

CMA STUDENT E-Bulletin

VOL 10 | NO. 01 | JANUARY 2025

An Initiative of Directorate of Studies



ICMAI
THE INSTITUTE OF
COST ACCOUNTANTS OF INDIA

Statutory Body under an Act of Parliament
www.icmai.in

About the Institute

The Institute of Cost Accountants of India (ICMAI) is a statutory body set up under an Act of Parliament in the year 1959. The Institute as a part of its obligation, regulates the profession of Cost and Management Accountancy, 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 सदगमय
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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CONTENTS

STUDENT CMA E-Bulletin

VOL 10 I NO. 01 I JANUARY 2025

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06 - Chairman's Communique

(Training & Educational Facilities Committee)

07 - 24 - CMA Foundation Course

Syllabus 2022

(Paper 1 - 4)

25 - 70 - CMA Intermediate Course

Syllabus 2022

Group I (Paper 5 - 8) & Group II (Paper 9 - 12)

71 - 122 - CMA Final Course

Syllabus 2022

Group III (Paper 13-16) & Group IV (Paper 17-19)
Electives (Paper 20A - 20C)



CHAIRMAN'S COMMUNIQUE

Dear CMA Students,

It gives me immense pleasure to connect with you through the January 2025 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 1:
Introduction

Business
Communication -

Module 5:
Business
Communication

FOUNDATION

Paper-1

Fundamentals of
Business Laws and
Business
Communication
(FBLC)

SECTION – A: FUNDAMENTALS OF BUSINESS LAWS

MULTIPLE CHOICE QUESTIONS (MCQ)

1. What are the sources of law?
 - (a) Constitution of India
 - (b) Constitution of India, judicial precedents, customary laws, statutes and ordinance
 - (c) Statutes enacted by the Parliament of India and State Legislatures
 - (d) Religion
2. Which Article in the Constitution of India, 1950 has provisions for introduction of a bill in the Parliament of India?
 - (a) 119
 - (b) 141
 - (c) 107
 - (d) 243
3. Money Bill is introduced in which House of the Parliament?
 - (a) Council of People – Lok Sabha
 - (b) Council of States – Rajya Sabha
 - (c) Both the Houses
 - (d) None of the Houses
4. Under what Article of the Constitution of India, 1950 is The President of India empowered to make an Ordinance?
 - (a) 243
 - (b) 123
 - (c) 129
 - (d) 368
5. The essence of Sub-Ordinate legislation can be found in which Article of the Constitution of India, 1950?
 - (a) 12
 - (b) 32
 - (c) 13
 - (d) 14
6. When was the Constitution of India passed by the Constituent Assembly?
 - (a) 26th January 1950
 - (b) 26th November 1949
 - (c) 25th November 1949
 - (d) 15th August 1947
7. Which is the highest Court in India?
 - (a) High Court
 - (b) Supreme Court of India
 - (c) International Court of Justice
 - (d) Sessions Court
8. Which Articles of the Constitution of India have the power to entertain petitions of violation of Fundamental Right?
 - (a) Article 32
 - (b) Article 226
 - (c) Article 226 and Article 32
 - (d) Article 356
9. Which is the highest civil court in a district?
 - (a) Sessions Court
 - (b) Supreme Court of India
 - (c) District Court
 - (d) High Court
10. Which Article of the Constitution of India empowers the legislature to make laws?
 - (a) Article 12
 - (b) Article 243
 - (c) Article 141
 - (d) Article 245
11. When was the Supreme Court of India established?
 - (a) 26th November 1949
 - (b) 26th January 1950
 - (c) 28th January 1950
 - (d) 1st October 1937

12. Which Article of the Constitution of India stipulates law made by the Supreme Court of India?
- (a) Article 141
 - (b) Article 245
 - (c) Article 368
 - (d) Article 352
13. What is the Schedule in the Constitution of India, for Separation of Subject for Legislature?
- (a) 9th Schedule
 - (b) 7th Schedule
 - (c) 32nd Schedule
 - (d) 14th Schedule
14. What kind of structure does the Indian Constitution have?
- (a) Unitary
 - (b) Federal
 - (c) Autocracy
 - (d) Totalitarian
15. Under which Article can we amend the provisions of the Constitution of India?
- (a) Article 356
 - (b) Article 368
 - (c) Article 254
 - (d) Article 245
16. Which is the lowest court to approach for criminal matters?
- (a) Munsif Court
 - (b) Judicial Magistrate
 - (c) Sessions Court
 - (d) District Court
17. Mention the number of judges in the Supreme Court of India including Chief Justice of India currently.
- (a) 23
 - (b) 32
 - (c) 34
 - (d) 46
18. Fundamental Rights are mentioned under which part of the Constitution of India?
- (a) Part-II
 - (b) Part-III
 - (c) Part-IX
 - (d) Part-XII
19. Municipalities are provided for authority under which part of the Constitution of India?
- (a) Part IX
 - (b) Part IXA
 - (c) Part III
 - (d) Part I
20. Under what Article of the Constitution of India, 1950 is the Governor of a State empowered to make an Ordinance?
- (a) 123
 - (b) 243
 - (c) 245
 - (d) 213
21. What Are Personal Laws?
- (a) Laws relating to inter personal behaviour
 - (b) Customs (religious beliefs) that have now been codified
 - (c) Laws that a person makes
 - (d) Laws based on opinion
22. Which Article of the Constitution of India, deal with inconsistency between laws made by Parliament and laws made by the Legislatures of States?
- (a) Article 245
 - (b) Article 254
 - (c) Article 368
 - (d) Article 32

23. What is a Private Bill?
- A bill introduced by a member other than a Minister
 - Bill introduced by a private citizen
 - Bill introduced by a Private company
 - A bill relating affairs which are private to individual
24. The Parliament for the Union of India which shall consist?
- The President, the Council of States (Rajya Sabha) and the House of the People (Lok Sabha)
 - Rajya Sabha
 - Lok Sabha
 - Legislative Assembly

SECTION – B: BUSINESS COMMUNICATION

25. If a message is short and to the point, the message is said to be _____ ?
- Correct
 - Concise
 - Coherent
 - Complete
26. The way the information is described into a message and put in verbal or non-verbal medium is known as-
- Feedback
 - Decoding
 - Encoding
 - None of the above
27. Affirming comments with regard to future behaviour is called _____ .
- Positive Feedback
 - Negative Feed forward
 - Positive Feed forward
 - Decoding
28. Corrective comments with regard to past behaviour-
- Encoding
 - Positive Feedback
 - Negative Feed forward
 - Negative Feedback
29. The word communication comes from the Latin verb communicare, which means -
- to share
 - to promote
 - to procure
 - to know
30. What is the last step of communication process?
- Encoding
 - Transmitting
 - Decoding
 - Feedback

Answer:

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

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

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. What is the Accounting Cycle?
 - (a) The process of recording, classifying, and reporting financial information
 - (b) The process of preparing financial statements
 - (c) The process of preparing a budget
 - (d) The process of analyzing financial performance
2. What is Cash Accounting?
 - (a) A method of accounting that recognizes revenues and expenses when earned or incurred
 - (b) A method of accounting that recognizes revenues and expenses when received or paid
 - (c) A method of accounting that recognizes revenues and expenses when earned and received
 - (d) A method of accounting that recognizes revenues and expenses when incurred and paid
3. What is the Matching Principle?
 - (a) The principle that requires expenses to be matched with revenues
 - (b) The principle that requires revenues to be recognized when earned
 - (c) The principle that requires expenses to be recognized when incurred
 - (d) The principle that requires assets to be valued at cost
4. Which of the following is a fundamental accounting assumption?
 - (a) Going concern
 - (b) Consistency
 - (c) Materiality
 - (d) All of the above
5. What is the Accounting Period Assumption?
 - (a) The assumption that a company's life can be divided into distinct periods
 - (b) The assumption that a company's financial statements are accurate
 - (c) The assumption that a company's financial statements are reliable
 - (d) The assumption that a company's financial statements are relevant
6. What is Materiality in Accounting?
 - (a) The concept that all financial information must be disclosed
 - (b) The concept that only significant financial information must be disclosed
 - (c) The concept that all financial information must be accurate
 - (d) The concept that all financial information must be reliable
7. What is the Going Concern Assumption?
 - (a) The assumption that a company will continue to operate for the foreseeable future
 - (b) The assumption that a company will liquidate its assets in the near future
 - (c) The assumption that a company's financial statements are accurate
 - (d) The assumption that a company's financial statements are reliable
8. What is a Deferred Expense?
 - (a) An expense that has been paid but not yet incurred
 - (b) An expense that has been incurred but not yet paid
 - (c) A revenue that has been earned but not yet received
 - (d) A revenue that has been received but not yet earned
9. On receipt of goods the consignee debits which of these accounts :
 - (a) Purchases Account
 - (b) Goods Account
 - (c) Beneficiary Account
 - (d) None of the above
10. What is Accrued Revenue?
 - (a) Revenue that has been earned but not yet received
 - (b) Revenue that has been received but not yet earned
 - (c) An expense that has been incurred but not yet paid
 - (d) An expense that has been paid but not yet incurred

11. Non-financial transactions are not recorded in books of accounts, because of
- Entity concept
 - Money measurement concept
 - Matching principle
 - Cost Concept
12. Difference between Fixed Assets and Current Assets is due to
- Time Period
 - Going concern
 - Consistency
 - Conservatism
13. What is Accrued Expense?
- An expense that has been incurred but not yet paid
 - An expense that has been paid but not yet incurred
 - Revenue that has been earned but not yet received
 - Revenue that has been received but not yet earned
14. What is the purpose of a Petty Cash Fund?
- To provide a fund for small expenditures
 - To provide a fund for large expenditures
 - To provide a fund for travel expenses
 - To provide a fund for entertainment expenses
15. What is the purpose of a Notes to the Financial Statements?
- To provide additional information about specific financial statement items
 - To provide a summary of the financial statements
 - To provide an analysis of the financial statements
 - To provide a forecast of future financial performance
16. What is the difference between a Capital Expenditure and a Revenue Expenditure?
- A capital expenditure is a payment made to acquire an asset, while a revenue expenditure is a payment made to generate revenue
 - A capital expenditure is a payment made to generate revenue, while a revenue expenditure is a payment made to acquire an asset
 - A capital expenditure is a payment made to acquire a current asset, while a revenue expenditure is a payment made to acquire a non-current asset
 - A capital expenditure is a payment made to acquire a non-current asset, while a revenue expenditure is a payment made to acquire a current asset
17. What is the difference between a Direct Cost and an Indirect Cost?
- A direct cost is a cost that can be directly attributed to a specific product or service, while an indirect cost is a cost that cannot be directly attributed to a specific product or service
 - A direct cost is a cost that cannot be directly attributed to a specific product or service, while an indirect cost is a cost that can be directly attributed to a specific product or service
 - A direct cost is a fixed cost, while an indirect cost is a variable cost
 - A direct cost is a variable cost, while an indirect cost is a fixed cost
18. What is the purpose of a Depreciation Expense?
- To allocate the cost of a tangible asset over its useful life
 - To allocate the cost of an intangible asset over its useful life
 - To recognize a gain on the sale of an asset
 - To recognize a loss on the sale of an asset
19. What is the Accounting Concept of Consistency?
- The concept that accounting methods and procedures should be consistent from one period to another
 - The concept that accounting methods and procedures should be changed frequently
 - The concept that accounting methods and procedures should be based on the industry in which the company operates
 - The concept that accounting methods and procedures should be based on the size of the company
20. What is a Contingent Liability?
- A liability that is likely to occur but is not certain
 - A liability that is certain to occur
 - A liability that is unlikely to occur
 - A liability that has already been paid

21. What is a Provision?
- An amount set aside for a specific purpose
 - An amount set aside for a general purpose
 - An amount set aside for a contingent liability
 - An amount set aside for a certain liability
22. What is the difference between a Direct Cost and an Indirect Cost?
- A direct cost is a cost that can be directly attributed to a specific product or service, while an indirect cost is a cost that cannot be directly attributed to a specific product or service
 - A direct cost is a cost that cannot be directly attributed to a specific product or service, while an indirect cost is a cost that can be directly attributed to a specific product or service
 - A direct cost is a fixed cost, while an indirect cost is a variable cost
 - A direct cost is a variable cost, while an indirect cost is a fixed cost
23. What is the purpose of a Budget?
- To provide a detailed plan for future financial activities
 - To provide a summary of past financial performance
 - To provide an analysis of current financial performance
 - To provide a forecast of future financial performance
24. Which of the following is a direct cost?
- Rent of the factory building
 - Salary of the production supervisor
 - Cost of raw materials used in production
 - Depreciation of office equipment
25. What is the purpose of budgeting in costing?
- To determine the actual cost of a product
 - To determine the standard cost of a product
 - To plan and control the costs of a company
 - To determine the selling price of a product
26. What is the primary objective of costing?
- To determine the selling price of a product
 - To determine the cost of a product or service
 - To determine the profit of a company
 - To determine the efficiency of a company
27. Which of the following is a direct cost?
- Rent of the factory building
 - Salary of the production supervisor
 - Cost of raw materials used in production
 - Depreciation of office equipment
28. Opportunity cost is the best example of –
- Sunk Cost
 - Standard Cost
 - Relevant cost
 - Input Cost
29. Costing is applied in Canteen
- Contract
 - Operating
 - Process
 - Batch
30. Which cost system description applies to the manufacture of 20 engraved doors for the new club house of the cricket Stadium?
- Contract
 - Process
 - Batch
 - Service

Answer:

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

Topic

Fundamentals
of Business
Mathematics -

Module 1:
Arithmetic

Fundamentals of
Business Statistics

Module 4:
Statistical
Representation of
Data

FOUNDATION

Paper-3

Fundamentals
of Business
Mathematics and
Statistics (FBMS)

In this issue we will carry out MCQs on Arithmetic and Statistical Representation of Data—refer Module 1 and Module 4 of Study guide.

1. MR X arranges to pay off a debt of ₹9,600 in 48 annual instalments which form an AP. When 40 of these instalments are paid, MR X becomes insolvent with ₹2,400 still remains unpaid. Then value of second instalment is
 - (a) ₹97.50
 - (b) ₹92.50
 - (c) ₹82.50
 - (d) ₹87.50
2. An enterprise produced 600 units in the 3rd year of its existence and 700 units in its 7th year. If production is maintained as an AP then initial production in the first year is
 - (a) 580
 - (b) 575
 - (c) 550
 - (d) 590
3. The sum of first 6 terms of a GP is 9 times the sum of first three terms. The common ratio is
 - (a) 3
 - (b) $\frac{1}{3}$
 - (c) 1
 - (d) 2
4. Find sum of all natural numbers from 100 to 300 which are divisible by 4
 - (a) 10900
 - (b) 10200
 - (c) 10000
 - (d) 11000
5. A man saved ₹16,500 in 10 years. In each year after the first he saved ₹100 more than he did in the preceding year. In the first year his savings was
 - (a) ₹1,000
 - (b) ₹1,000
 - (c) ₹1,200
 - (d) ₹800
6. A moneylender lends ₹1000 and charges an overall interest of ₹140. He recovers the loan and interest by 12 monthly instalments each less by ₹10 than the preceding one. The amount of the first instalment is
 - (a) ₹175
 - (b) ₹300
 - (c) ₹150
 - (d) ₹400
7. If $\frac{1}{A} - \frac{1}{B} \propto \frac{1}{A-B}$ then
 - (a) $A^2 + B^2 \propto AB^2$
 - (b) $A^2 + B^2 \propto A^2 B^2$
 - (c) $A^2 + B^2 \propto \frac{A}{B}$
 - (d) $A^2 + B^2 \propto AB$
8. If $AB \propto XY$ and $\frac{A}{B} + \frac{B}{A} = \frac{X}{Y} + \frac{Y}{X}$ then
 - (a) $A + B \propto X + Y$
 - (b) $A + B \propto XY$
 - (c) $AB \propto X + Y$
 - (d) $A + B \propto \frac{1}{X+Y}$
9. If $A \propto B$ and $C \propto D$, then
 - (a) $\frac{A}{C} \propto \frac{D}{B}$
 - (b) $\frac{A}{C} \propto \frac{B}{D}$
 - (c) $\frac{C}{A} \propto \frac{B}{D}$
 - (d) $\frac{C}{A} \propto \frac{D}{B}$
10. If $A \propto BC$ and $B \propto CA$, then
 - (a) A is a constant
 - (b) B is a constant
 - (c) C is a constant
 - (d) $AB \propto C^2$
11. Calculate Time (in hours), if the Distance is 5000 kms and speed is 125 km/hr.
 - (a) 40 hours
 - (b) 20 minutes
 - (c) 60 hours
 - (d) 100 minutes

12. With 5% increase in Distance and 2.50% decrease in Time, what would be the impact on Speed?
- Decrease by 7.14%
 - Increase by 7.69%
 - Decrease by 7.69%
 - Increase by 7.14%
13. In a bar diagram data is represented by
- Bars of equal heights with differing width on x axis
 - Bars of equal width on x axis with differing heights
 - Bars of equal width on x axis with equal heights
 - Bars of differing volume

For exercise 13-17, refer the following table:

The table below shows the number of cappuccinos sold at two coffee counters A & B between 4 p.m. to 5 p.m. for a sample of 5 days last month

A	B
20	20
40	45
50	50
60	55
80	80

13. The mean value of each location is
- 60, 50
 - 60, 60
 - 50, 50
 - 70, 60
14. In a survey of 200 luxury car owners, 30 were from kolkata, 90 from Delhi, 60 from Mumbai and balance from Chennai. Level of measurement reflected by above data is
- Nominal Scale
 - Ratio Scale
 - Interval Scale
 - Ordinal scale
15. Which of the following variable reflects Ratio level measurement?
- Student IQ ratings
 - Distance students travel to class
 - Number of hours students study per week
 - A student's State of birth
16. Types of Statistics are
- 4
 - 5
 - 3
 - 2
17. Which one of the following is a quantitative variable?
- Colour of eyes
 - Type of vehicle owned
 - Grade point average of a student
 - Beverage preference
18. Which one of the following statement is correct?
- Continuous variable can assume only certain values
 - Discreet variable can assume any value within a specified range
 - Continuous variable can assume any value within a specified range
 - a and c above
19. With this level of measurement the data are sorted into categories with no particular order in the categories. The level of Measurement is
- Nominal
 - Ordinal
 - Interval
 - Ratio

20. A grouping of qualitative data into mutually exclusive and collectively exhaustive classes showing the number of observations in each class is called
- Frequency Table
 - Frequency Polygon
 - Frequency Curve
 - Ogive
21. In bar chart class frequencies are
- Proportional to area of the bars
 - Proportional to heights of the bars
 - Proportional to volume of the bars
 - Proportional to breadths of the bars
22. The commissions earned by all sales staff of a company for the first quarter of the current year are collected, the data thus developed is called
- Processed Data
 - Raw Data
 - Mutually exhaustive Data
 - All the above
23. In a frequency distribution of marks obtained by 180 students if the frequency of a particular group is 4, then relative frequency for the group is
- 4
 - 0.977
 - 0.035
 - 0.022
24. A set of data consist of 38 observations. For the frequency distribution appropriate number of classes would be
- 4
 - 5
 - 6
 - 7
25. A set of data consists of 230 observations between 235 and 567 the appropriate class intervals recommended will be
- 15 or 20
 - 25 or 30;
 - 45 or 50
 - 55 or 60;
26. A histogram for a frequency distribution based on quantitative data is similar to.
- Bar Chart showing distribution of qualitative data
 - Pie chart showing distribution of qualitative data
 - Ogive with qualitative data
 - b and c above
27. Cost of sugar in a month under the heads Raw-materials, Labour, direct production and others were 12, 20, 35 and 23 units respectively. What is the difference between the central angles for the largest and smallest components of the cost of sugar?
- 72°
 - 48°
 - 56°
 - 92°
28. Class interval of a class is
- Upper limit + Lower limit
 - $(\text{Upper limit} - \text{Lower limit})/2$
 - Upper limit/Lower limit
 - $(\text{Upper limit} - \text{Lower limit})$
29. This allows us to compare directly two or more frequency distributions. This is called
- Histogram
 - Frequency Polygon
 - Bar chart
 - None of the above
30. A pie chart shows
- The proportion each distinct class represents of the total number of cumulative frequency
 - The proportion each distinct class represents of the total number of observations
 - The proportion each distinct class represents of the relative frequency of observations
 - None of these

Answer Keys:

1	d	We can write $9600 = 48/2 [2a+(48-1)d]$ & $(9600-2400) = 40/2[2a+(40-1)d]$ & hence the result
2	c	By question $600 = a+2d$ & $700 = a+6d$ and hence the result
3	d	$\frac{a(r^6 - 1)}{r - 1} = 9 \frac{a(r^3 - 1)}{r - 1}$. Hence the result.
4	b	Series is $100+104+108+\dots\dots\dots 300$. So $300 = 100+ (n-1) 4$, Hence the result
5	c	$16500 = 10/2[2 \times a + 9 \times 100]$, Hence the result
6	c	$1000+140 = 12/2[2 \times a + 11 \times (-) 10]$, Find a
7	d	
8	a	
9	b	
10	c	
11	a	Distance = 5000 km Speed = 125 km/hr Speed (km/hr) = Distance(km) / Time(hours) $125 \text{ km/hr} = 5000 \text{ km} / \text{Time (hours)}$ Time (hours) = $5000 \text{ km} / 125 \text{ km/hr}$ Time (hours) = $5000/125 = 40$ hours
12	b	Let Distance be 100 – Increase by 5% - New Distance = 105 Time be 50 – Decrease by 2.5% - New Time = 48.75 Speed = $100/50 = 2$, New Speed = $105/48.75 = 2.1538$ Change in Speed = $2.1538-2 = 0.1538$ Increase (%) = $0.1538/2 \times 100 = 7.69\%$

13	b	19	a	25	c
14	a	20	a	26	a
15	c	21	b	27	d
16	d	22	b	28	d
17	c	23	d	29	b
18	c	24	c	30	b

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 some problems in arithmetic section are given as keys.

Topic

Fundamentals of
Business Economics -

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 JANUARY 2025

The rule of law, private property, religious freedom, a free press, individual liberty, and a respect for education, although elitist in nature, offered enormous potential for a country and economy, that is India, that had been exploited by British rule. Choosing to follow Gandhi and his disdain for modernization and the values it upheld, the government leadership decided to follow a village-centric model of self-sufficiency. The result was one step forward for independence and two steps backward for the future of India. It was the first Prime minister of India, Jawaharlal Nehru, who put the final nail in the coffin of India's economic growth, modernization, and global competitiveness for the next 40 years. Nehru, who had received the finest British education available at the time, was a socialist and a fan of Stalin. His belief, shared by many leading economists of the time, was that the govt. should drive industrialization and control the economy. This approach culminated in the infamous "License Raj" and created the basis for an economy that grew at a snail's pace. It also stifled innovation and the entrepreneurial and kept hundreds of millions of Indians in a state of abject poverty.(to be continued)

Let us start our MOCK TEST

Chose the correct answer:

1. Who was the proponent of the scarcity definition of economics?
 - (a) Samuelson
 - (b) Robbins
 - (c) Pigou
 - (d) Marshall
2. Who invented "Multiplier theory"?
 - (a) Schumpeter
 - (b) Samuelson
 - (c) Keynes
 - (d) None of the above
3. If the level of expenditure on a commodity remains the same, even if the price of it falls, the price elasticity of demand will be
 - (a) Greater than unity
 - (b) Less than unity
 - (c) Equal to unity
 - (d) None of the above
4. A point to the left of the mid point of a linear demand curve will have price elasticity of demand which is
 - (a) Relatively elastic
 - (b) Relatively inelastic
 - (c) Unit elastic
 - (d) None of the above
5. Demand for durable goods usually remains
 - (a) Relatively elastic
 - (b) Relatively inelastic
 - (c) Unitary elastic
 - (d) None of the above
6. The price elasticity of demand for salt is
 - (a) Elastic
 - (b) Perfectly elastic
 - (c) Inelastic
 - (d) None of the above
7. When 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
8. Law of increasing returns to scale is a
 - (a) Long run phenomenon
 - (b) Medium run phenomenon
 - (c) Short run phenomenon
 - (d) None of the above
9. As output rises, AFC
 - (a) Also rises
 - (b) First falls then rises
 - (c) Falls but it cannot be zero
 - (d) None of the above

10. When AVC is rising then
- $SMC > AVC$
 - $SMC < AVC$
 - $SMC = AVC$
 - None of the above
11. When AVC curve is rising
- SMC curve will also be rising
 - SMC curve will be falling
 - SMC curve will be parallel to x-axis
 - Nothing can be predicted
12. Profit will be maximum when
- $AR = MR$
 - MR curve cuts the AR curve from below
 - Both A and B
 - None of the above
13. Internal economies of scale occurs when
- LAC curve sloping downward
 - SAC curve sloping downward
 - LAC curve sloping upward
 - SAC curve sloping upward
14. External economies of scale occurs when
- LAC curve shifts downward
 - SAC curve shifts downward
 - LAC curve shifts upward
 - SAC curve shifts upward
15. The principal goal of a monopoly firm is assumed to be
- Sales maximization
 - Revenue maximization
 - Profit maximization
 - None of the above
16. Product differentiation is the other name of
- Monopoly
 - Discriminating monopoly
 - Monopolistic competition
 - None of the above
17. Kinked demand curve is related to
- Oligopoly
 - Monopoly
 - Monopolistic competition
 - None of the above
18. Under perfect competition, a firm faces a demand curve which is
- Downward sloping
 - Parallel to the x-axis
 - Upward rising
 - None of the above
19. What is the name of the central bank of England?
- Central bank of England
 - Bank of London
 - Bank of England
 - None of the above
20. Inflation can be controlled if
- Bank rate is increased
 - Govt. bond is sold in the open market
 - CRR is increased
 - All the three above
21. The narrow money in an economy is denoted by
- M4
 - M3
 - M1
 - None of the above
22. The final step in decision making process is
- Selection of an alternative
 - Developing alternative
 - Evaluation of alternative
 - Implementation and follow up of decision
23. Free-rein Leadership is also known as
- Laissez Faire leadership
 - Participative leadership
 - Authoritarian leadership
 - None of the above

24. Selection is a process of rejection hence it is a
- Positive process
 - Negative process
 - either A or B
 - none of the above
25. T-group training is also called
- Class room training
 - Apprenticeship training
 - Internship training
 - Sensitivity training
26. Introduction of a person to a job is called
- Induction
 - Placement
 - Orientation
 - None of the above
27. Vestibule training is considered as a part of
- Off-the-job training
 - On-the-job training
 - Both A and B
 - None of the above
28. Who takes the initiative in formulating major objectives, strategies, policies
- Middle management
 - Top management
 - Lower management
 - All of the above
29. Which of the following are called standing plans?
- Policies
 - Procedures
 - Rules
 - All of the above
30. Carrot and stick approach to motivation is adopted under which system?
- Exploitative Autocratic
 - Benevolent Autocratic
 - Consultative
 - Democratic

Answer:

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

So friends!!

Hope you have enjoyed the mock test throughout. I hope you are studying the SELF LEARNING MATERIAL thoroughly. If you do, this mock test will be a cake-walk for you. Please maintain a record of your performance in all the mock tests. That will indicate your progress in this paper. Of course you should not consult the KEY before you finish off solving the test paper.

Wish you all the best !!!

