, is actionable and can affect understanding, behaviour and decisions).
- (ii) To utilise data to deliver information as effectively as feasible (minimise noise, complexity, and unneeded data or detail based on the demands and tasks of each audience).

#### Scope of DPA

In the light of abovementioned objectives, the scope of DPA may be defined as:

- (i) Defining significant meaning (relevant information) required by each audience member in every scenario.

- (ii) Obtaining the proper data (focus area, historic reach, extensiveness, level of detail, etc.)
- (iii) Determining the needed frequency of data refreshes (the currency of the data)
- (iv) determining the optimal presentation moment (the frequency of the user needs to view the data)
- (v) Using suitable analysis, categorization, visualisation, and other display styles.
- (vi) Developing appropriate delivery techniques for each audience member based on their job, duties, locations, and technological access.

#### Key Components of DPA

- (i) **Data Sources:** DPA relies on data sources, such as databases, data warehouses, to retrieve the necessary raw data for visualization.
- (ii) **Data Transformation:** Data transformation involves processing and manipulating raw data to prepare it for presentation. This may include data cleaning, aggregation, filtering, or normalization.
- (iii) **Visualization Techniques:** DPA employs various visualization techniques, such as bar charts, line charts, pie charts, scatter plots, and heatmaps, to represent data in a visually understandable format.
- (iv) **User Interface (UI):** The UI is the visual layer that enables users to interact with and explore the presented data. A well-designed UI should be intuitive, responsive, and aesthetically pleasing.
- (v) **User Experience (UX):** UX encompasses the overall experience a user has when interacting with the data presentation, including factors such as ease of use, accessibility, and satisfaction.

(Source: [https://cio-wiki.org/wiki/Data\\_Presentation\\_Architecture](https://cio-wiki.org/wiki/Data_Presentation_Architecture))

## Topic

Module 6:  
Standard Costing  
and Variance  
analysis

INTERMEDIATE

Group II - Paper-12

Management  
Accounting (MA)

## Module 6: Standard Costing

### Introduction to Standard Costing

Standard costing is a cost accounting technique where the cost of a product or service is predetermined based on certain norms. It is used as a control mechanism by comparing actual performance with the standards set. The primary purpose of standard costing is to measure efficiency and help management control costs by identifying areas where actual performance deviates from expected results. These deviations, known as variances, are analyzed to understand the reasons behind them, enabling corrective action to be taken.

The method is especially suitable for manufacturing organizations where production processes are repetitive, and it is easier to establish standards. Standard costing helps in budgeting, performance evaluation, and decision-making by providing a benchmark for cost control.

### Objectives of Standard Costing

The core objective of standard costing is to ensure that the actual costs incurred in production are within the limits set by the predetermined standards. This involves determining the efficiency of operations by comparing actual performance with the established standards. Other objectives include:

1. **Cost Control:** Standard costing acts as a tool for controlling costs by highlighting variances between actual and standard costs.
2. **Performance Measurement:** It measures how effectively a company is utilizing its resources.
3. **Decision Making:** It provides a basis for management decisions by offering a clear picture of cost deviations.
4. **Budgeting and Planning:** Standard costing supports budget preparation by providing a benchmark for expected costs.

### Components of Standard Costing

Standard costing consists of several components that are essential for its proper implementation. These include:

1. **Standard Costs:** These are the predetermined costs of a product or service under specific conditions.

They are established based on historical data, market trends, and operational efficiency.

2. **Cost Centers:** A cost center can be a department, a machine, or a group of workers. Costs are accumulated and managed for each cost center, making it easier to identify and control specific cost areas.
3. **Standards for Materials, Labor, and Overheads:** Standards are set for different elements of cost, including direct materials, direct labor, and overheads, allowing for detailed variance analysis.
4. **Variance Analysis:** The difference between actual and standard costs is termed as variance. Variances can be favorable (when actual costs are lower than standard costs) or adverse (when actual costs exceed standard costs).

### Types of Standards

Standards can be classified into three main types:

1. **Current Standards:** These are based on current operating conditions and are revised periodically to reflect changes in production processes or market prices.
2. **Ideal Standards:** These assume perfect operating conditions with no inefficiencies, wastage, or downtime. Ideal standards set a high target but are rarely achievable in practice.
3. **Attainable Standards:** These are based on realistic expectations, considering normal inefficiencies and wastage. Attainable standards are practical and more motivational for employees.

### Setting Standard Costs

Establishing standard costs involves a thorough analysis of the production process, materials, labor, and overheads. The steps to set standard costs include:

1. **Study of Technical Aspects:** Understanding the technical and operational aspects of production is crucial for setting realistic standards.
2. **Review of Existing Costing System:** An analysis of historical cost data helps in setting standards that reflect current conditions.

3. **Classification of Costs:** Proper classification of costs into direct materials, direct labor, and overheads is essential for effective variance analysis.
4. **Participation of Relevant Departments:** Involving various departments, such as production, purchase, and accounting, in setting standards ensures that the process is comprehensive and accurate.

### Variance Analysis in Standard Costing

Variance analysis is a critical aspect of standard costing. It helps management understand why actual costs differ from standard costs. Variances are categorized into different types based on their causes:

#### 1. Material Variances:

- o **Material Price Variance:** The difference between the standard price and the actual price paid for materials.
- o **Material Usage Variance:** The difference between the standard quantity of materials expected to be used and the actual quantity consumed.

#### 2. Labor Variances:

- o **Labor Rate Variance:** The difference between the standard rate of pay and the actual rate paid to workers.
- o **Labor Efficiency Variance:** The difference between the standard labor hours expected to be used and the actual hours worked.

#### 3. Overhead Variances:

- o **Variable Overhead Efficiency Variance:** The difference between standard and actual hours used for variable overheads.
- o **Fixed Overhead Variance:** Differences between budgeted and actual fixed overhead costs.

#### 4. Sales Variances:

- o **Sales Price Variance:** The difference between the standard selling price and the actual selling price.

- o **Sales Volume Variance:** The difference between expected sales volume and actual sales volume.

Each variance is analyzed to determine its cause, and corrective measures are taken to improve future performance.

### Advantages of Standard Costing

1. **Efficiency Measurement:** Standard costing provides a clear measure of efficiency by comparing actual performance with predetermined standards.
2. **Cost Control:** By identifying variances, management can take corrective actions to control costs effectively.
3. **Simplifies Decision Making:** Standard costing provides valuable insights into cost behavior, helping management make informed decisions.
4. **Enhances Budgeting:** Standard costs form a foundation for budgeting, allowing for more accurate financial planning.
5. **Motivational Tool:** Attainable standards encourage employees to perform efficiently by providing realistic performance targets.
6. **Management by Exception:** Variance analysis highlights only significant deviations from the standard, allowing management to focus on areas that need attention.

### Limitations of Standard Costing

Despite its advantages, standard costing has some limitations:

1. **Cost of Implementation:** Setting up and maintaining a standard costing system can be expensive, making it difficult for small businesses to adopt.
2. **Difficulty in Establishing Standards:** In industries where production processes are not repetitive, setting standards is challenging.
3. **Frequent Revisions:** In dynamic environments with frequent changes in market prices or production processes, standards need to be revised regularly, adding to the complexity of the system.
4. **Psychological Impact:** Unrealistic or unattainable standards can demotivate employees, leading to lower morale and reduced productivity.

5. **Not Suitable for All Industries:** Standard costing is less effective in service industries or in situations where job costing is more appropriate, as each job may have unique specifications.

### Standard Costing vs. Budgetary Control

Although standard costing and budgetary control both aim to control costs, they differ in several ways:

1. **Scope:** Budgetary control covers the entire organization, including all financial aspects, while standard costing focuses on controlling the costs of specific products or services.
2. **Application:** Budgetary control can be applied partially, for example, to a single department, whereas standard costing must be applied to all elements of cost in the manufacturing process.
3. **Variance Analysis:** In standard costing, variances are analyzed in detail according to their causes, whereas in budgetary control, variances are revealed in total.
4. **Cost Control vs. Financial Control:** Standard costing is concerned with controlling production costs, while budgetary control focuses on financial control.

### Management by Exception in Standard Costing

Standard costing facilitates the principle of “management by exception,” which allows management to concentrate on significant variances that require immediate attention. By setting tolerance limits for acceptable deviations, only those variances that exceed these limits are investigated. This approach enables efficient resource allocation and ensures that management focuses on critical areas needing corrective action.

### MCQs:

1. What is the primary objective of standard costing?
  - a) To reduce labor cost
  - b) To determine efficiency in production
  - c) To increase overhead expenses
  - d) To eliminate raw material wastage
2. The term “Standard Cost” refers to:
  - a) Actual cost incurred
  - b) Predetermined cost under specific conditions
  - c) The price of raw materials
  - d) Estimated future sales revenue
3. Which type of standard is based on the most efficient operating conditions?
  - a) Attainable standard
  - b) Ideal standard
  - c) Basic standard
  - d) Current standard
4. What is the primary use of variance analysis in standard costing?
  - a) To calculate labor costs
  - b) To determine deviations between actual and standard costs
  - c) To calculate profits
  - d) To estimate future sales
5. In which industry is standard costing most effective?
  - a) Service industry
  - b) Job costing industry
  - c) Manufacturing industry
  - d) Retail industry
6. What does a cost center refer to in standard costing?
  - a) A specific department or equipment where costs are accumulated
  - b) A product’s retail price
  - c) The total revenue generated by a company
  - d) The final profit margin of a product
7. Which of the following is a limitation of standard costing?
  - a) It helps fix responsibility
  - b) It can be expensive for small companies
  - c) It increases labor efficiency
  - d) It eliminates price fluctuations
8. Which type of standard is revised based on current conditions and changes?
  - a) Ideal standard
  - b) Basic standard

- c) Attainable standard  
d) Current standard
9. Which is a component of the standard cost card?  
a) Profit margin  
b) Overhead costs  
c) Selling price  
d) Marketing expenses
10. In the context of standard costing, what does CIMA define as “management by exception”?  
a) Analysing favourable variances only  
b) Ignoring variances  
c) Focusing on variances that require attention  
d) Using variances for budgeting
11. What is the purpose of setting tolerance limits in standard costing?  
a) To estimate future sales prices  
b) To decide when variances should be investigated  
c) To calculate total cost variance  
d) To prevent any variances from occurring
12. Which manager is responsible for a material price variance?  
a) Production manager  
b) Purchase manager  
c) Personnel manager  
d) Sales manager

**Answers**

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

**Fill in the Blanks:**

1. \_\_\_\_\_ variance measures the difference between the standard cost and actual cost of materials.
2. \_\_\_\_\_ standards are more realistic because they include allowances for normal inefficiencies.
3. The \_\_\_\_\_ department is usually responsible for setting material price standards based on purchasing contracts and market trends.
4. The total variance in standard costing is the difference between actual and \_\_\_\_\_ costs.
5. The \_\_\_\_\_ variance indicates whether the company paid more or less for materials than expected.

**Answers**

1. Price
2. Attainable
3. Purchase
4. Standard
5. Price

**True/False Questions:**

1. Ideal standards assume normal inefficiencies in production.
2. Standard costs can be revised based on changing conditions.
3. A favorable variance is achieved when actual performance is worse than expected.
4. Attainable standards assume that some inefficiencies may occur.
5. Mix variance in materials refers to differences in the ratio of materials used.

**Answers**

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

## Module 6.2: Variance Analysis

### Variance Analysis

According to CIMA, variance is the difference between planned or standard costs and actual costs. By assessing these variances, managers can identify areas that require intervention, maximizing opportunities for effective decision-making. The main goal of standard costing is to facilitate variance analysis, which in turn drives informed management actions for improved efficiency and control.

### Classification of Variances:

#### A. Material Variances:

1. **Material Cost Variance:** This represents the difference between the standard cost of materials specified for the actual output and the actual cost of materials used.
2. **Material Price Variance:** It arises due to the difference between the standard price specified and the actual price paid for materials.
3. **Material Quantity or Usage Variance:** It measures the efficiency in the use of material and indicates whether materials were properly utilized.
4. **Material Mix Variance:** It measures the difference between the standard composition of the mix and the actual composition used.
5. **Material Yield Variance:** It is a part of the Material Usage Variance and arises due to spoilage, low-quality materials, or defective production planning.

#### B. Labour Variances:

1. **Labour Cost Variance:** It represents the difference between the standard cost of labour allowed for the actual output achieved and the actual wages paid.
2. **Labour Rate Variance:** This variance is due to the difference between the standard rate specified and the actual rate paid for actual hours worked.
3. **Labour Efficiency Variance:** It measures the

efficiency in the use of labour and indicates whether labour was properly utilized.

4. **Labour Idle Time Variance:** This represents the difference between the standard cost of labour hours utilized and the actual payment made.
5. **Labour Mix Variance:** It arises due to the difference between the standard composition of a gang for total actual hours and the actual composition used.
6. **Labour Yield Variance:** This variance arises due to the variation in labour cost on account of an increase or decrease in yield or output compared to the standard.

#### C. Variable Overhead Variances:

1. **Variable Overhead Cost Variance:** This variance measures the distinction between the standard variable overhead cost allocated for the actual output and the actual variable overhead cost incurred.
2. **Expenditure Variance:** It is calculated as the difference between the standard variable overheads for actual output and the actual variable overheads incurred.
3. **Efficiency Variance:** Represents the variance due to differences in the actual hours worked and the standard hours allowed, multiplied by the standard variable overhead rate per hour.
4. **Variable Overhead Rate or Expenditure Variance:** This variance calculates the difference between the allowed or budgeted variable overheads based on actual hours worked and the actual variable overheads incurred.
5. **Variable Overhead Efficiency Variance:** This variance indicates the difference between the standard variable overhead for actual output and the actual hours worked at the standard variable overhead rate.

**D. Fixed Overhead Variances:**

1. Expenditure Variance: Increase or decrease in fixed overhead expenditure. (Chief Accountant cum-Controller)
2. Efficiency Variance: Increase or decrease in budgeted output rate for hours worked.
3. Capacity Variance: Increase or decrease in output.
4. Idle Time Variance: Unabsorbed standard fixed overhead.
5. Calendar Variance: Difference between budgeted and actual working days. (Uncontrollable)

**D. Sales Variances:**

1. Value Variance: Difference between budgeted and actual sales value. (Sales Manager)
2. Price Variance: Difference between actual and standard sales prices.
3. Volume Variance: Difference between budgeted and standard sales volumes.
4. Mix Variance: Difference between revised standard sales and standard sales.

**MCQ**

1. Which of the following equation can be used to calculate a material price variance?
  - a)  $(AQ \times AP) - (AQ \times SP)$
  - b)  $(AP \times SP) - (AQ \times SP)$
  - c)  $(AQ \times SP) - (SQ \times SP)$
  - d)  $(AQ \times SP) - (AQ \times AP)$
2. To produce a particular batch of product, Foster Corporation paid its workers ₹ 12.00 per hour for 4,000 hours of work. The standards for the quantity of work represented by the batch were ₹ 12.50 per hour and 4,400 hours. What was the labor efficiency variance?
  - a) ₹ 2,000 favorable

- b) ₹ 5,000 favorable
  - c) ₹ 5,000 Adverse
  - d) ₹ 4000 Adverse
3. Which of the following is not an advantage of standard costing?
    - a) It provides a basis for sensible cost comparisons
    - b) It enables managers to manage by exception
    - c) It provides a means of performance evaluation and employee rewards
    - d) It is usually less expensive than actual or normal costing
  4. The formula to estimate Labour Mix variance is
    - a) Total standard labour cost of actual output - Total actual cost of actual output
    - b)  $(\text{Standard rate per hour} - \text{Actual rate per hour}) \times \text{Actual Hours}$
    - c)  $(\text{Revised standard time} - \text{Actual time}) \times \text{Standard rate}$
    - d) Abnormal idle hours \* Standard hourly rate
  5. ABC Ltd is operating a system of standard costing with closing of books done every quarter. The budgeted overheads are ₹ 2,55,000. Also, the overhead rate was pre-decided @ ₹ 5.1 per labour hours and during a quarter actually used 52,000 labour hours, instead of 51,000 hours. The actual overheads resulted in a rate of ₹ 4.9 per labour hours. What is volume variance?
    - a) ₹ 5,100 favorable
    - b) ₹ 5,200 favorable
    - c) ₹ 5,200 Adverse
    - d) ₹ 5,100 Adverse
  6. Which of the following statements are true about labour idle time?
    - a) Labour idle time variance is not caused by non-availability of raw material



- b) Labour idle time variance is measured as :  
Abnormal idle hours \* Actual hourly rate
- c) Labour idle time variance is always Adverse or adverse
- d) All of the above
7. The formula to estimate overhead cost variances is
- a) Actual output \* Standard overhead rate + actual variable overhead
- b) Actual output \* Standard overhead rate per unit - actual overhead cost
- c) Actual output \* Standard overhead rate per unit \* actual overhead cost
- d) None of the above
8. XYZ factory working for 50 hours per week employs hundred workers on a job work. The standard output is 200 units per gang hour and standard rate is ₹ 1 per hour. During a week in June, five employees were paid @ ₹ 1.20 per hour and ten employees were paid @ 80 paise per hour. Rest of the employees were paid @ standard hour rate. The actual number of units produced was 10,200. Determine labour cost variance
- a) ₹ 100 favorable
- b) ₹ 150 Adverse
- c) ₹ 150 favorable
- d) ₹ 100 Adverse
9. The data related to Production of T are for material X standard data and actual data are 40 kgs @ ₹ 10 and 55 kgs @ ₹ 9, respectively. The standard data and actual data for material Y are 50 kgs @ ₹ 5 and 35 kgs @ ₹ 7. Determine material usage variance.
- a) ₹ 75 favorable
- b) ₹ 75 Adverse
- c) ₹ 90 Adverse
- d) ₹ 90 favorable
10. While calculating material yield variance if Standard loss on actual mix is more than actual loss on actual mix then the variance is
- a) Favorable
- b) Adverse
- c) Neither favorable nor Adverse
- d) None of the above
11. While calculating material mix variance, if revised standard quantity is greater than actual quantity, the variance is
- a) Adverse
- b) Favorable
- c) Neither favorable nor Adverse
- d) Either favorable nor Adverse
12. The controllable variances are related with the
- a) Internal and external policies of organization
- b) External policies of organization
- c) Internal policies of organization
- d) None of the above

**Answer**

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

**True and False**

1. This is the difference between the actual value of sales margin and budgeted value of sales margin is known as Sales Margin Value Variance.
2. Material Price Variance (MPV) = (SP - AP) × SQ
3. The selection of variances for investigation is therefore very much dependent on circumstances and on the person making the selection.
4. Once the variances have been calculated, those who manage the business have to decide which variances should be investigated.
5. A margin is a norm against which the actual performance can be measured.