CMA INTERMEDIATE COURSE

Syllabus 2022

Topic

Module 2:
Indian Contracts
Act, 1872

INTERMEDIATE

Group I - Paper-5

Business Laws and
Ethics (BLE)

BUSINESS LAWS AND ETHICS

It is expected that you - the students prepare a time-table with time allotted for each subject and read, write, revise and recapitulate all that you keep on reading. The first important point is that you must read the Bare Act and the Sections and start asking questions to yourself and find your own answers. In this issue we shall deal with Indian Contract Act, mainly one special type of contract, i.e. Bailment as per Indian Contract Act, 1872.

Special Contract: Bailment and Pledge

Chapter IX of the Indian Contract Act, 1872 deals with bailment and pledge.

Bailment

Section 148 defines the term 'bailment' as the delivery of goods by one person to another for some purpose, upon a contract that they shall, when the purpose is accomplished, be returned or otherwise disposed of according to the directions of the person delivering them. The bailment consists of-

Bailor – the person delivering the goods is called the 'bailor'; and

Bailee – the person to whom the goods are delivered is called the 'bailee'.

If a person, already in possession of the goods of other contracts to hold them as a bailee, he thereby becomes the bailee and the owner becomes the bailor of such goods, although they may not have been delivered by way of bailment.

The following are ingredients of the bailment-

1. There must be a delivery of specific goods by one person to another;
2. The delivery must be for some purpose;
3. The delivery must be upon a contract that the goods shall, when the purpose is accomplished, be returned or otherwise disposed of according to the directions of the bailor.

Classification of Bailment

Bailment may be classified into voluntary and involuntary. Voluntary bailments are the outcome of an express contract between the parties. Instances of

involuntary bailments are found in cases of finders of good or of goods sent to a wrong place, or in excess of the quantity ordered, or in cases where the bailee dies and the subject of bailment comes into the hands of the bailee's heirs. Where there is no obligation to return the identical article, either in its original or in an altered form, there is no contract of bailment.

Delivery to Bailee how made

Section 149 provides that the delivery to the bailee may be made by doing anything which has the effect of putting the goods in the possession of the intended bailee or any persons authorised to hold them on his behalf.

Bailor's duty

Section 150 lays down three duties, namely-

- i. It is the duty of the bailor to disclose to the bailee faults in the goods bailed, of which the bailor is aware, and which materially interfere with the use of them, or expose the bailee to extra ordinary risks;
- ii. If the bailor does not make such disclosure and some loss or damage results, he is responsible for so much of it as arises to the bailee directly from such faults;
- iii. If the goods are bailed for hire, the bailor is responsible for damage arising to the bailee directly from such faults, whether he was or was not aware of the existence of such faults in the goods bailed.

Examples:

1. Arup lends a horse, which he knows to be vicious, to Barun. He does not disclose the fact that the horse is vicious. The horse runs away. Barun is thrown and injured. Arup is responsible to Barun for damages sustained.
2. Amal hires a carriage of Bimal. The carriage is unsafe, though Bimal is not aware of it, and Amal is injured. Bimal is responsible to Amal for the injury.

Care to be taken by Bailee

Section 151 provides that in all cases of bailment the bailee is bound to take as much care of the goods bailed

to him as a man of ordinary prudence would, under similar circumstances, take of his own goods of the same bulk, quality and value as the goods bailed.

In ‘Nagalinga Chettiyar V. Kayarebana Chettiyar’—AIR 1915 Mad. 80 it was held that where the standard of care prescribed by Section 151 is not observed the bailee cannot be exonerated from his liability simply because the bailee’s goods were also lost along with the goods bailed.

In ‘Sirmour Truck Operators Union V. National Insurance Co. Limited’ AIR 2011 (NOC) 389 (HP) it was held that the carrier cannot be exempted from its own negligence or negligence by his agent where goods carried at ‘owner’s risk’ and cannot escape from the liability to make good loss.

Bailee when not liable

Section 152 provides that the bailee, in the absence of any special contract, is not responsible for the loss, destruction or deterioration of the thing bailed, if he has taken the amount of care described in Section 151.

Termination of Bailment

Section 153 provides that a contract of bailment is voidable at the option of the bailor, if the bailee does any act with regard to the goods bailed, inconsistent with the conditions of the bailment.

Example: A lets to B, for hire, a horse for his own riding. B drives the horse in his carriage. This is at the option of A, a termination of the bailment.

In ‘Neekram vs. Bank of Bengal’ ILR 19 Cal.322 (PV) it was held that this section is intended for the Protection of the bailor whose goods are being used by the bailee

in a manner consistent with the conditions of the bailment. The bailor may put an end to the bailment although it was created for a specified purpose which has not been accomplished or for a prescribed which has not expired. But merely exercising his rights irregularly by the bailee, e.g., a sub pledge or a premature sale by a pledge will not attract the application of the section.

Liability for unauthorized use of bailed goods

Section 154 provides that if the bailee makes any use of goods bailed, which is not according to the conditions of the bailment, he is liable to make compensation to the bailor for any damage arising to the goods from or during such use of them.

Example:

- a) A lends a horse to B for his own riding only. B allows is, a member of his family, to ride the horse. C rides with care, but the horse accidentally falls and injured. B is liable to make compensation to A for the injury done to the horse.
- b) A hires a horse in Kolkata from B expressly to march to Patna. A rides with due care but marches to Cuttack instead. The horse accidentally falls and is injured. A is liable to make compensation to B for the injury to the horse.

In ‘Hafizullah V. Montague’ 165I C354 it was held that where a car was entrusted to the defendant as a bailee and the evidence establishes that he was using the car for his private purposes in contravention of his agreement with the plaintiff, the bailor, it was held that the defendant was liable for the damages arising from such use.

Topic

Module 1:
Accounting
Fundamentals

INTERMEDIATE

Group I - Paper-6

Financial Accounting (FA)

Bank Reconciliation Statement

A Bank Reconciliation Statement (BRS) is a document that matches the cash balance on a company's balance sheet to the corresponding amount on its bank statement. The purpose is to ensure the accuracy of financial records and to identify any discrepancies.

Steps to Prepare a Bank Reconciliation Statement

1. **Compare the opening balances:** Ensure the opening balance of the cash book matches the bank statement.
2. **Check deposits and withdrawals:** Verify that all deposits and withdrawals are recorded in both records.
3. **Identify outstanding checks:** List all checks issued but not yet cleared.
4. **Identify deposits in transit:** List all deposits recorded in the cash book but not yet credited by the bank.
5. **Adjust for bank errors:** Note any errors made by the bank and adjust accordingly.
6. **Adjust for company errors:** Correct any errors made in the company's records.
7. **Prepare the reconciliation statement:** Start with the bank statement balance, add deposits in transit, deduct outstanding checks, and adjust for any errors to arrive at the adjusted cash book balance.

Key Concepts

- **Cash Book:** Records all cash transactions.
- **Bank Statement:** Issued by the bank, showing all transactions in the bank account.
- **Outstanding Checks:** Checks that have been issued but not yet cleared by the bank.
- **Deposits in Transit:** Deposits recorded in the company's books but not yet credited by the bank.
- **Bank Errors:** Mistakes made by the bank in recording transactions.
- **Company Errors:** Mistakes made by the company in recording transactions.

Importance of Bank Reconciliation Statement

1. Ensures Accuracy of Financial Records

- o **Detection of Errors:** Identifies discrepancies between the company's records and the bank's records, such as incorrect entries or omissions.
- o **Prevents Mistakes:** Helps prevent errors in financial statements by ensuring that the cash book and bank statement balances match.

2. Fraud Prevention and Detection

- o **Identifies Unauthorized Transactions:** Helps spot unauthorized or fraudulent transactions by comparing the bank statement with the company's cash book.
- o **Mitigates Risk of Embezzlement:** Regular reconciliation reduces the risk of internal fraud or embezzlement.

3. Effective Cash Management

- o **Accurate Cash Position:** Provides an accurate picture of the company's cash position, helping in effective cash flow management.
- o **Informed Decision-Making:** Enables better decision-making regarding cash requirements and investments.

4. Improves Internal Control

- o **Accountability:** Enhances accountability by ensuring that all transactions are properly recorded and reconciled.
- o **Operational Efficiency:** Streamlines financial processes and improves operational efficiency by maintaining up-to-date records.

5. Compliance and Auditing

- o **Regulatory Compliance:** Helps comply with regulatory requirements by maintaining accurate financial records.
- o **Audit Trail:** Provides a clear audit trail for external auditors, simplifying the auditing process.

6. Prepares for Financial Reporting

- o **Accurate Financial Statements:** Ensures that financial statements accurately reflect the company's financial position.

- o **Transparency:** Enhances transparency and reliability of financial information provided to stakeholders.

A Bank Reconciliation Statement is crucial for maintaining the integrity and accuracy of a company's financial records. It plays a vital role in error detection, fraud prevention, effective cash management, improving internal controls, ensuring compliance, and preparing accurate financial statements. Regular reconciliation helps businesses maintain accurate records, make informed decisions, and provide transparent financial information to stakeholders.

Example

Suppose the bank statement shows a balance of ₹10,000, while the cash book shows ₹9,500. After comparing the two, you identify the following:

- Outstanding checks: ₹1,500
- Deposits in transit: ₹2,000
- Bank error (overcharge): ₹100
- Company error (under-recorded withdrawal): ₹400

Bank Reconciliation Statement

Particulars	Amount
Balance as per bank statement	₹10,000
Add: Deposits in transit	₹2,000
Less: Outstanding checks	₹1,500
Add: Bank error	₹100
Less: Company error	₹400
Adjusted cash book balance	₹10,200

Depreciation and Amortisation

Depreciation and amortization are accounting methods used to allocate the cost of tangible and intangible assets over their useful lives. These methods help in matching the cost of assets with the revenue they generate over time.

Depreciation

Depreciation is an accounting method used to allocate the cost of a tangible asset over its useful life. This systematic allocation helps reflect the usage, wear and tear, or obsolescence of the asset in the company's financial statements.

Objectives of Depreciation

- **Match Expenses with Revenue:** Ensures that the cost of an asset is matched with the revenue it generates over time.
- **Reflect True Asset Value:** Provides a more accurate representation of an asset's value on the balance sheet.
- **Financial Planning:** Helps in planning for the replacement of assets by spreading their cost over their useful life.

Factors Affecting Depreciation

- **Cost of the Asset:** The initial purchase price and any additional costs necessary to prepare the asset for use.
- **Useful Life:** The estimated period over which the asset will be productive.

- **Residual Value (Salvage Value):** The estimated value of the asset at the end of its useful life.
- **Depreciation Method:** The chosen method of calculating depreciation expense.

Methods:

- Straight-Line Method
- Declining Balance Method
- Units of Production Method
- Sum-of-the-Years-Digits Method

Example:

1. A company purchases a piece of machinery for \$15,000. The machinery has an estimated useful life of 5 years and a salvage value of \$3,000. Calculate the annual depreciation expense using the straight-line method.

$$\text{Depreciation Expense} = \frac{\text{Cost} - \text{Salvage Value}}{\text{Useful Life}}$$

$$\text{Depreciation Expense} = \frac{15,000 - 3,000}{5} = 2,400$$

2. An asset is purchased for ₹25,000 with no salvage value and a useful life of 4 years. Calculate the depreciation expense for the first two years using the double declining balance method.

$$\text{Depreciation Rate} = 100\% / \text{Useful Life} \times 2 = 100\% / 4 \times 2 = 50\%$$

First Year:

Depreciation Expense = Book Value at Beginning of Year × Depreciation Rate

$$\text{Depreciation Expense} = 25,000 \times 50\% = 12,500$$

Second Year:

Book Value at Beginning of Second Year = Cost – Accumulated Depreciation

$$\text{Book Value} = 25,000 - 12,500 = 12,500$$

$$\text{Depreciation Expense} = 12,500 \times 50\% = 6,250$$

The depreciation expenses are ₹12,500 for the first year and ₹6,250 for the second year.

Amortisation

Amortization is the process of spreading the cost of an intangible asset over its useful life. This accounting method ensures that the expense related to the intangible asset is matched with the revenue it generates over time.

Objectives of Amortization

- **Expense Allocation:** Spreads the cost of intangible assets over their useful lives.
- **Financial Accuracy:** Reflects the decline in value of intangible assets over time.
- **Revenue Matching:** Matches the cost of intangible assets with the revenue they help generate.

Questions:

1. What is the main purpose of a Bank Reconciliation Statement?
 - a) To prepare financial statements
 - b) To match the company's cash book with the bank statement
 - c) To record all cash transactions
 - d) To reconcile outstanding invoices
2. Which of the following is an example of a deposit in transit?
 - a) A check issued but not yet cleared
 - b) A bank charge not recorded in the cash book
 - c) A deposit made but not yet credited by the bank
 - d) A loan repayment

Intangible Assets Subject to Amortization

- **Patents:** Exclusive rights to produce or sell an invention.
- **Copyrights:** Exclusive rights to reproduce and sell artistic or literary work.
- **Trademarks:** Rights to use a symbol, name, or logo.
- **Franchise Agreements:** Rights to operate a business using another company's name and systems.
- **Goodwill:** The value of a company's brand name, customer relationships, etc.

Amortization Methods

- Straight-Line Method:
- Units of Production Method

Impact of Amortization

- **Financial Statements:** Reduces net income on the income statement and the book value of intangible assets on the balance sheet.
- **Taxation:** Amortization expense is deductible for tax purposes, reducing taxable income.

Example:

A company acquires a copyright for ₹1,00,000 with a useful life of 20 years and no residual value.

$$\text{Amortization Expense} = 1,00,000/20 = ₹5,000 \text{ per year}$$

3. What should be done if the bank statement shows an overcharge?
 - a) Record the overcharge in the cash book
 - b) Ignore the overcharge
 - c) Adjust the bank statement
 - d) Add the overcharge to the bank reconciliation statement
4. An outstanding check is:
 - a) A check recorded in the cash book but not yet cleared by the bank
 - b) A check that has been cleared by the bank but not recorded in the cash book
 - c) A check that has been issued and cleared
 - d) A check that has been cancelled

5. If the bank reconciliation statement shows an adjusted cash book balance higher than the bank statement balance, which of the following might be true?
 - a) There are outstanding checks
 - b) There are deposits in transit
 - c) The bank has made an error
 - d) The company has made an error
6. What is the primary purpose of depreciation?
 - a) To allocate the cost of an asset over its useful life
 - b) To increase the value of an asset over time
 - c) To match the revenue with the expenses in the same period
 - d) Both a and c
7. Which depreciation method allocates an equal amount of expense each year?
 - a) Declining Balance Method
 - b) Straight-Line Method
 - c) Units of Production Method
 - d) Sum-of-the-Years-Digits Method
8. How is accumulated depreciation reported in the financial statements?
 - a) As an expense on the income statement
 - b) As a contra asset on the balance sheet
 - c) As a liability on the balance sheet
 - d) As a revenue on the income statement
9. What is the primary purpose of amortization?
 - a) To allocate the cost of an intangible asset over its useful life
 - b) To increase the value of an intangible asset over time
 - c) To match the revenue with the expenses in the same period
 - d) Both a and c
10. Which of the following is an example of an intangible asset that would be amortized?
 - a) Building
 - b) Equipment
 - c) Patent
 - d) Land

Answer:

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

Topic

Module 2:
Heads of Income

INTERMEDIATE

Group I - Paper-7A

Direct Taxation (DT)

Retirement Benefits

Gratuity [Sec. 10(10)]

Gratuity is a lump sum payment made by an employer to its employee in consideration of his past services when the employment is terminated. Gratuity scheme serves as an instrument of social security to the salaried assessee.

An employee may be covered by the Payment of Gratuity Act, 1972 (hereinafter referred as Gratuity Act) or may not be covered by that Act depending on the circumstances given under the said Act.

Tax Treatments of Gratuity are as follows:

Gratuity received	Treatment
1. During service tenure	Fully taxable [Sec. 17(1)(iii)]
2. At the time of retirement to the employee of:	
a) Government	Fully exempted [Sec. 10(10)(i)]
b) Any other Employer	
i) Covered by the Payment of Gratuity Act	Minimum of the following shall be exempted from tax u/s 10(10)(ii): <ol style="list-style-type: none"> 1. Actual Gratuity received; 2. ₹ 20,00,000; 3. 15 working days¹ salary² for every completed year of service³ [$\frac{15}{26}$ * Completed year of service * Salary p.m.]
ii) Not covered by the Payment of Gratuity Act	Minimum of the following shall be exempted from tax u/s 10(10)(iii) <ol style="list-style-type: none"> 1. Actual Gratuity received; 2. ₹ 20,00,000; 3. $\frac{1}{2}$ * Completed year of service⁴ * Average Salary p.m.⁵
<ol style="list-style-type: none"> 1. Seven working days in case of employees of seasonal establishment 2. Salary means Basic + DA (forming part of retirement benefit), last drawn In case of piece-rated employees, salary shall be calculated by applying average of last three months wages immediately preceding his termination. 3. Completed year of service <u>includes</u> any fraction in excess of 6 months. 4. Completed year of service <u>ignores</u> any fraction of month. 5. Average Salary here means, Basic + DA (forming part of retirement benefit) + Commission (as a fixed percentage on turnover) being last 10 months average salary, immediately preceding the month of retirement. 6. Legal representative is not liable for payment of tax on income that has not accrued to the deceased till his death. 	

Leave Encashment Salary [Sec. 10(10AA)]

As per service contract and discipline, normally, every employee is allowed certain period of leave (with pay), every year. Such leave may be availed during the year or accumulated by the employee. The accumulated leave lying to the credit of an employee may be availed subsequently or encashed. When an employee receives an amount for waiving leave lying to his credit, such amount is known as leave salary encashment.

Tax Treatment of leave encashment is as under

Case	Treatment
1. During service tenure	Fully taxable [Sec. 17(1)(va)]
2. At the time of retirement by employee of:	
a) Government	Exempted [Sec.10(10AA)(i)]
b) Other Employer	Minimum of the following shall be exempted from tax u/s 10(10AA)(ii): a) Actual amount received; b) ₹ 25,00,000; c) 10 months average salary ¹ d) Cash equivalent of 30 days average salary for every completed year of service ² as reduced by actual leave availed or encashed during the tenure of service. The period of 30 days is the maximum ceiling. If employer allows leave for less than 30 days p.a. then such lesser days shall be considered.
1. Average salary means Basic + DA (forming part of retirement benefit) + Commission (as a fixed percentage on turnover) being last 10 months average salary from the date of retirement .	
2. While calculating completed year of service, <u>ignore</u> any fraction of the year.	
3. Leave salary paid to the legal heir of deceased employee is not taxable.	

Pension [Sec. 10(10A)]

Pension, normally means, a periodical payment received by an employee after his retirement. However, on certain occasion, employer allows to withdraw a lump sum amount as the present value of periodical pension. When pension is received periodically by employee, it is known as Uncommuted Pension. On the other hand, pension received in lump sum is known as Commuted pension.

Tax Treatment of pension is as under

Cases	Treatment
1. Uncommuted Pension received by any employee	Fully Taxable [Sec. 17(1)(ii)]
2. Commuted Pension (i.e lump sum payment) received by a	
a) Government employee	Fully exempted [Sec.10(10A)(i)]
b) Other employee	
i) If employee receives gratuity	1/3 rd of the total value of commuted pension, which he is normally entitled, is exempted. [Sec. 10(10A)(ia)]
ii) If employee does not receive gratuity	½ of the total value of commuted pension, which he is normally entitled, is exempted. [Sec. 10(10A)(iib)]
a) Pension received by a widow or legal heir of a deceased employee shall not be taxable as salary but taxable u/s 56 as income from other sources	
b) Pension received from United Nations Organisation is not taxable. Further, pension received by a widow of the United Nations ex-officials from UN Joint Staff Pension Fund is also exempt	

The benefit of sec. 10(10) or sec. 10(10A) or sec. 10(10AA) are available irrespective of the regime opted by the assessee.

Illustration

Mr. Narayan retired from service on 1/6/2024. As on that date, his monthly salary was Basic ₹ 5,000 p.m., Commission on turnover 5%. Total turnover achieved by him during last 10 months (occurred evenly) ₹ 5,00,000. On retirement, after 20 years 6 months of service, he received gratuity ₹ 5,00,000, leave salary ₹ 3,00,000. He is entitled to pension of ₹ 1,500 p.m. On 1/1/2025, he commuted 60% of his pension and received ₹ 90,000. Compute gross salary assuming he is covered by the Payment of Gratuity Act.

Solution**Computation of Gross Salary of Mr. Narayan for the A.Y.2025-26**

Particulars	Details	Amount	Amount
Basic Salary	5,000 x 2		10,000
Commission on turnover	(5,00,000/10x2) x 5%		5,000
<u>Gratuity</u>		5,00,000	
<i>Less: Minimum shall be exempted u/s 10(10)(ii)</i>			
a) Actual Amount Received	5,00,000		
b) Statutory Amount	20,00,000		
c) $\frac{15}{26} \times 20 \times ₹ 5,000$	57,692	57,692	4,42,308
<u>Leave Encashment</u>		3,00,000	
<i>Less: Minimum shall be exempted u/s 10(10AA)(ii)</i>			
a) Actual Amount Received	3,00,000		
b) Statutory Amount	25,00,000		
c) 10 x ₹ 7,500	75,000		
d) 1 x 20 x ₹ 7,500	1,50,000	75,000	2,25,000
<u>Pension</u>			
Uncommuted Pension	(1500 x 7) + (600 x 3)		12,300
Commuted Pension Received		90,000	
<i>Less: Exempted u/s 10(10A)(ii)</i>	$\frac{1}{3} \times 1,50,000$	50,000	40,000
Gross Taxable Salary			7,34,608

Topic

Module 4:
Concept of Indirect
Taxes

INTERMEDIATE

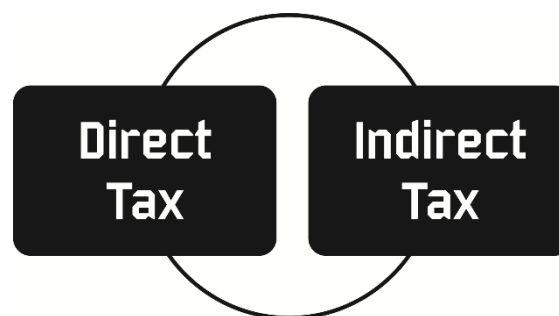
Group I - Paper-7B

Indirect Taxation
(IDT)

Concept of Indirect Tax

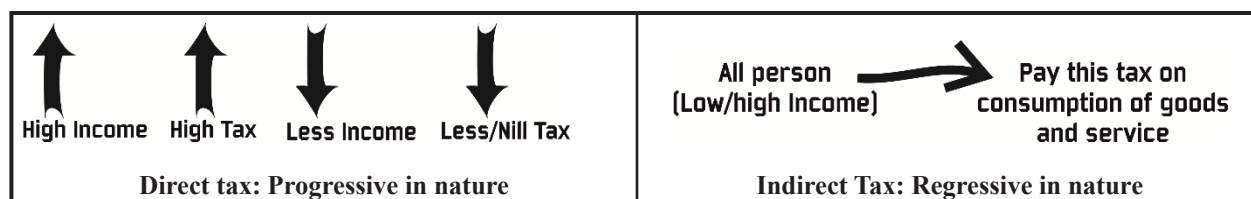
In a Welfare State, the Government takes primary responsibility for the welfare of its citizens, as in matters of health care, education, employment, infrastructure, social security and other development needs. To facilitate these, Government needs revenue. Taxation is the primary source of revenue to the Government for incurring such public welfare expenditure. In other words, Government is taking taxes from the public through its one hand and through another hand; it incurs welfare expenditure for public at large. However, no one enjoys handing over his hard-earned money to the government to pay taxes. Thus, taxes are compulsory or enforced contribution to the Government revenue by public. The government may levy taxes on income, business profits or wealth or add it to the cost of some goods, services, and transactions.

There are two types of taxes: Direct Tax and Indirect Tax



Type of Taxation

Tax, of which incidence and impact fall on the same person, is known as Direct Tax, such as Income Tax. On the other hand, tax, of which incidence and impact fall on two different persons, is known as Indirect Tax, such as GST, etc. It means, in the case of Direct Tax, tax is recovered directly from the assessee, who ultimately bears such taxes, whereas in the case of Indirect Tax, tax is recovered from the assessee, who passes such burden to another person & is ultimately borne by consumers of such goods or services.



Features of Indirect Taxes

Indirect taxes are taxes that are levied on goods and services rather than on income or profits. These taxes are collected by an intermediary (such as a retailer or manufacturer) from the person who ultimately bears the economic burden of the tax (such as the consumer). Here are some key points about indirect taxes:

- ❖ **Tax on goods and services:** Indirect tax is levied at the time of supply or manufacture or purchase or sale or import or export of goods. Further, it is also levied on supply.
- ❖ **Burden:** Tax, being indirect tax paid by the seller, shall be recovered by the seller from the buyer. Thus, one can say that burden of indirect tax is shifted from seller to buyer and ultimately borne by consumers of such goods or services.

- ❖ **Inflationary in nature:** Cost of goods and services increases due to levy of indirect tax thus indirect taxes promote inflation.
- ❖ **Social welfare:** It is useful tool to promote social welfare by checking the consumption of harmful goods or sin goods through higher rate of tax.
- ❖ **Wider Tax Base:** Majority of goods and services are liable to indirect tax with very low threshold limits, so tax base is much wider in case of indirect tax in compare to direct tax.
- ❖ **Regressive in Nature:** All persons (rich or poor) will bear equal wrath of tax on goods or service consumed by them irrespective of their ability. In other words, indirect tax does not create any difference between rich and poor. Poor people are also required to pay equal percentage of tax on certain goods and service of mass consumption.

Thus, it may increase the disparities between rich and poor.

✿ **No pinch:** Seller (the person on which indirect tax is levied) does not perceive a direct pinch of tax as it is recovered by him from the buyer and then he is paying to the Government. On the other hand, since it is inbuilt in the price of the goods, the ultimate payer (i.e., buyer) pay it without knowing that he is paying any tax to the Government.

✿ **Examples of Indirect Taxes in India:**

- *Goods and Services Tax (GST):* A comprehensive indirect tax on the manufacture, sale, and consumption of goods and services throughout India, replacing multiple indirect taxes like VAT, excise duty, and service tax³.
- *Customs Duty:* Levied on goods imported into India, aimed at protecting domestic industries and generating revenue.
- *Excise Duty:* Previously levied on the manufacture of goods within India, now largely subsumed under GST.

Comparison Chart

Basis	Direct Tax	Indirect Tax
Meaning	Direct tax is referred to as the tax, levied on person's income and wealth and is paid directly to the government.	Indirect Tax is referred to as the tax, levied on a person who consumes the goods and services and is paid indirectly to the government.
Nature	Progressive in nature i.e., higher tax is levied on a person earning higher income and vice versa.	Regressive in nature i.e., all persons will bear equal wrath of tax on goods or service consumed by them irrespective of their ability.
Incidence and Impact	Falls on the same person. Assessee, himself bears such taxes. Thus, it pinches the taxpayer.	Falls on different person. Tax is recovered from the assessee, who passes such burden to another person. Thus, it does not pinch the taxpayer.

Example	Income Tax	GST, Custom Duty
Evasion	Tax evasion is possible	Tax evasion is hardly possible because it is included in the price of the goods and services.
Inflation	Direct tax helps in reducing the inflation.	Cost of goods and services increases due to levy of indirect tax thus indirect taxes promote inflation. However, sometimes it is useful tool to promote social welfare by checking the consumption of harmful goods or sin goods through higher rate of tax.
Imposition and collection	Imposed on and collected from the same person	Imposed on and collected from consumers of goods and services but paid and deposited by the assessee.
Burden	Cannot be shifted	Can be shifted
Event	Taxable income of the assessee	Supply of goods and services

Conclusion

Indirect taxes play a crucial role in the revenue generation of governments worldwide. They are embedded in the prices of goods and services, making them less visible to consumers but impactful on their purchasing power. Understanding the concept and implications of indirect taxes is essential for both consumers and businesses.