**Answer**

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

**Fill in the blanks**

1. The \_\_\_\_\_ is a key tool for measuring performance of a cost center.
2. An \_\_\_\_\_ variance is achieved when the actual performance is worse than the expected results.
3. \_\_\_\_\_ variance is caused due to difference in Standard and Actual output.
4. Responsibility for Material price Variance is mainly of \_\_\_\_\_ department.
5. \_\_\_\_\_ is the difference between standard price of actual quantity and actual price of the actual quantity of sales.

**Answer**

1. variance analysis
2. adverse
3. Yield
4. purchase.
5. Sales Price Variance

# CMA FINAL COURSE

Syllabus 2022

## Topic

Module 1:  
The Companies Act,  
2013

FINAL

Group III - Paper-13

Corporate and  
Economic Laws  
(CEL)

## MANAGEMENT OF A COMPANY

### COMPANY DIRECTORS AND BOARD

#### Composition of Board of Directors

Board of directors is individual, and is defined as a person occupying the position of director, by whatever name called. Director collective are called as board of director. Any persons who control the management of the company will be deemed as director, through his designation can be different.

**Maximum no. of Directors** – in case of public limited company is 15. However any company may increase number of directors, with the permission of central court. There is no maximum specified for private company.

#### Minimum no. of Directors –

2 (in the case of private company)

3 (in the case of public company)

No. of directors above 15 requires approval by special resolution of shareholders.

One director to be resident individual.

At least one women director in case of listed company.

(Directors appointed by BIFR and Central Govt. shall not be counted for total number of directors.)

#### ROTATIONAL AND NON-ROTATIONAL DIRECTORS

At least 2/3<sup>rd</sup> shall be eligible to retire by rotation in

every AGM.

Out of 2/3<sup>rd</sup> 1/3<sup>rd</sup> must retire in every AGM.

(Directors appointed by CG, BIFR, FI/Banks shall not be taken in to account for calculating the number of rotational directors)

Listed companies shall have 50% of the Board's strength as independent director if the chairman is executive and 1/3<sup>rd</sup> if chairman is non-executive.

Tenure of non-rotational director or full time director shall not be for more than 5 yrs.

**KMP-** Key managerial personnel in relation to a company means-

- (i) the Chief executive officer or the managing director or manager.
- (ii) the company secretary
- (iii) the whole-time director
- (iv) the Chief financial officer
- (v) such other officer as may be prescribed

#### NATURE OF COMPANY MANAGEMENT

Shareholders are the owners of the company. They can anytime decide to run themselves or may like persons to act on their behalf for management of the company and highest level of such inclusion of outside person is director, who will be member of the board of director.

Management powers to be exercised by:	Type of Powers	Reference
Shareholders	Powers not given/delegated to the Board of Directors.	Section 180 of the Companies Act, 2013 and Articles of Association of the company.
Board of Directors	All powers of decision making about the company unless reserved for the shareholders.	Section 179 of the Companies Act, 2013.
Chairman	Executive/ Non- Executive functions of the company. Chairing the Company meetings.	Section 104 of the Companies Act, 2013.
C.M.D	Exercises both Chairman and Managing Director's Power.	

<p>Managing Director</p> <ul style="list-style-type: none"> <li>- Should be of 21-70 years</li> <li>- is an undischarged insolvent</li> <li>- has not suspended payment to its creditors</li> <li>- has not been convicted of any offence for a period of more than 6 months.</li> </ul>	<p>Has substantial powers of the management of the company. Works under the supervision and control of the Board of Directors.</p>	<p>Section 196 of the Companies Act, 2013.</p>
<p>Whole Time Director/Functional Director</p>	<p>Full time employee of the company. Looks after specified functions of the company.</p>	

Type of Directors	Appointing Authority	Situation of appointment	Tenure of Office
First Directors	Articles of Association	At the time of registration	Upto first AGM
Normal Directors	Shareholders in Annual General Meeting.	Normal	To retire on the basis of seniority
Additional Directors	Board of Directors	In between two AGMs	Till the next AGM or the last date in which the AGM should have been held whichever is earlier.
Alternate Directors	Board Of Directors	When the original Director is out of India for more than 3 months	Till the return of the original Director.
Directors appointed by Central Government	Central Government	Inspection and Investigation Oppression and Mismanagement	As per order
Director appointed/nominated by Financial Institute/ Government	Nominated by Financial Institute (Appointed by shareholders at AGM)	Company taken loan from the institution, equity investment in the company.	As per FI/ Bank
Independent directors (Section 149)	For all listed companies at AGM.	Paid up capital 10cr/turnover 100cr/outstanding loan 50cr.	5 consecutive terms but can be re-appointed by passing a special resolution.
Directors appointed by small shareholders.	Small shareholder who holds shares of nominal value of not more than twenty thousand rupees.	In AGM. Any listed company may or shall in case of notice by 1000 small shareholders(or 1/10th of such category of shareholders having holding of face value of ₹ 20000)	Up to 3 years. Shall be rotational. Considered to be independent.
Shadow Directors	Legally not a director.	Persons who control the affairs or control the majority of directors.	

### Appointing Retiring Director

The nomination for appointment of a Director who retires in an AGM and is eligible for reappointment automatically comes up in the said meeting unless a resolution to the effect that he will not be appointed or someone else will be appointed in his place is moved.

### Appointment Of a person as a director for the first time.

Apart from the above provision Under Section 160 of the Companies Act, 2013 a person who is not a retiring director can also be eligible for appointment as a director of a company provided he deposits his candidature in writing, himself or through some other member of the company at least 14 days before the meeting along with a fee of ₹ 1 lakh which shall be refunded if the candidate gets minimum 25% of the votes casted.

### Vacation of office of directors: (Section 167)

The office of a director shall become vacant if he is disqualified by an order of the court or Tribunal or by personal incapacity.

### Powers and Duties of the Board (Section 179 & 166)

The Board of directors shall exercise the following powers subject to the resolutions passed at the meeting.

1. to authorise buy-back of securities under section 68.
2. to issue securities, including securities (in or outside India)
3. to borrow monies.
4. to invest the funds of the company.
5. to grant loans or give guarantee or provide securities in respect of loans.
6. to approve financial statements and the Board's report.
7. to diversify the business of the company.
8. to approve amalgamation, merger and reconstruction.
9. to take over a company or acquire a controlling or substantial stake in another company.

### Position & status of directors

- Organs of the Company
- Decision makers
- Authorized to do everything bonafide the company unless prohibited by the Act/Articles.
- Individual director not competent to act without authority of the Board and shall be personally liable
- Directors are trustees to the shareholders, custodian of the asset and responsible for running of the business
- Prudentiality of directors' decision shall not be normally questioned
- Committee of Directors
- Directors may propose anything for effective management of the company, exploit their knowledge and experience for betterment of the company
- Directors to act bonafide the company even if nominated by a group of shareholders whose interest is effected

### Restrictions on Powers of Board and borrowing powers

The following power cannot be exercised by Board unless specifically authorised by the shareholders in a meeting through Special resolution.

- a) Sell, lease or dispose of substantial part of business, the value of which is 20% of the Net worth or generates 20% of the income. of the company
- b) Investment of funds received as compensation of merger/amalgamation, other than in trust securities.
- c) borrow money exceeding aggregate of its paid up share capital and free reserves, other than temporary loans. Loans taken for capital expenditure will include borrowing.
- d) give or extent time for repayment of loan recoverable from directors.

The resolution of the shareholders shall mention the maximum limit and condition, if any, in each of the above situations.

## Topic

Module 2:  
Evaluation of  
Risky Proposals  
for Investment  
Decisions,

Module 13:  
Financial  
Derivatives –  
Instruments for  
Risk Management

**FINAL**

**Group III - Paper-14**

Strategic Financial  
Management (SFM)



## Topic: Evaluation of Risky Proposals for Investment Decisions

### Multiple Choice Questions:

1. A company is considering four projects A, B, C and D with the following information:

	Project A	Project B	Project C	Project D
Expected NPV (₹)	60,000	80,000	70,000	90,000
Standard deviation (₹)	4,000	10,000	12,000	14,000

Which project will fit the requirement of low risk appetite?

- Project A
- Project B
- Project C
- Project D

### Solution:

#### Correct Answer is (A)

Coefficient of variation = Standard Deviation ÷ Mean

For project A =  $4000/60000 = 0.066$

For project B =  $10000/80000 = 0.125$

For project C =  $12000/70000 = 0.17$

For project D =  $14000/90000 = 0.16$

Since, Coefficient of variation is the least for project A, it is recommended.

2. The following information of a project are given below:

Expected cash flow (₹)	Probability
6,000	0.20
16,000	0.80

If certainty equivalent coefficient is 0.7, what will be certain (Risk less) cash flows of the project?

- ₹ 12,000
- ₹ 9,800
- ₹ 9,000
- ₹ 15,400

### Solution:

#### Correct answer is (B).

Expected cash flow with risk =  $[6,000 \times 0.2 + 16,000 \times 0.8]$

∴ Certainty adjusted =  $[6,000 \times 0.2 + 16,000 \times 0.8] \times 0.7$   
= ₹ 9,800

### Comprehensive Problem 1

X Ltd. is currently considering two mutually exclusive projects, A and B. The following are some of the information concerning the two projects:

	Project A	Project B
Initial investment	₹ 15,000	₹ 20,000
Project life	3 years	3 years
Annual cash inflow	₹ 7,000	₹ 10,000
Risk index	0.4	1.8

In addition, the firm uses two different techniques to adjust for the different risk levels of projects: certainty equivalent factors and risk adjusted discount rate. Additional information is provided below:

Certainty equivalent factors			
Year	Project A	Project B	
0	100	100	
1	0.95	0.90	
2	0.90	0.85	
3	0.90	0.70	

Risk index	RADR (%)	Risk index	RADR (%)
0.0	7.0	1.0	12.0
0.2	8.0	1.2	13.0
0.4	9.0	1.4	14.0
0.6	10.0	1.6	15.0
0.8	11.0	1.8	16.0

The company's cost of capital is 10%.

You are required to:

- Calculate the NPV of Project A and Project B at 10% discount rate.
- Determine the NPV of Project A and Project B using certainty equivalent (CE) to account for Risk.
- Determine the NPV of Project A and Project B using Risk Adjusted Discount Rate (RADR) to account for Risk.
- Compare and explain your findings in (i), (ii) and (iii)

**Solution:**

(i) NPV at 10% Discount rate

End of year	PV factor	Cash flows A	PV for Project A	Cash flows B	PV for Project B
0	1	-15,000	-15,000	-20,000	-20,000
1-3	2.487	+7,000	+17,409	+10,000	+24,870
NPV			+2,409		+4,870

So, Project B is preferred.

(ii)  $R_f = 7\%$ 

End of year	PV factor at 7%	Certainty Equivalent Cash flow A [C/I x CE Factor]	PV for Project A	Certainty Equivalent Cash flow B [C/I x CE Factor]	PV for Project B
0	1	-15,000	-15,000	-20,000	-20,000
1	0.935	+6,650	+6,218	+9,000	+8,415
2	0.873	+6,300	+5,500	+8,500	+7,421
3	0.816	+6,300	+5,141	+7,000	+5,712
NPV			+1,858		+1,548

So, Project A is preferred.

(ii) RADR. Discount factor for A is 9% and for B 16%

End of year	PV factor 9%	Cash flows A	PV for Project A	PV factor 16%	Cash flows B	PV for Project B
0	1	-15,000	-15,000	1	-20,000	-20,000
1-3	2.531	7,000	+17,717	2.246	10,000	+22,460
NPV			+2,717			+2,460

So, Project A is better.

(iv) When we ignore risk, we see that both projects give NPV of greater than zero. Since they are mutually exclusive, we need to select the project which gives **higher NPV**. Therefore, we select Project B. When we apply the **certainty equivalent approach**, we see that Project A is better with a higher NPV. Similarly, **even under RADR method**, Project A gives higher NPV. The choice is therefore obvious that we should select Project A as it gives a higher NPV even after adjusting for risk under both the methods.

## Topic: Financial Derivatives – Instruments for Risk Management

### Comprehensive Problem 1

An investor had purchased a 4 month call option on the equity shares of N Ltd. of ₹ 10 of which the current market price is ₹ 132 and the exercise price is ₹ 150. You expect the price to range between ₹ 120 to ₹ 190. The expected share price of N Ltd. and related probability is given below:

Expected Price (₹)	120	140	160	180	190
Probability	0.05	0.20	0.50	0.10	0.15

You are required to compute the following:

- (i) Expected share price at the end of 4 months
- (ii) Value of call option at the end of 4 months, if the expected price prevails.
- (iii) In case the option is held to its maturity, what will be the expected value of call option?

**Solution:**

Price Pi after 4 m	Probability	Price × probability	If held till Maturity	Call value	Call value × probability
120	0.05	6	Call lapses	0	0
140	0.20	28	Call lapses	0	0
160	0.50	80	Call exercised	+10	5
180	0.10	18	Call exercised	+30	3
190	0.15	28.5	Call exercised	+40	6
Total		160.50			14

(i) Expected share price after 4 months = ₹ 160.50

(ii) If price after 4 months = ₹160.50, value of call =  $160.50 - 150 = ₹ 10.50$ . Since exercise price < market price, call will be exercised.

(iii) Expected value of the option = ₹ 14

(iv) Expected pay off = Expected value of the option less option premium.

Hence option premium should be at the most ₹ 13 to make it worthwhile. At ₹ 14, pay-off is zero and there is indifference,

**Comprehensive Problem 2**

A silver merchant requires in three months' time, 3000 kg of silver for making silver articles during a wedding season. He expects the price to increase. Silver sells at spot rate of ₹ 5,100 per kg. Each silver futures contract (for 50 kg), expiring in three months sells at ₹ 5,200 per kg. The merchant wants to hedge half his requirement through futures and leave the remaining half uncovered. Explain his position and the gains/losses in the spot and futures market, the number of futures to trade in, the effective price per kg for his entire requirement if after 3 months,

(i) Spot rate is ₹ 5,250/kg and futures is at ₹ 5,400 per kg.

(ii) Spot rate is ₹ 5,000/kg and futures is at ₹ 4,900 per kg.

**Solution:**

Requirement = 3000 kg

Covered		Uncovered
1500 kg		1500 kg
Spot Market	Futures Market	Spot = 5100
Short position	Long position	3m = 5250
	1500/50 = 30 contracts	Effective price 5250 per kg for 1500 kg
(i) After 3 months		
Loss = $(5100-5250) \times 1500$ kg	Gain = $(5400-5200) \times 1500$ kg	
= $-150 \times 1500$	= $200 \times 1500$	
Net gain = ₹ 50 per kg		
Price paid = ₹5200 per kg for 1500 kg		Price paid = 5250 per kg for 1500 kg
Effective price for total requirement of 3000 kg = ₹5225/kg		
(ii) After 3 months		
Gain = $(5100-5000) \times 1500$ kg	Loss = $(5200-4900) \times 1500$ kg	
= $100 \times 1500$	= $300 \times 1500$	
Net loss = ₹ 200 per kg		
Price paid = $5000 + 200 = 5200$ per kg for 1500 kg		Price paid = 5000 per kg for 1500 kg
Effective price for total requirement of 3000 kg = ₹5100 /kg		

## Topic

Module 3:  
Grivance  
Redressal

FINAL

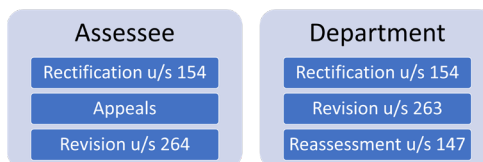
Group III - Paper-15

Direct Tax Laws  
and International  
Taxation (DIT)

## Appeal before CIT (Appeals)

One Law Dictionary defines ‘appeal’ as the act of asking a higher authority to change a decision of a lower authority. Right to appeal under income tax law is a creation of statute and not an inherent right. Appeal can be filed only against orders listed in the Income Tax Act and not any order.

Initially, following course of action are available in the Income-tax Act:



In general, any cases being filed and heard first in Civil Court, thereafter aggrieved parties may file a case in High Court and for further relief or justice, aggrieved party finally file case in Supreme Court. However, the route of revenue cases is different. Any Assessee or any deductor or any collector of tax at source, who is aggrieved from the order passed by the Assessing officer, shall first file an appeal to the Joint Commissioner (Appeal) / Commissioner (Appeals). Then case shall be moved and an appeal shall be filed to Appellate tribunal, by the assessee or Deductor or Collector of tax at source or the department, if they are aggrieved with the order passed by the Commissioner (Appeal). Thereafter case shall be moved to High Court, if assessee or Deductor or Collector of tax at source or the department is aggrieved to the order passed by the Appellate tribunal and at last to Supreme Court, if Assessee or Deductor or Collector of tax at source or the department is aggrieved to the order passed by the High court.

### Appeals to Commissioner of Income Tax (Appeals) [CIT (A)] [Sec. 246A to 250]

Aggrieved tax payer can file appeal before the Commissioner (Appeals) having, jurisdiction over the tax payer. Designation of the Commissioner (Appeals), with whom appeal is to be filed is also mentioned in the notice of demand issued by the Assessing Officer u/s 156.