Topic

Module 2:
Cost Ascertainment
- Elements of Cost

INTERMEDIATE

Group I - Paper-8

Cost Accounting (CA)

COST ACCOUNTING

Materials

Almost in every year in examination one or more questions have been set from this Chapter. Specially in the area of Stores pricing . EOQ levels of stock and stock valuation . Students feel difficulty in the areas like treatment of Returns and Shortage of stores , determination of impact on profit of different valuation methods , pricing of issues etc. Students should be clear about the distinction between material control and inventory control . Consumption reduction of direct material at production level does not mean inventory control – rather , it falls under material control. Normal loss is debited to production overhead whereas Abnormal loss should be charged to Costing Profit and Loss Account.

The term “ **Materials** “ refers to the basic items require for the purpose or rendering services . It is a major part of current assets as well as working capital . About 50% to 80% of total capital is generally invested in material .The average investment in material varies from industry to industry . Hence , control must be exercised during the time the time of purchase , storage and utilization of materials.

Purchase department and its functions

Like all other functions purchasing is an important function of management. In big manufacturing organisations separate purchase departments are being set for conducting purchases. Top management lays down the purchase policy and, accordingly, necessary purchases are made by the purchase department. It is the independent function of the purchase department to decide : (i) What to purchase (i) Where to purchase, (iii) When to purchase, (iv) How to purchase.

Centralised vs Decentralised Purchase

When all purchases are made under the control of a purchaser or chief purchaser who ranks level with the top management, the buying is said to be ‘centralised’. But, if the buying function is performed by other respective departmental managers, including the chief purchaser, it is said to be decentralised. The decision for centralised or decentralised purchase will depend on (i) type and quality of material required, (ii) location of the production centres, (iii) policy of the firm and (iv) urgency of purchasing items.

Although centralised purchase is expensive due to

increase in administrative cost, it has the advantage of low price and uniform quality, availability of efficient buying staff, economy in accounting and maintaining optimum stock.

Purchasing Procedure

The main functions of purchase department may include :

- (i) Receiving properly authorised purchase requisitions.
- (ii) Exploring the best sources of supply and selecting the supplier.
- (iii) Placement of purchase order and following up the delivery.
- (iv) Inspecting and receiving of materials, and
- (v) Checking inward invoices and passing the vouchers for payments.

Classification and Codification

In order to ensure greater control, materials should be classified on the basis of some similarity, usage etc. and also assigned some symbols or identification numbers or code numbers. Classification accompanied by a proper codification helps not only in proper maintenance of stores but it also facilitates in mechanised accounting and re-ordering.

Different Stock Levels

In order to ensure scientific control and optimum level of inventory, different levels of stocks are fixed, which are :

- (i) Reorder level
- (ii) Maximum level
- (iii) Minimum level
- (iv) Danger level
- (v) Average level

(i) Reorder Level.

It is that level of stock at which new purchase order is placed for fresh supplies of the material. It is fixed somewhere between the maximum and minimum levels to avoid unnecessary storage or shortage.

Formula: Re-order Level = Maximum period required for delivery x Maximum usage or consumption per day/ week/month.

(ii) Maximum Level.

The maximum level represents that level of stock above which the stock should not be allowed to rise. This level is to be fixed keeping in mind unnecessary blocking of capital in stores. This level is to be fixed keeping in mind unnecessary blocking of capital in stores.

Formula: Maximum Level = Re-order level + Re-order quantity - (Minimum consumption x Minimum period of delivery).

(iii) Minimum Level

It is that level below which the inventory of any item should not be allowed to fall. It is known as safety or buffer stock. The main object of fixing this level is to avoid unnecessary delay or hampering of production due to shortage of materials.

Formula : Minimum level = Re-order level - (Normal consumption per day/Week/month x

Average period required to obtain delivery).

(iv) Danger Level.

Generally, this level is fixed below the minimum level and represents the level where immediate steps are taken for getting stock replenished. In some cases, danger level stock is fixed above the minimum level but below the re-ordering level.

(v) Average Level.

It is the average level of stocks that should be maintained throughout the year. The cost of storage depends on this average stock.

Formula: $\frac{1}{2}$ (Maximum level + Minimum Level)

Economic Ordering Quantity (EOQ):

It refers to that quantity where the total inventory carrying cost and ordering cost is minimum. This represents the most favourable quantity to be ordered at the time of purchase . EOQ is also known as Reorder quantities.

Formula: $EOQ = \sqrt{2AB/C}$, where A = Annual Consumption / demand, B = Buying Cost per order, C = Carrying Cost per unit p.a.

Bin Card :

The Bin card shows physical movement of each item of materials in stores . This is a quantitative record of

receipts , issues and closing balance of store items. Separate cards are used for each item of material and are placed in shelves or bins where that materials are kept .

Elements of Cost :

The heading under various kinds of expenditures is analysed and are called elements of cost. Elements of cost are : Direct Material, Direct Labour, Direct Expenses and Overheads. Now, the Overheads are classified into functions:-

Factory or Production, Administration, Selling and Distribution.

Now we can discuss the exact meanings of elements of costs :

Direct Materials.

Direct Materials are those materials that can be treated as a part of the product. It includes:

- (i) Materials specially purchased for a particular job.
- (ii) Materials passing from one process to the other.
- (iii) Primary packing materials such as cardboard, cartons etc.

Direct Labour or Wages

It is all labour expended in the construction, conformation, composition or condition of the product:It has a linear relationship with the volume of output i.e. it directly changes with the change of production unit.

Direct Expenses.

Direct expenses are those expenses which are neither direct material nor direct wages but are directly identifiable with a particular job, product or process.

Examples: (i) Cost of drawing and design, (ii) Cost of special designs or moulds etc.

Overhead.

It may be defined as the cost which is incurred over and above prime cost i.e. it is the aggregate of indirect materials, indirect wages and indirect expenses.

Overhead expenses may be subdivided on the basis of function and behaviour and element wise

Functional Classification.

The main functions of a manufacturing-cum-selling concern are production,administration,selling and distribution.

The costs which are generally related with these functions are called :

(a) Production Cost (b) Administration Cost (c) Selling and Distribution Cost.

Production Cost or Production Overhead. This type of cost covers all indirect expenditure incurred in the factory.

Administrative Overhead. This includes all expenses incurred in connection with planning, policy making, coordinating, controlling and other general administration.

Selling Overhead. It is the expenses which are incurred in giving service to the existing customers and in prospecting new customers.

Distribution Overhead. This comprises all expenditure incurred in packing, making the packet product ready to despatch, despatching and bringing back the empty cases, upkeep and running of delivery vehicles, salary of despatch clerk etc.

Behavioural Classification

With the change of production units some cost will change directly, some costs will remain unchanged while others will change not in proportion with the change of production. Therefore, behaviour cost can be classified and analysed in following way :

Variable Cost.

The cost which tends to vary directly with volume of production units is known as variable cost.

Examples: Direct labour, Direct material, Direct expenses, Consumable cost, Power fuel etc.

Semivariable Cost. Semivariable costs are those costs which are partly variable and partly fixed i.e., this type of costs change with the change of production but not proportionately.

Examples: Repair and maintenance, Telephone charges, Depreciation, service department wages etc.

Fixed Cost

The cost which tends to remain unaffected by the changes in production units.

Examples: Insurance ,Manager’s salary,rent,rates and Taxes etc.

Elementwise Classification

Indirect Materials. It may be defined as ‘materials

which cannot be allocated but which be apportioned to or absorbed by cost centre or cost units.

Examples : Stores used in maintenance of machinery, cotton waste •etc.

Indirect Labour. The wages of that labour which cannot be- allocated but which can be apportioned to or absorbed by cost centre or cost units, is called as indirect labour.

Examples: Supervisors’ wages, wages to, apprentices, trainees and instructors etc.

Indirect Expenses. These are the expenses which cannot be allocated but can be apportioned to or absorbed by cost centres or cost units.

Examples: Rent, insurance, municipal taxes, general manager’s salary, telephone expenses etc.

Cost Sheet

Cost Sheet is the statement of cost expressed elementwise. In a cost sheet , besides total expenditure, cost per unit of output , and the various stages of cost , from prime cost to total cost , are shown systematically.

The preparation of Cost Sheet would be cleared from the following example:-

Problem

From the following information prepare a Cost Sheet showing (a)the value of materials consumed , (b) the Cost of production , (c) Cost Of Sales, (d) the Total Net Profit , and (e) Net Profit per ton :

Particulars	₹
Purchase of Raw materials	2,64,000
Direct Wages	2,20,000
Carriage in ward	3,168
Works on Cost	88,000
Stock on 1.1.24.:	
Raw materials	44,000
Work-in-progress	10,500
Finished Goods (1600 tons)	35,200
Stock on 31.12. 24.	
Raw materials	48,928
Work-in- progress	35,200
Finished Good (3200 tons)	70,400
Sales	6,60,000
Office on Cost	17,600

Selling expenses amount to 0.75 paise per ton., 25,600 tons were produced during the year.

Solution:**Cost Sheet for the year ended 31. 12. 2024.**

Particulars	Amount (₹)	Amount (₹)
Opening Stock	44,000	
Add: Purchase	2, 64,000	
	3,08,000	
Less: Closing Stock	48,928	
	2,59,072	
Add : Carriage in ward	3,168	
Raw Material consumed	2,62,240	
Add ; Direct Wages	2,20,000	
Prime Cost		4,82,240
Factory Overhead:		
Works Cost	88,000	
Add : Opening WIP	10,500	
	98,500	
Less: Closing Work-in-progress	35,200	
		63,300
Works Cost		5,45,540
Office and Administration : Office On Cost		17,600
Cost of Production		5,63,140
Add : Opening Finished Goods		35,200
		5,98,340
Less: Closing Finished Goods		70,400
Cost of Goods Sold		5,27,940
Selling and Distribution Overhead :		
Selling Expenses { 24000 x ₹0.75 }		18,000
		5,45,940
Add: Profit (balancing figure)		1,14,060
Total Sales		6,60,000

Working notes :-

Calculation of Sales Units :	Tons .
Opening Finished Stock	1,600
Add: Purchase	25,600
	27,200
Less: Closing Finished Goods	3,200
	24,000

Net Profit Per ton : Net Profit / Sales units = 114060 / 24000 = ₹ 4.75 appox.

Topic

Module 2:
Operations
Planning

INTERMEDIATE

Group II - Paper-9

Operations
Management
and Strategic
Management
(OMSM)

Operations Management

In this issue we will discuss on Facility Location.

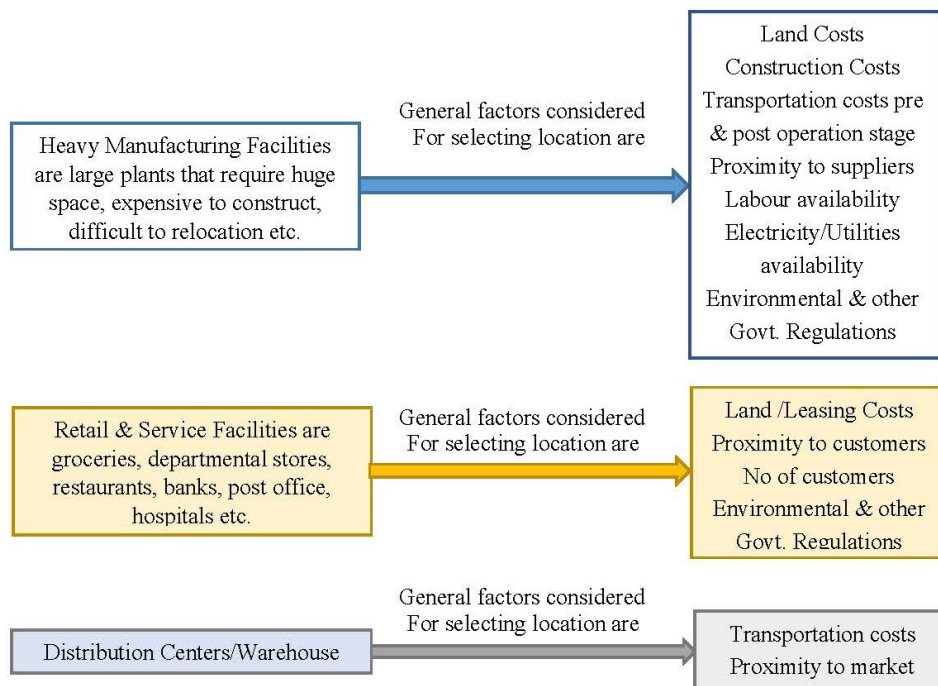
Location of facilities for operation is a long term irrevocable (generally) commitment decision. Generally because it is not easy to change the location of the operations base once it has been established.



While selecting location the first step is

Which type of facility we want--- Is it a heavy manufacturing facility or a service facility or a warehouse

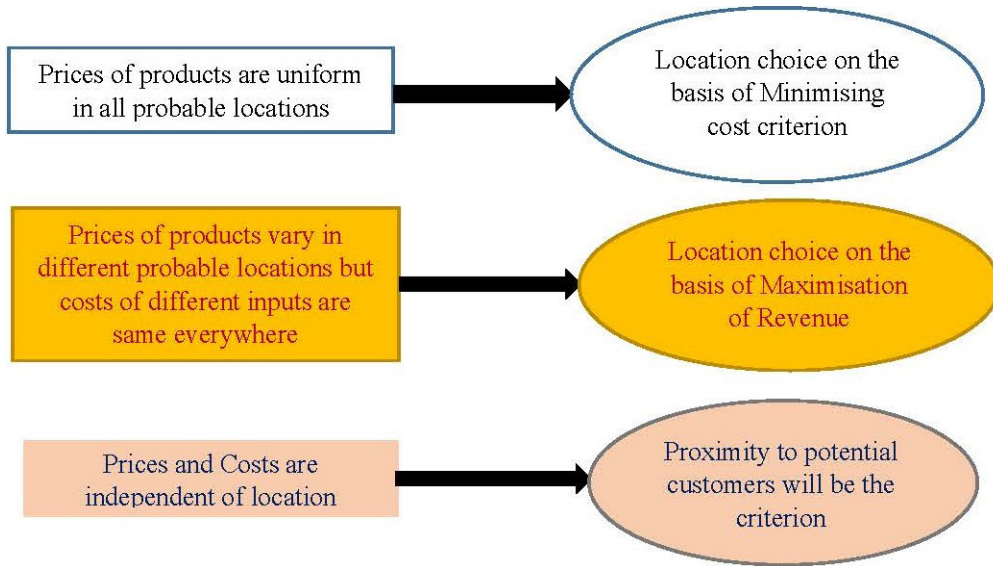
Factors considered for locating manufacturing facilities are different than that considered for locating service facilities.



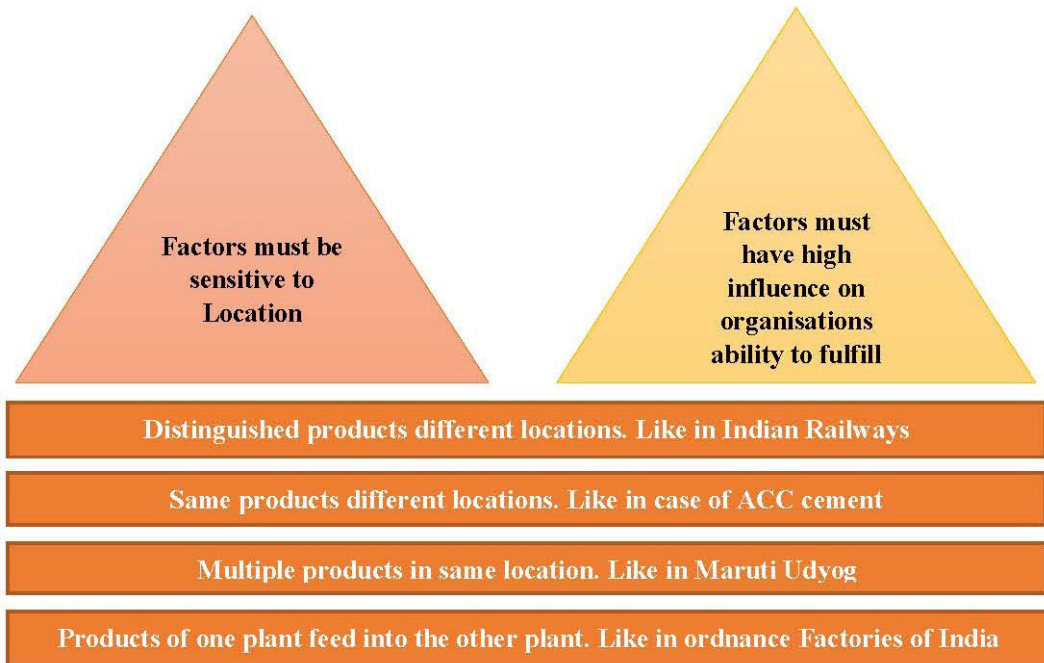
The location decision needs to be taken under two different situations:

- i) Location of facility by an establishment for the first time;
- ii) Location of facility by an establishment having one or two facility already existing;

But in all cases Profit maximization for economic activities will be the main criterion while selecting the location of facility on the basis of different factors. Under this main Profit maximization criterion the choices are:



Location decisions are usually made more frequently by service providing organisations than that deal with manufacturing facilities. But Both Manufacturing and service organisations consider many factors both tangible & intangible, short run & long run while selecting location for facilities.



Location choice for an established organisations i.e. organisations having already existing facilities is taken on its multi-plant operations strategies. The different strategies could be:

Location choice for the first time is not covered by any prevailing strategy. So in this case before deciding upon the location, organizational strategies to achieve organizational goals and objectives are to be decided.

Location of facilities can be On-shore or Off-shore.

Factors which are to be considered in location selection must fulfill at least one of the two conditions:

On shore factors are generally:

- Labour –availability, education, costs, attitudes, union etc;
- Proximity to customers;
- Number of Customers;
- Land/construction/leasing/rental costs;
- Modes and quality of transportation;
- Community;
- Government regulations;
- Local business regulations;
- Government services;
- Business Climate;
- Community services;
- Incentive packages;
- Environmental regulations;
- Raw material availability;
- Weather/climate;
- Infrastructure/Availability of logistics;
- Quality of life;
- Tax environment;
- Banking systems;
- Availability of financial services/securities;
- Proximity of suppliers;
- Education system;
- Availability of utilities
- Quality of services of utilities;

Off-shore factors are generally:

- Government stability;
- Government regulations;
- Political and economic environment;
- Relation with home country;
- Prospect of foreign market and its growth;
- Foreign exchange rates;
- Culture;
- Weather/Climate;
- Export/Import regulation, duties, tariffs;
- Raw material availability;
- Number and proximity of suppliers;
- Transportation and distribution systems;
- Labour –availability, education, costs, attitudes, union etc.
- Availability of technology;
- Technical expertise;
- Cross border trade regulations;
- Group trade agreements;

In location of facilities problem few important points to remember are:

- ▶ in any facility location problem the central objective is to assess whether the location helps the establishment to remain competitive for a long time;
- ▶ to an established organization capacity can be increased either by expansion of the facilities at the existing site/sites or by relocation of the facilities (closing down the existing ones), other than opening up of new facility;
- ▶ location decisions for service facilities are taken more frequently than manufacturing facilities;
- ▶ although the primary location criteria for a service related business is usually access to customers but it will not only be the only criteria. Other factors mainly financial considerations also be factors;

- ▶ good infrastructure always attracts more new business facilities;
- ▶ besides physical and social characteristics, local incentives are also important factors in attracting new business facilities. Incentives include cash and relaxed government regulations;
- ▶ favourable labour climate is the most important factor for location decision of a labour intensive firms;
- ▶ favourable labour climate applies not only to the workforce already on site but also to the employees that a firm hopes will transfer to or will be attracted to the new site;
- ▶ if minimization of costs is the criteria for location decision then considerations be made not only for today's costs but for long run costs also to be included;
- ▶ tangible as well as intangible factors affecting future costs are to be considered in location decision problem;
- ▶ for manufacturing plants locating near markets is particularly important when the final goods are bulky or heavy and outbound transportation costs are high;
- ▶ firms dependent on inputs of bulky , perishable or heavy raw materials always prefer location near suppliers to reduce inbound transportation costs;
- ▶ in case of service facilities, customer proximity is not an enough consideration for facility location problem- the key is proximity to customers who will patronize the facility and seek its services;
- ▶ for warehousing and distribution facilities transportation costs and proximity to markets are two most important factors in facility location problem;
- ▶ in facility location problem management considers not only the present location of its competitors but also assess the reaction of competitors to firm's new location;
- ▶ critical mass strategy whereby facilities are located near competitors is usually adopted by some firms in industries like new-car sale, fast food centers;

Evaluating Location Alternatives:

There are a number of techniques that are helpful in evaluating location alternatives:

- Locational Cost-profit volume analysis method
- Factor rating method
- Center of gravity method

The procedure for Locational Cost-profit volume analysis method involves three steps:

- Determine the fixed and variable costs associated with each location alternative
- Plot the total-cost lines for all location alternatives on the same graph
- Determine which location will have the lowest total cost for the expected level of output. Alternatively, determine which location will have the highest profit.

Assumption for this method are:

- Fixed costs are constant for the range of probable output
- Variable Costs are linear for the range of probable
- The required level of output can be closely estimated
- Only one product is involved

The total cost for each location:

$$\text{Total Cost} = FC + v \times Q,$$

where FC fixed cost, v variable cost & Q output

Illustration:

Fixed and variable costs for four probable locations of an establishments are:

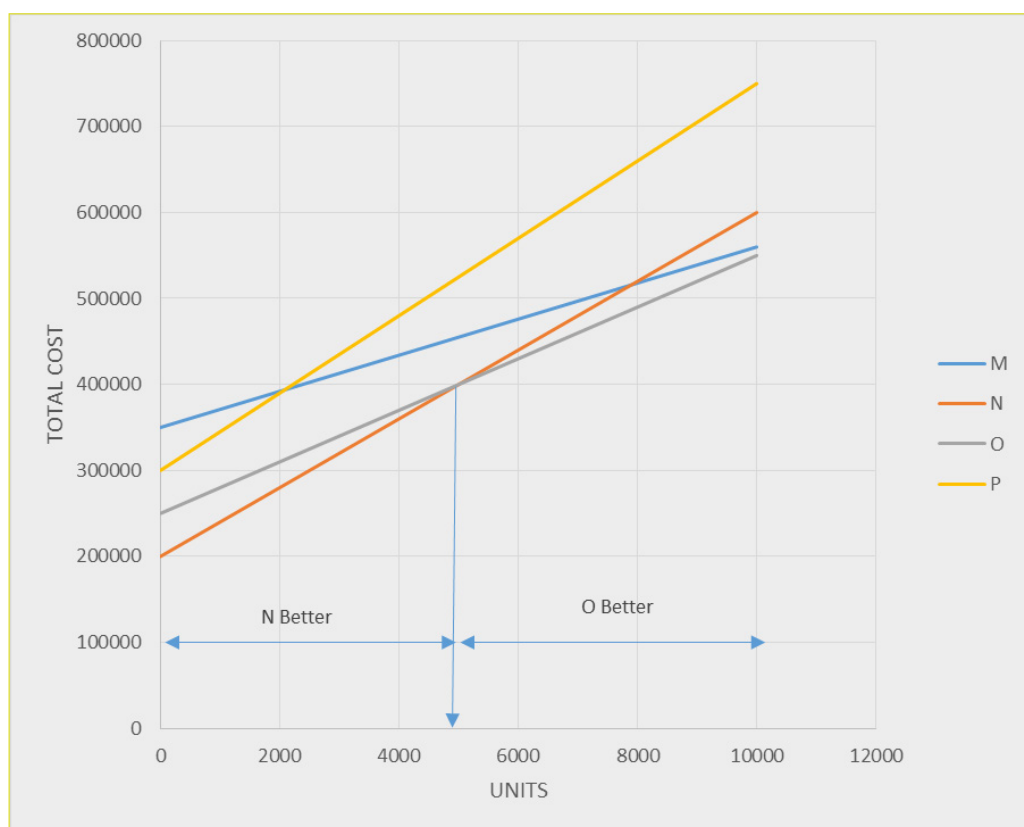
Location	Fixed Cost /year	Variable Cost p.u
M	R350000	R21
N	R200000	R40
O	R250000	R30
P	R300000	R45

- (a) Plot the total-cost lines for these locations on a single graph
- (b) Identify the range of output for which each alternative is superior (i.e. the lowest total cost)
- (c) If expected output at the selected location is to be 8000 units per year, which location would provide the lowest cost?

Answer:

To plot the total-cost lines we must assume an output level nearest to the expected output level. In this question expected output level is 8000 so we find total-cost lines at 10000 units under different locations and details are:

Location	Fixed Cost	Variable Cost	Total Cost at 10000 units
M	350000	21	560000
N	200000	40	600000
O	250000	30	550000
P	300000	45	750000



The exact range of N and O location can be found by equating the total cost lines of N and O as

$$200000 + 40Q = 250000 + 30Q$$

$$\text{Or, } 10Q = 50000$$

$$\text{Or, } Q = 5000$$

i.e. up to an output range from 0 to 5000 location N is better and above 5000 location O is better. Other two locations will never be considered under given situation

In the above method of location decision Transportation cost on many occasions plays a very important role. Under this condition Total Cost of a location will be

$$\text{Total Cost of a location at an output} = \text{Total Fixed cost} + \text{Total Variable cost} + \text{Total Transportation cost}$$

& data will be look like

Location	Fixed Cost /year	Variable Cost p.u produced	Transportation cost p.u transported
M	R450000	R40	R50

- If a facility will be the sole source or destination of shipments, the company can included the transportation costs in a locational cost volume analysis by incorporating the transportation cost per unit being shipped into the variable cost per unit.
- When a problem involves shipment of goods from multiple sending points to multiple receiving points and a new location (sending or receiving) is to be added to the system, the company should undertake a separate analysis of transportation. This analysis is called Transportation model of linear programming.

Factor Rating method is a technique that can be applied to a wide range of decisions ranging from personal (buying a car) to professional (choosing a career). It can be used for location analysis. It is better understood with an illustration

Illustration:

A Xerox shop intends to open a new outlet. The following table contains information on two potential locations. Choose the better alternative.

Factor	Weight	Location1	Location 2
Proximity to existing store	0.10	100	70
Traffic Volume	0.05	80	80
Rental Costs	0.4	70	82
Size	0.1	86	87
Layout	0.2	41	63
Operating Costs	0.15	80	93

In this method

- First relevant factors are chosen (as in column 1)
- Weights are assigned to relevant factors depending upon their sensitivity to location (as in column 2)
- Locational advantage of different locations w.r.t relevant factors are assessed on a common scale e.g,1 to 100 (as in column 3 & 4)
- Next weighted scores of different locations are measured as follows:

Factor	Weight	Location1	Location2	Weighted Score	
				Location1	Location2
Proximity to existing store	0.1	100	70	10	7
Traffic Volume	0.05	80	80	4	4
Rental Costs	0.4	70	82	28	32.8
Size	0.1	86	87	8.6	8.7
Layout	0.2	41	63	8.2	12.6
Operation costs	0.15	80	93	12	13.95
				70.8	79.05

As weighted score of location 2 is more so company should go for location 2

Center of Gravity method is a method to determine the location of a facility that will minimise shipping costs or travel time to various destinations. e.g. Community planners locate the fire station at center of the locality so that at minimum time accident points could be reached

Under this method coordinates of each location from an assumed (0, 0) position is determined and

- If the quantities to be shipped to every location are equal, the coordinate of the Center of Gravity will be

$$(\bar{x}, \bar{y})$$

$$\text{where } \bar{x} = \frac{\sum x}{n} \text{ \& } \bar{y} = \frac{\sum y}{n}, \text{ where } x \text{ \& } y \text{ the coordinates of different destinations}$$

- If the quantities to be shipped to every location are different, the coordinate of the Center of Gravity will be (\bar{x}, \bar{y})

$$\text{where } \bar{x} = \frac{\sum xQ}{\sum Q}$$

$$\text{\& } \bar{y} = \frac{\sum yQ}{\sum Q}, \text{ where } x \text{ \& } y \text{ the coordinates of different destinations}$$

Illustration:

There are four destinations D1, D2, D3 & D4. Locate a supply point on Center of Gravity method so that same quantity could be supplied to each destinations. Coordinates of destinations are (2,2), (3,5), (5,4), (8,5).

Supply point will be located at coordinates

$$\bar{x} = \frac{\sum x}{n} = \frac{2+3+5+8}{4} = 4.5 \text{ \& } \bar{y} = \frac{\sum y}{n} = \frac{2+5+4+5}{4} = 4$$

Illustration:

Suppose in the above problem supplies to be made to D1, D2, D3 and D4 are 800, 900, 200 and 100 respectively. Then coordinate of the supply point under Center of Gravity method will be

$$\bar{x} = \frac{\sum xQ}{\sum Q} = \frac{800 \times 2 + 900 \times 3 + 200 \times 5 + 100 \times 8}{800 + 900 + 200 + 100} = 3.05$$

&

$$\bar{y} = \frac{\sum yQ}{\sum Q} = \frac{800 \times 2 + 900 \times 5 + 200 \times 4 + 100 \times 5}{800 + 900 + 200 + 100} = 3.7$$

Suggestions:

This lesson could be used as an aid to teaching on Facility Location in study guide. Concept of facility location is vital in studying Operations Management. For Proper understanding read supplementary readings by referring resources mentioned in study guide published by the institute.

Best Wishes.

Topic

Module 1:
Accounting
for Shares and
Debentures

Module 6:
Basic Concepts of
Auditing

INTERMEDIATE

Group II - Paper-10

Corporate
Accounting and
Auditing (CAA)

Section A: Corporate Accounting

Topic: Forfeiture and Re-issue of Shares

• Multiple Choice Questions

- If the _____ of the company so permit, the company may confiscate the shares on the ground of non-payment of instalments.
 - Articles of Association
 - Memorandum of Association
 - Register of Members
 - None of the above
- The minimum re-issue price must be equal to _____ value less amount collected (capital portion) on each share before forfeiture.
 - paid up
 - called up
 - nominal
 - authorized
- The balance of Forfeited Shares A/c should be shown under the head _____ in the Balance Sheet.
 - Current Liabilities
 - Non-current Liabilities
 - Reserve & Surplus
 - Share Capital
- On re-issue, the profit on forfeiture and re-issue of shares must be transferred to _____ account.
 - Capital redemption reserve

- Dividend equalization reserve
- Capital reserve
- Share re-issue reserve

Answer:

1	2	3	4
A	B	D	C

• Comprehensive Problems

Problem 1

Give separate Journal Entries for the following:

- A Ltd forfeited 100 equity shares of ₹ 10 each held by Mr. P on 15th December, 2023 for non-payment of first call of ₹ 2 per share and the final call of ₹ 3 per share. These shares were re-issued to Mr. Q on 25th December, 2023 @ ₹ 6.50 per share.
- A Ltd forfeited 100 equity shares of ₹ 10 each, issued at a premium of ₹ 5 per share, held by Mr. P on 15th December, 2023, for non-payment of the final call of ₹ 3 per share. These shares were re-issued to Mr. Q on 25th December, 2023 @ ₹ 6 per share.
- A Ltd forfeited 150 equity shares of ₹ 10 each issued at a premium of ₹ 5 per share, held by Mr. P on 15th December, 2023, for non-payment of allotment money of ₹ 8 per share (including securities premium of ₹ 5 per share), the first call of ₹ 2 per share and the final call of ₹ 3 per share. Out of these 100 equity shares were re-issued to Shri Bhagwan at ₹ 15 per share on 25th December, 2023.

Solution:

In the books of A Ltd.

Journal		Dr.	Cr.
Date	Particulars	Amount (₹)	Amount (₹)
(a)	Equity Share Capital A/c...(100 x 10)....Dr.	1,000	
	To Calls in Arrear A/c (100 x (2 + 3))		500
	To Forfeited Shares A/c (100 x 5)		500
	Bank A/c.....(100 x 6.50).....Dr.	650	
	Forfeited Shares A/c (100 x 3.50)Dr.	350	
	To Equity Share Capital A/c (100 x 10)		1,000

	Forfeited Shares A/c.....(500 – 350).....Dr To Capital Reserve A/c	150	150
(b)	Equity Share Capital A/c...(100 x 10)....Dr. To Calls in Arrear A/c (100 x 3) To Forfeited Shares A/c (100 x 7)	1,000	300 700
	Bank A/c.....(100 x 6.00).....Dr. Forfeited Shares A/c (100 x 4.00)Dr. To Equity Share Capital A/c (100 x 10)	600 400	1,000
	Forfeited Shares A/c.....(700 – 400).....Dr To Capital Reserve A/c	300	300
(c)	Equity Share Capital A/c...(150 x 10)....Dr. Securities premium A/c...(150 x 5)....Dr. To Calls in Arrear A/c (150 x (8+2+3)) To Forfeited Shares A/c (150 x 2)	1,000 750	1950 300
	Bank A/c.....(100 x 15.00).....Dr. To Equity Share Capital A/c (100 x 10) To Securities Premium A/c (100 x 5)	1,500	1,000 500
(c)	Forfeited Shares A/c.....(Note 1).....Dr To Capital Reserve A/c	200	200

Note: Amount forfeited per share is ₹ 2. There is no loss on re-issue. Therefore, ₹ 2 x 100 = ₹ 200 is to be transferred to Capital Reserve and the balance of ₹ 100 will be shown in the Balance Sheet as an addition to Share Capital.

Problem 2

P Limited issued for public subscription 60,000 Equity Shares of ₹ 10 each at a premium of ₹ 2 per share payable as follows:

On application ---- ₹ 2 per share; on allotment ---- ₹ 5 per share (including premium); on first call ---- ₹ 2 per share; on second and final call ---- ₹ 3 per share.

Applications were received for 80,000 shares. Allotment was made pro rata to the applicants for 72,000 shares, the remaining applications being refused. Q, to whom 2,400 shares were allotted failed to pay the allotment and first call money and his shares were forfeited. After the second and final call was made, R, to whom 3,000 shares were allotted failed to pay the two calls. His shares were also forfeited. Subsequently, out of these forfeited shares, 3,900 shares (including all shares of Q), were re-issued to X as fully paid-up at ₹ 8 per share.

Show the necessary Journal Entries for forfeiture and reissue of shares.

Solution:

In the books of P Ltd.

Journal		Dr.	Cr.
Date	Particulars	Amount (₹)	Amount (₹)
	Equity Share Capital A/c...(2400 x 7)....Dr. Securities premium A/c...(2400 x 2)....Dr. To Calls in Arrear A/c (Note 1) To Forfeited Shares A/c (2880 x 2)	16,800 4,800	15,840 5,760

Equity Share Capital A/c...(3000 x 10)....Dr. To Calls in Arrear A/c (3000 x (2+3)) To Forfeited Shares A/c (3000 x (2+3))	30,000	15,000 15,000
Bank A/c.....(3900 x 8).....Dr. Forfeited Shares A/c (3900 x 2)Dr. To Equity Share Capital A/c (3900 x 10)	31,200 7,800	39,000
Forfeited Shares A/c.....(Note 2).....Dr To Capital Reserve A/c	5,460	5,460

Note 1: Calls-in-arrear from Q:

Allotment:

Allotment money payable (2400 x 5)	₹12,000
Less: excess application money adjusted (2400 x 12/60 x 2)	₹960
Allotment money due but not received	₹11,040
First Call: (2400 x 2)	₹4,800

Total Calls-in-arrear from Q = 11,040 + 4,800 = 15840

Note 2: Transfer to Capital Reserve

Profit on 2400 shares of Q	₹5760
Profit on 1500 shares of R	₹7500
Discount on forfeiture (3900 x 2)	(₹7800)
	₹5,460

Section B: Auditing**Topic: Basic Concepts of Auditing****Question:****1. What do you mean by the term ‘Audit Evidence’?**

As per SA 500, *Audit Evidence*, the term ‘Audit Evidence’ means information used by the auditor in arriving at the conclusions on which the auditor’s opinion is based. Audit evidence includes both information contained in the accounting records underlying the financial statements and other information.

2. Explain various methods of obtaining ‘Audit Evidence’.

Following are the various methods of obtaining audit evidence as per SA 500:

- Inspection:** Inspection involves examining records or documents, whether internal or external, in paper form, electronic form, or other media, or a physical examination of an asset. Inspection of records and documents provides audit evidence of varying degrees of reliability, depending on their nature and source and, in the case of internal records and documents, on the effectiveness of the controls over their production. An example of inspection used as a test of controls is inspection of records for evidence of authorisation.
- Observation:** Observation consists of looking at a process or procedure being performed by others, for example, the auditor’s observation of inventory counting by the entity’s personnel, or of

- the performance of control activities. Observation provides audit evidence about the performance of a process or procedure, but is limited to the point in time at which the observation takes place, and by the fact that the act of being observed may affect how the process or procedure is performed.
- c. **External Confirmation:** An external confirmation represents audit evidence obtained by the auditor as a direct written response to the auditor from a third party (the confirming party), in paper form, or by electronic or other medium. For example, the auditor may request confirmation of the terms of agreements or transactions an entity has with third parties; the confirmation request may be designed to ask if any modifications have been made to the agreement and, if so, what the relevant details are.
 - d. **Recalculation:** Recalculation consists of checking the mathematical accuracy of documents or records. Recalculation may be performed manually or electronically.
 - e. **Reperformance:** Repformance involves the auditor's independent execution of procedures or controls that were originally performed as part of the entity's internal control.
 - f. **Analytical Procedures:** Analytical procedures consist of evaluations of financial information made by a study of plausible relationships among both financial and non-financial data. Analytical procedures also encompass the investigation of identified fluctuations and relationships that are inconsistent with other relevant information or deviate significantly from predicted amounts.
 - g. **Inquiry:** Inquiry consists of seeking information of knowledgeable persons, both financial and non-financial, within the entity or outside the entity. Inquiry is used extensively throughout the audit in addition to other audit procedures. Inquiries may range from formal written inquiries to informal oral inquiries. Evaluating responses to inquiries is an integral part of the inquiry process.

Topic

Module 2:
Institutions and
Instruments in
Financial Markets

Module 8:
Introduction to
Data Science
for Business
Decision-making

INTERMEDIATE

Group II - Paper-11

Financial
Management and
Business Data
Analytics (FMDA)

Subject: Financial Management and Business Data Analytics

Financial Management

Financial Instruments

Commercial Papers

A commercial paper is an unsecured short-term promissory note issued at a discount by creditworthy corporates, primary dealers and all-India financial institutions.

Issuer: Corporates, primary dealers (PDs) and all-India financial institutions (FIs) that have been permitted to raise short-term resources under the umbrella limit fixed by the Reserve Bank of India are eligible to issue CP.

As per the RBI Guidelines a corporate would be eligible to issue CP provided:

- (a) the tangible net worth of the company, as per the latest audited balance sheet, is not less than ₹4 crore;
- (b) company has been sanctioned working capital limit by bank/s or all-India financial institution/s; and
- (c) the borrowal account of the company is classified as a Standard Asset by the financing bank/s/institution/s.

All eligible participants shall obtain credit rating for issuance of Commercial Paper from either the Credit Rating Information Services of India Ltd. (CRISIL) or the Investment Information and Credit Rating Agency of India Ltd. (ICRA) or the Credit Analysis and Research Ltd. (CARE) or the FITCH Ratings India Pvt. Ltd. or such other credit rating agencies as may be specified by the Reserve Bank of India from time to time, for the purpose. The minimum credit rating shall be P-2 of CRISIL or such equivalent rating by other agencies.

Maturity: CP can be issued for maturities between a minimum of 7 days and a maximum of up to one year from the date of issue. The maturity date of the CP should not go beyond the date up to which the credit rating of the issuer is valid.

Denominations: CP can be issued in denominations of ₹5 lakh or multiples thereof. Amount invested by a single investor should not be less than ₹5 lakh (face value).

Effective Cost/Interest Yield

As CPs are issued at discount and redeemed at their face value, their effective pre-tax interest yield

$$\left(\frac{\text{Face Value} - \text{Net amount realised}}{\text{Net amount realised}} \right) \times \left(\frac{360}{\text{Maturity period}} \right)$$

Where net amount realised = Face Value – discount – issuing and paying agent (IPA) charges, that is, stamp duty, rating charges, dealing bank fee and fee for stand by facility.

Example 1:

Assuming Face Value of a CP to be ₹ 5,00,000, maturity period to be 90 days, net amount realised = Rs 4,80,000, discount and other charges associated with the issue of CP = 1.5 per cent, what is the pre-tax effective cost of CP?

Answer:

$$\left(\frac{₹5,00,000 - (₹4,80,000 - ₹7,500)}{₹4,80,000 - ₹7,500} \right) \times \left(\frac{360}{90} \right) = 23.3\%$$

Cost of Capital

Example 2:

XYZ Ltd. requires additional finance of ₹20 lakh for meeting its investment plans. It has ₹4 lakhs in the form of retained earnings available for investment purposes. The following are the further details:

- (i) Debt-equity mix 40: 60
- ii) Cost of debt: Upto ₹4,00,000, 10% (before tax)
Beyond ₹4,00,000, 12% (before tax)
- (iii) Earning per share: ₹ 5
- (iv) Dividend Payout: 60% of earnings
- (v) Expected growth rate in dividend: 5%
- (vi) Current market price per share: ₹ 35
- (vii) Tax rate: 35%

Compute the overall weighted average after tax cost of additional finance.

Answer:

Statement showing for computation of Weighted Average Cost of Capital

Items	Amount (₹)	Weight (W)	After-tax cost (K)	Total Cost (W × K)
Equity Capital	8,00,000	0.40	14.00	5.60
Retained Earnings	4,00,000	0.20	14.00	2.80
10% Debentures	4,00,000	0.20	6.50	1.30
12% Debentures	4,00,000	0.20	7.80	1.56
Weighted Average Cost of Capital				11.26

Overall weighted average after-tax Cost of additional finance = 11.26%

Working Notes

i) Statement showing pattern of raising the additional fund:

Particulars	Amount (₹)
Debt Capital (20,000 x 40/100)	8,00,000
Equity Fund (20,000 x 60/100)	12,00,000
	20,00,000

ii) Statement showing sources of finance:

Particulars	Amount (₹)
Debt Fund:	
10% Debts	4,00,000
12% Debts	4,00,000
Total	8,00,000
Equity Fund:	
Retained Earnings	4,00,000
Equity Capital (12,00,000 – 4,00,000)	8,00,000
	12,00,000

(iii) After Tax cost of 10% Debt

$$= I/P(1-t)$$

$$= \{(4,00,000 \times 10/100) / 4,00,000\} \times (1-0.35)$$

$$= (40,000/4,00,000) \times 0.65$$

$$= 6.5\%$$

iv) After tax Cost of 12% Debt

$$= I/P(1-t)$$

$$= \{(4,00,000 \times 12/100) / 4,00,000\} \times (1-0.35)$$

$$= (48,000/4,80,000) \times 0.65$$

$$= 7.8\%$$

v) Calculation of Cost of Equity:

Present dividend per share (D_0) = EPS × Dividend Payout Ratio = 5 × 60/100 = ₹ 3

Dividend per share at the end of the year (D_1)

$$= D_0 (1+g)^1 \text{ [g = Growth rate of dividend]}$$

$$= 3(1+0.05) = ₹ 3.15$$

Now, we know that if K_e is the cost of equity, then—

$$K_e = D_1 / P + g,$$

where —

D_1 = Dividend per share at the end of the current year = ₹ 3.15

$P = \text{Market Price per Share} = ₹ 35$

$g = \text{Growth Rate of Dividend} = 0.05$

$K_e = 3.15/35 + 0.05$

$= 0.09 + 0.05$

$= 0.14 \text{ or, } 14\%$

vi) Cost of Retained Earnings:

$= 14\%$ (since, Cost of Equity Capital is 14%)

Multiple Choice Questions (MCQ)

1. X Ltd. issued Commercial Paper as per the following details:

Date of Issue : 17th January 2024

Date of Maturity : 17th April 2024

No of days : 90 Days

Face value : ₹1,000

Issue price : ₹ 985

Credit rating expenses : 0.5% of the size of the issue

IPA expenses : 0.35%

Stam Duty : 0.5%

What is the cost of the commercial paper?

- (a) 11.60%
- (b) 11.80%
- (c) 11.95%
- (d) 12.10%

Answer: (a)

2. Which of the following method/model makes use of beta in calculation of cost of equity?

- (a) Risk Adjusted Discount Model

- (b) Capital Asset Pricing Method

- (c) MM Model

- (d) Price Earning Method

Answer: (b)

3. FUTURE Ltd. issued 1,00,000 equity shares of ₹ 100 each at a premium of ₹20 each. The company has incurred issue expenses of ₹50,000. Corporate tax rate is 40%. The equity shareholders expect the rate of dividend to 18% p.a. What is the cost of equity?

- (a) 15.60%
- (b) 15.65%
- (c) 15.06%
- (d) 16.50%

Answer: (c)

4. The capital structure of ABC Ltd. comprises of the following:

Equity share capital : ₹4 lakh

8% Debentures : 1 lakh

Value of Beta : 2

Associated risk-free rate of return and market risk premium are 5% and 4% respectively. Corporate tax rate is 30%. The Weighted Average Cost of Capital (WACC) of the company will be:

- (a) 11.12%
- (b) 11.32%
- (c) 11.52%
- (d) 11.72%

Answer: (c)

Business Data Analytics

Introduction to Data Science for Business Decision-making

Data Science?

Data science is the study of data to extract insights and develop strategies for businesses and industries. Data Science is a structured approach to extracting valuable insights from data

Stages of Data Science

1. **Data Capture:** In this initial step, data is gathered from diverse sources such as databases, online platforms, or manual entry. It's crucial to collect relevant and accurate data to lay a solid foundation for analysis.
2. **Data Storage and Maintenance:** Once collected, the data undergoes cleaning and normalization to remove errors and inconsistencies. This ensures that the data is organized and stored efficiently for further processing.
3. **Data Processing:** During this phase, advanced techniques like machine learning and statistical analysis are applied to the prepared data. The goal is to uncover patterns, trends, and relationships that can provide valuable insights for decision-making.
4. **Data Analysis:** In this stage, the processed data is analyzed using various methods such as regression, predictive analysis, and qualitative techniques. These analyses help in understanding past trends, making future predictions, and identifying areas for improvement.
5. **Communication:** The insights derived from data analysis are communicated to stakeholders through reports, dashboards, and visualizations. Clear and concise communication is essential to ensure that decision-makers understand the findings and can take appropriate actions.

Data transformation

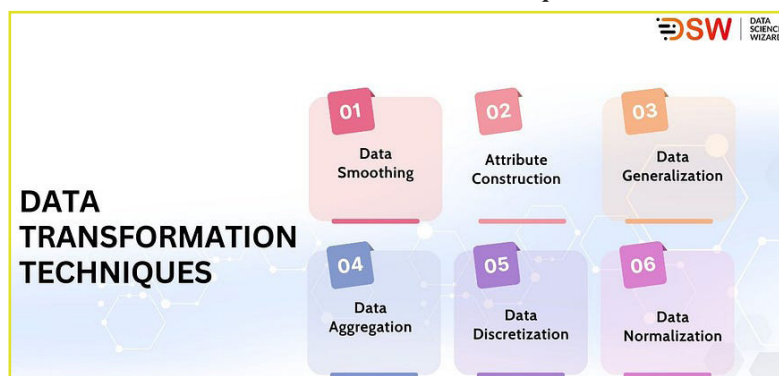
Data transformation is the *process of converting, cleaning, and structuring data into a usable format for analysis*. It prepares raw data by modifying its format, structure, or values to match target systems or analysis requirements, supporting accurate decision-making and organizational growth.

Process of Transformation of Data to Decision Relevant Information

The process of transforming data into information relevant for decision-making involves several steps, including:

1. **Data collection:** Gather relevant data from various sources.
2. **Data cleaning:** Ensure the data is accurate and consistent by cleaning and organizing it.
3. **Data transformation:** Convert the data into a usable format for analysis by modifying its structure, format, or values.
4. **Data integration:** Combine data from multiple sources into a single dataset.
5. **Data enrichment:** Add additional information to the dataset to enhance the quality of analysis.
6. **Data validation:** Check the transformed data for accuracy and completeness before proceeding with further analysis.
7. **Data loading:** Load the transformed dataset into a database or analytical tool for further analysis.
8. **Data analysis:** Analyze the data using statistical methods and data visualization techniques
9. **Interpretation:** Interpret the results to extract meaningful insights.
10. **Communication:** Communicate the findings effectively to stakeholders.

Data Transformation Techniques



Source: <https://medium.com/@datasciencewizards/introduction-to-data-transformation-935dbbfd3968>

Topic

Module 1:
Introduction to
Management
Accounting

Module 2:
Activity Based
Costing

INTERMEDIATE

Group II - Paper-12

Management Accounting (MA)

Module 1: Introduction to Management Accounting

Understanding Management Accounting

Management accounting is a branch of accounting that focuses on delivering information and analysis to assist management in making informed decisions. Unlike financial accounting, which primarily involves reporting historical financial data to external stakeholders, management accounting is forward-looking and tailored to support internal management in planning, controlling, and decision-making.

The **Chartered Institute of Management Accountants (CIMA)** defines management accounting as “the application of the principles of accounting and financial management to create, protect, preserve, and increase value for the stakeholders of for-profit and not-for-profit enterprises in the public and private sectors.”

In essence, management accounting leverages accounting techniques and principles to produce insights that enhance organizational efficiency and effectiveness. It transcends traditional cost accounting and financial reporting by incorporating tools and analyses aligned with strategic business objectives. This alignment with management’s needs sets management accounting apart from other branches of accounting that focus on external reporting.

Relationship between Management Accounting and Cost Accounting

Management Accounting and Cost Accounting are interconnected, with Cost Accounting serving as a subset of Management Accounting. While Cost Accounting focuses on identifying, measuring, and analyzing production-related costs, Management Accounting extends its scope to provide comprehensive information for decision-making, planning, and control.

Cost Accounting is based on historical costs and aids in inventory valuation and cost control, while **Management Accounting** integrates both historical and future-oriented data to facilitate strategic planning and operational decisions.

Cost Accounting contributes critical data that Management Accounting integrates with other financial and non-financial information to support organizational strategies. The user base for Cost Accounting typically includes managers in production and operations, whereas Management Accounting caters to a broader audience, including executives, department heads, and operational managers.

Comparative Analysis of Cost Accounting and Management Accounting

Basis	Cost Accounting	Management Accounting
Meaning	Focuses on cost computation, control, and reduction.	Supports management in strategic decision-making.
Application	Prevents costs from exceeding budgets.	Offers a broader perspective for strategy development.
Scope	Narrower in focus.	Broader in scope.
Measuring Grid	Quantitative.	Quantitative and qualitative.
Subset	A subset of Management Accounting.	The universal set encompassing various accounting areas.
Basis of Decisions	Based on historical information.	Combines historical and predictive data.
Statutory Requirement	Mandatory audit in some industries.	No statutory requirement.
Dependence	Independent of Management Accounting.	Relies on data from Cost and Financial Accounting.
Used For	Managers, shareholders, and vendors.	Primarily for internal management.

In summary, Cost Accounting serves as a specialized tool within the broader framework of Management Accounting, contributing essential cost data to support decision-making, planning, and control across the organization.

Scope of Management Accounting

Management Accounting encompasses a wide range of activities that support internal operations and strategic decision-making, including:

- Budgeting, planning, and forecasting.
- Measuring organizational, divisional, and departmental performance.
- Comparing results and performance within and across organizations.
- Enhancing efficiency and effectiveness.
- Assessing capital investment performance for past and future decisions.
- Advising on product mix, market selection, and pricing strategies.
- Providing guidance on outsourcing decisions.
- Allocating scarce resources among alternative investments.
- Assisting in strategic decision-making processes.

Role of a Management Accountant in Modern Business

The role of a Management Accountant in today's business environment is dynamic and multifaceted. Their contributions are critical to organizational success and sustainability. Key responsibilities include:

- Developing budgets and financial forecasts for effective planning.
- Analyzing financial data to support strategic decision-making.
- Identifying and controlling costs to improve profitability.
- Implementing cost reduction strategies and process improvements.
- Designing and monitoring Key Performance Indicators (KPIs) for performance assessment.
- Conducting variance analyses to evaluate deviations from plans.
- Assessing the financial implications of business options and decisions.
- Identifying, analyzing, and mitigating financial and operational risks.
- Ensuring compliance with accounting standards and regulations.

- Engaging in strategic tax planning and providing tax-related advice.
- Leveraging technology and data analytics for streamlined financial processes.
- Preparing and presenting internal management reports.
- Coordinating financial and operational activities across departments to meet organizational goals.

In summary, Management Accountants play a pivotal role in navigating financial complexities, offering strategic insights, and enhancing the overall performance of businesses. Their dynamic role reflects the strategic and operational demands of modern organizations.

Multiple Choice Questions (MCQs):

1. What is the primary objective of management accounting?
 - a. Tax calculation
 - b. Financial auditing
 - c. Decision-making assistance for management
 - d. Inventory valuation
2. Which technique is used to analyze non-value-added activities?
 - a. Balanced scorecard
 - b. Activity-based costing
 - c. Kaizen
 - d. SWOT analysis
3. What is the focus of management accounting during the second stage (1950-1965)?
 - a. Financial control
 - b. Strategic cost management
 - c. Information for planning and control
 - d. Value creation
4. Which of the following is NOT a contemporary management accounting technique?
 - a. Marginal costing
 - b. Just-in-Time (JIT)
 - c. Value chain analysis
 - d. Balanced scorecard
5. Which stage of management accounting evolution introduced Activity-Based Costing (ABC)?
 - a. Stage 1
 - b. Stage 2

- c. Stage 3
d. Stage 4
6. Which of the following is NOT a function of a management accountant?
- Tax Administration
 - Asset Protection
 - Product Selling
 - Financial Evaluation
7. Which author linked the development of management accounting to manufacturing needs?
- Johnson and Kaplan
 - Colin Drury
 - Garrison and Noreen
 - Horngren, Datar, and Rajan
8. Which concept emphasizes continuous improvement in processes?
- Kaizen
 - Benchmarking
 - SWOT Analysis
 - Value Chain Analysis
9. Management accounting emerged primarily during which historical period?
- Industrial Revolution
 - Pre-Industrial Revolution
 - Post-World War II
 - Information Age
10. What does the abbreviation VUCA stand for?
- Variance, Uncertainty, Complexity, Ambiguity
 - Volatility, Uncertainty, Complexity, Ambiguity
 - Variation, Usage, Clarity, Ambiguity
 - Value, Uniqueness, Clarity, Accuracy
11. Which phase of management accounting focused on cost determination?
- Phase 1
 - Phase 2
 - Phase 3
 - Phase 4

12. What is the role of strategic management accounting?
- Recording historical data
 - Supporting competitive strategy formulation
 - Managing daily operations
 - Preparing legal documents

Answer:

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

Fill in the blanks:

- In the fourth stage of evolution, the emphasis of management accounting shifted to _____ creation.
- Environmental costs in organizations have increased due to _____ and sustainability concerns.
- The official terminology of _____ defines management accounting as creating, protecting, and increasing value for stakeholders.
- The primary goal of Kaizen in management accounting is continuous _____ in processes.
- The _____ phase of management accounting evolution emphasized reduction of waste in production processes.