Provision regarding appeal to the Commissioner (Appeal) are enumerated below:

Appealable Orders	Appeal can be filed against the order(s) listed in sec. 246A	
Time limit for filing appeal	Appeal should be filed within 30 days from -	
	Where the appeal is u/s 248	The date of payment of the tax
	Where the appeal relates to any assessment or penalty	The date of service of notice of demand relating to the assessment or penalty
	In any other case	The date on which intimation or the order, sought to be appealed against, is served.
	<b>Period to be excluded [Sec.268]</b>	
	While calculating the above time limit, the following period shall be excluded -	
	<ul style="list-style-type: none"> <li>a) The day on which order complained of was served; and</li> <li>b) Time required for obtaining a copy of the order, where a copy of the order was not furnished with notice of demand.</li> <li>c) Where an application has been made u/s 270AA (seeking immunity from penalty and prosecution), the period beginning from the date on which the application is made, to the date on which the order rejecting the application is served on the assessee</li> </ul>	
Delay in filing appeal	The belated application can be admitted on sufficient cause being shown.	

1. The equalization levy would come into effect from 01-06-2016 [Notification dated 27-05-2016]

Form of appeal	Form 35 (Mode of filing depends i.e., electronically or in paper form, on mode of filing return of income of the assessee)	
Verification of Form	Form & grounds of appeal must be verified by the person authorised to verify the return of income u/s 140	
Payment of tax before filing of appeal	<p><b>If a return has been filed</b> – Tax as per the return should be paid.</p> <p><b>If no return has been filed</b> – The assessee should pay an amount equal to the advance tax which was payable by him. However, JCIT(A) or CIT(A) may, for any good and sufficient reason (recorded in writing), accept the appeal without payment of such advance tax.</p>	
Fee	Where assessed income as computed by the Assessing Officer is -	
	• Up to ₹ 1,00,000	– ₹ 250
	• Exceeds ₹ 1,00,000 but does not exceed ₹ 2,00,000	– ₹ 500
	• Exceeds ₹ 2,00,000	– ₹ 1,000
	Where the subject matter of appeal is not covered in above cases	
	– ₹ 250	
Procedure	<p><b>1. Fixation of Day &amp; Place:</b> The JCIT (Appeals) or Commissioner (Appeals) shall fix a day and place for the hearing of the appeal, and shall give notice of the same to the appellant and to the Assessing Officer against whose order the appeal is preferred.</p> <p><b>2. Hearing:</b> The appellant (either in person or by an authorised representative) and the Assessing Officer (either in person or by an authorised representative) shall have the right to be heard at the hearing of the appeal.</p> <p><b>Taxpoint:</b> Where the assessee does not insist on a personal hearing the appeal may be decided on the basis of written submission made by him. [Letter No. 277/7/84 of November, 1985]</p> <p><b>3. Adjournment:</b> The JCIT (Appeals) or Commissioner (Appeals) shall have the power to adjourn the hearing of the appeal from time to time.</p> <p><b>4. Inquiry:</b> The JCIT (Appeals) or Commissioner (Appeals) may, before disposing of any appeal, make such further inquiry as he thinks fit, or may direct the Assessing Officer to make further inquiry and report the result of the same to the JCIT (Appeals) or Commissioner (Appeals).</p> <p><b>5. Order:</b> JCIT (Appeals) or Commissioner (Appeals) must dispose of the appeal by passing an order which shall -</p> <ul style="list-style-type: none"> <li>• be in writing;</li> <li>• mention the points for determination;</li> <li>• mention the decision thereon; and</li> <li>• mention the reason for the decision.</li> </ul>	
		<p><b>6. Communication of Order:</b> The JCIT (Appeals) or Commissioner (Appeals) shall communicate the order passed by him to the assessee and to the Principal Chief Commissioner or Chief Commissioner or Principal Commissioner or Commissioner.</p> <p><b>Note:</b> If during pendency of an appeal, provision of any law has changed with retrospective effect, then such changed law shall be applicable on such appeal too. Law amended retrospectively would be a good law for applicability during the pendency of the appeal</p>

Time limit for disposal of appeal	Within one year (if possible) from the end of financial year in which appeal is filed before him or transferred to him.	
Powers of Joint Commissioner (Appeals) or Commissioner (Appeals) u/s 251	1. Against an order of assessment	To confirm, reduce, enhance or annul the assessment
	2. Against an order imposing a penalty	To confirm or cancel such order or vary it so as either to enhance or to reduce the penalty;
	3. Relating to any other case	To pass such orders as he thinks fit.
	<p><b>Notes:</b></p> <ol style="list-style-type: none"> <li>1. The Joint Commissioner (Appeals) or Commissioner (Appeals) may consider and decide any matter arising out of the proceedings in which the order appealed against was passed, notwithstanding that such matter was not raised before the Joint Commissioner (Appeals) or Commissioner (Appeals) by the appellant.</li> <li>2. The Joint Commissioner (Appeals) or Commissioner (Appeals) does not have any power to set a site the assessment for fresh assessment by the Assessing Officer</li> <li>3. The Joint Commissioner (Appeals) or Commissioner (Appeals) shall not enhance an assessment or a penalty or reduce the amount of refund unless the appellant has had a reasonable opportunity of showing cause against such enhancement or reduction.</li> <li>4. An assessment order, which is void ab initio cannot become a valid order simply by virtue of the fact that it has been confirmed by an appellate authority.</li> </ol>	
Withdrawal of appeal	Appeal once filed cannot be withdrawn.	

## Revision u/s 263 -vs.- Revision u/s 264

Sec. 263 of the Income Tax Act, 1961, stands as a custodian, guarding the integrity of the tax assessment process in India. It is a mechanism to rectify orders perceived as both erroneous and prejudicial to the interests of the revenue. There is a virtually parallel provision – Section 264 of the Act, which also empowers the Commissioner to revise any order other than the order under Section 263, passed by an authority subordinate to him, on his own motion or on an application by the assessee for revision.

A comparative study of revision u/s 263 & revision u/s 264 are given here in below:

Basis	Sec. 263	Sec. 264
Which order can be revised	Order, which is prejudicial to the interest of revenue.	Order, which is prejudicial to the interest of assessee.
Proceedings at the motion of	At the own motion of the authorities.	At the own motion of the authorities or on the application of the assessee.
Scope	Revision is possible of the issues which have not been considered and decided in an appeal, i.e., the doctrine of partial merger is applicable	Revision u/s 264 is not possible on any issue if an appeal has been filed, i.e., doctrine of total merger is applicable
Time limit for application	Assessee does not apply	Within 1 year from the date on which the order in question was communicated to the assessee
Time limit for passing a revisional order	2 years from the end of the financial year in which the order sought to be revised was passed.	<ul style="list-style-type: none"> <li>• <i>Where the authorities act on his own motion:</i> within 1 year from the date of original order.</li> <li>• <i>Where the application is made by the assessee:</i> within 1 year from the end of the financial year in which such application is made.</li> </ul>
Fee	Not applicable	₹ 500 where the application for revision is made by the assessee.
Appeal against order	Appeal can be filed to the Tribunal	No appeal can be filed.
Beneficial to	Revenue	Assessee



## Topic

Module 3:  
Decision Making  
Techniques

**FINAL**

**Group III - Paper-16**

Strategic Cost  
Management (SCM)

## Relevant Cost

### Introduction

Relevant cost is a combination of two words i.e. relevant and cost. Relevant means something directly related, connected or pertinent and Cost is defined as the expenditure (actual or notional) incurred on or attributable to a given product or service. Cost can also be described as the resources that have been sacrificed or must be sacrificed to attain a particular objective.

Relevant cost is a management accounting term that refers to costs that are specific to management's decisions. CIMA defines 'costs appropriate to aiding the making of specific management decisions'. In simple terms it can be understood as costs that are relevant for a specific purpose or situation for decision making.

### Features of Relevant Cost

Any cost to be considered as relevant need to satisfy 3 way test. It can be understood by the following diagram 01

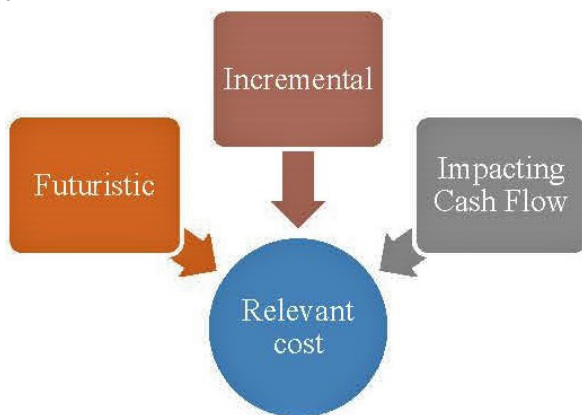


Diagram 01

- Futuristic:** To be relevant, any expenditure needs to be futuristic, as costs already incurred cannot impact the current decision.
- Incremental:** Expenditure that can be incurred or avoided as a result of decision are relevant. In other words, an expenditure to be relevant needs to be incremental.
- Cash Flow:** Items impacting cash flow are relevant and vice versa. E.g. Depreciation is not relevant but disposal value of equipment is relevant.

### Relevance of Relevant Cost

Relevant Cost Analysis enables the decision makers to choose between alternative choices available in situations such as:

- Accept or reject an order when there is excess capacity
- Accept or reject an order when there is no excess capacity
- Outsource a product or service
- Add or drop a product, service or department
- Sell or process further
- Optimization of limited resources or working under constraint.

### Relevant Costs

The categories of costs as shown in Diagram 02 are considered as relevant for the purpose of decision making

- Differential Costs:** Differential Cost is the change in the cost due to change in activity from one level to another.
- Incremental Costs:** Incremental cost is also known as marginal cost, that is a cost associated with producing an additional unit of output. Incremental costs must be compared with incremental revenues to arrive at a decision.



Diagram 02

- Opportunity Costs:** These refer to the cost of opportunity foregone and represent the potential benefits an individual, investor, or business misses out on while choosing one alternative over another. For example, if fixed deposits in the bank are proposed to be withdrawn for financing an expansion project, the opportunity cost would be the loss of interest on the deposits. Similarly, when a building leased out on rent to an outsider,

is got vacated to be used for own purpose to open a factory outlet, the rent so forgone is the opportunity cost

- d. **Avoidable Costs:** The Costs that could have been avoided under given conditions of performance efficiency or should not have been incurred at all are called Avoidable costs. These costs can be eliminated in whole or in part by choosing one alternative over another.
- e. **Replacements Costs:** Replacement cost is the cost of a material or an asset in the current market for the purpose of replacement. This is the cost in the current market for replacing an asset. When replacement cost of material or an asset is being considered, it refers to the cost that would be incurred if the material or the asset is to be purchased at the current market price. The cost, at which material or asset was actually purchased earlier, is not the relevant cost to be considered.
- f. **Imputed Costs:** Imputed costs are hypothetical or notional costs, not involving cash outlay. These are similar to opportunity costs and computed only for the purpose of decision making. For example, when alternative capital investment projects are being considered out of which one or more are to be financed from internal funds, it is necessary to take into account the imputed interest on own funds before a decision is arrived at.
- g. **Out of Pocket Costs:** This portion of cost is associated with an activity that involve cash payment to other parties in near future. Out-of-Pocket Costs are very much relevant in the consideration of price fixation during trade recession or when a make-or-buy decision is to be made. Out-of-Pocket costs can be avoided or saved if a particular proposal under consideration is not accepted.

### Irrelevant Costs

The costs those are not relevant for a specific purpose or situation are called irrelevant costs. The categories of costs as shown in Diagram 03 are considered as Irrelevant for the purpose of decision making:

- a. **Sunk Costs:** Sunk costs are historical costs that are incurred in the past and are not relevant to the decision in a particular situation. Sunk costs are costs that have been incurred for a project and will not be recovered if the project is terminated. E.g., at the time of considering the replacement of a plant, its depreciated book value is irrelevant as the amount

is sunk cost and that is to be written-off at the time of replacement.



Diagram 03

- b. **Committed Costs:** Committed Costs are costs that will be paid in the future, and cannot be changed. Sometimes, the terms “Committed Costs” and “Sunk Costs” are used interchangeably, that is not correct. Sunk cost is already incurred whereas committed cost is not yet incurred but committed to be incurred. A committed cost is an obligation already made that the business cannot get out of. It is also an investment that a business entity has already made and cannot recover by any means.
- c. **Unavoidable Costs:** Unavoidable Costs are costs that are inescapable, hence irrelevant for any decision to be made. These costs are generally fixed in nature, essentially to be incurred, within the limits or norms provided for.
- d. **Absorbed Costs:** Absorbed costs are indirect costs that are absorbed by the product or service. Absorbed fixed costs that do not change due to increase or decrease in level of activity are irrelevant to the decision-making. However, if Fixed Costs are specific, they become relevant for decision-making.

### Problem

A Company assembles bicycles. This year’s expected production is 10,000 units. The Company also makes the Chains for Its bicycles. Its Accountant reports the following costs for making 10,000 Bicycle Chains -

Particulars	Costs per unit ₹	Total for 10,000 units ₹
Direct Materials	4.00	40,000
Direct Manufacturing Labour	2.00	20,000
Power and Utilities (variable)	1.50	15,000
Inspection, Set-Up and Materials Handling		2,000
Machine Rent		3,000
Allocated Fixed Costs of Plant Administration, Insurance, etc.		30,000
<b>Total Costs</b>	<b>1,10,000</b>	

The Company received an offer from an outside vendor for the supply of any number of chains at ₹8.20 per Chain. The following additional information is available:

- Inspection, Set-up and Materials Handling Costs vary with the number of batches in which the Chains are produced. Current batch size is 1000 units.
- The Company hires a machine used to make the Chains. If it chooses to outsource the Chains, machine rent can be avoided.

*Required:*

- (a) Should Vendor's offer of 10,000 units be accepted? What is the net gain/ (loss)? What is the maximum price payable to the Vendor?
- (b) Suppose the Chains were purchased outside, the facilities where the Chains are currently made will be used to upgrade the bicycles by adding Mud Flaps and Reflectors. As a result, the Selling Price of the Bicycles can be increased marginally by ₹20. The Variable Costs of the upgraded version would be ₹18 and additional Tooling Costs of ₹16,000 would be incurred. Help Management in make or buy decision for the Chains, at the anticipated production level of 10,000 units? What is the maximum price payable to the Vendor in this situation?

**Solution:**

(a) Computation of Relevant Costs of own production

Particulars	Nature and Computation	Rupees
Direct Materials	Variable and Relevant = ₹ 4 x 10,000	40,000
Direct Manufacturing labour	Variable and Relevant = ₹2 × 10,000	20,000
Power and Utilities	Variable and Relevant = ₹1.50 × 10,000	15,000
Inspection, Set up etc.	Batch Related Production Costs (given)	2,000
Machine Rent	Specific and Relevant (given)	3,000
Fixed Costs	Specifically incurred = relevant Allocated and Irrelevant	Nil
<b>Total Relevant Costs for own production</b>		<b>80,000</b>

Average Relevant Cost per unit for own production = (₹ 80,000/10,000) = ₹8 per unit

Since Cost of Buying ₹ 8.20 p.u. is higher than Average Relevant Cost ₹ 8, own production is preferable. Hence, the Company should not accept the Vendor's offer.

Maximum Price Payable = Relevant Cost = ₹ 8.00 per unit.

(b) Effect of Alternative use of facilities:

Additional Benefit from upgradation = 10,000 units x (₹20 - 18)	₹ 20,000
Less: Fixed Costs specific to decision	₹ 16,000
<b>Net Additional Benefit</b>	<b>₹ 4,000</b>

Since this benefit will be foregone due to own production of Chains, the relevant cost of own production will then be ₹80,000 (as per (a)) + ₹4,000 (Opportunity Cost) = ₹84,000.

Average Relevant Cost per unit for own production = ₹84,000/10,000 units = ₹8.40 p u

Since Cost of Buying @ ₹8.20 p.u. is less than Average Relevant Cost of ₹8.40, buying the chains is preferable now.

Maximum Price Payable = Relevant Cost = ₹8.40 per unit.

## Topic

Module 11:  
Management  
Audit in Different  
Functions

**FINAL**

**Group IV - Paper-17**

Cost and  
Management Audit  
(CMAD)

## COST AND MANAGEMENT AUDIT

### Management Audit in Different Functions/Audit of Different Service Organisations

**Deep understanding of the Business and related activities, is the most important factor for undertaking any sort of Audit activity viz. Financial, Internal and Management Audit. Keeping in view of the same two service sector cases are given hereunder :**

**A. A Company having its' own Logistic Service Wing with independent operational activities. The Company wants you to guide the Department in operational and activity level controls to rationalize expenditure and maximize earnings from operations.**

The following activities are to be performed by Warehouse Operation Team :

1. Selection of Warehouse ( WH) Locations - Cost benefits for nearness to Market place and/or as per client requirement.
2. Space Hiring - Competitive basis at BOP ( Best Obtainable Price) after considering infrastructural facilities for smooth operational flow.
3. Agreement with space owners/Landlords – To safeguard Business Interest, specify period of occupancy and rights attached thereto.
4. WH Identity No.- No. series and allotment for identification through ERP for facilities at different locations. Identification can also include the entity , product etc. for ease of work.
5. Legal compliance - GST Registration, Municipal Rules etc. for compliance with respect to every facility.
6. Handling Agent (HA) Selection - Process of selecting cost effective Agent with high quality service potential.
7. Agreement on Commission/Fixed Rate, Expense reimbursement for HA - Terms of Agreement

8. Fixing Duties and Responsibilities of HA - Settling terms and conditions for the Job and subsequent payment on fulfilment of contractual obligations.
9. Storage and Up-keep Guideline for respective Products kept in Warehouse - 'Dos' and 'Don'ts' with Stock at WH. The guideline also to include ease of physical verification , ROTA ( Rotational ) count and stock quantity as per book records.
10. Stock Transfer Acknowledgement - Receiving and updating Book Inventory as per own records. In case Client allowed ERP Access to stock recording/ movement and Invoicing rights; deployment of appropriate trained person also need to be considered.
11. Invoicing/ As per System Database - Sale or transfer of Finished Goods to other WH under same clientele. Invoicing Rate Master and transfer authorization with Client organization , only execution rights with limited ERP Access with HA Staff.
12. In case collection at pre and/or post-despatch level is entrusted to WH by Client, then appropriate Register to record all the necessary details like Dealer detail, Invoice Reference, Value received etc.
13. Transporter selection for shipment - Transportation Cost and service quality as criterion for selection. Chargeable freight structure and mark-up fixation w.r.t freight payable to be dealt with utmost care. Organizational authority for any sort of deviation approval also to form part of control mechanism.
14. Transportation and HA Agreement - Terms and conditions and payment including recovery for product loss / mishandling .According to Internal Check and Control Processes, authentication and Authorization of transportation and handling charges for release of payments.
15. Receipt acknowledgement by Buyer - Delivery proof for assessing short and/or non-delivery.
16. In case of own fleet of vehicles, operation and

maintenance cost budget for each Vehicle and for the entire fleet.