Answer:

1	value	2	regulatory requirements
3	CIMA	4	improvement
5	Third		

State True or False:

- Financial accounting and management accounting are completely independent.
- Management accounting is legally mandatory for all companies.
- The Balanced Scorecard is a tool used in contemporary management accounting.
- Customer satisfaction has become a key critical success factor in modern management accounting.
- The primary focus of the first stage of management accounting evolution was value creation.

Answer:

1	2	3	4	5
F	F	T	T	F

Module 2: Activity Based Costing (ABC)

Concept

Activity-Based Costing (ABC) assigns costs to activities based on their consumption of resources and subsequently assigns these costs to cost objects, such as products or customers, based on their utilization of those activities. This method tracks the flow of activities within an organization by linking resource consumption to cost objects.

According to the Chartered Institute of Management Accountants (CIMA), ABC is defined as: *“An approach to the costing and monitoring of activities which involves tracing resource consumption and costing final outputs. Resources are assigned to activities, and activities to cost objects based on consumption estimates. The latter utilize cost drivers to attach activity costs to outputs.”*

Advantages of Activity-Based Costing

- Provides more accurate costing of products or services.
- Allocates overheads logically and systematically.

- Supplies precise cost information, enabling better pricing decisions.
- Focuses on unit costs rather than just total costs.
- Identifies non-value-added activities, facilitating cost reduction.
- Useful for organizations producing multiple products.
- Highlights problem areas requiring management attention.

Limitations of Activity-Based Costing

- More expensive compared to traditional costing systems.
- Not beneficial for small organizations.
- May not be applicable to organizations with limited products.
- Selecting appropriate cost drivers can be complex and challenging.

Differences between ABC and Traditional Absorption Costing

Activity-Based Costing	Traditional Absorption Costing
1. Overheads are grouped into activity cost pools.	1. Overheads are allocated to cost centres or departments.
2. Costs are activity-based, reflecting realistic behaviour.	2. Costs are allocated to cost centres, less reflective of actual cost behaviour.
3. Activity-specific cost drivers are used.	3. Time (e.g., labour or machine hours) is the primary cost driver.
4. No single overhead recovery rate is used; recovery rates vary by activity.	4. Uses either single or multiple overhead recovery rates.
5. Costs are assigned to diverse cost objects (e.g., products, customers, services).	5. Costs are assigned to cost units (e.g., products or jobs).
6. Facilitates cost control by simplifying essential activities and eliminating unnecessary ones.	6. Cost centres cannot be eliminated, making it less effective for cost control.

Stages of ABC Implementation

- **Identify Activities:** Identify the various activities performed within the organization.
- **Assign Overheads:** Relate overhead costs to the identified activities.
- **Allocate Support Activities:** Distribute costs of support activities to primary activities.
- **Determine Cost Drivers:** Identify cost drivers for each activity.
- **Calculate Activity Cost Driver Rates:** Compute rates by dividing activity costs by their respective cost driver quantities.

Components of Activity-Based Costing

- i. **Activity:** Any event or task that incurs a cost.
- ii. **Cost Object:** An item for which cost measurement is required, such as a product or customer.
- iii. **Cost Driver:** A factor influencing the cost of an activity. Cost drivers are divided into:
 - a. **Resource Cost Driver:** Measures the quantity of resources consumed by an activity (used to allocate resource costs to activities).
 - b. **Activity Cost Driver:** Measures the frequency or intensity of demand placed on activities by cost objects (used to assign activity costs to cost objects).
- iv. **Cost Pool:** A grouping of related individual cost items.

Examples of Cost Pools and Cost Drivers

Activity Cost Pool	Related Cost Driver
Ordering and Receiving Materials	Number of purchase orders
Machine Setup Costs	Number of setups
Machining Costs	Machine hours
Assembling Costs	Number of parts
Inspecting and Testing Costs	Number of tests
Painting Costs	Number of parts
Supervising Costs	Direct labour hours

Multiple Choice Questions (MCQs):

1. What does Activity-Based Costing (ABC) primarily focus on?
 - a) Allocating costs to cost centers
 - b) Assigning costs based on activities and cost drivers
 - c) Using a single overhead recovery rate
 - d) Allocating costs solely based on labor hours
2. Which organization defines ABC as “tracing resource consumption and costing final outputs”?
 - a) ICAI
 - b) CIMA
 - c) ACCA
 - d) IMA
3. Which of the following is NOT an advantage of ABC?
 - a) Accurate costing of products/services
 - b) Highlights non-value-added activities
 - c) Simplifies cost control for small organizations
 - d) Enables better pricing decisions
4. What is a cost driver in ABC?
 - a) A fixed resource cost
 - b) A factor influencing the cost of an activity
 - c) A tool to allocate costs equally
 - d) A component used only for variable costs
5. A company has identified the following activities and cost drivers: Activity A with a cost of ₹750,000 and 1,000 machine hours, Activity B with a cost of ₹375,000 and 500 setups. What is the cost driver rate for Activity A?
 - a) ₹750 per machine hour
 - b) ₹1500 per machine hour
 - c) ₹3750 per machine hour
 - d) ₹7500 per machine hour
6. Which of the following is an example of a cost pool?
 - a) Machine hours
 - b) Number of purchase orders
 - c) Assembling costs
 - d) Direct labor hours
7. What is the primary limitation of Activity-Based Costing?
 - a) It is inexpensive
 - b) It is not helpful for large organizations
 - c) It is more costly than traditional costing systems
 - d) It eliminates overhead allocation
8. In Traditional Absorption Costing, overheads are related to:
 - a) Cost centers/departments
 - b) Activities
 - c) Cost pools
 - d) Customers
9. Which of the following cost drivers is most suitable for machining costs?
 - a) Machine hours
 - b) Number of purchase orders
 - c) Assembling costs
 - d) Direct labor hours

- a) Direct labor hours
- b) Machine hours
- c) Number of tests
- d) Number of setups

10. A product requires 3 setups, 200 machine hours, and 5 quality inspections. If the cost per setup is ₹7,500, the cost per machine hour is ₹375, and the cost per inspection is ₹3,750, what is the total cost assigned to the product?

- a) ₹93,750
- b) ₹97,500
- c) ₹101,250
- d) ₹116,250

11. A company has overhead costs of ₹6,000,000 for an activity driven by 1,200 machine hours. If a product requires 100 machine hours, how much overhead cost will be allocated to this product?

- a) ₹400,000
- b) ₹500,000
- c) ₹600,000
- d) ₹700,000

12. Which of the following stages comes first in ABC?

- a) Calculate activity cost driver rates
- b) Identify activities
- c) Determine cost objects
- d) Spread support activities

13. Which method involves grouping costs into cost pools?

- a) Traditional costing
- b) Standard costing
- c) Activity-Based Costing
- d) Marginal costing

14. In ABC, cost objects can include all EXCEPT:

- a) Products
- b) Services
- c) Customers
- d) Departments

15. Which advantage of ABC helps identify non-valued-added activities?

- a) Better pricing policies
- b) Facilitating cost reduction
- c) Logical overhead allocation
- d) Using a single recovery rate

Answer:

1	2	3	4	5	6	7	8
b	b	c	b	a	c	c	a
9	10	11	12	13	14	15	
b	d	b	b	c	d	b	

True and False

1. A cause-and-effect cost driver used to allocate shared resources to individual activities.
2. Activity Cost Driver is a measure of the quantity of resources consumed by an activity.
3. Traditional Costing System analysis will itemize the costs of each plant, and correctly allocate these costs to the activities conducted within them.
4. Volume-based cost drivers is a method of allocating indirect costs to cost objects that correlate a product's consumption of overhead resources with the number of units produced.
5. ABC cannot be used in conjunction with customer profitability analysis (CPA) to determine more accurately the profit earned by serving particular customers.

Answer:

1	2	3	4	5
T	T	F	T	F

Fill in the blanks

1. A _____ cost driver is a measure of the amount of resources consumed by an activity.
2. _____ is a costing approach that assigns resource costs to cost objects based on activities performed for the cost objects.
3. The concept of ABC was first defined in the late 1980s by _____.
4. The _____ is used to determine what causes the cost of each activity (e.g. machine hours; number of dispatch orders).
5. _____ activities are performed each time a unit of the product or service is produced.

Answer:

1	resource consumption	2	Activity-Based Costing
3	Robert Kaplan and William Burns	4	cost driver
5	Unit-level		

CMA FINAL COURSE

Syllabus 2022

Topic

Module 1:
The Companies Act,
2013

FINAL

Group III - Paper-13

Corporate and
Economic Laws
(CEL)

FORMATION AND TYPES OF COMPANY

Promotion of a company:

As per Companies Act, 2013 persons whose name appears in the prospectus or identified by the company in the annual return, has control directly or indirectly over the affairs of the company either as a shareholder or a director and according to whose direction, advice or instructions the Board of Directors are accustomed to act. A person should not be regarded as a promoter if he/she acts in its personal capacity.

As per the Securities Exchange Board of India (SEBI) persons who are in control of the issuer or are instrumental in the formulation of a plan or programme pursuant to which specified securities are offered to the public. The persons whose name appears in the offer document are known as promoters.

Promoters' Agreement/Memorandum of Understanding (MOU):

When promoters decide to do a business in the nature of a company, they will be meeting and deciding on various issues and ultimately they will choose to make a Memorandum of Understanding (MOU) though it is not mandatory. Promoters or any of the promoters can make contracts in his own name for the benefit of the proposed company. Once registered, promoter will disclose the contracts. Promoter is also duty bound to disclose any interest in the company to any interested person and will not make any secret profit.

Promoters can also make an agreement which will mention various issues relating to formation of the company and rights and liabilities of the company inter se.

Promoters may decide to prepare and sign a Memorandum of Understanding or Memorandum of Agreement (also called Promoters Agreement) while MOU is not enforceable under the law. Having an MOU or MOA is not mandatory and promoters may decide to prepare two initial documents.

- Memorandum of Understanding (MOU)
- Memorandum of Association (MOA)

The steps which are required to be complied in order to start a company are as follows:

1. application for name

2. memorandum of association and articles of association
3. list of first directors if not mentioned in articles with particulars.
4. an agreement proposed to be entered with the md
5. declaration of compliance
6. affidavit by each director that he has not been convicted.

MEMORANDUM OF ASSOCIATION:

Memorandum of Association of a company is the constitution or charter of the company and contains the powers of the company.

Name Clause:

The promoter will make an application for name and three (3) names shall be given to the Registrar of Companies (ROC) under whose jurisdiction, the registered office of the company will be situated. The Registrar of Companies (ROC) will approve the name or can suggest changes in the name. ROC will not approve a name which is considerable. The name so available will be valid for six months by which application for registration should be made by the name of the promoters. In case of public Ltd Company the name should be suffixed with "Ltd" and in case of private company by "Private Ltd". International brands works like National Hindustan Corporation etc are not allowed. Name should be in relation with the object.

Situation clause:

Memorandum of Association must mention the name of the state in which the registered office of the company is situated. However within 15 days of registration the full address to be intimated to ROC all communication shall be sent in that address. Every company must have a registered office from the date in which its starts its operation or the date of its incorporation.

Object clause: (Main object and other object)

Main object: It is the most important clause in Memorandum of Association. It states the purpose for which the company is formed. It defines the scope of activities of a company and limits the operations of the company. A Company cannot go beyond the Main object.

Other object:

The objects which are incidental or ancillary to the main object is called other object. It should be according to the Companies Act, 2013, lawful and well defined.

Capital clause:

The companies which are limited by shares should contain this clause in the Memorandum of Association. This clause contains the amount of capital with which the company is registered i.e. the authorized capital.

Liability Clause:

This clause mentions the liabilities of the members of the company. The liability of a member is limited to the portion of unpaid share capital.

Subscription clause:

Memorandum must be signed by the subscribers. The subscribers must mention the number of shares registered in their name.

Articles of Association:

The Articles of Association contains the internal rules and regulation of the company. The provisions of the AOA must not be in conflict with the provisions of the Memorandum of Association. In case such a conflict arises, the MOA will prevail.

Normally, every company has its own AOA. However, if a company does not have its own AOA, the model AOA specified in Schedule I- Table A of the Companies Act, 1956 will apply.

Certificate of incorporation

(Conclusive evidence that the company has been formed)

Corporate Identification No. (CIN) will be issued which is to be mentioned on the signboard at the entrance of all offices, stations, letter heads, vouchers, bills and stationaries.

Types of companies**Govt. Company:-**

As per definition 2(45) of the Companies Act, 2013 a Govt. company means a company in which not less than (minimum) 51% of the paid up share capital is held by Central Govt. or State Govt. or partly by

Central Govt. and partly by State Govt. A subsidiary of a Govt. company is also a Govt. company. There are few exemptions available to such companies where some further compliance is also required to be done by such companies. It is a separate legal entity and not a department of Govt. Govt. controls these companies both as a shareholder and also as an administrative ministry.

Holding and subsidiary company:-

As per definition in section 2(46) and 2(87) of the Companies Act, 2013 a company shall be considered to be a holding company if the other company controls the composition of the Board or holds more than half of the shares with voting rights. So there are two test of holding subsidiary relationship. In one case, management control is the basis of holding subsidiary relationship, where majority of director can be appointed and removed by the holding company. Such stipulation shall be there in the Articles of Association of the subsidiary company where it surrenders the right to appoint and remove directors to the other company regardless of shareholding.

Investment company:

This is a type of company whose principle business is the acquisition of holding and dealing of shares, stock and other securities.

Non- profit (Section 8 co.):

This type of companies are an association as limited company having charitable objects to promote commerce, art, science, sports, education, research, social welfare, religion, charity, protection of environment etc. They do not have any word 'Limited' or 'Private Limited' suffixed to their name. Any profit or income derived from this company is used to promote the objects of the company.

Sectoral Companies

these type of companies both Companies Act and Sector Specific Act applies.

Companies (banking/NBFC/insurance/electricity)

Govt. (51% and more)/ Deemed Govt. Company: Shares of these types of companies are held by Central Govt. /State Govt. singly or jointly. Subsidiary of a Govt. company is also a Govt. company.

Indian/Foreign: Registered In India- Indian companies registered outside India and having place of business in India.

Guarantee Company: Shareholders guarantee to pay more as share capital in case of requirement at the time of winding up.

Unlimited Company: The companies which are with unlimited liability.

One Person Company: A single and natural person can incorporate an One Person Company who is a resident and a citizen of India. The company should have minimum of one director. The company can have maximum of 15 directors.

PRIVATE / PUBLIC

Serial No.	Points of difference	Private	Public
1	Shareholders	Min-2, max-200 (excluding employees)	Min 7, no max.
2	Directors	Min-2, max.-15)	Min.-3, max.-15 (may be increased with special resolution)
3	Finance	Cannot raise from public	Can raise
4	Transfer of shares	May be restricted	Cannot be restricted
5.	Name	Use the suffix Pvt .Ltd.	Suffix public Ltd.
6.	Members	2 (Two), Maximum 200 (Two Hundred).	7 (Seven)

Topic

Module 8:
Portfolio Theory
and Practice

FINAL

Group III - Paper-14

Strategic Financial
Management (SFM)

Topic: Portfolio Theory and Practice

Multiple Choice Questions

1. Annual Cost Saving ₹4,00,000
Useful life 4 years
Cost of the Project ₹11,42,000

The Payback period would be:

- A. 2 years 8 months
B. 2 years 11 months
C. 3 years
D. 1 year 10 months

Answer: (B)

Justification: Pay-back Period = Cost of Project/
Annual Cost Saving

$$= ₹ 11,42,000/4,00,000 = 2.855$$

$$= 2 \text{ years } 11 \text{ months.}$$

2. A project has a 10% discounted pay back of 2 years with annual after-tax cash inflows commencing from year end 2 to 4 of ₹ 400 lacs. How much would have been the initial cash outlay which was fully made at the beginning of year 1?
- A. ₹ 400 lacs
B. ₹ 452 lacs
C. ₹ 633.80 lacs
D. ₹ 497.20 lacs

(Use PV factors only up to 3 decimal places.)

Answer: (B) ₹ 452 lacs

Justification: Sum of PV Factors year 2 to 4 @10%
= 2.26

$$\text{Discounted cashflow after tax} = 400 \times 2.26 = 904 \text{ lacs}$$

$$\text{Hence, Investment} = 904 / 2 = 452 \text{ lacs.}$$

3. A project is expected to yield an after-tax cash inflow at the end of year 2 of ₹ 150 lacs and has a cost of capital of 10%. Inflation is expected at 3% p.a. While computing the NPV of the project, this cash flow will be taken as the following:

- A. $\frac{150}{1.03 \times 1.1^2}$
B. $\frac{150}{(1.03 \times 1.1)^2}$
C. $\frac{150}{(111.33\%)^2}$
D. $\frac{150/1.03}{(1.03 \times 1.11)^2}$

Answer: (B)

Justification: Nominal Cash Flow = 150 P.V. of nominal cash flow = Real Cash Flow = $150/(1.03)^2$

$$\text{P.V. of real cash flow} = \frac{150}{(1.03 \times 1.1)^2}$$

• Comprehensive Problems

Sub-topic: Replacement Decision

Comprehensive Problem 1

Nava Ratna Ltd. has just installed MACHINE R at a cost of ₹ 2,00,000. This machine has 5 years life with no residual value. The annual volume of production is estimated at 1,50,000 units, which can be sold at ₹ 6 per unit. Annual operating costs are estimated at ₹ 2,00,000 (excluding depreciation) at this output level. Fixed costs are estimated at ₹ 3 per unit for the same level of production. The company has just come across another model called MACHINE S, capable of giving the same output at an annual operating cost of ₹1,80,000 (excluding depreciation). There will be no change in fixed costs. Capital cost of this machine is ₹ 2,50,000 and the estimated life is 5 years with no residual value. The company has an offer for sale of MACHINE R at ₹ 1,00,000. But the cost of dismantling and removal will amount to ₹ 30,000. As the company has not yet commenced operation, it wants to sell MACHINE R and purchase MACHINE S.

Nava Ratna Ltd. will be a zero-tax company for 7 years in view of several incentives and allowances available. The cost of capital may be assumed as 14%.

Required:

- (i) Advise the company whether it should opt for replacement.
(ii) What would be your advice, if MACHINE R has not been installed but the company is in the process of selecting one or the other machine?

[Given: PVIF for 1-5 years = 0.877, 0.769, 0.675, 0.592, 0.519]

Solution

Replacement of Machine R:

Incremental cash outflow:

Cash outflow of Machine S	₹ 2,50,000
Less: Sale value of Machine R (₹ 1,00,000 - 30,000)	₹ 70,000
Net outflow	₹ 1,80,000

Incremental cash flow from Machine S:

Annual cash flow from Machine S:

$$[(1,50,000 \times 6) - 1,80,000 - (1,50,000 \times 3)] \quad ₹ 2,70,000$$

Annual cash flow from Machine R:

$$[(1,50,000 \times 6) - 2,00,000 - (1,50,000 \times 3)] \quad ₹ 2,50,000$$

Net inflow

₹ 20,000

Present value of Incremental cash inflow:

$$= 20,000 \times (0.877 + 0.769 + 0.675 + 0.592 + 0.519) = \quad ₹ 68,640$$

NPV of Machine S = 68,640 - 1,80,000 = ₹ (-) 1,11,360.

[₹ 2,00,000 spent on Machine R is a sunk cost and hence it is not relevant for deciding the replacement]

Decision: NPV of Machine S is NEGATIVE. Replacement is not advised. If it selects one of the two, independent NPV is to be calculated for this decision.

Independent evaluation of Machine R & Machine S:

Particulars	Machine R	Machine S
Units produced	150000	150000
Selling Price @ ₹ 6	900000	900000
Less: Operating cost (Exclusive of depreciation)	200000	180000
Contribution	700000	720000
Less: Fixed cost	450000	450000
Annual cash flow	250000	270000
PV of cash flows for 5 years, i.e., [Sum of PVIF for 14%, 5]		
3.432 x 2,50,000	858000	
3.432 x 2,70,000		926640
Cash out flow	200000	250000
	658000	676640

Decision: Choose Machine S as NPV of S is higher than that of R.

Comprehensive Problem 2

A Ltd. is considering replacement of an existing machine or to spend money on overhauling it. A Ltd currently pays no taxes. The replacement machine costs ₹ 50,000 now and requires maintenance of ₹ 5,000 at the end of every year for 5 years. At the end of 5 years, it would have a salvage value of ₹ 10,000 and would be sold. The existing machine requires increasing amounts of maintenance each year and its salvage value falls each year as follows:

Year	Maintenance (₹)	Salvage (₹)
Present	0	20000
1	5000	12500
2	10000	7500
3	15000	0

The cost of capital of A Ltd is 15%.

Year	1	2	3	4	5	6
PVIF (15%)	0.8696	0.7561	0.6575	0.5718	0.4972	0.4323

When should the company replace the machine?

Solution:

Equivalent cost of (EAC) of new machine:

Particulars	₹
Cost of new machine now	50,000
Add: P.V. of annual repairs @ 5,000 p.a. for 5 years = $5,000 \times 3.3522$	(+)16,761
Less: P.V. of salvage value at end of 5 years = $10,000 \times 0.4972$	(-) 4,972
	61,789
Equivalent annual cost = $61,789/3.3522$	18,432

EAC of keeping the old machine:

Present Value	Year 1 (₹)	Year 2 (₹)	Year 3 (₹)
Value present	20,000	12,500	7,500
Add PV of Annual Maintenance			
=Annual Maintenance/1.15	4347.826	8695.652	13043.48
Total	24347.826	21195.652	20543.48
Less: PV of salvage value at end of year (PV/1.15)	10869.565	6521.739	0
	13478.261	14673.913	20543.48
	1.15	1.15	1.15
Equivalent Annual Cost	15500	16875	23625

Advice: The company should replace the old machine after year 2 as EAC of new machine at ₹ 18,432 is lower than the cost of using existing machine in year 3.

Sub-Topic: Capital Rationing

Comprehensive Problem 3

ABC Ltd. has a capital budget of ₹ 2 crore for the year. From the following information relating to six independent proposals, select the projects if (i) the projects are divisible and (ii) projects are indivisible in order to maximize the NPV.

Proposal	Investment (₹)	NPV (₹)
I	8,500,000.00	5,000,000.00
II	3,500,000.00	2,600,000.00
III	6,000,000.00	2,000,000.00
IV	4,000,000.00	2,500,000.00
V	6,000,000.00	5,000,000.00
VI	8,000,000.00	(2,500,000.00)

Solution:

(i) If the projects are divisible

Projects are ranked according to PI and arranged in descending order.

Proposal	Investment	NPV	PV of Inflows	PI	Rank
I	85,00,000	50,00,000	135,00,000	1.59	4
II	35,00,000	26,00,000	61,00,000	1.74	2
III	60,00,000	20,00,000	80,00,000	1.33	5
IV	40,00,000	25,00,000	65,00,000	1.63	3
V	60,00,000	50,00,000	110,00,000	1.83	1

Proposal	Investment	Cum Investment
V	60,00,000	60,00,000
II	35,00,000	95,00,000
IV	40,00,000	135,00,000
I	85,00,000	220,00,000
III	60,00,000	280,00,000

*Decision:*Only ₹65,00,000 can be invested in project I. NPV of the project = $65/85 \times 50,00,000 = 38,23,529$

So, the selected projects are V, II, IV and part of I.

(ii) If the projects are indivisible (by trial-and-error method)

Feasible Sets	Investments	NPV
V, II, I	180,00,000	126,00,000
V, IV, I	185,00,000	125,00,000
V, II, IV, III	195,00,000	121,00,000
I, II, IV	160,00,000	101,00,000
V, IV, III	160,00,000	95,00,000

Decision:

Project V, II and I provides the maximum NPV may be undertaken.

Topic

Module 1:
Assessment
of Income and
Computation of Tax
Liability of Various
Entities

FINAL

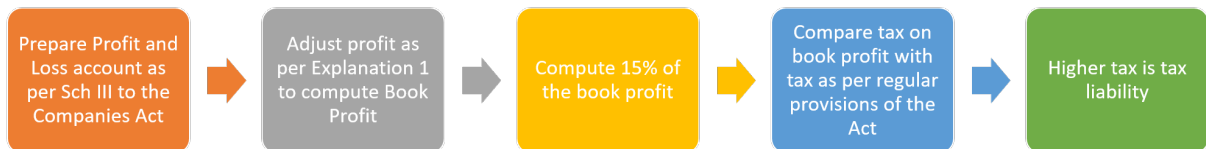
Group III - Paper-15

Direct Tax Laws
and International
Taxation (DIT)

Minimum Alternate Tax

At times it may happen that a taxpayer, being a company, may have generated income during the year, but by taking the advantage of various provisions of Income-tax Law (like exemptions, deductions, depreciation, etc.), it may have reduced its tax liability or may not have paid any tax at all. Due to increase in the number of zero tax paying companies, MAT was introduced by the Finance Act, 1987 with effect from assessment year 1988-89. Later on, it was withdrawn by the Finance Act, 1990 and then reintroduced by Finance (No. 2) Act, 1996, w.e.f. 1-4-1997.

The objective of introduction of MAT is to bring into the tax net “zero tax companies” which in spite of having earned substantial book profits and having paid handsome dividends, do not pay any tax due to various tax concessions and incentives provided under the Income-tax Law. Since the introduction of MAT, several changes have been introduced in the provisions of MAT and today it is levied on companies as per the provisions of section 115JB.



Basic provisions of MAT

As per the concept of MAT, the tax liability of a company will be higher of the following:

- a. Tax liability of the company computed as per the normal provisions of the Income-tax Law, i.e., tax computed on the taxable income of the company by applying the tax rate applicable to the company. Tax computed in above manner can be termed as normal tax liability.
- b. Tax computed @ 15% (plus surcharge and cess as applicable) on book profit (manner of computation of book profit is discussed in later part). The tax computed by applying 15% (plus surcharge and cess as applicable) on book profit is called MAT.

Taxpoint: However, MAT is levied @ 9% (plus surcharge and cess as applicable) in case of a company, being a unit of an International Financial Services Centre and deriving its income solely in convertible foreign exchange.

Applicability and non-applicability of MAT

As per section 115JB, every taxpayer being a company is liable to pay MAT, if the income-tax (including surcharge and cess) payable on the total income, computed as per the provisions of the Income-tax Act in respect of any year is less than 15% of its book-profit + surcharge (SC) + Health & education cess.

However, the provisions of MAT are not applicable on:

- a. The domestic companies which have opted for tax regimes u/s 115BAA or sec. 115BAB;
- b. Any income accruing or arising to a company from the life insurance business referred to in sec. 115B;
- c. Shipping company, the income of which is subject to tonnage taxation.