17. Monitoring Vehicle-wise actual cost , distance covered and load. Documentary evidence verification i.e fuel bills, driver operator expenses, maintenance charges/bills , Road challan, e-way bill etc.
18. Assigning vehicle for Client load request as per minimum distance for pick-up.
19. Monitoring movement of own fleet through GPS attached with every Vehicle.
20. Compare consumables and fuel consumption against distance covered with loaded and empty vehicle for finding out any abnormality.

**2. ‘Popular Library’ of Readers’ Square is a very old Organization and having about 5000 active readers and more than 4 dozen of employees. The present Managing Committee of the Library wants to install ‘Internal Control System’ to safeguard the organizational interest on purchase of Books, Issue to Members and Custodianship. They contacted you for necessary guidance.**

To avoid wrong selection of Book and giving preference to choice of Readers:

- Proposition from Members for the requirement of specific Books
- Managing Committee approval for ‘list of books’ to be procured
- Approved Budget for purchase of Library Books by Managing Committee
- Selection of Book sellers/Agency/Publisher House for purchases of Books as per approved list of Books
- Approved discount over printed price and pay-term by Library Committee

- Acknowledgement of delivery of Books by Library Staff
- Checking physical condition of Books before approval/acceptance
- Bill approval alongwith physical copy of Acknowledgement of Books delivered/received
- Payment Voucher approval based on Bill Copy and Acknowledgement issued
- Approved Payment Voucher for fund transfer/ release of payment
- Accounting for Payments made in Library Accounts
- ‘Receipt and Payment Account’ indicating value of books purchased
- Preparation of Catalogue with Year of Purchase and tagging of Books with serial number

#### **Member Registration for Library facility Usage (Reading Room and Lending)**

- Application for Library membership to Managing Committee with self-introduction**
- Approval of membership by Managing Committee after validation of Photo ID and signature attestation /authorization for drawing Books(lending)
- Book issue request (serial numbered) with Catalogue reference i.e identification number of Books, Name and Author
- Maximum lending period and penal action (provision for fines for daily default w.r.t return of books)
- Book Issue Slip with serial number containing (in triplicate, One Copy for Library Record, One for borrower, One for Issuing counter) full information i.e catalogue reference, identification number of Books, Name and Author
- Authorization of Issue Slip by Librarian
- Obtaining borrower signature on two copies of issue slip

- For reading Room – 2 Copies of Issue Slip (Borrower and Office)
- Return of Book against borrower copy of Issue Slip only
- Borrower Copy on return of books duly stamped as mark of return of book and the same stamped on office copies also
- Security or Close Circuit Camera to oversee the facility also being maintained
- Penalty, if any, collected at the time of delayed return of book taken to Cashier after preparation of a collection voucher
- Collection voucher raised duly acknowledged by the Member with detail of Identity such as Membership No., Name etc.
- Cashier deposits such collection for delayed return of Books to main cash and accounted for

#### **Custodianship**

- Rack Arrangements (rack identity) with display of Book identity i.e catalogue number, Author etc.
- Physical up-keep of Books in appropriate space/ location already notified for ease of searching
- Book Search facility may be maintained through Computerized Database
- Capitalization and non-Capitalization of Books (Organizational Guideline) Magazine etc. generally not capitalized
- Periodical Physical count of Books against Issue Slips (Borrowing, Reading Room) and Catalogue. Identification of missing books, if any, for appropriate action
- Validation of physical condition of Books (wear & tear, missing pages etc.). Natural wear and tear of Books to be taken care of through binding/re-binding operation. However, catalogue reference number need to be accurate and properly displayed on Books.
- Treatment of Rack, Almirahs etc. with chemicals to reduce possibility of damages by white ant, Rats etc.
- Segregation of Books with special emphasis on (a)rare and out of print, (b)current for proper maintenance
- Rare Books are supposed to be marked for Reading Room only
- Identification of books lost (issued but not returned), mishandling etc. informed to library managing committee for necessary action
- Possibility of recovery against Books lost also can be explored



## Topic

Module 7:  
Recent  
Developments in  
Financial Reporting

**FINAL**

**Group IV - Paper-18**

Corporate Financial  
Reporting (CFR)

## Recent Developments in Corporate Sustainability Reporting

### 1. ICAI releases Sustainability Reporting Maturity Model in line with SEBI BRR/BRSR

The Sustainability Reporting Standards Board (SRSB) of the ICAI released Sustainability Reporting Maturity Model (SRMM) Version 1.0 in March 2021 for making BRR data quantitative by introducing Scoring mechanism.

As BRR is replaced by BRSR in May 2021, ICAI updated SRMM from Version 1 to Version 2 in 2022-23, based on BRSR. It comprises total **300 scores**; by completing the scoring of all three sections and nine principles of the SEBI BRSR, an entity will be able to assess its position and maturity levels in sustainability reporting.

Level	Level 1	Level 2	Level 3	Level 4
Stage	Formative Stage	Emerging Stage	Established Stage	Leading by Example
BRSR Score (Percentage of Grand Total Score)	Up to 25%	> 25% and Up to 50%	> 50% and Up to 75%	> 75%

### ANNEXURE 1 – PROPOSED BRSR SCORING MECHANISM

#### Scoring of Business Responsibility and Sustainability Reporting as per SEBI Circular dated 10th May, 2021

Point No.	Parameters and Indicators of BRSR Framework	Scaling	Section A, B, C - Essential Indicators Score	Leadership Indicators Score	Total
<b>Section A: General Disclosures</b>					
<b>Section A Total</b>			<b>18</b>		<b>18</b>
<b>Section B: Management and Process Disclosures</b>					
<b>Section B Total</b>			<b>24</b>		<b>24</b>
<b>Total of Section A and B</b>			<b>42</b>		<b>42</b>
<b>Section C: Principle Wise Performance Disclosure</b>					
<b>Grand Total Principles 1-9</b>		<b>258</b>			
<b>Grand Total</b>		<b>300</b>	<b>225</b>	<b>75</b>	<b>300</b>

### 2. BRSR Core introduces Key Performance Indicators on 9 ESG attributes.

Based on the recommendations of the ESG Advisory Committee and pursuant to public consultation, the Board decided to introduce the BRSR Core. [Gazette notification no. SEBI/LAD-NRO/GN/2023/131 dated June 14, 2023]. BRSR Core is applicable to top listed companies as stated below:

Financial Year	Applicability of BRSR Core to top listed entities (by market capitalization)
2023 – 24	Top 150 listed entities
2024 – 25	Top 250 listed entities
2025 – 26	Top 500 listed entities
2026 – 27	Top 1000 listed entities

The BRSR Core is a sub-set of the BRSR, consisting of a set of Key Performance Indicators (KPIs) / metrics under 9 ESG attributes.

The KPIs are required to be presented in the format of the BRSR Core Annexure as shown below in a simplified way:

### 1. ESG Attribute: Green-house gas (GHG) footprint

BRSR Core Key Performance Indicators (KPIs) / metrics	Unit	FY _____ (Current Financial Year)	FY _____ (Previous Financial Year)
<b>1. Direct emissions</b> from organization's owned- or controlled sources (Break-up of the GHG into CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O, HFCs, PFCs, SF <sub>6</sub> , NF <sub>3</sub> , if available)	Metric tonnes of CO <sub>2</sub> equivalent		
<b>2. Indirect emissions</b> energy purchased from a utility provider (Break-up of the GHG into CO <sub>2</sub> , CH <sub>4</sub> , N <sub>2</sub> O, HFCs, PFCs, SF <sub>6</sub> , NF <sub>3</sub> , if available)	Metric tonnes of CO <sub>2</sub> equivalent		
<b>3. GHG Emission Intensity</b>			
<b>3a. GHG emissions / Revenue from operations</b>			
<b>3b. Total GHG emissions / Revenue from operations adjusted for PPP</b>	PPP = USD/ INR		
<b>Total Scope 1 and Scope 2 emission intensity in terms of physical output</b>			

### 2. ESG Attribute: Water footprint

<b>1. Total water consumption</b>	Mn Lt or KL		
<b>2. Water consumption intensity</b>	Mn Lt or KL / Rupee adjusted for PPP		
<b>3. Water Discharge by destination and levels of Treatment</b>	Mn Lt or KL		

### 3. ESG Attribute: Energy footprint [Affordable and clean energy]

<b>1. Total energy consumed</b>	In Joules or multiples		
<b>2. % of energy consumed from renewable sources</b>	energy consumed from renewable sources / Total energy consumed		
<b>3. Energy intensity</b>	Joules or multiples/Rupee adjusted for PPP		
<b>3a. Rupees adjusted for ppp</b>			
<b>3b. Product or Service</b>	Joules or multiples/Product or Service		

### 4. ESG Attribute: Embracing circularity - details related to waste management by the entity [Responsible consumption and production]

Plastic waste (A)	Kg / MT		
E-waste (B)	Kg / MT		
Bio-medical waste (C)	Kg / MT		
Construction and demolition waste (D)	Kg / MT		

Battery waste (E)	Kg / MT		
Radioactive waste (F)	Kg / MT		
Other Hazardous waste. Please specify, if any. (G)	Kg / MT		
Other Non-hazardous waste generated (H). Please specify, if any. (Break-up by composition i.e., by materials relevant to the sector)	Kg / MT		
Total waste generated ((A+B + C +D + E + F + G + H)	Kg / MT		
Waste intensity	Kg or MT / Rupee adjusted for PPP		
Each category of waste generated, total waste recovered through recycling, re-using or other recovery operations	Kg or MT / Unit of Product or Service		
Each category of waste generated, total waste recovered through recycling, re-using or other recovery operations	Kg or MT		
For each category of waste generated, total waste disposed by nature of disposal method	Intensity		

#### 5. ESG Attribute: Enhancing Employee Wellbeing and Safety

1. Cost of employees' wellbeing incurred as a % of total revenue of the company.	%		
2. Lost Time Injury Frequency Rate Total number of lost time injuries *10,00,000) / Total No. of working hours			

#### 6. ESG Attribute: Enabling Gender Diversity in Business

1. Gross wages paid to females as % of total wages paid.	%		
2. Complaints on POSH as a % of female employees / workers	%		

#### 7. ESG Attribute: Enabling Inclusive Development

1. Purchases <i>Directly sourced from MSMEs/ small producers and from within India as % of total Purchases</i>	%		
2. Wages paid to persons employed in smaller towns (permanent or non- permanent /on contract) as % of total wage cost			

#### 8. ESG Attribute: Fairness in Engaging with Customers and Suppliers

1. Instances involving loss / breach of data of customers as a percentage of total data breaches or cyber security events	%		
2. Accounts payable *365 / Cost of goods/services procured	%		

#### 9. ESG Attribute: Open-ness of business

1. Purchases from trading houses as % of total purchases	%		
2. Sales to dealers/distributors as % of total sales	%		

#### 3. CSR 2 Form Instruction Kit for eForm CSR-2 (Report on Corporate Social Responsibility (CSR)) (b)(i)

##### Details of CSR amount spent against ongoing projects for the financial year:

(b)(i) Details of CSR amount spent against ongoing projects for the financial year	Enter the number of Ongoing Projects for the financial year. Activity as selected from Annexure A. Amount spent in the Activity in the Financial Year (in ₹)
------------------------------------------------------------------------------------	--------------------------------------------------------------------------------------------------------------------------------------------------------------------

In the new frontiers of corporate reporting outside the scope of financial reporting there are both encouragement for voluntary reporting and provision for mandatory reporting to serve the information needs of all stakeholders, with enhanced objectivity for quantitative measurement in a given format.

## Topic

Module 8:  
E-way Bill

**FINAL**

**Group IV - Paper-19**

**Indirect Tax Laws  
and Practice (ITLP)**

## E-WAY BILL

**T**he e-way bill, or electronic way bill, is a crucial document under the Goods and Services Tax (GST) regime in India. It is required for the movement of goods worth more than ₹ 50,000<sup>1</sup>. The e-way bill system was introduced to ensure compliance with GST laws and to facilitate the tracking of goods in transit.

### Purpose and Importance

The primary purpose of the e-way bill is to ensure that goods being transported comply with GST regulations. It helps in reducing tax evasion and ensures that the correct amount of tax is paid on the goods being transported. The e-way bill system also aims to streamline the transportation process and reduce the time and effort required for compliance.

### Components of an E-Way Bill

An e-way bill consists of two parts:

1. **Part A:** This part contains details about the consignment, such as:
  - GSTIN of the recipient
  - Place of delivery (PIN Code)
  - Invoice or challan number and date
  - Value of goods
  - HSN code
  - Reason for transportation
2. **Part B:** This part contains details about the transporter, such as:
  - Vehicle number
  - Transporter ID

### Generation of E-Way Bill

The e-way bill can be generated through the e-Way Bill System by registered GST users or transporters. Here

are the steps to generate an e-way bill:

1. **Login:** Access the e-Way Bill System and log in using your credentials.
2. **Enter Details:** Fill in the required details in Part A and Part B of the e-way bill form.
3. **Generate:** Once the details are entered, click on the 'Generate' button to create the e-way bill.
4. **Print:** The generated e-way bill can be printed and should be carried along with the goods during transportation.

### Validity of E-Way Bill

The validity of an e-way bill depends on the distance the goods need to be transported. The validity period is calculated from the date and time of generation of the e-way bill. Here is a general guideline for the validity:

Type of conveyance	Distance	Validity of EWB
Other than Over dimensional cargo	Less Than 200 Kms	1 Day
	For every additional 200 Kms or part thereof	additional 1 Day
For Over dimensional cargo	Less Than 20 Kms	1 Day
	For every additional 20 Kms or part thereof	additional 1 Day

### Exceptions and Exemptions

There are certain exceptions and exemptions to the requirement of an e-way bill:

- a. where the goods being transported are specified in Annexure;

#### *Taxpoint*

- Liquefied petroleum gas for supply to household and Non domestic exempted category (NDEC) customers

<sup>1</sup> The limit varies from state to state

- Kerosene oil sold under PDS
  - Postal baggage transported by Department of Posts
  - Natural or cultured pearls and precious or semi-precious stones; precious metals and metals clad with precious metal (Chapter 71)
  - Jewellery, goldsmiths' and silversmiths' wares and other articles (Chapter 71)
  - Currency
  - Used personal and household effects
  - Coral, unworked (0508) and worked coral (9601)
- b. where the goods are being transported by a Non-motorised conveyance;
- c. where the goods are being transported from the customs port, airport, air cargo complex and land customs station to an inland container depot or a container freight station for clearance by Customs;
- d. in respect of movement of goods within such areas as are Notified under clause (d) of sub-rule (14) of rule 138 of the State or Union territory Goods and Services Tax Rules in that particular State or Union territory;
- e. where the goods, other than de-oiled cake, being transported, are specified in the Schedule appended to Notification No 2/2017- Central tax (Rate) dated the 28th June, 2017 published in the Gazette of India, Extraordinary, Part II, Section 3, Sub-section (i), vide number G.S.R 674 (E) dated the 28th June, 2017 as amended from time to time;
- f. where the goods being transported are alcoholic liquor for human consumption, petroleum crude, high speed diesel, motor spirit (commonly known as petrol), natural gas or aviation turbine fuel;
- g. where the supply of goods being transported is treated as No supply under Schedule III of the Act;
- h. where the goods are being transported-
- i. under customs bond from an inland container depot or a container freight station to a custom sport, airport, air cargo complex and land customs station, or from one customs station or customs port to another customs station or customs port, or
  - ii. under customs supervision or under customs seal;
- i. where the goods being transported are transit cargo from or to Nepal or Bhutan;
- j. where the goods being transported are exempt from tax under Notification No 7/2017-Central Tax(Rate), dated 28th June 2017 published in the Gazette of India, Extraordinary, Part II, Section 3, Sub-section (i), vide number G.S.R 679(E)dated the 28th June, 2017 as amended from time to time and Notification No 26/2017 Central Tax(Rate), dated the 21st September, 2017 published in the Gazette of India, Extraordinary, Part II, Section 3, Sub-section (i), vide number G.S.R 1181(E)dated the 21st September, 2017 as amended from time to time;
- k. any movement of goods caused by defence formation under Ministry of defence as a consignor or consignee;
- l. where the consignor of goods is the Central Government, Government of any State or a local authority for transport of goods by rail;
- m. where empty cargo containers are being transported; and
- n. where the goods are being transported upto a distance of twenty kilometers from the place of the business of the consignor to a weighbridge for weighment or from the weighbridge back to the place of the business of the said consignor subject to the condition that the movement of goods is accompanied by a delivery challan issued in accordance with rule 55.

- o. where empty cylinders for packing of liquefied petroleum gas are being moved for reasons other than supply.

### Benefits of E-Way Bill System

The e-way bill system offers several benefits:

- 1. Reduction in Tax Evasion:** By ensuring that all goods in transit are accounted for, the e-way bill system helps in reducing tax evasion.
- 2. Ease of Compliance:** The online system makes it easier for businesses to comply with GST regulations.
- 3. Transparency:** The system provides transparency in the movement of goods and helps in tracking consignments.
- 4. Efficiency:** The e-way bill system reduces the time and effort required for compliance, making the transportation process more efficient.

### Challenges and Issues

Despite its benefits, the e-way bill system has faced some challenges:

- 1. Technical Glitches:** The online system has experienced technical glitches, causing delays in the generation of e-way bills.
- 2. Compliance Burden:** Small businesses and transporters have found it challenging to comply with the e-way bill requirements due to a lack of resources and technical know-how.

- 3. Interstate Variations:** Different states have different rules and procedures for the e-way bill, leading to confusion and compliance issues.

### Recent Updates and Amendments

The government has made several updates and amendments to the e-way bill system to address these challenges and improve its efficiency. Some of the recent updates include:

- 1. Auto Calculation of Distance:** The system now auto-calculates the distance between the source and destination based on the PIN codes entered.
- 2. Blocking of E-Way Bill Generation:** If a taxpayer has not filed their GST returns for two consecutive tax periods, they will be blocked from generating e-way bills.
- 3. Extension of Validity:** The validity of the e-way bill can be extended if the goods cannot be transported within the original validity period due to exceptional circumstances.

### Conclusion

The e-way bill is a significant step towards ensuring compliance with GST laws and improving the efficiency of the transportation process. While it has faced some challenges, the government has been proactive in addressing these issues and making necessary updates to the system. As businesses and transporters become more familiar with the e-way bill requirements, the system is expected to become more streamlined and effective.



## Topic

Module 2:  
Performance  
Measurement,  
Evaluation and  
Improvement Tools

## ELECTIVES

### Paper-20A

Strategic  
Performance  
Management and  
Business  
Valuation (SPMBV)

## Module 1: Performance Measurement, Evaluation and Improvement Tools

### Demerits of DCF:

The Discounted Cash Flow (DCF) approach is a widely used financial valuation method that estimates the value of an investment based on its expected future cash flows, which are adjusted for the time value of money. While the DCF model has become a staple in finance and investment analysis, it is not without its shortcomings. This essay aims to explore the various demerits associated with the DCF approach, providing a critical examination of its limitations and potential pitfalls. We will also consider real-world implications and illustrate these concepts through a relevant case study.

### Introduction to the Discounted Cash Flow Approach

The DCF approach hinges on the principle that money today is worth more than the same amount in the future due to its potential earning capacity. The fundamental formula involves estimating future cash flows, discounting them back to present value using an appropriate discount rate, and summing them to derive the net present value (NPV). The simplicity of this concept belies the complexities involved in its practical application, which can lead to significant inaccuracies and misleading results.

### Core Demerits of the DCF Approach

#### 1. Dependence on Forecasts

One of the primary demerits of the DCF approach is its reliance on cash flow projections, which can be notoriously difficult to estimate accurately. Predicting future cash flows involves making assumptions about revenue growth, expenses, capital expenditures, and working capital requirements. These forecasts are inherently uncertain and can be influenced by a myriad of factors, including market conditions, competition, and regulatory changes.

#### Case Study: A Retail Chain

Consider a retail chain that employs the DCF approach to evaluate the potential acquisition of a new store. Analysts may project future cash flows based on

historical performance and market trends. However, unforeseen events, such as economic downturns or shifts in consumer preferences, can significantly impact these projections. If the forecasts are overly optimistic, the resulting valuation may inflate the investment's attractiveness, leading to poor decision-making.

#### 2. Sensitivity to Assumptions

The DCF model is highly sensitive to the assumptions made regarding the discount rate and cash flow estimates. A slight variation in these inputs can lead to substantial changes in the calculated NPV. This sensitivity can create a false sense of precision, making it easy for analysts to overlook the inherent uncertainties.

#### Example of Sensitivity Analysis

For instance, if a company estimates future cash flows of \$1 million for five years and uses a discount rate of 10%, the NPV calculation may yield a positive result. However, if the discount rate is adjusted to 12%, the NPV could turn negative, leading to a completely different investment decision. This sensitivity underscores the importance of robust scenario analysis, yet many analysts fail to adequately explore alternative scenarios.

#### 3. Difficulty in Determining the Appropriate Discount Rate

Selecting the right discount rate is crucial for accurate DCF valuation, yet it poses significant challenges. The discount rate should reflect the investment's risk profile, incorporating factors such as market risk, the company's cost of capital, and industry-specific risks. However, determining an appropriate rate can be subjective and fraught with challenges.

#### The Capital Asset Pricing Model (CAPM)

Many practitioners utilize the Capital Asset Pricing Model (CAPM) to determine the discount rate. While CAPM provides a framework, it relies on assumptions regarding market efficiency and investor behavior, which may not hold true in real-world scenarios. Consequently, using an inappropriate discount rate can lead to substantial valuation errors.

#### 4. Treatment of Non-Financial Factors

The DCF approach primarily focuses on quantitative financial metrics, often neglecting qualitative factors that can influence a company's performance. Non-financial aspects, such as brand strength, customer loyalty, and management effectiveness, are crucial for a comprehensive valuation but are typically challenging to quantify within a DCF framework.

##### Example: A Technology Firm

Consider a technology firm known for its innovative products and strong brand identity. A DCF analysis may reveal a favorable NPV based on cash flow projections. However, if the analysis disregards the firm's intangible assets, such as intellectual property and customer relationships, it may undervalue the company's true worth. Consequently, investors might overlook the qualitative aspects that drive long-term success.

#### 5. Ignoring Market Conditions

The DCF approach often fails to adequately account for prevailing market conditions and investor sentiment. Market dynamics can significantly influence a company's future cash flows and risk profile, yet the DCF model typically assumes a static environment. This limitation can lead to misguided valuations, particularly in volatile markets.

##### Case Study: The Dot-Com Bubble

During the late 1990s, many technology companies were valued using the DCF approach despite the market's speculative nature. Analysts often projected extravagant future cash flows based on unrealistic growth rates. When the dot-com bubble burst, these valuations proved to be grossly inflated, leading to significant losses for investors. This example highlights the need for incorporating market dynamics into valuation models.

#### 6. Complexity in Long-Term Forecasting

The DCF approach requires cash flow projections over an extended period, often spanning several years or

even decades. The further into the future one attempts to forecast, the greater the uncertainty becomes. Long-term predictions are inherently speculative and can be influenced by numerous unpredictable factors, such as technological advancements or shifts in consumer behavior.

##### Example: Renewable Energy Investments

In the renewable energy sector, companies may use DCF models to evaluate large-scale projects, such as solar farms or wind farms, that have long development timelines. While the initial cash flows may be estimated, the subsequent years could be affected by regulatory changes, technological breakthroughs, or competitive pressures, rendering initial forecasts unreliable. This unpredictability can lead to over- or underestimating the project's viability.

#### 7. Exclusion of Capital Expenditures

While the DCF approach focuses on cash flows, it often inadequately addresses capital expenditures (CapEx) required for maintaining or expanding a business. Failure to factor in necessary investments can lead to an overestimation of cash flows and, consequently, inflated valuations.

##### Case Study: Manufacturing Sector

A manufacturing company may project strong cash flows based on current operations but fail to account for the need to upgrade machinery or facilities to remain competitive. If future capital expenditures are not included in the DCF analysis, the resulting valuation may be misleading, potentially leading to suboptimal investment decisions.

#### 8. Misalignment with Real-World Decisions

The DCF approach is fundamentally a theoretical model that may not always align with real-world decision-making processes. Investors and managers often rely on heuristic methods, market comparisons, or qualitative assessments when making investment decisions, which may diverge from the disciplined calculations of the DCF model.

**Example: Behavioral Biases**

Behavioral finance highlights that investors may be influenced by cognitive biases, such as overconfidence or loss aversion, when evaluating investment opportunities. These biases can lead to decisions that deviate from rational DCF valuations, further complicating the practical application of the model.

**9. Limited Applicability for Startups**

The DCF approach is often less effective for startups or early-stage companies that do not have a history of stable cash flows. Valuing such firms typically relies on speculative projections and assumptions, making the DCF model less reliable in these contexts.

**Case Study: Tech Startups**

Consider a tech startup that is rapidly innovating but has yet to generate significant revenue. Analysts may attempt to use the DCF approach to estimate the company's value based on projected future cash flows. However, the inherent uncertainties associated with startup ventures, including market adoption and competitive landscape, can render DCF valuations highly speculative and unreliable.

**10. Shortcomings in Risk Assessment**

The DCF approach often oversimplifies risk assessment by focusing primarily on financial metrics. While quantitative risk measures are essential, they may overlook qualitative risks, such as reputational damage or regulatory changes, which can have profound impacts on an investment's viability.

**Example: Pharmaceutical Industry**

In the pharmaceutical sector, companies invest heavily in research and development with uncertain outcomes. A DCF analysis may project significant future cash flows from a successful drug launch. However, if the analysis fails to consider the risks associated with regulatory approval, patent expirations, or competitive drugs, the resulting valuation may be misleading, exposing investors to significant risks.

While the Discounted Cash Flow approach serves as a valuable tool for financial valuation, it is essential to acknowledge its inherent demerits. The reliance on uncertain cash flow forecasts, sensitivity to assumptions, challenges in determining the appropriate discount rate, and neglect of qualitative factors all contribute to the potential inaccuracies associated with this method. Moreover, the complexity of long-term forecasting, exclusion of capital expenditures, misalignment with real-world decision-making, and limitations in applicability for startups further underscore the need for caution when employing the DCF approach.

Ultimately, the DCF model should be used in conjunction with other valuation methods and qualitative assessments to provide a more comprehensive picture of an investment's potential. By recognizing the limitations of the DCF approach and adopting a more holistic valuation strategy, investors and analysts can mitigate risks and make more informed decisions in the dynamic world of finance.

**Module 1: Performance Measurement, Evaluation and Improvement Tools****Performance Improvement Tools: A Comprehensive Exploration**

In the rapidly evolving landscape of business and organizational management, performance improvement tools are critical for enhancing efficiency, productivity, and overall effectiveness. This essay delves into a variety of performance improvement tools, explores the latest thinking in the field, and examines a case study to illustrate the application of these tools in practice.

**Introduction to Performance Improvement Tools**

Performance improvement tools encompass a wide range of methodologies, frameworks, and technologies aimed at analyzing and enhancing organizational performance. These tools are employed across various sectors, including manufacturing, healthcare, education, and services, to streamline processes, reduce waste, and ultimately achieve better outcomes. The necessity for continuous improvement is underscored by the dynamic nature of today's business environment, where

competition is fierce and customer expectations are perpetually evolving.

## Historical Context

The origins of performance improvement can be traced back to early management theories. Pioneers like Frederick Taylor, with his principles of Scientific Management, emphasized the importance of efficiency and productivity. Over time, various methodologies emerged, including Total Quality Management (TQM), Lean Manufacturing, and Six Sigma, each contributing unique perspectives and tools for performance enhancement. In recent years, the integration of technology and data analytics has revolutionized these traditional approaches, leading to the development of contemporary performance improvement tools.

## Core Performance Improvement Tools

### 1. Lean Management

Lean Management is a philosophy focused on minimizing waste while maximizing value. Rooted in the Toyota Production System, Lean employs various tools, such as Value Stream Mapping, 5S (Sort, Set in order, Shine, Standardize, Sustain), and Kaizen (continuous improvement). Lean encourages organizations to scrutinize every process and eliminate non-value-adding activities. The latest thinking in Lean management emphasizes the importance of a culture of continuous improvement and employee involvement, extending beyond manufacturing into service sectors and even healthcare.

### 2. Six Sigma

Six Sigma is a data-driven methodology aimed at reducing defects and improving quality. Utilizing a set of quality management methods, Six Sigma focuses on process improvement and variation reduction. The DMAIC (Define, Measure, Analyze, Improve, Control) framework is central to this approach. The latest trends in Six Sigma include the integration of Agile methodologies, which allows organizations to respond swiftly to changes while maintaining quality standards.

### 3. Agile Methodology

Originally developed for software development, Agile has gained traction in various industries as a performance improvement tool. Agile focuses on iterative progress, customer collaboration, and flexibility. By fostering a culture of responsiveness and adaptability, Agile encourages teams to prioritize tasks

effectively, ensuring that resources are allocated where they are most needed. The latest thinking highlights the role of cross-functional teams and continuous feedback loops in enhancing performance.

### 4. Key Performance Indicators (KPIs)

KPIs are quantifiable measures used to evaluate the success of an organization in achieving its objectives. By identifying and tracking relevant KPIs, organizations can gain insights into their performance, make informed decisions, and align activities with strategic goals. Recent developments emphasize the importance of aligning KPIs with broader organizational goals and ensuring that they are actionable and understandable for all stakeholders.

### 5. Data Analytics and Business Intelligence

The advent of big data has transformed performance improvement practices. Data analytics tools enable organizations to collect, analyze, and interpret vast amounts of information, leading to informed decision-making. Predictive analytics, machine learning, and artificial intelligence (AI) are now integral to identifying trends, forecasting outcomes, and uncovering opportunities for improvement. The latest thinking advocates for democratizing data access across the organization to empower employees at all levels to make data-driven decisions.

### 6. Performance Management Systems

Performance management systems encompass various tools and processes designed to monitor and evaluate employee performance and organizational effectiveness. These systems often include performance appraisals, feedback mechanisms, and development plans. Recent trends emphasize continuous performance management over traditional annual reviews, fostering a culture of ongoing feedback and professional growth.

## Case Study: Implementing Lean Management at a Healthcare Facility

To illustrate the practical application of performance improvement tools, consider the case of a mid-sized healthcare facility in the United States that implemented Lean Management principles to enhance patient care and operational efficiency.

### Background

The healthcare facility was experiencing challenges, including long patient wait times, high rates of patient

readmission, and overall dissatisfaction among both patients and staff. Management recognized the need for a systematic approach to address these issues and sought to implement Lean principles.

### Implementation

The facility began its Lean journey by forming a cross-functional team comprising doctors, nurses, administrative staff, and patients. This team conducted a Value Stream Mapping exercise to visualize the patient journey, identifying bottlenecks and waste within the process.

#### Key steps included:

**Mapping the Current State:** The team mapped the entire patient flow from admission to discharge, pinpointing delays and non-value-adding activities.

**Identifying Waste:** Through the mapping process, they identified several forms of waste, including excess waiting times, unnecessary paperwork, and duplicated tests.

**Implementing 5S:** The team applied the 5S methodology to streamline operations in key areas, such as the emergency department and outpatient clinics. This involved organizing tools and equipment, standardizing processes, and ensuring a clean and safe environment.

**Continuous Improvement (Kaizen):** Monthly Kaizen events were held to encourage staff to suggest improvements. This empowered employees and fostered a culture of ownership and accountability.

### Results

The implementation of Lean Management yielded significant improvements:

**Reduced Wait Times:** Patient wait times decreased by 30%, leading to higher satisfaction rates.

**Lower Readmission Rates:** The facility reported a 20% reduction in readmissions within 30 days of discharge, reflecting improved patient care.

**Employee Engagement:** Staff morale improved due to their involvement in the process, leading to reduced turnover rates.

The case study demonstrates the effectiveness of Lean Management as a performance improvement tool in the healthcare sector. By fostering a culture of continuous improvement and engaging employees at all levels, the facility was able to enhance patient care and operational efficiency significantly.

### Latest Thinking in Performance Improvement

As the field of performance improvement continues to

evolve, several key trends are shaping its future:

#### 1. Integration of Technology

The increasing integration of technology into performance improvement practices is paramount. Organizations are leveraging AI and machine learning to automate data analysis, identify trends, and make predictive decisions. This technological evolution enables organizations to respond to changes more swiftly and effectively.

#### 2. Emphasis on Employee Engagement

Recent thinking highlights the importance of employee engagement in performance improvement. Engaged employees are more likely to contribute to continuous improvement efforts, driving innovation and efficiency. Organizations are focusing on creating an inclusive culture where employees feel valued and empowered to share their ideas.

#### 3. Holistic Approach to Performance

There is a growing recognition that performance improvement should not be limited to operational metrics. A holistic approach encompasses customer satisfaction, employee well-being, and organizational culture. Performance improvement tools are increasingly designed to address these interconnected elements, leading to sustainable success.

#### 4. Focus on Sustainability

As organizations face increasing pressure to operate sustainably, performance improvement tools are being adapted to address environmental and social responsibilities. This includes measuring sustainability metrics and integrating them into performance management systems, ensuring that organizations are not only efficient but also socially responsible.

Performance improvement tools are essential for organizations seeking to enhance their effectiveness and respond to the complexities of the modern business environment. By leveraging methodologies such as Lean Management, Six Sigma, Agile, and data analytics, organizations can drive continuous improvement and achieve better outcomes. The case study of a healthcare facility illustrates the practical application of these tools, showcasing their potential to transform operations and improve patient care. As the field evolves, the integration of technology, emphasis on employee engagement, and a holistic approach to performance will continue to shape the future of performance improvement. Embracing these trends will enable organizations to not only survive but thrive in an increasingly competitive landscape.

## Topic

Module 3:  
Credit Risk and  
Liquidity Risk

Module 7:  
Insurance  
Intermediaries,  
General Insurance,  
Health Insurance  
and Life Insurance

## ELECTIVES

### Paper-20B

Risk Management  
In Banking and  
Insurance (RMBI)

## Credit Risk and Liquidity Risk

Credit Risk is defined as the likelihood of incurring a loss as a consequence of a borrower's inability to fulfil payment obligations on any form of debt. The discipline of credit risk management encompasses the strategies employed to mitigate potential losses through the evaluation of borrowers' credit risk profiles, which include their payment history and financial capacity. This task has historically posed significant challenges for financial institutions.

The perpetuation of global economic downturns, the relentless advancement of digital technologies, recent innovative developments in the technological landscape, and the escalating integration of artificial intelligence within the banking sector have sustained the prominence of credit risk management. Consequently, regulatory bodies persistently demand enhanced transparency and superior capabilities within this domain. They seek assurance that financial institutions possess a comprehensive understanding of their customers and the credit risks associated with them. Moreover, as the Basel regulatory framework continues to evolve, banks are likely to encounter an even more substantial regulatory burden.

In order to adhere to the continuously evolving regulatory landscape and to enhance risk management practices, numerous banks are fundamentally revising their strategies pertaining to credit risk. However, institutions that regard this as merely a compliance-related activity are exhibiting a limited perspective. Enhanced credit risk management offers an advantageous opportunity to bolster overall institutional performance and secure a competitive edge.

### Challenges to effective Credit Risk Management include:

- Suboptimal data management. The inability to procure the requisite data in a timely manner results in significant delays.
- Absence of a comprehensive, organization-wide risk modelling framework. In the lack of such a framework, financial institutions are unable to produce intricate and meaningful risk metrics that provide a holistic view of the organization's risk exposure.

- Frequent redundancy in work processes. Analysts face difficulties in modifying model parameters, leading to excessive duplication of efforts and adversely impacting the institution's efficiency metrics.
- Inadequate risk management tools. In the absence of a robust risk management solution, financial institutions are incapable of identifying portfolio concentrations or adjusting portfolio ratings with sufficient frequency to effectively oversee risk.
- Laborious reporting processes. Manual and spreadsheet-based reporting mechanisms impose undue strain on analysts and information technology resources.