Further, as per Explanation 4 to section 115JB as amended by Finance Act, 2016 with retrospective effect from 1-4-2001, it is clarified that the MAT provisions shall not be applicable and shall be deemed never to have been applicable to an assessee, being a foreign company, if:

- i. the assessee is a resident of a country or a specified territory with which India has an agreement referred to in sec. 90(1) or the Central Government has adopted any agreement u/s 94A(1) and the assessee does not have a permanent establishment in India in accordance with the provisions of such agreement; or
- ii. the assessee is a resident of a country with which India does not have an agreement of the nature referred above and the assessee is not required to seek registration under any law for the time being in force relating to companies.

Further, as per Explanation 4A to section 115JB as inserted by Finance Act, 2018, MAT provisions shall not be applicable to a foreign company, whose total income comprises of profits and gains arising from

business referred to in section 44AB, 44BB, 44BBA, or 44BBB and such income has been offered to tax at the rates specified in those sections.

Meaning of book profit

As per Explanation 1 to section 115JB(2) “book profit” for the purposes of sec. 115JB means net profit as shown in the statement of profit and loss prepared in accordance with Schedule III to the Companies Act, 2013 as increased and decreased by certain items prescribed in this regard. The items to be increased and decreased are as follows:

Particulars	Amount	Amount
Net profit as per statement of profit and loss prepared in accordance with Schedule III to the Companies Act, 2013		XXXX
Add: Following items (if they are debited to the statement of Profit and Loss)		
Income-tax paid/payable and the provision thereof ^f	XXX	
Amounts carried to any reserves by whatever name called (other than reserve specified u/s 33AC)	XXX	
Provisions for unascertained liabilities	XXX	
Provisions for losses of subsidiary companies	XXX	
Dividends paid/proposed	XXX	
Expenditure related to incomes which are exempt u/s 10, sec. 11 and sec. 12	XXX	
The amount or amounts of expenditure relatable to, income, being share of the taxpayer in the income of an association of persons or body of individuals, on which no income-tax is payable in accordance with the provision of sec. 86	XXX	
The amount or amounts of expenditure relatable to income accruing or arising to a taxpayer being a foreign company, from: <ul style="list-style-type: none"> • the capital gains arising on transactions in securities; or • the interest, dividend royalty or fees for technical services chargeable to tax at the rate or rates specified in Chapter XII if the income-tax payable on above income is less than the rate of MAT	XXX	
The amount representing notional loss on transfer of a capital asset, being share or a special purpose vehicle to a business trust in exchange of units allotted by that trust referred to in sec.47(xvii) or the amount representing notional loss resulting from any change in carrying amount of said units or the amount of loss on transfer of units referred to in sec. 47(xvii)	XXX	
Expenditure relatable to income by way of royalty in respect of patent chargeable to tax u/s 115BBF	XXX	
Amount of depreciation debited to P & L A/c	XXX	
Deferred tax and the provision thereof	XXX	
Provision for diminution in the value of any asset	XXX	
The amount standing in revaluation reserve relating to revalued asset on the retirement or disposal of such an asset if not credited to statement of profit and loss	XXX	
The amount of gain on transfer of units referred to in sec. 47(xvii) computed by taking into account the cost of the shares exchanged with units referred to in the said clause or the carrying amount of the shares at the time of exchange where such shares are carried at a value other than the cost through statement of profit and loss as the case may be;	XXX	XXXX

1 The amount of Income-tax shall:

includes:

- Any interest under Income Tax Act;
- Surcharge and cess on income-tax.

does not include:

- Penalty paid or payable under this Act
- Any tax, interest or penalty paid or payable under Wealth Tax Act or other Act;
- Securities Transaction Tax;

		XXXX
<i>Less: Following items (if they are credited to the statement of profit and loss</i>		
Amount withdrawn from any reserve or provision if credited to P&L account ²	XXX	
Incomes which are exempt u/s 10, sec. 11 and sec. 12	XXX	
Amount of depreciation debited to statement of profit and loss (excluding the depreciation on revaluation of assets)	XXX	
Amount withdrawn from revaluation reserve and credited to statement of profit and loss to the extent it does not exceed the amount of depreciation on revaluation of assets	XXX	
The amount of income, being the share of the taxpayer in the income of an association of persons or body of individuals, on which no income-tax is payable in accordance with the provisions of sec. 86, if any such amount is credited to the statement of profit and loss	XXX	
The amount of income accruing or arising to a taxpayer being a foreign company, from: <ul style="list-style-type: none"> • the capital gains arising on transactions in securities; or • the interest, dividend royalty or fees for technical services chargeable to tax at the rate or rates specified in Chapter XII if such income is credited to the statement of profit and loss and the income-tax payable on above income is less than the rate of MAT	XXX	
The amount (if any, credited to the statement of profit and loss) representing <ol style="list-style-type: none"> a. notional gain on transfer of a capital asset, being share of a special purpose vehicle to a business trust in exchange of units allotted by that trust referred to in sec. 47(xvii); or b. notional gain resulting from any change in carrying amount of said units; or c. gain on transfer of units referred to in sec. 47(xvii), The amount representing notional gain on transfer of units referred to in sec. 47(xvii) computed by taking into account the cost of the shares exchanged with units referred to in the said clause or the carrying amount of the shares at the time of exchange where such shares are carried at a value other than the cost through statement of profit and loss, as the case may be;	XXX	
Income by way of royalty in respect of patent chargeable to tax u/s 115BBF	XXX	
Aggregate amount of unabsorbed depreciation and loss brought forward in case of: <ol style="list-style-type: none"> a. A company and its subsidiary and the subsidiary of such subsidiary, where, the Tribunal, on an application moved by the Central Government u/s 241 of the Companies Act, 2013 has suspended the Board of Directors of such company and has appointed new directors who are nominated by the Central Government u/s 242 of the said Act; b. A company against whom an application for corporate insolvency resolution process has been admitted by the Adjudicating Authority u/s 7 or sec. 9 or sec. 10 of the Insolvency and Bankruptcy Code, 2016 	XXX	

² Withdrawals made from reserves created or provisions made on or after the 1-4-1997, shall be deducted only if the book profit of the year of creation of such reserve has been increased by the amount transferred to such reserve or provisions (out of which the said amount was withdrawn).

E.g. Governmental grants relating to depreciable assets are credited to special reserve (i.e., not to statement of profit and loss) in the year of receipt and a portion of such grant is transferred from that reserve to statement of profit and loss over the life of the asset in proportion to depreciation charged. In the year in which these grants were credited to special reserve, they had not been added to net profit for calculation of book profit subjected to MAT. Therefore, in the year of transfer to P&L the amounts so transferred shall not be reduced from net profit while calculating book profit for the purpose of MAT.

Amount of brought forward loss or unabsorbed depreciation, whichever is <i>less</i> as per books of account (applicable in case of a company other than the company undergoing insolvency proceedings)	xxx	
Profits of a sick industrial company till its net worth becomes zero/positive	xxx	
Deferred tax, if credited to statement of profit and loss	xxx	xxx
Book profit to be used to compute MAT		xxxx

MAT credit

A company has to pay higher of normal tax liability or liability as per MAT provisions. If in any year the company pays liability as per MAT, then it is entitled to claim credit of MAT paid over and above the normal tax liability in the subsequent year(s). The provisions relating to carry forward and adjustment of MAT credit are given in section 115JAA.

A company is entitled to claim MAT credit i.e. excess of MAT paid over the normal tax liability. The credit of MAT can be utilised by the company in the subsequent year(s). The credit can be adjusted in the year in which the liability of the company as per the normal provisions is more than the MAT liability. The set off in respect of brought forward MAT credit shall be allowed in the subsequent year(s) to the extent of the difference between the tax on its total income as per the normal provisions and as per the MAT provisions.

The MAT credit can be carried forward only for a period of 15 years after which it will lapse. In other words, if MAT credit cannot be utilised by the company within a period of 15 years (immediately succeeding the assessment year in which such credit was generated), then such credit will lapse. No interest is paid to the taxpayer in respect of such credit.

Report from chartered accountant

Every company to whom the provisions of sec. 115JB applies, shall upload a report in the prescribed form [Form No. 29B] from an accountant, certifying that the book profit has been computed in accordance with the provisions of this section one month prior to the due date of the filing of the return of income u/s 139.

Other provisions will apply

All other provisions of this Act like Advance Tax, interest, etc. shall apply to every company, mentioned in this section.

MAT was introduced to limit the tax deductions / exemptions so that companies pay a “minimum” amount as tax to the government. The MAT operates with a “MAT credit” carry forward mechanism that allows a company to carry forward the “excess” tax paid due to MAT (as against its normal tax liability) in a tax year, to be utilised in future as a credit to offset its regular tax liability.

Conclusion

Minimum Alternate Tax (MAT) plays a crucial role in ensuring that companies with substantial book profits contribute a fair share of taxes, even if they avail of various exemptions and deductions under the Income Tax Act. By mandating a minimum tax based on book profits, MAT promotes equity among taxpayers and prevents the phenomenon of “zero-tax companies.” Companies must carefully consider MAT provisions in their tax planning and financial decision-making processes.

Topic

Module 11:
Network analysis –
PERT, CPM

FINAL

Group III - Paper-16

Strategic Cost
Management (SCM)

Network Analysis

1.0 Introduction: Network Analysis is an essential tool for Project Management. It is used for Planning, Management & Control of Projects. Since it has a graphical representation, it can be easily understood and used also by those with less technical background. Network analysis is the systematic, quantitative and structural approach to the problem of managing project up to successful completion. PERT (Program Evaluation and Review Technique) and CPM (Critical Path Method) are commonly used tools for this analysis.

Project is a combination of interrelated activities performed in certain order. These activities consume resources and resources consume cost. Whereas events occur at the beginning & end of activities and do not consume resources and cost.

2.00 Basic Terminology Related to Network Analysis:

- i. Activity: All projects may be viewed as number of operations which when completed will cause the completion of the project. Each of these operations is termed as Activity of the project which require expenditure of time and resources for accomplishment.
- ii. Predecessor Activity: Activity that must be completed immediately prior to the start of another activity or activities is called Predecessor Activity.
- iii. Successor Activity: Activities that can not be started until one or more of the activities are completed, but immediately succeed them are called Successor Activities.
- iv. Concurrent Activities: Activities that occur constantly and simultaneously are Concurrent Activities.
- v. Event: It is the specific accomplishment in the project taking place at a particular instance of time. All activities arrow must begin and end with Event nodes as shown below.



Figure 1 : Activity Arrow with Event Nodes

Here Start Event is Tail event and Finish Event is Head Event of the activity

- vi. Dummy Activity: Dummy activity is the activity which is occurred when two concurrent activities have same start and end events. It consumes no time or the resources.

3.00 PERT and CPM:

PERT Program Evaluation and Review Technique is a statistical technique for measuring and forecasting progress in research and development programs. This technique is applied as a decision making tool designed to save time in achieving end objectives.

CPM Critical Path Method is a project modeling technique for scheduling and controlling the activities related to maintenance with interdependency. It is a technique for planning, scheduling and controlling of projects whose activities are not subjected to any uncertainty and the performance times are fixed. The Possible Path having maximum duration would be Critical Path of that activity.

Table No 1: Difference between PERT and CPM

PERT	CPM
Probabilistic Model	Deterministic Model
Event Oriented System	Activity Oriented System
Does not differentiate critical and non-critical activities	Clearly differentiates critical and non-critical activities
Used in projects where resources (men, materials, money) are always available when required	Used in projects where overall cost is primarily important. Further better utilization of resources is being noticed
Suitable for Research and development projects where time cannot be predicted	Suitable for the civil construction where time can be predicted

4.00 Applications of PERT and CPM

Here application of PERT AND CPM is explained with help of following figure 1.2:

These techniques can be applied in case of a project that consists of multiple predefined activities to be completed sequentially, or simultaneously. These projects are of longer duration with stringent completion schedule.

The applications shown in adjoining figure are only indicative. Many more type of projects can be added to the list.

added



Figure 2 Application of PERT and CPM

5.00 Steps for Drawing Network Diagram

The procedure of drawing a Network Diagram can be given as follows –

- Specify the Individual Activities: After breaking down the work structure, a listing can be made of all the activities in the project. This listing can be used as the basis for adding sequence and duration information in later steps.
- Determine the Sequence of the Activities: Some activities are dependent on the completion of others. A list of the immediate predecessors of each activity is useful for constructing the CPM network diagram.

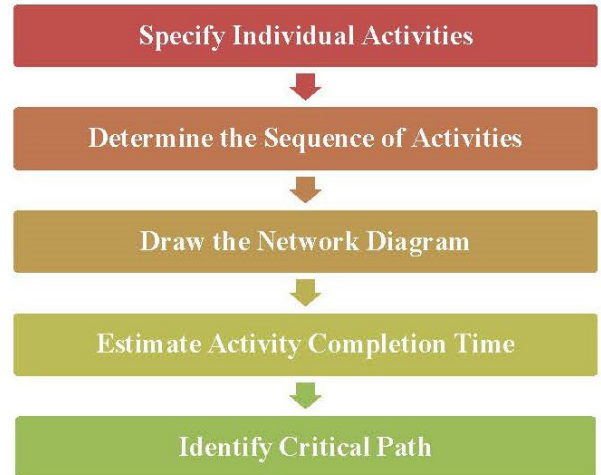


Figure 3: Steps for Drawing Network Diagram

- Draw the Network Diagram:** Once the activities and their sequencing have been defined, the network diagram can be drawn.
- Estimate Activity Completion Time:** The time required to complete each activity can be estimated using past experience or the estimates of knowledgeable persons. CPM is a deterministic model that does not take into account variation in the completion time, so only one number is used for an activity's time estimate.
- Identify the Critical Path:** The critical path is the longest-duration path through the network. The significance of the critical path is that the activities that lie on it cannot be delayed without delaying the project. Because of its impact on the entire project, critical path analysis is an important aspect of project planning.

The critical path can be identified by determining the four parameters for each activity. The four parameters are Earliest Start, Earliest Finish, Latest Finish and Latest Start.

5.01 Example on CPM:

Given below is the table for various activities required to be performed for designing and prototype making a motorcycle. Prepare a network diagram and calculate its critical path.

Table 2: Activity performed to prepare design

Activity	Duration (In Days)	Description of Activity	Preceding Activity
A	2	Prepare Drawing	-
B	1	Carry out Cost Analysis	A
C	2	Carry out Financial Analysis	A
D	4	Manufacture Tools	C
E	3	Prepare bill of Material	B,C
F	1	Receive Material	D,E
G	1	Order Sub-Accessories	E
H	5	Receive Sub-Accessories	G
I	7	Manufacture Components	F
J	4	Final Assembly	I,H
K	9	Testing and Shipment	J

Solution:

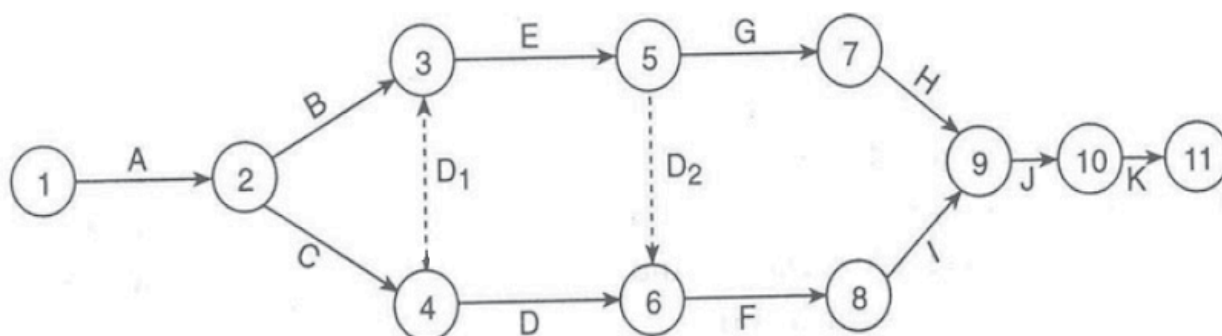


Figure 3: CPM Network Diagram

- Here D1 and D2 are dummy activities
- Further here possible path with duration (in days) would be
 - 1-2-3-5-7-9-10-11: **25 Days** (2+1+3+1+5+4+9)
 - 1-2-4-3-5-7-9-10-11: **26 Days** (2+2+0+3+1+5+4+9)
 - 1-2-3-5-6-8-9-10-11: **27 Days** (2+1+3+0+1+7+4+9)
 - 1-2-4-6-8-9-10-11: **29 Days** (2+2+4+1+7+4+9)
 - 1-2-4-3-5-6-8-9-10-11: **28 Days** (2+2+0+3+0+1+7+4+9)

Here possible path having maximum duration (**29 Days**) is 1-2-4-6-8-9-10-11

Thus here Critical path would be 1-2-4-6-8-9-10-11 with duration of 29 Days.

05.02 Time Estimate in PERT: It is a technique for planning, scheduling and controlling of projects whose activities are subjected to uncertainty and the performance time is not fixed. In PERT three time estimates are determined and taken for each activity. Further, Expected Time and Variance of the Project Time are being ascertained for each activity. These time estimates can be understood with the help of figure 4 and description given below:

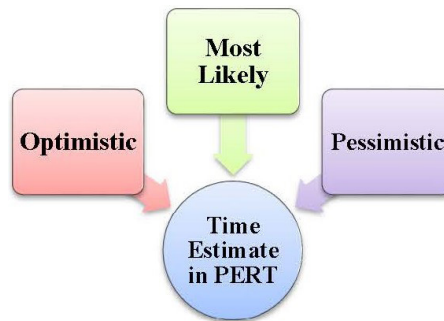


Figure 4: Time Estimates in PERT

- i. **Optimistic Time:** It is estimated as minimum possible time which an activity is expected to take for completion under ideal conditions. It is denoted as to
- ii. **Most Likely Time:** It is the time which activity is expected to take most of the times, if performed number of times. it is said to the modal value and denoted as t_m .
- iii. **Pessimistic Time:** It is unlikely but possible performance time if whatever could go wrong, goes wrong in series. In other words it is the maximum possible time which an activity can conceivably take under totally unfavorable conditions. It is denoted as t_p .

05.03. Illustration:

Here is the instance of civil engineering firm, which has to bid for the construction of a dam. Here policy of the firm with respect to submitting bids is bidding minimum amount with 95% probability of at best break even. The activities and time estimates are given below in the following table.

Table No 3 Duration with time estimates

Activity	Duration in Days		
	Optimistic	Most Likely	Pessimistic
1-2	14	17	25
2-3	16	19	28
2-4	14	18	20
4-5	16	20	41
5-6	14	16	22

Calculate Expected duration of project, Variance of the project duration and standard deviation of Project Duration. Draw a Network diagram and work out critical path.

Solution:

Table No 1.4 Calculation of Expected Duration and Variance of project duration

Activity	Duration in Days			Expected Duration (Mean) $(t_o + t_p + 4t_m)/6$	Variance of Duration $((t_o - t_p)/6)^2$
	Optimistic (t_o)	Most Likely (t_m)	Pessimistic (t_p)		
1-2	14	17	25	17.83	3.36
2-3	16	19	28	20.00	4.00
2-4	14	18	21	17.83	1.36
3-5	15	18	27	19.00	4.00
4-5	16	20	41	22.83	17.36
5-6	14	16	22	16.67	1.78
					31.86

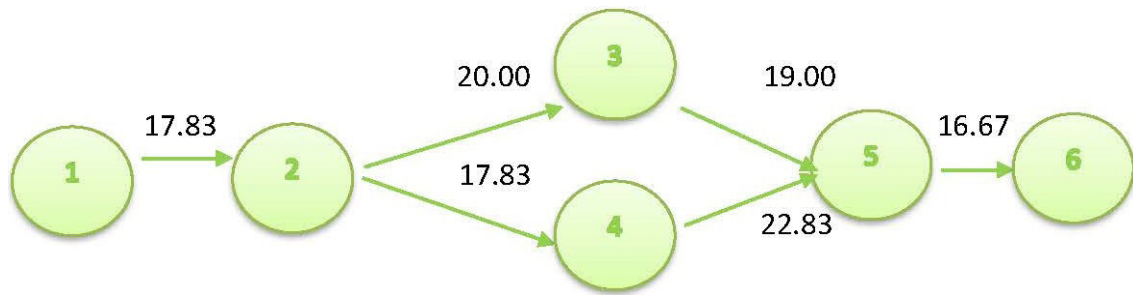


Figure 1.4 Network Diagram

i. Possible path would be

1-1-1-1-6 with duration = 73.50 (17.83+20+19+16.67)

1-2-4-5-6 with duration = 75.17 (17.83+17.83+22.83+16.67)

Here Maximum Duration is 75.17 with possible path 1-2-4-5-6

Thus here critical path would be 1-2-4-5-6 with Expected Duration being 75 days

ii. Further Variance of the project duration would be 31.86

iii. Standard Deviation of the project duration would be Variance i.e. $31.86 = 5.644$

6.00 Conclusion

Considering the analysis being made with reference to PERT and CPM, both are essentially Network oriented techniques and time oriented methods leading to determination of time schedule for a project. The significant difference between two approaches is the fact that time estimates for the different activities in CPM are assumed to be deterministic, while in PERT they are considered as probabilistic.

Topic

Module 9:
Basics of
Management Audit

FINAL

Group IV - Paper-17

Cost and
Management Audit
(CMAD)

COST AND MANAGEMENT AUDIT

Management Audit Basics

A management audit is a comprehensive evaluation of an organization's management practices, processes, and systems. It aims to assess the effectiveness and efficiency of management in achieving the organization's objectives.

Objectives of Management Audit

1. **Evaluation of management performance:** Assess the performance of management in achieving the organization's objectives.
2. **Identification of areas for improvement:** Identify areas where management practices, processes, and systems can be improved.
3. **Recommendations for improvement:** Provide recommendations for improving management practices, processes, and systems.
4. **Enhance accountability:** Enhance accountability of management for their actions and decisions.

Scope of Management Audit

Management audit typically covers the following areas:

1. **Strategic planning:** Evaluate the organization's strategic planning process.
2. **Organizational structure:** Assess the organization's structure and reporting relationships.
3. **Management practices:** Evaluate management practices, such as leadership, communication, and decision-making.
4. **Financial management:** Assess financial management practices, including budgeting, forecasting, and financial reporting.
5. **Human resources management:** Evaluate human resources management practices, including recruitment, training, and performance management.
6. **Risk management:** Assess risk management practices, including identification, assessment, and mitigation of risks.

7. **Internal controls:** Evaluate internal controls, including policies, procedures, and systems.

Qualification and Qualities of Management Auditor

Barring academic and Professional qualifications, some of the personal traits like good appearance, power to convince, quick grasping ability, good communication skill, decision making ability, inquisitive mental frame etc. are the qualities expected from a management auditor.

Relationship with Management

A management audit requires a collaborative and transparent relationship between the auditor and management. Here are some key aspects of this relationship:

1. Communication

- Clear communication is essential to ensure that management understands the purpose, scope, and methodology of the audit.
- Regular updates and progress reports should be provided to management.

2. Cooperation

- Management should cooperate fully with the auditor, providing access to necessary documents, records, and personnel.
- Management should also provide explanations and justifications for their actions and decisions.

3. Objectivity

- The auditor should maintain objectivity and independence in their evaluation of management practices and decisions.
- The auditor should avoid conflicts of interest and not be influenced by personal biases or opinions.

4. Confidentiality

- The auditor should maintain confidentiality of sensitive information and not disclose it to unauthorized parties.

- The auditor should also ensure that all documentation and reports are properly secured and stored.

5. Feedback and Recommendations

- The auditor should provide constructive feedback and recommendations to management on areas for improvement.
- Management should be receptive to feedback and willing to implement recommended changes within a reasonable timeframe.

6. Follow-up

- The auditor should follow up with management to ensure that recommendations are implemented.
- Management should provide progress updates and demonstrate a commitment to ongoing improvement.

By maintaining a collaborative and transparent relationship, the auditor and management can work together to identify areas for improvement and implement changes that enhance organizational performance

Expectation from Management Audit/Auditor

From Management:

1. **Objective Evaluation:** Expect an objective and unbiased evaluation of management practices and decisions.
2. **Identify Areas for Improvement:** Expect the auditor to identify areas for improvement and provide recommendations for betterment.
3. **Enhance Accountability:** Expect the auditor to enhance accountability of management for their actions and decisions.
4. **Improve Organizational Performance:** Expect the auditor to provide recommendations that improve organizational performance and achieve strategic objectives.
5. **Confidentiality and Discretion:** Expect the auditor to maintain confidentiality and discretion when dealing with sensitive information.

From the Auditor:

1. **Cooperation and Transparency:** Expect management to cooperate fully and provide transparent information.
2. **Access to Information:** Expect management to provide access to necessary documents, records, and personnel.
3. **Honest and Open Communication:** Expect management to communicate honestly and openly about their practices and decisions.
4. **Commitment to Change:** Expect management to be committed to implement recommended changes.
5. **Feedback and Support:** Expect management to provide feedback and support throughout the audit process.

From the Audit Process:

1. **Comprehensive Evaluation:** Expect a comprehensive evaluation of management practices and decisions.
2. **Systematic and Structured Approach:** Expect a systematic and structured approach to the audit.
3. **Use of Relevant Tools and Techniques:** Expect the use of relevant tools and techniques to gather and analyze data.
4. **Clear and Concise Reporting:** Expect clear and concise reporting of findings and recommendations.
5. **Follow-up and Follow-through:** Expect follow-up and follow-through on recommended changes

Methodology of a Management Audit

A management audit typically involves the following steps:

1. **Planning:** Plan the audit, including defining the scope, objectives, and methodology.
2. **Data collection:** Collect data through interviews, surveys, observations, and review of documents.
3. **Data analysis:** Analyze the data to identify the gaps and shortcomings.
4. **Reporting:** Prepare a report that presents the findings, conclusions, and recommendations.

5. **Follow-up:** Follow up on the implementation of the recommendations.

Benefits of a Management Audit

1. **Improved management practices:** Management audit helps to identify areas for improvement in management practices.
2. **Enhanced accountability:** Management audit enhances accountability of management for their actions and decisions.
3. **Better decision-making:** Management audit provides recommendations for improving decision-making processes.
4. **Improved organizational performance:** Management audit helps to identify areas for improvement in organizational performance.
5. **Increased transparency:** Management audit promotes transparency in management practices and decision-making processes.

Internal Control and Internal Audit

Key Differences

1. **Purpose:** Internal Control is designed to ensure the achievement of an organization's objectives, while Internal Audit is designed to provide assurance and consulting services to improve an organization's operations.
2. **Scope:** Internal Control is a broader concept that encompasses all aspects of an organization's operations, while Internal Audit is focused on evaluating the effectiveness of internal controls and identifying areas for improvement.
3. **Responsibility:** Internal Control is the responsibility of management, while Internal Audit is an independent function that reports to the audit committee or board of directors.
4. **Frequency:** Internal Control is an ongoing process, while Internal Audit is typically performed on a periodic basis (e.g., quarterly, annually).

Key Similarities Between Internal Audit and Internal Control:

1. **Shared Objective:** Both Internal Audit and Internal Control aim to ensure the achievement

of an organization's objectives, reliability of financial reporting, and compliance with laws and regulations.