Best practices in credit risk management necessitate that the initial step involves acquiring a comprehensive understanding of a bank's overall credit risk by analysing risk at both the individual customer and portfolio levels.

While financial institutions endeavour to cultivate an integrated comprehension of their risk profiles, pertinent information is frequently dispersed across various business units. In the absence of a comprehensive risk assessment, banks lack the means to ascertain whether capital reserves are indicative of actual risks or if loan loss reserves sufficiently mitigate potential short-term credit losses. Such vulnerable banking institutions become prime candidates for rigorous scrutiny from regulators and investors, as well as facing potentially crippling financial losses.

The fundamental strategy for minimizing loan losses, while ensuring that capital reserves are appropriately aligned with the risk profile lies in the implementation of an integrated, quantitative credit risk solution. This solution is designed to facilitate the rapid operationalization of banks through straightforward portfolio metrics, while also providing a framework for the adoption of more advanced credit risk management strategies as requirements evolve. The solution should encompass:

- Enhanced model management that covers the entire modelling life cycle.



- Real-time scoring and monitoring of limits.
- Comprehensive stress-testing capabilities.
- Data visualization features and business intelligence tools that ensure critical information is accessible to stakeholders when needed.

### Liquidity Risk:

Liquidity is defined as a financial institution's capacity to fulfil its cash and collateral obligations without incurring unacceptable financial detriments. Liquidity risk denotes the potential jeopardy posed to a bank's financial stability or viability arising from its inability to satisfy its obligations, whether those be actual or merely perceived. Institutions mitigate their liquidity risk through proficient asset liability management (ALM).

In light of the recent extended period characterized by historically low and stable interest rates, financial institutions of various types and sizes have tended to underestimate the significance of liquidity and balance sheet management. However, as interest rates escalated and uncertainty intensified, numerous institutions encountered challenges in maintaining sufficient liquidity and an appropriate balance sheet framework, primarily due to deposit attrition and discrepancies in portfolio duration.

Liquidity risk was further intensified by a decline in asset values associated with the tightening of monetary policy. Deficient balance sheet management precipitated highly publicized bank failures and an increased awareness of liquidity risks.

In the outcome of these bank failures, it became evident that banks and capital markets firms must enhance their management of liquidity and balance sheets. Furthermore, self-preservation is not the sole impetus for such improvements. The consequences of ineffective asset liability management and liquidity risk oversight can extend well beyond the confines of any singular financial institution, potentially engendering a contagion effect that impacts the entire financial system and even the global economy.

Regulatory authorities are resolutely focused on averting the recurrence of another financial crisis, resulting in

sharp scrutiny of liquidity management practices. The responsibility now rests with financial institutions to fortify their liquidity risk management and balance sheet oversight, benefiting both the firm and the broader economy.

Liquidity risk management is defined as encompassing the processes and strategies employed by a bank to:

- Ensure that a balance sheet generates a desired net interest margin while safeguarding the institution from excessive risks associated with interest rate fluctuations, credit risk, prepayment behaviours, and deposit attrition.
- Plan and contrive a balance sheet that incorporates an appropriate amalgamation of assets and liabilities to optimize the institution's risk/return profile in the future.
- Evaluate its capacity to address cash flow and collateral requirements (under both typical and stressed conditions) without adversely impacting daily operations, overall financial health, or public perception.
- Mitigate risk through the formulation of strategies and the implementation of suitable actions to guarantee that requisite funds and collateral are accessible as needed.

### The Function of Balance Sheet Management:

Balance sheet management, facilitated by strategic ALM, refers to the systematic process of managing and optimizing assets, liabilities, and cash flows to fulfil both current and prospective obligations. Effective ALM not only safeguards financial institutions against the perils associated with declining net interest margins and funding shortages, it simultaneously presents an opportunity to enhance value by optimizing the trade-off between risk and reward.

Robust Asset Liability Management comprehensively encompasses portfolio accounting, analytics, and optimization. It relies on a comprehensive array of instruments for transaction capture, forecasting, interest rate risk evaluation, stress testing, liquidity modelling, and behavioural analytics.

## Insurance Intermediaries (General Insurance, Health Insurance and Life Insurance)

**I**nsurance Intermediaries - Insurance intermediaries play a pivotal role in the facilitation of insurance procurement, offering complementary services to both insurance providers and consumers within the broader insurance acquisition framework. Historically, these intermediaries have been classified into two primary categories:

- Insurance Agents and
- Insurance Brokers.

The differentiation between these two categories is fundamentally based on their operational dynamics within the marketplace.

**Insurance Agents** Insurance agents are generally licensed professionals authorized to conduct transactions on behalf of insurance companies. These agents function as representatives of the insurer throughout the insurance process and typically operate under the stipulations of an agency agreement established with the insurer. The relationship between insurers and agents can manifest in several distinctive forms.

In certain markets, agents may be classified as “independent,” working with multiple insurance companies (although usually a limited number); in contrast, in other markets, agents may operate in an exclusive capacity, either representing a single insurance company within a specific geographic region or selling a singular line of business across several companies. Agents can engage in various operational models, including independent, exclusive, insurer-employed, and self-employed configurations.

**Insurance Brokers** Insurance brokers predominantly advocate for the policyholder throughout the insurance process, maintaining an independent stance concerning insurers. Brokers facilitate clients’ decision-making processes regarding insurance by providing a range of alternatives involving insurers and products. Acting as the “agent” for the purchaser, brokers typically collaborate with numerous companies to secure

coverage for their clients. Brokers are responsible for obtaining quotations from diverse insurers and assist clients in identifying the most suitable policy from an array of offerings.

In certain markets, brokers may be differentiated based on the types of insurance they are licensed to intermediate, encompassing all lines of insurance, property and casualty, or life/health coverage. While the majority of brokers, if not all, engage actively in commercial lines, a subset also intermediates personal lines policies. Furthermore, a distinction exists between “retail brokers,” who engage directly with consumers to negotiate insurance contracts, and “wholesale brokers,” who negotiate such contracts with retail brokers and agents, without direct interaction with consumers.

Reinsurance brokers engage in the solicitation, negotiation, and sale of reinsurance cessions and retrocessions on behalf of ceding insurers seeking coverage from reinsurers. Additionally, reinsurance brokers may participate in the retrocession of portions of risk on behalf of reinsurers.

From a technical perspective, the role of a broker may evolve throughout an insurance transaction and during the course of an ongoing client relationship. Frequently, brokers may alternate between acting as an “agent” for the insurer and functioning as a “broker” for the client when assisting in the mitigation of risk exposures via an insurance contract with a traditional insurer.

For instance, the broker represents the client during the negotiation of the insurance contract and the placement of the policy. When the broker undertakes responsibilities that would typically be managed directly by the insurance company, such as processing premium payments and handling claims, the broker effectively assumes the role of an agent for the company. This distinctive paradigm enhances the efficiency of the insurance process for both the policyholder and the insurer.

As a practical consideration, irrespective of the legal capacity in which a broker operates, the methodology employed by the broker in managing all such placements for their clientele is fundamentally that of an intermediary, engaging on behalf of their clients to enable the execution of insurance agreements with carriers endowed with the requisite ability and capacity to adequately underwrite their risks.

Nevertheless, ascertaining whether an intermediary is legally classified as an agent or broker is not invariably straightforward. The determination of an intermediary's status is contingent upon the comprehensive assessment of the particular facts pertaining to the transaction in question. An intermediary may be designated as a "broker," yet concurrently represent the insurance entity in a specific transaction. In such instances, the broker is, in both practical and legal terms, regarded as the agent of the company rather than that of the client. Although this activity-based perspective is increasingly prevalent globally, the legal classification of insurance intermediaries exhibits considerable variability across the international insurance landscape. For the purposes of this memorandum, the term "intermediary" encompasses insurance agents, brokers, producers, advisors, and consultants.

### **The Role of Insurance Intermediaries:**

As entities possessing extensive knowledge of the insurance market, including products, pricing, and providers, combined with a refined understanding of the needs of insurance consumers, intermediaries fulfil a distinctive and multifaceted role within the insurance markets specifically and, more broadly, within the operational framework of national and international economies.

Intermediary actions contribute positively to the overall economic landscape at both national and international strata. The significance of insurance in sustaining the health of the economy is well-recognized.

In the absence of the risk mitigation that insurance affords, commercial activities would decelerate, potentially coming to a complete standstill, thereby

inhibiting or obliterating economic expansion and the financial advantages to businesses and individuals that such growth yields.

The contribution of insurance intermediaries to the overarching economy is fundamentally one of rendering insurance, along with other risk management instruments, widely accessible, thus amplifying the beneficial impacts of insurance in general such as risk-taking, investment, provision of essential societal services, and economic advancement.

Several factors that intermediaries introduce to the insurance marketplace serve to enhance the general availability of insurance:

#### **Innovative Marketing:**

Insurance intermediaries introduce cutting-edge marketing strategies within the insurance marketplace. This approach deepens and diversifies insurance markets by elevating consumers' awareness of the protections afforded by insurance, their cognizance of the vast array of insurance alternatives, and their comprehension of how to procure the insurance they require.

#### **Dissemination of Information to Consumers:**

Intermediaries furnish clients with the essential information requisite for making informed purchases and decisions. They can elucidate what a consumer necessitates and delineate the various options concerning insurers, policies, and pricing. Confronted with an informed client base possessing multiple choices, insurers are incentivized to provide policies that align with their customers' needs at competitive rates.

#### **Dissemination of Information to the Marketplace:**

Intermediaries collect and analyse data pertaining to placements, premiums, and claims history. When such information is integrated with an intermediary's comprehension of the demands of its clientele, the intermediary is optimally positioned to advocate for and facilitate the creation of novel and pioneering insurance products as well as to establish markets

that were previously non-existent. Furthermore, the dissemination of knowledge and the expansion of markets both domestically and internationally can serve to attract additional direct investment for the insurance sector and its ancillary industries.

**Sound Competition:**

An enhancement in consumer knowledge ultimately catalyses an increase in the demand for insurance and enhances insurance penetration rates. The augmented utilization of insurance enables producers of goods and services to maximize their risk management expenditures and to capitalize on a more competitive financial environment, thereby propelling economic growth.

**Spread Insurers' Risks:**

The quality of business is paramount for all insurers for various reasons, including profitability, adherence to regulatory standards, and, ultimately, financial sustainability. Insurance companies must ensure that the risks they underwrite are insurable and adequately diversify these risks to mitigate susceptibility to catastrophic losses. Intermediaries assist insurers in the challenging endeavour of diversifying the risks within their portfolios. Intermediaries engage with numerous insurers, a diverse array of clients, and, frequently, across a wide geographic spectrum. They aid carriers in distributing the risks in their portfolios in accordance with industry, geography, volume, line of insurance, and other relevant factors. This strategy assists insurers in avoiding excessive exposure to any particular region or type of risk, thereby liberating essential resources for deployment in other areas.

**Reducing Costs:**

By contributing to the reduction of expenses for insurers, broker services simultaneously lower the insurance costs incurred by all enterprises within a country or economy. Given that insurance constitutes a fundamental expenditure for all businesses, a decrease in prices can exert a substantial influence on the overall economy, enhancing the competitive stance of the specific market.

It is important to note that the insurance cycle characterized by “hard” and “soft” markets can significantly affect the advantages, both positive and negative associated with increased availability. Generally speaking, however, heightened availability benefits consumers by fostering product competition, price competition, and enhanced services. Through the reduction of insurance costs across various markets, intermediaries play a crucial role in improving the economic conditions within a nation.

The intermediary's function within this framework arises from two fundamental roles performed by the intermediary: the reduction of search costs and the alleviation of uncertainty.

**Search Costs:**

Intermediaries mitigate the search costs for insurance purchasers seeking appropriate coverage and suitable insurers for their risks, while simultaneously decreasing sales and marketing expenses for insurance companies in pursuit of insurance buyers. Intermediaries possess extensive knowledge of the insurance marketplace. They are familiar with their clients' risks, aware of the insurers willing to underwrite those risks, and knowledgeable about the optimal methods to secure that coverage.

## Topic

Module 3:  
Idea to Action

## ELECTIVES

Paper-20C

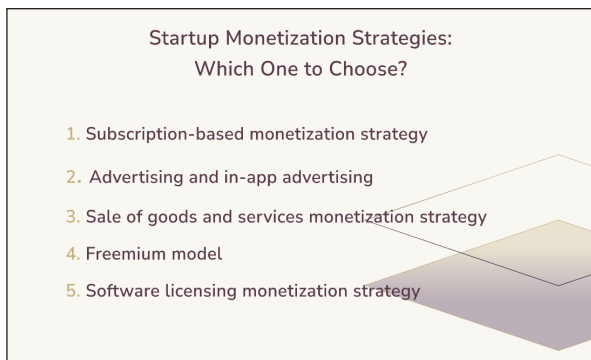
Entrepreneurship  
and Start Up (ENTS)

## Paper 20C : Entrepreneurship and Startup Monetization Model

### Monetization Model

A monetization model is a plan or strategy that outlines all the different ways a business will generate revenue. It is an important aspect of a startup's overall business model that involves identifying sources of income, establishing pricing strategies, and setting revenue goals.

### Startup Monetization Strategies



Source: <https://impressit.io/blog/monetization-strategies>

- 1. Subscription-based monetization strategy:** Subscription-based is the most effective monetization solution for getting revenues from software. A firm give users access fees at particular time intervals, which can be weekly, monthly, or yearly.
- 2. Advertising and in-app advertising:** Advertising and in-app advertising monetization strategy something one often cannot avoid. With mobile devices, one can target an audience in a natural way without making an ad appear like spam. In addition, you can alter your in-app advertising strategy on the go as user preferences shift.

- 3. Sale of goods and services monetization strategy:**

To monetize the online business, you need to know what your clients want. Besides, you need to know how to fulfill those desires. With the edtech industry, it goes without saying that people want to learn something or know something that brings value.

- 4. Freemium model:**

Harvard Business Review indicates that while most businesses present about a 5% customer conversion rate, companies that use the freemium model, for instance, Spotify, offer a 43% conversion rate. Once an entrepreneur develops a product and give free partial access for a short period. When it comes to a software market, they are often extremely saturated, which means barriers to purchasing. With freemium app monetization models and strategies, you can surpass these barriers and bring your software closer to users.

- 5. Software licensing monetization strategy:**

A software licensing strategy is a legal-based instrument managing the entire process of software use and distribution. Often, these models protect from intellectual property damages, especially if your software is built in object or source codes. Respectively, a software licensing monetization strategy exists to safeguard your products against any type of infringement.

### Bootstrapping

Bootstrapping is the process of founding and running a company using only personal finances or operating revenue. It is a form of financing that allows the entrepreneur to maintain more control even though it can increase financial strain.

## Phases of Bootstrapping:

# BOOTSTRAPPING

**BOOTSTRAPPING** is the process of establishing and developing business from the 0th level without borrowing any funds. Finance is acquired from personal funds.

## ELEMENTS OF BOOTSTRAPPING

Sources of Bootstrapping includes :

- Using Personal Finance
- Ploughing Back of Profits
- Availing Trade Credit from suppliers
- Availing services of factors
- Leasing of assets
- Letter of Credit or Advances

## PHASES OF BOOTSTRAPPING

PHASE 1	PHASE 2	PHASE 3
Business is set up using personal savings or borrowing from friends. May be the entrepreneur is still working in company as backup.	Establishment task is over and focus gets moved to expansion and modification by investing back profits and earnings.	The business owner tries to upgrade technology, staff, and working as well and tries to enhance the products or services.

## ADVANTAGES

- Full control over business
- No requirement of full information disclosure
- No approval required for any business decisions.
- Saves lot of time and efforts in raising funds.
- Allows business to do experiments.
- High chance of positive cash flow
- Leads to creative thinking

## DIS - ADVANTAGES

- Whole financial risk born by owner solely
- Limited growth opportunities due to limited resources
- Quality of product may hamper for lack of money
- Family assets and personal assets at high risks.
- Credibility of the business is very low
- Can face stress, depression, anxiety.
- Business cannot take advantage of expert advice.

Source: <https://efinancemanagement.com/sources-of-finance/bootstrapping>

## Crowdfunding

Crowdfunding is the use of small amounts of capital from a large number of individuals to finance a new business venture. This approach relies on the collaborative efforts of a large pool of individuals – primarily online via social media and crowdfunding platforms – and accesses their networks for greater reach and exposure.

### Advantages of Crowdfunding

- (i) Access to capital:
- (ii) Market validation
- (iii) Audience building
- (iv) Feedback and insights
- (v) Less risk
- (vi) Publicity and marketing
- (vii) Partnership and networking opportunities

### Four primary types of crowdfunding

1. Donation-based
2. Equity-based
3. Rewards-based
4. Debt-based.

### Strategies for Building a Sustainable Business Model

1. **Incorporate Sustainability into the Core Strategy:** This involves aligning business goals with sustainable practices and ensuring that sustainability is a key consideration in decision-making processes. Companies need to identify areas where they can have the most significant impact and integrate these into their strategic objectives.
2. **Engage Stakeholders:** Effective stakeholder engagement is crucial for building a sustainable business model. Companies should engage with all stakeholders, including employees, customers, suppliers, investors, and the local community, to understand their concerns and expectations.

This engagement helps build trust and fosters collaborative efforts towards sustainability goals.

3. **Adopt a Triple Bottom Line Approach:** The triple bottom line (TBL) approach emphasizes three key performance areas: people, planet, and profit. By focusing on social and environmental performance alongside financial performance, companies can create value that benefits not just shareholders but all stakeholders.
4. **Innovation for Sustainability:** Innovation is a critical driver of sustainability. Companies should invest in research and development to create sustainable products and services. This could involve using renewable materials, developing energy-efficient technologies, or creating circular business models that minimize waste.
5. **Focus on Energy Efficiency and Renewable Energy:** Energy consumption is a significant aspect of a company's environmental footprint. Businesses can reduce their energy usage by implementing energy-efficient practices and technologies.
6. **Promote a Culture of Sustainability:** Creating a culture of sustainability within the organization is vital for long-term success. This involves educating and empowering employees to adopt sustainable practices in their daily work. Companies can offer training programs, set sustainability targets, and recognize and reward employees who contribute to sustainability goals.
7. **Measure and Report Sustainability Performance:** Regularly measuring and reporting on sustainability performance is crucial for tracking progress and identifying areas for improvement. Companies should establish key performance indicators (KPIs) related to sustainability and integrate these into their overall performance management system.
8. **Leverage Technology and Digital Transformation:** Companies can leverage digital tools and platforms to improve efficiency, reduce waste, and optimize resource use. For instance, using data analytics can help businesses monitor energy consumption, track supply chain sustainability, and measure environmental impact.

#### Case Scenario

At the age of 19, Michael Dell founded PC's Limited with his own capital of \$1,000 and a game-changing vision for how technology should be designed, manufactured and sold. Dell is one of the leading bootstrapping companies in the World. A bootstrapped company is a company that was built with little capital and outside financing. To run a successful bootstrapped company, an entrepreneur must execute a big idea, focus on profits, develop skills, and become a better business person.

Growing at roughly 80 percent annually in 1988, Dell takes the plunge and goes public. The company, now officially renamed Dell Computer Corporation, uses the newly acquired capital to expand its product offerings and global presence, opening a manufacturing centre in Ireland just two years later to better serve customers in Europe, the Middle East and Africa.

In 1985, the company produced the first computer of its own design, the "Turbo PC", selling for US\$795 (equivalent to \$1,913 in 2023). In 2003, the company was renamed Dell Inc. to signify a move into the broader consumer electronics market. In 2016, the company and an investment firm acquired EMC, an American corporation that specialized in data storage. The merger, valued at approximately \$60 billion, was the largest technology deal at the time.

**Choose the correct option from the given alternatives based on the above scenario:**

1. Bootstrapping is the process of starting and growing a company using-----  
 (a) Own resources  
 (b) Loan from banks  
 (c) Issue of shares  
 (d) Issue of shares

**Answer (a)**

2. Which one of the following is not an important feature of bootstrapping?  
 (a) Entrepreneurs who bootstrap do not have any outside investment.  
 (b) They rely on personal savings, personal debt, customer funding for initial funding requirements.  
 (c) Bootstrapping allows flexibility in the early growth phase.  
 (d) Entrepreneurs do not face cash flow issues due to bootstrapping.

**Answer (d)**

3. Crowdfunding is--  
 (a) an alternative source of loan-funding that relies on peer-to-peer lending.  
 (b) a pool of venture capitalists that funds large corporations.  
 (c) becoming less popular even though it represents a significant portion of the money supply.  
 (d) heavily regulated by banks.

**Answer: (a)**

4. In which year the Dell produced its first computer?  
 (a) 1974  
 (b) 1980  
 (c) 1985  
 (d) 1982

**Answer: (c)**



ARTICLES  
BY  
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# The Strategic Role of Debt Capital Markets in Corporate Finance and Economic Stability



**Ms. Keerthika Paturi**

CMA Foundation Student

Identification No.: SF2024058908

## ABSTRACT

Debt Capital Markets are the major tools used in today's investment banking to manage debts in most enterprises and shape and corporate finances by serving international markets. This article attempts to identify the strategic roles of DCMs in terms of improving the supply of long-term capital, diversifying funding sources, and enhancing market credibility. Furthermore, by the means of such concepts as capital physics based on the mathematical model of liquidity, the authors try to clarify the ways that DCM benefits the economy through cash injection as well as the mitigating of the negative impacts of the economic cycles. This research combines the available books and a suggested theoretical framework in order to determine where the research is in the academic and practical ecosystem of financial markets.

## KEYWORDS:

Debt Capital Markets, Investment Banking, Corporate Finance, Economic Stability, Long-term Capital, Funding Sources, Credit Analysis, Debt Instruments, Investment-Grade Bonds, High-Yield Bonds, Government Securities, Emerging Markets Bonds, Market Credibility, Financial Crisis, Liquidity, Countercyclical Policies

## 1. INTRODUCTION

The issuance and trading of debt securities like bonds and loans make up one major area within investment banking known as Debt Capital Markets (DCM). The closest partners for DCM bankers include corporations and governments who take their assistance when structuring, originating or marketing debts towards investors[1]. Emphasis is given in this article on the strategic roles played by DCM aid in fundraising efforts; credit analysis undertaking; and optimization of debt issuance methods. Additionally, it examines the influence that DCM has on corporate financial decisions, capital structures and economic stability through effective market interventions during times of financial crises.

## 2. MAIN BODY:-

### 2.1 *The role of DCM in investment banking:*

Debt Capital Markets (DCM) is an important role in the area within investment banking where DCM helps companies and governments to sell e.g. a bond or loan [2]. DCM bankers will help their clients design and price the debt issuance so as to be the possible security or asset class, while meeting client/issuer financing needs. It requires a deep understanding of the markets, investor's sentiment and regulations that allow companies to conduct successful debt offerings [3].

*Principal functions of the DCM Division are:*

- Strategic Credit Analysis and Risk Assessment of Issuer credit profiles [4]
- Evaluating market expectations using full financial reviews and determining the right price thresholds for bonds securities to take over, plus how much debt is acceptable [5][4].
- Let's also plug in financing solutions with the other coverage verticals of investment banking - LevFin & ECM [4].
- The market perception and confidence in an issuer is largely dependent on DCM bankers ability to price it right which leads to improved market tailwind for clients who benefit the most with strategic capital structure optimization as well key growth initiatives so that they are able sustain value [3].

## 2.2 Types of Debt Securities and Their Impact:

Debt Capital Markets (DCM) - Debt capital markets create a range of different debt instruments to suit the needs of investors as well as that for issuers such:

### *Investment-Grade Bonds*

Institutional investors invest in investment-grade bonds - as the name implies, these are Bonds that have very high credit ratings and thus create a low-credit-risk but often lower return. This is crucial, especially where organisations have strong credit profiles and wish to fund their projects for long terms or require refinancing of debts at favourable interest rates.[6]

### *High-Yield Bonds*

This demand for riskier assets was best reflected in these high-yield bonds or so-called junk bonds. On the other hand, junk bonds are sold by companies and entities with lower credit ratings to raise funds from willing investors looking forward to making more than they can gain from other investments [7].

### *Government Securities*

Among DCM's significant categories is government securities which are issued by sovereigns. They are considered as being quite low-risk investments since they bear the guarantee of the underlying country governments, thus finding favour among conservative investors who seek certainty and transferability under conditions of economic uncertainty [8].

### *Emerging Markets Bonds*

These emerging markets bonds which are issued either by governments or corporations located in developing countries have higher interest rates when compared to global rates because they compensate for political and economic uncertainties. Apart from high volatility in comparison with developed markets, these fixed income securities are also crucial to broadening investor portfolios and channelling funds into growth-oriented regions [8][7].

In DCM, the whole gamut of debt instruments are structured, packaged and underwritten by investment banks so that companies can raise funds from capital markets while individual investors have avenues to invest their pooled money in portfolios which match well with their risk return considerations. This promotes the operation and growth of financial systems.

## 2.3 Impact on Corporate Financing Propositions

Debt Capital Markets (DCM) have significant role in assisting the corporate entities to mobilise long term funding which is required for their strategic projects or expansion plans, and cannot be funded otherwise making only use of short terms facilities like bank loans / equity financing [4].

*For instance, companies have an opportunity through DCMs to:*

- Widen their funding source base thus reducing overreliance on any particular channel of funding while it boosts economic flexibility during hard times.
- By having virtuous-governed practices, strong management credibility as well as sound financial stability through successful issuance of debt attracts further investments that support stock performance and overall market positioning [9]
- DCM bankers need to give advice about strategic debt management strategies and timing debt issuances so as to benefit from favourable market conditions such as low interest rates or high investor demand [5].
- It means that cost-effective funding is thus secured by this approach, maximises shareholder value, and makes a contribution to sustainable corporate growth and profitability. Hence, DCM plays an important part in shaping the financing strategies of firms through which they can have access to long-term capital for supporting their strategic objectives [9].

## 2.4 Contributions to Economic Stability:

A DCM maintains economic balance if there is a Financial crisis or depression. Let's see how each of these contribute to the economic stability:

### *Diversifying Funding Sources*

DCM states as an alternative source of funding which not very much depend on traditional bank lending that followed by keeping the need for credit to be always there in order capital keeps flowing and funded other economic activities [10].

### *Creating Safe Harbors for Investors*

During market volatility, a debt security mechanism through DCM, particularly government bonds, acts

as a safe haven for investors who are looking to park their capital. This mitigates financial market stress and volatility because money flow into safe assets is a form of confidence [9].

#### *Aiding in Anti Cyclical Monetary Policies*

DCM facilitates that central banks can execute anti-cyclical monetary policies to inject liquidity and stabilise the financial system during recessions. Multiple security acquisitions, like those of bonds, may result in such interest rate declines, which enable economic growth and assist businesses and consumers in absorbing market turbulence [4].

#### *Demonstrating Corporate Resilience*

It is because, for example, the fact that a company can issue debt successfully during crisis times proves its strength and soundness, thus increasing the investor's confidence in it to survive further adversities and foster more excellent market stability. Such belief is the one significant factor that enhances toughness instantly in markets, raising investments and gear-up efforts for economic recovery [10].

That is why Debt Capital Markets play unique roles in guiding through financial uncertainties toward global economic stability and form the backbone of economic resilience.

### **3. ANALYTICAL REVIEW AND FUTURE DIRECTIONS**

The analysis underscores the central role of DCM in promoting efficient debt management and optimising corporate capital structures globally. This stresses the importance of debt structuring, credit risk analysis and market sensitivities to ensure borrower reputation plus investor confidence.

The paper introduces new findings about market behaviours during crisis situations that reveal how they are influenced by DCM activities which include bank behaviour and interest rate trends in those markets. It shows that in times of economic uncertainty safe haven assets such as government bonds which are issued through DCM platforms become more attractive to investors. By grasping these dynamics we can therefore develop ways to boost our resilience against volatility while still retaining investor trust when operating within unstable economic environments.

To improve the efficiency and effectiveness of DCM operations, this paper builds on the existing practices. These recommendations include leveraging big data analytics capabilities and AI technology to simplify credit analysis, tactical pricing strategy implementation as well as market timing of debt issuance. Further, transparency in DCM can be increased and disclosure practices standardised which will reduce information asymmetry leading to trust building amongst investors.

Similarly, it can be argued that promoting sustainable finance principles within DCM frameworks could encourage issuers to include environmental, social and governance (ESG) requirements in their debt offerings. This approach is consistent with global sustainability targets and also improves attractiveness of the markets in addition to long-term resilience.

This subsection finally highlights some of the important roles played by DCM in corporate financial strategy as well as economic stability. Through proposing a new theoretical framework; giving insight on market behaviour during crisis; suggesting improvements into current DCM practices, this article advances scholarly knowledge and its practical applications within an evolving Debt Capital Markets landscape. These recommendations will guide future research, policy development and innovation

### **4. RELEVANCE AND IMPLICATIONS**

#### **4.1 Relevance**

The analysis of strategic roles that DCMs play in corporate finance and economic stability highlights its vital role in modern financial ecosystems. This paper fills this gap by reviewing recent literature and proposing a new theory, which explains how various facets of DCM operations may determine the functioning of market dynamics that lead to changes in investors' behaviour during crisis or natural calamity. For scholars seeking to promote soundness within financial markets as well as optimise corporate financing strategies, this relevance is extremely crucial.

#### **4.2 Implications for future research**

One way forward in relation to research on DCM is a suggested theoretical context linking behavioural economics with traditional finance theories. For instance, researchers can delve deeper into psychological aspects

that affect investors' decision-making processes when they are engaged in transactions within DCMs; correct predictive models for behaviours of markets amid crises; assess whether behavioural interventions work or not towards systemic risks reduction. Additionally, empirical tests could be done across various economic settings for validation purposes while trying it out in different global market contexts.

### 4.3 Policy and Practice Implications

From a policy point of view, the research finding provides a basis for improving regulatory frameworks over its DCM activities. Policies that encourage transparency, uniform disclosure practices and adoption of sustainable finance principles might help investors trust as well as make markets more resilient. Additionally, investment banking practitioners and those in financial institutions may want to consider using advanced data analysis and AI technologies that could enable them to optimise debt issuance strategies, enhance risk management techniques and raise productivity at a lower cost in DCM business.

In sum, it underscores the importance of understanding the strategic roles of DCM in corporate finance and economic stability. The proposed theoretical model as well as insights on market behaviours during crises have pertinent implications for further research directions as well as relevant policy developments and practical applications in the Debt Capital Markets field. In order to take into account these implications, this research contributes towards advancing scholarly knowledge and building up resilience to the financial market globally.

### 4.4 Limitations

#### *Generalizability of Findings:*

The paper finds may mostly be from developed countries or specific sections of such economies and should not apply all over. Their applicability may be considerably different when it comes to other emerging markets, or even other industries (due their unique regulatory environments and market dynamics)

#### *Availability and Reliability of Data:*

This analysis depends heavily on data available from financial reports, market analyses, and economic indicators. Accuracy as well as strongness of its conclusions could be impacted by variances in data quality across different sources, completeness or timeliness.

#### *Complexity of Market Dynamics:*

To explain our position we need to consider that DCM is operating in the global financial market which is heavily influenced by various geopolitical events, regulatory changes, and economic cycles (Bodie et al., 2014). These markets are very complex as a result the paper might not capture this intricacy that would then impact predictability as well as stability of DCM outcomes.

#### *Bias and Subjectivity:*

Despite efforts to offer balanced analysis interpretations regarding the impacts of DCM on corporate finance systems and economic stability may largely depend on views originating from industry players, regulators or even cited academic theories (Bodie et al., 2014). The perceived efficiency or consequences related to DCM strategies can also differ from one stakeholder group to another.

#### *Time Frame Restrictions:*

Through this paper is up to date now it may no longer mirror future records or market adjustments. It could be because of changes in global economic policy, innovations or black swan events that may drastically change the game for DCM, and where it sits within the broader financial infrastructure.

#### *Methodological Constraints:*

This research is primarily a qualitative based detailed approach of using the literature review and expert opinions for quality. While this adds the insights necessary for greater explanation, it may not provide richer and nuanced understanding of cause-and-effect relationships along with their predictive power compared to DCM activities.

#### *Publication Bias:*

The selection of literature and sources cited may inadvertently ignore alternative views or emerging research that can offer different perspectives about DCM's role in corporate finance and economic stability.

## 5.CONCLUSION

This paper digs deep into how DCM shapes today's investment banking. It shows DCM's key part in handling debt, funding companies, and keeping the economy steady. DCM helps put out all kinds of debt papers. These range from top-notch bonds to government IOUs and

risky country debt. This lets firms get money for the long haul. It also helps investors spread their bets based on what they might win or lose.

The study points out the big jobs DCM bankers have. They must size up credit risks, set up debt just right, and ride market waves. This builds trust with investors and makes the market like what's on offer. These moves don't just help companies grow. They also keep the economy on an even keel. They give other ways to get cash and offer safe spots when markets go crazy. A fresh theory mixes money ideas with how people act. It sheds light on what investors do in debt markets when money gets tight. This new view helps make better plans for selling debt, cuts big risks, and makes markets tougher.

Furthermore, DCM's role in providing liquidity to financial markets is evident when it supports countercyclical policies during economic crises [1]. It makes the markets resilient by offering diversification from bank loans that are always unstable investments hence mitigating systemic risks and promoting sustainable growth within the economy.

To sum up, Debt Capital Markets (DCM) is an important element in modern financial ecosystems which drives corporate expansion as well as economies' stability by use of new financing techniques and market interventions.

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- ⦿ **Originality:** We encourage you to share your unique perspectives and experiences. Ensure that your submission has not been published elsewhere.

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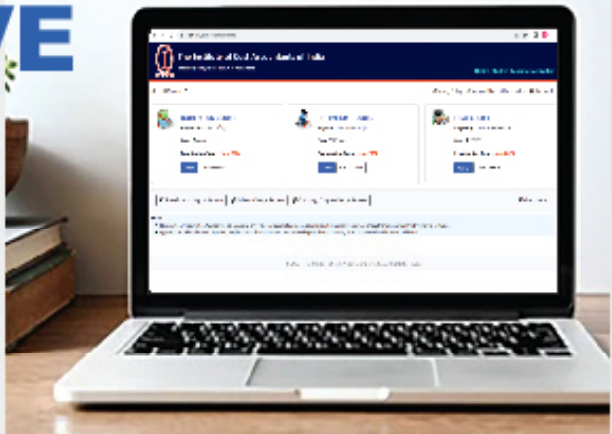


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A login feature has been integrated into the **ONLINE REGISTRATION APPLICATION SYSTEM** enabling students to access various services through their accounts.

To utilize this feature, students need to create a login account by verifying their email address through an OTP sent to their registered email ID. Once the email ID is verified, it becomes the user ID and students can set their password during the account creation process.

The introduced system enables students to:

Register online  
for Foundation,  
Intermediate &  
Final Courses

Check the status  
of their online  
applications

Request  
Conversion from  
Old Syllabus to  
New Syllabus

Request changes  
in Oral / Postal  
Coaching and opt  
for Chapter-to-  
Chapter  
Conversion

Convert from  
Provisional to  
Regular status

Additional services for students will be seamlessly incorporated in the near future.