2. **Risk Focus:** Both Internal Audit and Internal Control identify and assess risks that could impact an organization's objectives, and implement measures to mitigate those risks.
3. **Process Orientation:** Both Internal Audit and Internal Control examine an organization's processes and procedures to ensure they are operating effectively and efficiently.
4. **Independence:** Both Internal Audit and Internal Control require independence from management to ensure objectivity and effectiveness.
5. **Continuous Improvement:** Both Internal Audit and Internal Control aim to continually improve an organization's operations, internal controls, and risk management processes.
6. **Compliance:** Both Internal Audit and Internal Control ensure compliance with laws, regulations, and internal policies.
7. **Reporting:** Both Internal Audit and Internal Control provide reports to management and the board of directors on the effectiveness of internal controls and risk management processes.
8. **Collaboration:** Internal Audit and Internal Control often collaborate to ensure that internal controls are operating effectively and that audit findings are addressed.

Key dissimilarities between Internal Audit and Internal Control

1. Objective

- **Internal Control:** Its primary objective is to ensure the accomplishment of organizational objectives, reliability of financial reporting, and compliance with laws and regulations.
- **Internal Audit:** Its primary objective is to provide an independent and objective assurance that the organization's risk management, governance, and internal control processes are operating effectively.

2. Scope

- **Internal Control:** It is a part of the organization's system and is embedded in the day-to-day activities.
- **Internal Audit:** It covers a broader scope, including the evaluation of internal control, risk management, and governance processes.

3. Responsibility

- **Internal Control:** The responsibility for establishing and maintaining internal control lies with the management.
- **Internal Audit:** The responsibility for conducting internal audits lies with the internal audit department, which reports to the audit committee or the board of directors.

4. Frequency

- **Internal Control:** Internal controls are ongoing and are a part of the organization's day to day activities.
- **Internal Audit:** Internal audits are conducted periodically, typically on a quarterly or annual basis.

5. Evaluation

- **Internal Control:** Internal controls are evaluated by the management and the internal audit department.
- **Internal Audit:** Internal audits are carried out by the internal audit department (inhouse or outsourced) , and the results are reported to the audit committee or the board of directors. Under CARO, Statutory Auditor evaluates adequacy of Internal Audit.

6. Reporting

- **Internal Control:** The reporting of internal control is typically done through the management's annual report on internal control over financial reporting. A self-assessment model also can be adopted for status update from time to time.
- **Internal Audit:** The reporting of internal audit is typically done through the internal audit report, which is presented to the audit committee or the board of directors.

Let's take an example to clarify, how both can collaborate for the best results with respect to

'Purchases Function' for accomplishing the entity objectives

Internal Audit:

1. **Review of Purchase Transactions:** Select a sample of purchase transactions and to ensure that transactions are duly authorized and documented. Also end to end review of the activities relating to Purchase function goods/services to ensure that transactions are in line with the controls laid down and operating effectively.
2. **Testing of Controls:** Test the existence and effectiveness of internal controls related to purchasing ; such as segregation of duties, authorization, and approval.
3. **Review of Payment Processing:** Review the payment processing system to ensure that payments are made only for receipts of appropriate quality of received goods/ services, and that the payment process is properly documented and approved.
4. **Reporting and Follow-up:** Report the results of the audit to management and the audit committee, and follow up to ensure that any identified control weaknesses or deficiencies are addressed.
5. **Value addition:** Internal Audit also can suggest areas of improvement , which will result in savings, improvement in processes and elimination of unnecessary / irrelevant operations.
6. **Any possible fraudulent act in course of dealing with Vendors:** Price manipulation, favouring Vendor to get Order, Quality compromise, Ordering not at 'best obtainable price', pay-term relaxation etc. are some of the examples.

Internal Control

1. **Control Design:** To pre-empt possibility of any lapses in financial, operating, compliance or any other area; the designing of control need to be appropriate. Possible help can also be sought from experts , Internal Audit function
2. **Internal Control's Input on Audit Scope:** Internal Control can provide input to Internal Audit on the scope of the audit, to ensure that it covers all relevant areas and transactions.
3. **Necessary changes in control mechanism to address process changes, if any:** Immediate modification to address changes in process can minimize deviation or any abuse due to prevalent gap.

Topic

Module 2:
Valuation of Shares

FINAL

Group IV - Paper-18

Corporate Financial
Reporting (CFR)

Valuation of Share

There are three major approaches in valuation:

- a) Cost approach
- b) Income approach
- c) Market approach

In this issue we shall discuss on market approach.

We are going to find the value of share of X Ltd. Even if its market price is available, we shall not consider it. Rather we shall calculate its value based on the market price of shares of the companies falling in peer group of X.

Thus, under market approach we need

- a) to have market prices of other shares in peer group.
- b) Next, we need some reported item of income or assets for X as well as for the other entities in peer group. We call it value driver.
- c) Then we calculate a multiple or relative for each share in peer group where numerator is the market price and denominator is the value driver.

Solution:

Value Drivers: D1 = Cash Flows per share; D 2 = Sales per share; D 3 = Net assets per share

Relatives: R1 = MP/D1; R2 = MP/D2; R3 = MP/D3

Comparator (C) is avg of the peer group: C1 = Avg of R1; C2 = Avg of R2; C3 = Avg of R3

Amount in INR.

		D 1	D 2	D 3	R1	R2	R3
PEER	MP	Cash Flows	SALES	Net Assets	= MP/R1	=MP/R2	=MP/R3
A	80	24	100	50	3.333333	0.8	1.6
B	120	42	150	60	2.857143	0.8	2
C	150	45	180	80	3.333333	0.833333	1.875
D	200	76	240	120	2.631579	0.833333	1.666667
X	90	30	120	64			
		Comparator (C)			C1= Avg of R1	C2= Avg of R2	C3= Avg of R3
		Comparator (C)			3.038847	0.816667	1.785417
	Value drivers of X				D1 = 30	D2 = 120	D3 = 64
	Value per share for each driver= D*C				91.16541	98	114.2667
	Average of 3 relative values per share= Avg of (D*C)				101.144		

As market price of X is INR 80 only while its calculated value is 101.144, the share is underpriced and worth buying.

- d) We compute average of relatives or multiples and call it comparator.
- e) We apply the comparator to the value driver of X and we get the calculated value of share of X based on market approach.

Problem 1.

Companies A, B, C and D are in peer group. Available data are provided below. N is number of shares.

Amount in INR.

PEER	Mkt Price (MP)	Cash Flows/N	Sales/N	Net Assets/N
A	80	24	100	50
B	120	42	150	60
C	150	45	180	80
D	200	76	240	120
X	80	30	120	64

Find the value per share of X Ltd. based on market approach for each of the relatives and also the average value per share. Do you consider the share of X worth buying?

Problem 1.

A Ltd. acquires 60% interest in B Ltd. by acquiring 90000 shares of B Ltd. by issue of 60000 shares of ₹10 (Mkt value ₹ 18). Net Assets of A Ltd. and B Ltd. at the acquisition date just before acquisition at book value are respectively ₹ 3000000 and 1500000 and at fair value ₹ 3400000 and ₹ 2400000. Equity of A Ltd. consists of Equity Share Capital ₹ 2400000 and Other Equity ₹ 600000 just before the acquisition. Show abridged separate and consolidated balance sheets in the books of A Ltd at the acquisition date.

Solution:

Abridged separate balance sheet of A Ltd at the acquisition date

Items	workings	Amount (₹)
Net Assets excluding Investment		3000000
Investment in shares of B Ltd.	60000*18	1080000
Total Assets less Liabilities		4080000
Equity Share Capital	2400000+ 600000	3000000
Other Equity	600000+480000(premium) +360000 (Gains on Bargain Purchase)	1080000
Total Equity		4080000

Abridged consolidated balance sheet in the books of A Ltd at the acquisition date

Items	workings	Consolidated
Net Assets excluding Investment	3000000 + 2400000	5400000
Investment in shares of B Ltd.		-
Total Assets less Liabilities		5400000
Equity Share Capital	2400000+ 600000	3000000
Other Equity	WN 4	1440000
Non-Controlling Interest	WN 2	960000
Total Equity		5400000

Working note (WN) 1. Share of parent = 60%; Share of Non-Controlling Interest = 40%

Consideration = 60000*18 = 1080000

Equity Share Capital Cr. 60000*10 = 600000

Security Premium Cr. 60000*8 = 480000

WN 2. Non-Controlling Interest at proportionate net asset value = 40%*240000 = 96000

WN 3. Gains on Bargain Purchase = Net assets – Consideration – NCI = 2400000 -1080000 – 960000 = 360000

WN 4. Other Equity (Consolidated) = Other Equity of parent before acquisition + Security Premium + Gains on Bargain Purchase = 600000 + 480000 + 360000 = 1440000

Problem 2.

Abstracts of B/S of A and B as at 31-03-2023 (just before acquisition) and as at 31-03-2024 are provided below: (₹ In lakhs)

	31-03-2023 (Before acquisition)				31-03-2024			
	Bk Value		Fair Value		Bk Value		Fair Value	
	A	B	A	B	A	B	A	B
PPE	40	24	48	27	44	26	53	29
Investments in shares of B (80% interest acquired on 31-03-2023)					36			

Current Assets	32	16	31	16	35	18	34	17
Total Assets	72	40		43	115	44		
Equity share capital (₹10)	48	30			72	30		
Other equity	12	4			27	8		
Current liabilities	12	6			16	6		
	72	40			115	44		

Show journal for business combination.

Prepare Separate and Consolidated Balance Sheets at acquisition and at 31-03-2024.

Solution: (₹ In lakhs)

Journal for business combination

For Separate financial statement		For Consolidated financial statements	
Investment Dr.	36	PPE	Dr. 27
		CA	Dr. 16
		Goodwill	Dr. 6.4
To, Equity Sh Cap (72-48)	24	To Consideration	36
To, Security Premium (36-24)	12	To, Non-Controlling Interest (NCI) 20%*Net Assets)	7.4
		To, CL	6
		Consideration	Dr. 36
		To, Equity Sh Cap (60000*10)	24
		To, Security Premium (60000*8)	12

WN 1. Share of parent = 80%

NCI = 20%

Consideration = 36

Equity Share Capital Cr. $72 - 48 = 24$

Security Premium Cr. $= 36 - 24 = 12$

Summarised Separate Balance Sheet of A at acquisition date

Items	(₹ In lakhs)
PPE	40
Investment in shares of B	36
Current Assets	32
Total Assets	108
Equity Share Capital	72
Other Equity (12 + 12)	24
CL	12
Total of equity and liabilities	108

WN 2. Net assets of B at fair value at acquisition date $= 43 - 6 = 37$

WN 3. NCI at acquisition $= 20\% * 74 = 7.4$

WN 4. Goodwill = Consideration + NCI – Net Assets = 36 + 7.4 – 37 = 6.4

Summarised Consolidated Balance Sheet in books of A at acquisition date

Items	workings	(₹ In lakhs)
PPE	40+27	67
Goodwill	WN 4	6.4
Current Assets	35+18	53
Total Assets		121.4
Equity Share Capital		72
Other Equity	12+12	24
Non-Controlling Interest	WN 3	7.4
CL	12+6	18
Total of equity and liabilities		121.4

Summarised Separate Balance Sheet at reporting date 31-03-2024

Items	(₹ In lakhs)
PPE	44
Investment in shares of B	36
Current Assets	35
Total Assets	115
Equity Share Capital	72
Other Equity	27
CL	16
Total of equity and liabilities	115

WN 5. Post acquisition profits of B = 6-4 = 2

Share of parent = 80%*2 = 1.6

Share of NCI = 20%*2 = 0.4

WN 6. Consolidated PPE at 31-03-2024 = Total of Bk Values of A and B + Revaluation profit at acquisition = 44+26 + (27-24) = 73

WN 7. Consolidated Other Equity = Other Equity of parent + Share of post-acquisition profit of B = 27 + 1.6 = 28.6

WN 8. NCI at 31-03-2024 = NCI at acquisition + Share of post-acquisition profit = 7.4+0.4 = 7.8

Summarised Consolidated Balance Sheet in books of A at reporting date 31-03-2024

Items	workings	(₹ In lakhs)
PPE	WN 6	73
Goodwill	WN 4	6.4
Current Assets	35+18	53
Total Assets		132.4
Equity Share Capital		72
Other Equity	WN 7	28.6
Non-Controlling Interest	WN 8	7.8
CL	16+8	24
Total of equity and liabilities		132.4

Topic

Module 1:
Supply under GST -
A Refresh

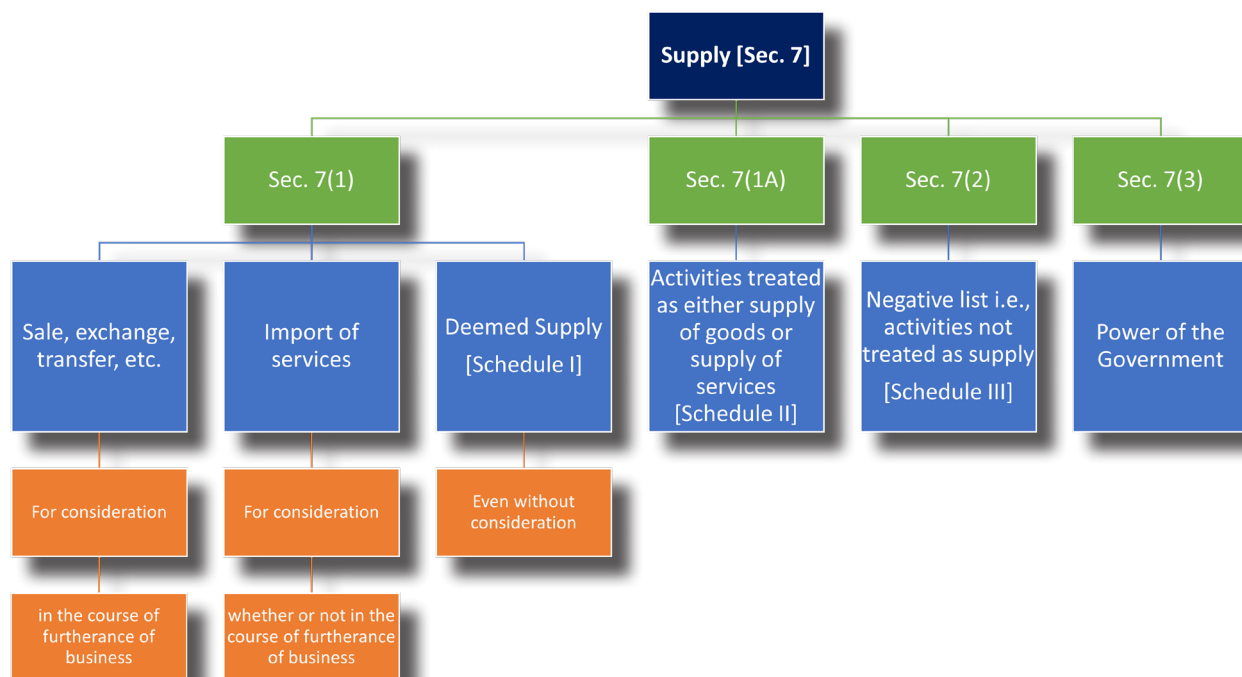
FINAL

Group IV - Paper-19

Indirect Tax Laws
and Practice (ITLP)

Supply Under GST

The taxable event in GST is supply of goods or services or both. Various taxable events like manufacture, sale, rendering of service, purchase, entry into a territory of State etc. have been done away with in favour of just one taxable event i.e., supply. Thus, it is very important to understand the meaning of supply. The GST law provides an inclusive definition of “supply”



The taxable event in GST is the supply of goods or services or both. Various taxable events like manufacture, sale, rendering of service, purchase, entry into a territory of state etc. have been done away with in favour of just one event i.e. supply. The constitution defines “Goods and Services Tax” as any tax on supply of goods, or services or both, except for taxes on the supply of alcoholic liquor for human consumption.

The meaning and scope of supply under GST can be understood in terms of the following six parameters, which can be adopted to characterize a transaction as supply:

1. Supply of goods or services. Supply of anything other than goods or services does not attract GST
2. Supply should be made for a consideration
3. Supply should be made in the course or furtherance of business

4. Supply should be made by a taxable person
5. Supply should be a taxable supply
6. Supply should be made within the taxable territory

While these six parameters describe the concept of supply, there are a few exceptions to the requirement of supply being made for a consideration and in the course or furtherance of business. Any transaction involving the supply of goods or services without consideration is not a supply, barring a few exceptions, in which a transaction is deemed to be a supply even without consideration. Further, the import of services for a consideration, whether or not in the course or furtherance of business is treated as supply.

Supply of Goods or Services or Both

Goods as well as services have been defined in the GST Law. The securities are excluded from the

definition of goods as well as of services. Money is also excluded from the definition of goods as well as services, however, activities relating to the use of money or its conversion by cash or by any other mode, from one form, currency or denomination, to another form, currency or denomination for which a separate consideration is charged are included in services.

Schedule II to the CGST Act, 2017 lists a few activities which are to be treated as supply of goods or supply of services. For instance, any transfer of title in goods would be a supply of goods, whereas any transfer of right in goods without transfer of title would be considered as services.

Further Schedule III to the CGST Act, 2017 spells out activities which shall be treated as neither supply of goods nor supply of services or outside the scope of GST. This includes:

- a. Services by an employee to the employer in the course of or in relation to his employment.
- b. Services of funeral, burial, crematorium or mortuary including transportation of the deceased.
- c. Sale of land and sale of building where the entire consideration has been received after the completion certificate is issued or after its first occupation.
- d. Few Actionable claims

Supply for Consideration

Consideration has specifically been defined in the CGST Act, 2017. It can be in money or in kind. Any subsidy given by the Central Government or a State Government is not considered as consideration. It is immaterial whether the payment is made by the recipient or by any other person.

A deposit given in respect of the supply of goods or services or both shall not be considered as payment made for such supply unless the supplier applies such deposit as consideration for the said supply.

Further, when there is barter of goods of services, the same activity constitutes supply as well as a

consideration. When a barber cuts hair in exchange for a painting, hair cut is a supply of services by the barber. It is a consideration for the painting received.

However, there are exceptions to the requirement of 'Consideration' as a pre-condition for a supply to be called a supply as per GST. As per schedule to the CGST Act, 2017, activities as mentioned below shall be treated as supply even if made without consideration:

1. Permanent transfer or disposal of business assets where input tax credit has been availed on such assets.
2. Supply of goods or services or both between related persons or between distinct persons as specified in section 25, when made in the course or furtherance of business. However, gifts not exceeding ₹ 50,000 in value in a financial year by an employer to an employee shall not be treated as supply of goods or services or both.
3. Supply of goods— (a) by a principal to his agent where the agent undertakes to supply such goods on behalf of the principal; or (b) by an agent to his principal where the agent undertakes to receive such goods on behalf of the principal.
4. Import of services by a taxable person from a related person or from any of his other establishments outside India, in the course or furtherance of business.

Supply in the Course or Furtherance of Business

GST is essentially a tax only on commercial transactions. Hence, only those supplies that are in the course or furtherance of business qualify as supply under GST. Hence, any supplies made by an individual in his personal capacity do not come under the ambit of GST unless they fall within the definition of business as defined in the Act. Sale of goods or service even as a vocation is a supply under GST.

However, there is one exception to this 'Course or Furtherance of Business' rule i.e., import of services for a consideration.

Supply by a Taxable Person

A supply to attract GST should be made by a taxable person. Hence, a supply between two non-taxable persons does not constitute supply under GST. A “taxable person” is a person who is registered or liable to be registered under section 22 or section 24. Hence, even an unregistered person who is liable to be registered is a taxable person. Similarly, a person not liable to be registered but has taken voluntary registration and got himself registered is also a taxable person.

It should be noted that GST in India is State-centric. Hence, a person making supplies from different States needs to take separate registration in each State. Further, the person may take more than one registration within a State if the person has multiple business verticals. A person who has obtained or is required to obtain more than one registration, whether in one State or Union territory or more than one State or Union territory shall, in respect of each such registration, be treated as distinct persons for the purposes of GST. Hence, a supply between these entities constitutes supply under GST.

Taxable Supply

For a supply to attract GST, the supply must be taxable. Taxable supply has been broadly defined and means any supply of goods or services or both which, is leviable to tax under the Act. Exemptions may be provided to the specified goods or services or to a specified category of persons/entities making supply.

Supply in the Taxable Territory

For a supply to attract GST, the place of supply should be in India. The place of supply of any goods or services is determined based on Sections 10, 11, 12 and 13 of the IGST Act 2017.

In summary, supply under GST encompasses a wide range of transactions, and its correct interpretation is crucial for businesses to comply with GST regulations and ensure smooth operations. Understanding the concept of supply is crucial for businesses to ensure compliance with GST regulations and proper tax planning.

Topic

Module 2:
Performance
Measurement,
Evaluation and
Improvement Tools

Business Valuation

ELECTIVES

Paper-20A

Strategic
Performance
Management and
Business
Valuation (SPMBV)

Module 1 : Performance Measurement, Evaluation and Improvement Tools

Performance Evaluation in Volatile Times

Performance evaluation is a cornerstone of organizational success, enabling businesses to assess, reward, and enhance employee contributions. However, in volatile times—marked by economic turbulence, geopolitical instability, or industry-specific disruptions—traditional evaluation methods often falter. This article explores the challenges, strategies, and adaptations required for effective performance evaluation in such periods, including a case study to illustrate these principles in action.

Understanding Volatility and Its Impact on Performance Evaluation

Volatility refers to rapid and unpredictable changes that disrupt the usual flow of business activities. Such conditions, whether caused by global crises like pandemics or localized market disruptions, alter the dynamics of employee roles, objectives, and resources. This unpredictability complicates the task of measuring performance using static benchmarks and traditional methods.

1. Challenges of Evaluating Performance in Volatile Times:

- **Shifting Priorities:** Organizational goals may frequently change in response to external pressures, making initial performance objectives irrelevant.
- **Resource Constraints:** Financial and operational limitations can hinder employees' ability to achieve their goals, regardless of effort or capability.
- **Increased Stress:** Employees often face heightened stress and uncertainty, which can affect productivity and morale.
- **Remote Work Complexities:** The rise of hybrid and remote work arrangements during volatile periods adds layers of complexity to tracking performance and collaboration.
- **Subjectivity Risks:** Managers may struggle to fairly assess individual contributions when team dynamics and external factors heavily influence outcomes.

Strategies for Effective Performance Evaluation

1. Agile Goal Setting:

- Replace rigid, long-term objectives with flexible, short-term goals that can be adjusted as circumstances evolve. Use frameworks like Objectives and Key Results (OKRs) to ensure alignment with changing priorities.
- Example: During a supply chain crisis, a logistics team may pivot from cost-saving goals to ensuring timely deliveries, even at higher costs.

2. Frequent Feedback:

- Implement continuous feedback mechanisms instead of relying solely on annual reviews. Regular check-ins enable timely course corrections and foster a supportive environment.
- Tools like real-time performance dashboards or weekly one-on-ones help maintain transparency and accountability.

3. Emphasis on Core Competencies:

- Focus evaluations on attributes like adaptability, problem-solving, and collaboration, which are crucial during volatile times. These competencies often determine success when roles and tasks evolve unpredictably.

4. Holistic Metrics:

- Balance quantitative metrics (e.g., sales figures, project completions) with qualitative assessments (e.g., leadership under pressure, innovation). This approach acknowledges the multifaceted nature of performance in challenging contexts.

5. Employee Involvement:

- Involve employees in defining evaluation criteria to ensure fairness and alignment with their realities. Co-creating performance benchmarks enhances engagement and mutual understanding.

6. Technology-Driven Insights:

- Leverage advanced analytics and artificial intelligence to monitor performance trends and predict potential challenges. For example, predictive models can identify workload imbalances before they impact results.

7. Compassionate Leadership:

- Recognize the human side of performance by accounting for personal circumstances and mental health. This empathetic approach fosters loyalty and resilience within the workforce.

Case Study: Performance Evaluation During the COVID-19 Pandemic

Background: XYZ Tech, a mid-sized software company, faced significant disruptions during the COVID-19 pandemic. With offices closed, the company transitioned to remote work overnight. The sales pipeline shrank as clients delayed projects, and employees grappled with isolation and uncertainty.

Challenges:

- Sales teams struggled to meet pre-pandemic revenue targets due to market contractions.
- Collaboration between teams declined as communication barriers emerged in the remote setup.
- Employee morale dropped, impacting productivity and creativity.

Solution: XYZ Tech reimaged its performance evaluation system to adapt to the crisis:

1. Redefined Objectives:

- Sales goals shifted from revenue targets to customer retention metrics. The company prioritized maintaining client relationships over aggressive prospecting.
- Development teams focused on enhancing existing products rather than pursuing new, resource-intensive projects.

2. Implemented Frequent Check-Ins:

- Managers conducted bi-weekly virtual meetings to discuss progress, challenges, and well-being. These sessions provided real-time feedback and emotional support.

3. Incorporated Flexibility:

- Employees were allowed to set their working hours to balance professional and personal responsibilities. Performance evaluations accounted for these adjustments, emphasizing outcomes over traditional metrics like hours worked.

4. Celebrated Small Wins:

- The company introduced “micro-recognition” programs, celebrating individual and team achievements in adapting to remote work or resolving client issues.

5. Focused on Soft Skills:

- The evaluation criteria included adaptability, initiative in remote collaboration, and problem-solving during the crisis. For example, a customer support executive who devised innovative ways to resolve client issues despite technical limitations was recognized for their efforts.

6. Leveraged Technology:

- XYZ Tech used collaboration tools like Slack and Asana to track project progress and foster communication. Performance data from these tools helped managers evaluate contributions objectively.

Outcomes:

- Employee satisfaction scores improved as the company demonstrated empathy and adaptability.
- Client retention increased by 25%, with several customers praising XYZ Tech’s proactive support during challenging times.
- The revamped evaluation system became a permanent feature, reinforcing a culture of flexibility and continuous improvement.

Lessons Learned

The case of XYZ Tech highlights key takeaways for organizations navigating performance evaluation in volatile times:

1. **Adaptability is Key:** Goals, metrics, and processes must evolve alongside changing circumstances.
2. **Frequent Feedback Builds Trust:** Regular communication ensures alignment and demonstrates managerial support.
3. **Human-Centric Approaches Matter:** Acknowledging employee well-being fosters loyalty and resilience.
4. **Technology Enhances Transparency:** Digital tools streamline evaluations and reduce subjectivity.

Moving Forward: Building Resilient Evaluation Systems

To thrive in volatile environments, organizations must embed resilience into their performance evaluation systems. Here's how:

1. Scenario Planning:

- Develop evaluation frameworks that account for various potential disruptions. For instance, create contingency metrics for financial downturns or operational constraints.

2. Dynamic Skill Development:

- Invest in training programs that enhance skills relevant to volatile conditions, such as digital literacy, emotional intelligence, and crisis management. Incorporate these skills into performance criteria.

3. Collaborative Culture:

- Foster a culture where teams share responsibilities and support each other during crises. Team-based evaluation methods, such as 360-degree feedback, can reinforce this collaboration.

4. Proactive Leadership:

- Train leaders to anticipate and address volatility's impact on performance. Equipped with the right tools and mindset, they can guide their teams effectively.

5. Equity in Evaluation:

- Ensure that performance reviews account for disparities in resources and opportunities among employees. This prevents penalizing individuals for circumstances beyond their control.

Module 1 : Performance Measurement, Evaluation and Improvement Tools

Business Valuation in Volatile Times: Adapting Metrics and Methods

Business valuation, the process of determining the economic worth of a company, becomes significantly more complex during volatile times. Rapid market fluctuations, economic uncertainty, and unpredictable external factors challenge traditional valuation models, necessitating adaptations to ensure accurate and actionable insights. This article delves into the evolving landscape of business valuation during volatile periods, focusing on changing valuation metrics, challenges, strategies, and a case study illustrating these principles.