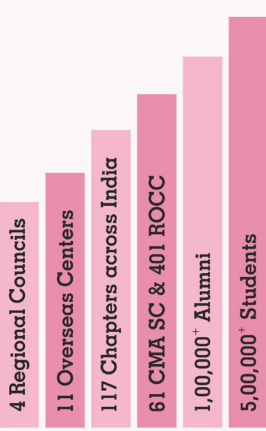
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Since 1944

## CMA Leads



## Value Added Services for the CMA Students

- Study Materials
- Students E-Bulletin
- Knowledge Web Series
- E-Library
- Webinars
- Model Question Papers
- MCQ Portal
- Tutorial Workshops
- Coaching - Oral/Postal (E-learning)
- Skills Training
- Practical Training
- Industry Oriented Training Programme

**Admission Deadlines**

- For June Exam - 31<sup>st</sup> January of same Calendar Year
- For December Exam - 31<sup>st</sup> July of same Calendar Year

# LARGEST CMA BODY IN THE WORLD

Under the administrative control of Ministry of Corporate Affairs (MCA), Government of India

## CMA COURSE GOING GLOBAL

Mentoring Future-Ready Professionals

### Eligibility

#### Admission in Foundation Course

- 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
- Graduates of any discipline (Students awaiting final result also apply on provisional basis)
- Qualified CAT Level - I of The Institute of Cost Accountants of India
- Qualified CA Intermediate
- Qualified Engineers

### Course Fees

Foundation - ₹6,000/-

Intermediate - ₹23,100/-\*

Final - ₹25,000/-\*

\*Installation facility available



To know more, Scan the QR Code



**JUNE 2025 TERM**

Online Admission

<https://eicmai.in/studentportal/Home>

## Prominent Recruiters in CMA Campus Placement Drives



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**CMA BHAWAN**  
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Telephones: +91-33- 4036-4748/4721/4726

Website : [www.icmai.in](http://www.icmai.in)

Ref. No.: DOS/CIRCULAR/09(1)/2024

Date: 12<sup>th</sup> September, 2024

**CIRCULAR**

**Sub: Modification in Practical Training Completion Form (Form T5)**

**w.e.f. December 2024 term of Examination**

It is hereby notified that Practical Training Completion Form T5 has been modified in accordance with the existing Practical Training guidelines. These modifications are effective from the December 2024 term of examination. The modifications include the following:

- Existing **Form T5** (applicable for the students who are taking registration on or after 11-02-2020) will continue for those students who have already completed 15 months (6 months for old students who have taken registration between 01-01-2008 to 10-02-2020) of Practical Training period before the cut-off dates (31<sup>st</sup> August for appearing in December term examination and 28<sup>th</sup>/29<sup>th</sup> February for appearing in June term examination).

**Form T5 Link (for existing students):** [https://icmai.in/Training-forms-new/doc/FORM-T5-existing\\_15months.pdf](https://icmai.in/Training-forms-new/doc/FORM-T5-existing_15months.pdf)

**Form T5 Link (for old students):** [https://icmai.in/Training-forms-new/doc/FORM-T5-Old\\_6\\_months.pdf](https://icmai.in/Training-forms-new/doc/FORM-T5-Old_6_months.pdf)

- Form T5A** has been introduced for those students, who have not yet completed 15 months Practical Training, to become eligible to appear in the final examination [both/ remaining group] and must satisfy the criteria of such a cut-off date as may be specified from time to time. The cut-off date for certification of 'Form T5A' shall be 31<sup>st</sup> August for appearing in the December term of examination which shall specify completion of at least 10 months of Practical Training within the prescribed date. The cut-off date for certification of 'Form T5A' shall be 28<sup>th</sup>/ 29<sup>th</sup> February for appearing in the June term examination which shall specify completion of at least 10 months of training within the prescribed date.

**5<sup>th</sup> October / 5<sup>th</sup> April** (December / June term exam) shall be the cut-off dates for submission of 'Form T5A' for filling up exam form to satisfy completion of more than 10 months but less than 15 months of Practical Training period.

**Form T5A Link:** [https://icmai.in/Training-forms-new/doc/FORM-T5A-New\\_10\\_months.pdf](https://icmai.in/Training-forms-new/doc/FORM-T5A-New_10_months.pdf)

Page 1 of 2



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- **Form T5B** has been introduced for those students who have already submitted 'Form T5A' and now satisfied completion of total 15 months of Practical Training period before the date of declaration of examination result of both or remaining group of final examination.  
**10<sup>th</sup> February/ 10<sup>th</sup> August** (December / June term exam) shall be the cut-off dates for submission of 'Form T5B' to satisfy completion of total 15 months of Practical Training period in order to release the result of final examination of the concerned students.  
**Form T5B Link:** [https://icmai.in/Training-forms-new/doc/FORM-T5B-New\\_15\\_months.pdf](https://icmai.in/Training-forms-new/doc/FORM-T5B-New_15_months.pdf)

This is for information of all concerned.

**CMA (Dr.) D. P. Nandy**  
**Additional Secretary & HoD - Studies**

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- 1) President's Office
- 2) Secretary, T&EF Committee
- 3) All HODs at Headquarters, Delhi Office and Hyderabad Centre of Excellence
- 4) All Regional Councils of the Institute
- 5) All Chapters of the Institute
- 6) All CMA Support Centres of the Institute
- 7) All Overseas Centres
- 8) IT Department - for uploading on the website of the Institute
- 9) Secretariat
- 10) Notice Board

**Copy to:**

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- 2) Vice President, The Institute of Cost Accountants of India
- 3) All Council Members



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Telephones : +91-33- 2252-1031/1034/1035  
+ 91-33-2252-1602/1492/1619  
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Ref No.:DoS-Academics/09/2024

Dated: 03/09/2024

**Sub: Clarification for December 2024 term of Examination under Syllabus 2022**

This is to bring to the notice for clarification to all concerned that the followings shall be applicable for December 2024 term of Examination.

Sl. No.	Issue	Applicable for	Reference papers	Facilities Provided
1	Companies (Cost Records and Audit ) Rules, 2014 ; as (amended upto 31 <sup>st</sup> May, 2024)	Intermediate and Final under Syllabus 2022	Paper 10- Corporate Accounting and Auditing(Intermediate), Paper 17 - Cost & Management Audit(Final)	Study Materials refer to the following links <a href="https://icmai.in/upload/Students/Syllabus2022/Inter_Stdy_Mtrl/P10_160824.pdf">https://icmai.in/upload/Students/Syllabus2022/Inter_Stdy_Mtrl/P10_160824.pdf</a> and <a href="https://icmai.in/upload/Students/Syllabus2022/Final_Stdy_Mtrl/Paper17_Syll-2022_Rev.pdf">https://icmai.in/upload/Students/Syllabus2022/Final_Stdy_Mtrl/Paper17_Syll-2022_Rev.pdf</a>  For the Supplementary of the respective Papers please go to the following link:  <a href="https://icmai.in/studentswebsite/Supplementary_Syllabus_2022_Dec_2024.php">https://icmai.in/studentswebsite/Supplementary_Syllabus_2022_Dec_2024.php</a>
2	CAS 1-24 (amended upto 31 <sup>st</sup> May, 2024)	Intermediate and Final under Syllabus 2022	Paper 8 - Cost Accounting (Intermediate) Paper 17 - Cost & Management Audit(Final)	For Paper 8 and Paper 17 Study Materials refer to the following links <a href="https://icmai.in/upload/Students/Syllabus2022/Inter_Stdy_Mtrl/P8_160824.pdf">https://icmai.in/upload/Students/Syllabus2022/Inter_Stdy_Mtrl/P8_160824.pdf</a> and <a href="https://icmai.in/upload/Students/Syllabus2022/Final_Stdy_Mtrl/Paper17_Syll-2022_Rev.pdf">https://icmai.in/upload/Students/Syllabus2022/Final_Stdy_Mtrl/Paper17_Syll-2022_Rev.pdf</a>  For the Supplementary of Papers 17, please go to the following link: <a href="https://icmai.in/studentswebsite/Supplementary_Syllabus_2022_Dec_2024.php">https://icmai.in/studentswebsite/Supplementary_Syllabus_2022_Dec_2024.php</a>



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3	Companies Act 2013 (amended upto 31 <sup>st</sup> May, 2024)	Intermediate and Final under syllabus 2022	Paper 5- Business Laws and Ethics (Intermediate) Paper 10 - Corporate Accounting and Auditing(Intermediate) Paper 13 - Corporate and Economic Laws (Final) Paper 17- Cost & Management Audit(Final) Paper 18- Corporate Financial Reporting(Final)	The provisions of Companies Act, 2013 along with significant Rules / Notifications / Circulars / Orders issued by the Ministry of Corporate Affairs and the laws covered under Other Corporate Laws as amended by the concerned authority, including significant amendments upto 31 <sup>st</sup> May, 2024 would be applicable for December 2024 term of examination  For Study Materials <a href="https://icmai.in/studentswebsite/Study_Materials_2022.php">https://icmai.in/studentswebsite/Study_Materials_2022.php</a>  For the Supplementary of the respective Papers please go to the following link: <a href="https://icmai.in/studentswebsite/Supplementary_Syllabus_2022_Dec_2024.php">https://icmai.in/studentswebsite/Supplementary_Syllabus_2022_Dec_2024.php</a>
4	Finance Act 2023	Intermediate and Final	Paper 7- Direct and Indirect Taxation (Intermediate) Paper 15- Direct Tax Laws and International Taxation (Final) Paper 19- Indirect Tax Laws & Practice(Final)	Amendments upto 31 <sup>st</sup> May, 2024 would be applicable for December 2024 term of examination which are available under the given link as Supplementary:  <a href="https://icmai.in/studentswebsite/Supplementary_Syllabus_2022_Dec_2024.php">https://icmai.in/studentswebsite/Supplementary_Syllabus_2022_Dec_2024.php</a>
5	GST	Intermediate and Final	Paper 7- Direct and Indirect Taxation (Intermediate) and Paper 19- Indirect Tax Laws & Practice(Final)	Amendments upto 31 <sup>st</sup> May, 2024 would be applicable for December 2024 term of examination which are available under the given as Supplementary:  <a href="https://icmai.in/studentswebsite/Supplementary_Syllabus_2022_Dec_2024.php">https://icmai.in/studentswebsite/Supplementary_Syllabus_2022_Dec_2024.php</a>
6	IND AS (In Intermediate and Final) and Business Responsibility Report, Reporting through XBRL	In Intermediate – Comparative Provisions for Specific Ind AS and	Paper 6 – Financial Accounting (Intermediate) Paper 10 - Corporate Accounting and	For updated Study Materials of Paper 6 , Paper 10 and Paper 18 refer to the following link  <a href="https://icmai.in/studentswebsite/Study_Materials_2022.php">https://icmai.in/studentswebsite/Study_Materials_2022.php</a>



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and Corporate Social Responsibility Reporting in India (In Final)	in Final - which are covered by the Syllabus 2022	Auditing(Intermedi- ate) Paper 18 – Corporate Financial Reporting(Final)	and For Supplementary of Paper 10 and 18 <a href="https://icmai.in/studentswebsite/Supplementary_Syllabus_2022_Dec_2024.php">https://icmai.in/studentswebsite/Supplementary_Syllabus_2022_Dec_2024.php</a>
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All concerned to make appropriate advisory and facilitate the students.

**CMA (Dr.) D. P. Nandy**  
**Additional Secretary, HOD (Studies)**

**e-distribution to:**

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- (2) All Chapters of Institute - for information & necessary action;
- (3) All CMA Support Centers of the Institute - for information & necessary action;
- (4) President Office, for kind information and records;
- (5) Secretariat, for kind information and records;
- (6) All HODs, in Headquarters including Delhi Office, Hyderabad Center of Excellence - for kind information;
- (7) Notice Boards;
- (8) IT Dept. - requested to upload this information in the website as appropriate.



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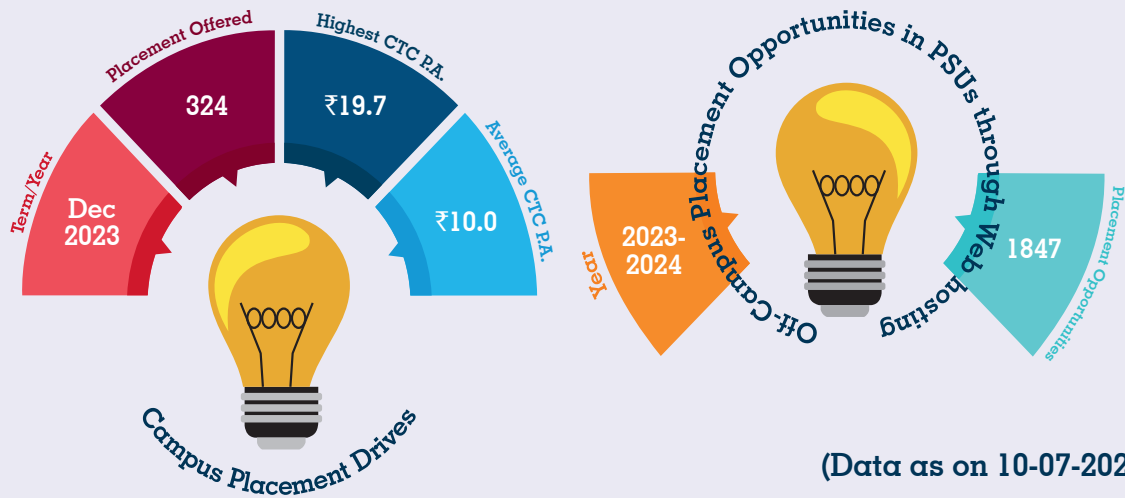
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# CMA Campus Placement Initiatives 2024

## Campus Placement Statistics



## Career Counselling & Placement Committee The Institute of Cost Accountants of India

✉ [placement@icmai.in](mailto:placement@icmai.in) / [cpt@icmai.in](mailto:cpt@icmai.in) / [career-counselling@icmai.in](mailto:career-counselling@icmai.in)

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*in association with*

**CAREER COUNSELLING & PLACEMENT COMMITTEE AND CAT DIRECTORATE**



# CMA NYCO 2024

## NATIONAL YOUTH COMMERCE OLYMPIAD

*Unveil Your Innate Management Accounting Skills*

### CATEGORY

**A**

Class VIII - X

**B**

Class XI - XII / Pursuing CMA Foundation / CAT

**C**

Pursuing Graduation / CMA Inter / CMA Final

### REGISTRATION STARTS



16<sup>th</sup> August 2024

### NYCO 2024 ONLINE EXAM



Sunday, 17<sup>th</sup> November 2024



REGISTRATION FEE: ₹50

1<sup>st</sup> Rank - ₹1,00,000

2<sup>nd</sup> Rank - ₹50,000

3<sup>rd</sup> Rank - ₹20,000

(Under each category)

Consolation Prize of ₹500 for Next 100 Participants from each category

*Digital Certificate of Participation for All*

Registration Closes: 03<sup>rd</sup> November, 2024

ICMAI invites students from all over India to register for the **CMA National Youth Commerce Olympiad (NYCO 2024)**. The aim of organizing NYCO 2024 is to unearth hidden Management Accounting talents and ignite a deep appreciation for the subject among young minds.



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President, ICMAI



**CMA TCA Srinivasa Prasad**  
Vice President, ICMAI



**CMA Vinayranjan P.**  
Chairman - TEF and CC & Placement Committee, ICMAI



**CMA Rajendra Singh Bhati**  
Chairman - Committee for Accounting Technicians & PR, ICMAI



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[nyco2024@icmai.in](mailto:nyco2024@icmai.in)



# SKILLS TRAINING PROGRAMME

Skills Training Modules	Hours/Days	Delivery Mode	Level
Tally ERP/Zoho/ERP Next/ERP etc.	40 hrs.	Online	Intermediate
Communication & Soft Skills	20 hrs.	Online	Intermediate
MS-Office/Google Docs, Sheets, Slides/Open Office	40 hrs.	Hybrid	Intermediate
E-Filing	20 hrs.	Hybrid	Intermediate
<b>Intermediate Skills Training</b>	<b>120 hrs.</b>		
SAP/ORACLE/MS Dynamics/Any ERP	60 hrs.	Online/Hybrid	Final
Business Analytics/Data Analytics	20 hrs.	Online	Final
<b>Final Skills Training</b>	<b>80 hrs</b>		

**Note:**

1. Students who have applied for both/remaining group(s) shall only receive SAP/ERP login in their registered mail id; while students who have paid total course fees/2<sup>nd</sup> instalment (irrespective of exam application) are eligible to attend other Skills Training Programs/IOTP for a particular term
2. Oral students shall be served by the respective Regions/ Chapters/ CMASCs in Physical Mode and Postal students shall be served by the DOS through Online Mode

# INDUSTRY ORIENTED TRAINING PROGRAMME (IOTP)

## Module – I: Practical Skills

7 Days

### 1. Practical Knowledge on Accounts and Cost & Other Audits

#### 1A. Process of Finalization of Accounts

- Process of finalization of Accounts w.r.t. AS, IAS & other Regulations

#### 1B. Practical Knowledge on Cost & Other Audits

- How to maintain Cost Records
- Preparation of Cost Audit Report
- Compliances of Cost Audit
- Different types of Audit Compliances

### 2. Practical Knowledge on Direct and Indirect Taxation

- Tax Planning – Head Wise/ Transaction Wise/ Organization Wise
- Filing of Income Tax Return
- TDS Management
- GST Compliances
- GST Assessment & Procedure
- GST Return
- Inventory Valuation

### 3. Practical Knowledge on Formation of a Company and Contract Management

#### 3A. Formation of a Company and allied works

- Formation of a Company
- Compliance to ROC
- Preparation of Notice/Agenda/Minutes of the Meeting
- MOU/Joint Venture

#### 3B. Contract Management

- Preparation of Tender Documents
- Tendering Process
- Preparation of Work Order

### 4. Practical Approach on Working Capital Management

- Cash Management
- Inventory Management
  - ▲ How to design Bin Cards, Stores Ledger and Bill of Materials

- ▲ How to develop Works Register and Fixed Asset Register

- Receivable Management
- Payable Management
- Debtors Management
- Creditors Management etc.

### 5. Practical Knowledge on Project Management & Project Financing and Digital Financial Services

#### 5A. Project Management & Project Financing

#### 5B. Digital Financial Services

- Application oriented knowledge on AI, BI & FinTech

### 6. Risk Management

#### 6A. Investment & Portfolio Management

#### 6B. Risk Management in BFSI Sector

### 7. MIS Report

- Manufacturing Sector
- Power Sector
- Steel Sector
- Education Sector
- Healthcare Sector

## Module – II: Soft Skills

3 Days

### 1. Communication Skill

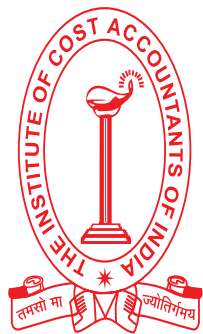
### 2. Interview Skill

### 3. Presentation Skill

### 4. Group Discussion

### 5. Panel Discussion with Industry Professionals





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