Understanding Business Valuation in Volatile Environments

Volatile times—driven by economic crises, political instability, technological disruption, or global pandemics—reshape the financial landscape, introducing risks and opportunities. Business valuation in such periods requires recalibration to account for fluctuating market conditions, investor sentiment, and operational constraints.

1. Key Challenges in Volatile Times:

- Market Uncertainty: Unpredictable changes in consumer behavior, market demand, and supply chains distort revenue projections and growth assumptions.

- Discount Rate Volatility: Rising uncertainty often leads to higher discount rates, affecting present value calculations of future cash flows.
- Asset Revaluations: Tangible and intangible assets may experience sudden shifts in market value due to changing economic conditions.
- Risk Amplification: Businesses face heightened operational and financial risks, which impact valuations.

- 2. Importance of Adaptation:** Traditional valuation models, such as the Discounted Cash Flow (DCF) method or market comparables, may produce misleading results without adjustments for volatility. Adaptation involves refining these models and incorporating additional metrics tailored to the specific challenges of uncertain times.

Key Valuation Metrics That Change During Volatile Times

1. Revenue and Profitability Projections:

- In volatile times, historical growth rates may no longer apply. Analysts must consider scenario planning, incorporating best-case, worst-case, and most-likely scenarios.
- Greater emphasis is placed on short-term performance indicators, as long-term forecasts become less reliable.

2. Risk Adjustments in Discount Rates:

- o Volatile periods often result in higher risk premiums, increasing the Weighted Average Cost of Capital (WACC). This adjustment reflects greater uncertainty in future cash flows.

3. Liquidity and Cash Flow:

- o Liquidity metrics gain prominence as businesses prioritize cash reserves to weather uncertainty. Analysts scrutinize cash flow stability and working capital management over profitability metrics.

4. Market Multiples Sensitivity:

- o Valuation multiples (e.g., Price-to-Earnings, EV/EBITDA) may fluctuate widely due to investor sentiment. Analysts must apply caution in using these benchmarks, considering industry-specific volatility.

5. Asset Valuations:

- o Real estate, inventory, and intellectual property valuations may require adjustments based on current market conditions. For instance, inventory obsolescence risk may increase during periods of low consumer demand.

6. Debt and Leverage Ratios:

- o Creditworthiness and debt servicing capacity are critical during volatile times. Analysts closely monitor debt-to-equity and interest coverage ratios to assess financial stability.

7. Qualitative Factors:

- o Non-quantifiable factors, such as leadership resilience, brand strength, and adaptability, become pivotal in assessing a company's long-term prospects.

Strategies for Accurate Valuation in Volatile Times

1. Scenario-Based Valuation:

- o Use multiple scenarios to model potential outcomes, incorporating stress tests for extreme conditions. This approach provides a range of values, highlighting risks and opportunities.

2. Dynamic Valuation Models:

- o Adjust traditional models like DCF to include

volatility-adjusted discount rates and shorter projection periods. Incorporate real options analysis to account for flexibility in strategic decisions.

3. Market Sentiment Analysis:

- o Leverage sentiment analysis tools to gauge investor confidence and market trends, refining valuation assumptions accordingly.

4. Peer Comparisons with Caution:

- o While market comparables remain useful, ensure adjustments for industry-specific volatility and anomalies affecting peer performance.

5. Frequent Revaluations:

- o Conduct more frequent valuation updates to reflect rapidly changing conditions, ensuring decisions are based on the most current data.

6. Transparent Assumptions:

- o Clearly articulate the assumptions underlying valuation models, enabling stakeholders to understand the basis for conclusions and adjust for changing conditions.

Case Study: Valuation of a Retail Chain During the COVID-19 Pandemic

Background: ABC Retail, a regional chain specializing in fashion apparel, faced significant challenges during the COVID-19 pandemic. Lockdowns, reduced foot traffic, and supply chain disruptions dramatically affected revenue streams. The company sought to secure financing to sustain operations, necessitating an updated valuation.

Challenges:

- Revenue dropped by 40% in the first half of the year, creating uncertainty around future growth.
- Inventory obsolescence risk increased as seasonal merchandise remained unsold.
- Traditional valuation multiples in the retail sector were highly volatile, reflecting broader market uncertainty.

Solution: ABC Retail engaged financial analysts to perform a scenario-based valuation tailored to volatile conditions:

1. Scenario Planning:

- o The analysts modelled three scenarios:
 - Best Case: Rapid recovery with a strong rebound in consumer spending post-lockdowns.
 - Base Case: Gradual recovery with moderate revenue growth.
 - Worst Case: Prolonged recession and continued low demand.

2. Adjusted Revenue Projections:

- o Historical growth rates were replaced with region-specific recovery forecasts, incorporating data from government stimulus programs and consumer confidence indices.

3. Risk-Adjusted Discount Rate:

- o The WACC was adjusted to reflect heightened market risk, with an additional premium to account for the uncertainty in consumer behavior.

4. Asset Valuation Adjustments:

- o Inventory was revalued, considering potential markdowns to clear unsold stock.
- o The value of leased store properties was reassessed, factoring in renegotiated rental agreements.

5. Emphasis on Liquidity:

- o Analysts prioritized cash flow analysis, highlighting ABC Retail's ability to maintain liquidity through cost-cutting measures and deferred loan payments.

6. Incorporation of Non-Financial Metrics:

- o Leadership resilience, digital transformation efforts (e.g., e-commerce expansion), and brand loyalty were factored into the qualitative assessment of the company's value.

Outcomes:

- The valuation provided a range of \$150 million to \$190 million, depending on the scenario. This flexibility allowed lenders and investors to make informed decisions.

- ABC Retail secured \$25 million in financing based on the base-case scenario, enabling the company to invest in its online sales platform and sustain operations during the pandemic.
- The company's shift toward digital sales improved its long-term prospects, with e-commerce contributing 30% of revenue post-pandemic.

Lessons Learned

The case of ABC Retail underscores several critical lessons for business valuation in volatile times:

1. Flexibility is Essential:

- o Scenario-based approaches provide a more comprehensive view of potential outcomes, aiding decision-making under uncertainty.

2. Liquidity Over Profitability:

- o In crisis periods, liquidity often takes precedence over profitability as a measure of stability and survival.

3. Incorporate Intangible Assets:

- o Factors like brand loyalty, adaptability, and leadership quality gain importance in assessing long-term value.

4. Update Valuations Frequently:

- o Rapidly changing conditions necessitate more frequent revaluations to ensure accuracy and relevance.

Conclusion:

Business valuation during volatile times is both a science and an art, requiring analysts to blend quantitative rigor with qualitative insights. By adapting traditional metrics, employing dynamic models, and considering broader contextual factors, businesses can navigate uncertainty with confidence. The strategies and lessons discussed here provide a framework for organizations and stakeholders to assess value effectively, even in the most challenging conditions. Whether securing financing, planning mergers, or evaluating growth opportunities, accurate valuation remains a cornerstone of strategic decision-making in turbulent times.

Topic

Module 1:
Introduction to Risk
Management

Module 6:
Introduction to
Insurance Business

ELECTIVES

Paper-20B

Risk Management
In Banking and
Insurance (RMBI)

Risk Management in Banking (Introduction to Risk Management)

The banking sector plays a pivotal role in regulating and managing a country's economy. Banks facilitate the channelling of savings into investments, fostering economic growth. However, like any sector, banking carries inherent risks.

Risk Management and the Role of the Reserve Bank of India (RBI): Risk management is a critical aspect in banking, and the RBI plays a significant role in overseeing and regulating risk management practices.

Understanding Risk: Risk can be defined as a situation where there's a possibility of undesirable outcomes, which can be quantified and potentially insured. In simpler terms, risk refers to unpredictable events that may result in financial consequences, leading to reduced earnings or losses.

Risks in Banking: Just like any commercial organization, banks are exposed to various risks inherent in their business operations. While higher risks can yield greater gains, they also carry the potential for substantial losses.

Types of Risks in Banking-Banks face a Range of Risks, including:

- ≈ **Credit Risk:** The risk of borrowers defaulting on their loan obligations, resulting in losses for the bank.
- ≈ **Market Risk:** The risk of losses due to fluctuations in market prices, such as interest rates, foreign exchange rates, and equity prices.
- ≈ **Operational Risk:** The risk of losses resulting from inadequate or failed internal processes, human errors, or system failures.
- ≈ **Liquidity Risk:** The risk of being unable to meet short-term obligations due to insufficient cash or marketable assets.
- ≈ **Compliance Risk:** The risk of legal or regulatory violations, leading to fines, penalties, or reputational damage.

Risk Management Process: Banks employ various risk management strategies to mitigate these risks, including:

- ≈ **Risk Identification:** Identifying and assessing potential risks.
- ≈ **Risk Measurement:** Quantifying the likelihood and impact of risks.
- ≈ **Risk Mitigation:** Implementing strategies to reduce the likelihood or impact of risks.
- ≈ **Risk Monitoring:** Continuously monitoring risks and adjusting strategies as needed.

Role of the RBI in Risk Management:

The RBI plays a crucial role in overseeing and regulating risk management practices in the banking sector. It issues guidelines and regulations to ensure that banks maintain adequate capital, implement sound risk management systems, and disclose risk information transparently. The RBI also conducts regular inspections and audits to assess banks' risk management practices and ensure compliance with regulations.

Types of Financial Risks and Ways to Manage Them:

According to the finance industry, there are five main types of Risks--

1. **Interest Rate Risk:** Interest Rate Risk is the risk that the value of an investment will change due to changes in interest rates. This risk can be managed by investing in fixed-income securities, such as bonds, which provide a steady stream of income.
2. **Credit Risk:** Credit Risk is the risk that a borrower will default on a loan. This risk can be managed by diversifying investments across different borrowers and by investing in creditworthy borrowers.
3. **Liquidity Risk:** Liquidity Risk is the risk that an investment cannot be easily converted into cash. This risk can be managed by investing in liquid assets, such as stocks and bonds, which can be easily sold on the market.
4. **Market Risk:** Market Risk is the risk that the value of an investment will change due to changes in the market. This risk can be managed by diversifying investments across different asset classes, such as stocks, bonds, and real estate.

5. Operational Risk: Operational Risk is the risk of loss resulting from inadequate or failed internal processes, people, and systems, or from external events. This risk can be managed by implementing strong internal controls and risk management systems.

Financial Risks in Banking:

Interest Rate Risk (IRR):

- IRR is the risk that investments in bonds will suffer due to unexpected changes in interest rates.
- It affects the Net Interest Margin or Market Value of Equity (MVE) of an institution.
- IRR exposes a bank's financial condition to adverse movements in interest rates.
- Bond prices are greatly influenced by interest rates; when rates increase, bond prices decrease, and vice versa.
- Hedging or portfolio development can mitigate IRR.

Credit Risk:

- Also known as Default Risk, it is the potential of a borrower to fail to meet contractual obligations.
- Loans are a common source of credit risk for banks.
- Credit risk cannot be avoided but can be mitigated by evaluating borrowers' worthiness before loan approval.
- Higher coupon rates can mitigate credit risk by providing greater cash flows.
- Counterparty and Country risks are associated with Credit Risk.

Liquidity Risk:

- Liquidity Risk occurs when an institution cannot meet its financial obligations or can only do so through external borrowings.
- It arises from the conversion of assets into non-performing assets (NPAs).
- Liquidity Risk is considered one of the most vulnerable risks faced by banks in the modern banking model.
- Creating a difference in the timeframe between

liability maturity and asset maturity can effectively manage liquidity risks.

- Liquidity risk is divided into Funding Risk, Time Risk, and Call Risk.

Market Risk:

- Market Risk is the risk that an investment's value will decrease due to changes in market factors, such as recession.
- Banking organizations that invest in products related to share prices, currency movements, commodities, etc., face market risks.
- Market risk applies to a part of Interest Rate Risk affecting the price of interest rate instruments, foreign currency risk, and pricing risk for other portfolio assets held in the Bank's Trading Account.
- Diversifying funds by holding assets in various investment options is the most effective way to manage Market Risk.

Operational Risk:

- Operational Risk is the risk of loss arising from failed internal systems, controls, procedures, or policies due to fraud, breaches, employee errors, or external events disrupting bank processes.
- It includes cybersecurity risk, a critical risk that banks must evaluate and manage.
- Operational risks are divided into Transaction and Compliance risks.
- **Transaction Risk:** Arises from internal or external fraud, inability to maintain continuity and manage information, and failed business processes.
- **Compliance Risk:** Compliance risk is the potential for legal or regulatory penalties, reputational damage, or financial losses due to a bank's failure to comply with applicable regulations.
- **Operational Risk Mitigation:** Operational risk can be reduced by implementing or strengthening internal rules to enhance accountability.

Risk Management in Banking Sector & Role of RBI:

To manage risk in the banking sector, the Reserve Bank of India (RBI), the apex bank of the country, has formulated several strategic techniques. These include

the CAMELS rating system, PCA (Prompt Corrective Action) Framework, and risk-return trade-off.

CAMELS Rating System: The CAMELS rating system is used by banks to assess their financial stability. It stands for:

- **C:** Capital Adequacy
- **A:** Asset Quality
- **M:** Management
- **E:** Earnings Quality
- **L:** Liquidity
- **S:** Sensitivity to Market Risk

It's an internationally recognized rating system used by bank supervisory authorities to evaluate financial institutions based on these six factors.

Supervisory authorities assign each bank a score on a scale, with 1 being the best and 5 being the worst for each factor.

Prompt Corrective Action (PCA): Under the PCA Framework, banks with weak financial metrics are

supervised by the RBI. It comprises the following parameters:

- Capital to risk-weighted assets ratio (CRAR)
- Net PCA Framework

The PCA was introduced in 2002 by the RBA as a structured early-intervention mechanism for banks that are low on capital due to vulnerable loss of profitability or poor asset quality.

- The PCA framework is applicable only to commercial banks and not for co-operative banks and/ or non-banking financial institutions.

Risk-Return Trade-off:

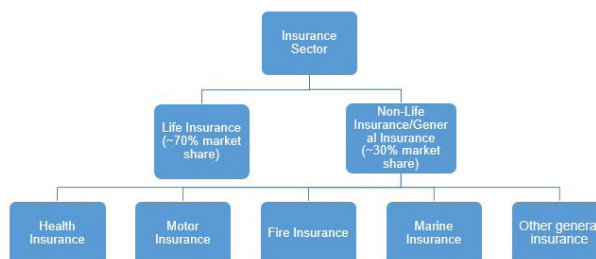
- Higher risk relates to a greater probability of a higher return and lower risk with a greater probability of a lesser return. Such a trade-off which an investor faces between the risk and return while making investment decisions is called the risk-return trade-off.
- As per the risk-return trade-off, the invested money can render increased profits only if the investor is ready to accept the possibility of losses.

Risk Management in Insurance (Introduction to Insurance Business)

The Indian insurance sector has transformed significantly over the past few decades and has been contributing significantly to the economic development of the country. This sector is transformed from being dominated by a single player, Life Insurance Corporation (LIC) to becoming a sector comprising various players offering diverse range of products tailored to meet the needs of the customers. The transformation has been fuelled by several factors such as economic development, technological advancement, demographic shifts, and increased consumer awareness about financial security through insurance, especially post COVID-19 pandemic. The insurance penetration stood at 4.2% of the GDP in 2022, which included 3.2% from life insurance and 1.0% from non-life (general) insurance, indicating a vital position the sector holds in the financial system of the country. The dominance of LIC in India's life insurance segment and the robust growth witnessed in

the general insurance segment has pivoted the insurance sector towards expansion in the near future.

Segmentation of Insurance Sector in India:



Growth of Life Insurance Sector:

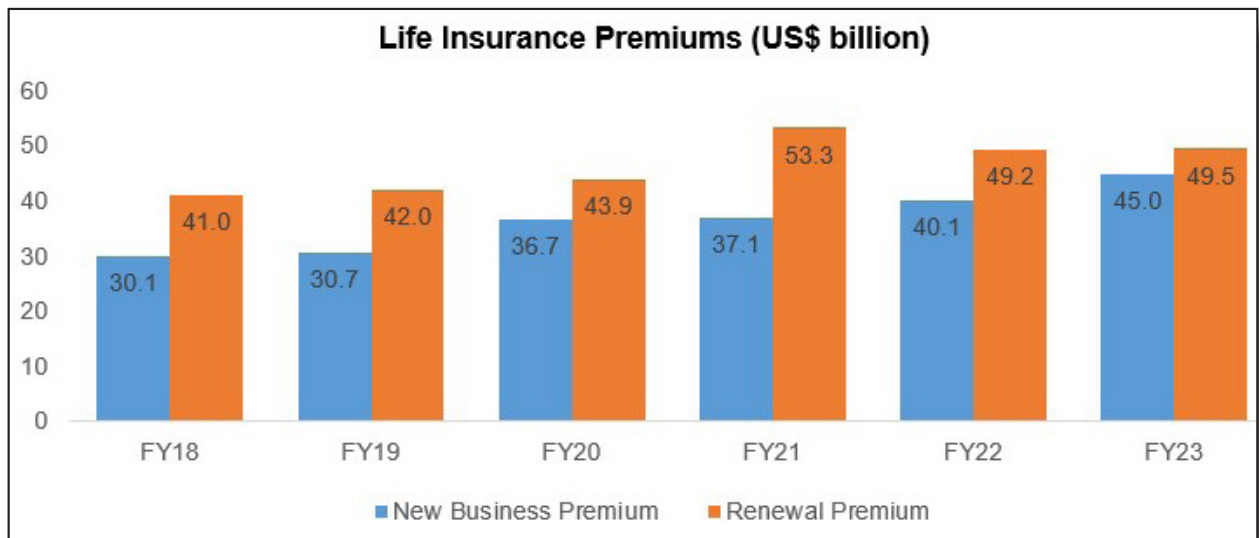
The life insurance sector in India holds ~70% of the market share relative to the entire insurance sector in India and has displayed a considerable amount of growth right from the year 2000, when the insurance sector was liberalised. The liberalisation helped in the introduction of private players in the industry and therefore, increasing competition from companies such

as ICICI Prudential, HDFC Life, and SBI life. This heightened competition helped diversify the market, introduce innovative and wide range of products and enhanced customer reach and satisfaction.

As per CII, India ranks as the fifth-largest life insurance market globally that has been growing at 32-34% each year. The large life insurance market comprises 24 companies. Among these, LIC holds 60% of the market share in terms of premiums and is the sole public sector company. As of FY23, the life insurance penetration in India stood at 3.0% of the GDP of India, reflecting a

steady rise from 2.7% in FY16. Similarly, in terms of insurance density, life insurance density rose from US\$ 44 in FY15 to US\$ 70 in FY23.

Life Insurance Premiums comprise two broad categories, viz; 'New Business Premiums' and 'Renewal Premiums.' New business premiums have been growing at a steady pace from US\$ 30.1 billion in FY18 to US\$ 45 billion in FY23. On a similar trend, renewable premiums have shown a modest growth as well. It stood at US\$ 49.5 billion in FY23, rising from US\$ 41.0 billion in FY18.



Growth of Non-Life (General) Insurance Sector:

The general insurance sector of India comprises Non-life Insurance Products such as Motor, Health, Property, and Marine Insurance. This sector has seen robust growth in the past decades. India is currently the fourth-largest general insurance market in Asia and the 14th-largest globally. The general insurance sector's density grew two times from US\$ 11 in FY15 to US\$ 22 in FY23, but its penetration still lags at 1.0% the GDP as of FY23, signalling a massive upside potential as compared with the global standards. The general insurance business in India has witnessed an impressive growth over the past two decades, which has been fuelled by the increased participation of private players, improvement in distribution capabilities and operational efficiencies.

During 2022-23, the Indian Non-life insurance industry underwrote a total direct premium of ₹ 2.57 lakh crore (US\$ 30.77 billion) registering growth of 16.40% from 2021. Out of which, ₹ 1.58 lakh crore (US\$ 18.92

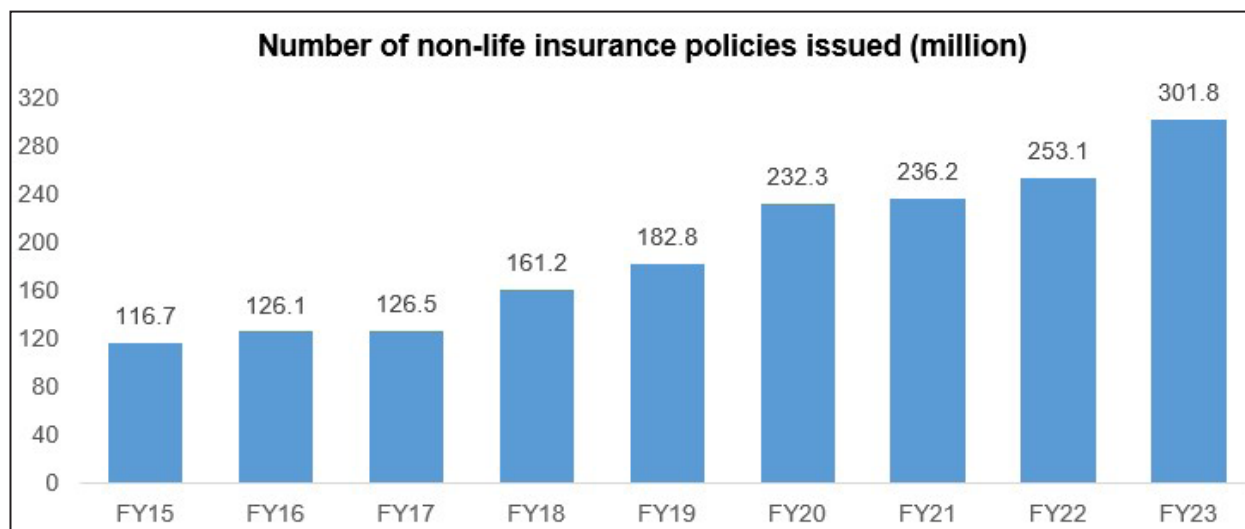
billion) was underwritten by 27 Private Sector Insurers (including Standalone Health Insurers) compared with ₹ 1.30 lakh crore (US\$ 15.56 billion) in 2021-22. The Total Premium underwritten outside India by the three Public Sector Insurers stood at ₹ 3,434 crore (US\$ 411.11 million) in 2022-23 as against ₹ 3,303 crore (US\$ 395.43 million) in 2021-22 registering growth of 3.96%.

Segment Classification of Non-life Insurance Based on Gross Direct Premiums in FY23

Segment	% Share of Gross Direct Premium	Premium Collected (US\$ Billion)
Health	38%	11.69
Motor	32%	9.73
Fire	9%	2.87
Personal Accident	3%	0.84
Marine	2%	0.61

(Source: IRDAI)

With a contribution of 38.02% of the total premium in 2022-23 (36.48% in 2021-22), the health insurance business is the largest segment in the general insurance sector. The health insurance segment reported a growth of 21.32% in FY23, with the premium growing to ₹ 97,633 crore (US\$ 11.69 billion) from ₹ 80,502 crore (US\$ 9.64 billion) in FY22. The motor segment witnessed a yoy growth of 15.40% with premium collection amounted to ₹ 81,280 crore (US\$ 9.73 billion) in 2022-23 from ₹ 70,433 crore (US\$ 8.43 billion) in 2021-22.



Conclusion:

The Insurance Sector in India has played a vital role towards the steadiness and growth of the Indian economy. It has gone through significant transformation over the past few decades, driven by regulatory reforms. The adaptation of the latest technologies and the rising customer awareness (Especially after COVID-19 Pandemic) has established a strong base for the industry to flourish in the near future. As per IRDAI, the insurance market in India is expected to touch US\$ 222 billion by 2026. Additionally, IRDAI has adopted a new mission of 'Insurance for All' 2047, that is expected to increase the insurance penetration, while ensuring the ease of doing business for the insurers. As per Swiss Re, the insurance sector in India is projected to grow the fastest among the G20 Countries, with the total premium projected to grow at an average of 7.1% as compared with the global average of 2.4% between 2024-28. Despite the various challenges that the industry faces, they present an opportunity for the various stakeholders in the sector to innovate and expand the sector further.

Topic

Module 1:
Entrepreneurial Skill
Sets

ELECTIVES

Paper-20C

Entrepreneurship
and Start Up (ENTS)

Paper 20C : Entrepreneurship and Startup Entrepreneurial Skill Set

Entrepreneurial skills are the abilities and traits that someone needs to start and run a business. While some roles require a narrow skill set, entrepreneurs need a broad array of skills. To start a new business, an entrepreneur needs business knowledge, technical expertise, people skills, and creative vision.

ESSENTIAL SKILLS FOR ASPIRING ENTREPRENEURS

While successful entrepreneurs come from all backgrounds, people who have developed the following skills and personality traits are more likely to effectively launch and grow a new business.

MANAGING 4 KEY COMPONENTS OF ENTREPRENEURSHIP

Entrepreneurs need to master these four areas to turn their idea into a thriving company.

- 1 BUSINESS STRUCTURES**
Entrepreneurs must structure a business effectively to align their products and services with marketplace needs.
- 2 BUSINESS PROCESSES**
Companies must have efficient, productive processes that generate profits and attract investors.
- 3 INTERPERSONAL RELATIONSHIPS**
Business leaders must manage people inside the company and nurture external connections.
- 4 ORGANIZATIONAL CHANGE**
Dynamic markets force entrepreneurs to change course quickly, which requires a strategic approach to change management.

IMPROVING THE 'BIG 5' PERSONALITY TRAITS OF ENTREPRENEURS

Researchers have documented that successful entrepreneurs share the following five personality traits. Aspiring entrepreneurs can focus on cultivating these traits.

- 1 MORE EXTRAVERSION**
Extraversion helps entrepreneurs sell their ideas, take charge and inspire people.
- 2 LESS NEUROTICISM**
Greater self-confidence and emotional stability help entrepreneurs stay on track.
- 3 MORE OPENNESS TO EXPERIENCE**
Entrepreneurs embrace the novelty of new ideas, innovation and untapped opportunities.
- 4 LESS AGREEABLENESS**
Company builders tend to be more motivated by driving results than crafting consensus.
- 5 MORE CONSCIENTIOUSNESS**
Success in an entrepreneurial environment requires diligence and a commitment to setting and achieving goals.

Ready to learn more about becoming an entrepreneur?
Visit business.vanderbilt.edu for more information.

Source: <https://business.vanderbilt.edu/news/2021/01/15/essentials-skills-for-aspiring-entrepreneurs/>

Entrepreneurial Discipline with Practice

Entrepreneurial discipline is a combination of commitment, perseverance, and the ability to adapt and learn from failures. Disciplined entrepreneurs see challenges as opportunities for growth and self-improvement, and they maintain a positive outlook.

Entrepreneurial Discipline with Practice

It helps to an entrepreneur on the following ways:

1. **Set a vision:** Write down your vision.
2. **Get feedback:** Ask customers and clients for feedback early and often.
3. **Have a plan B:** Be prepared to make course corrections.
4. **Work hard:** Put in the effort to build your business.
5. **Take criticism:** Be willing to accept criticism and doubt.

6. **Visualize your goals:** Before going to bed, think about your ten-year goal.
7. **Use first principles thinking:** Challenge fundamental assumptions.
8. **Practice the one-sentence method:** Use this technique to help you.
9. **Re-analyze the context:** Analyze the context of the last change.

Entrepreneurial Discipline with Perseverance

Every entrepreneur will face failure at some point. It's an inevitable part of the innovation process. Perseverance teaches us to view failure not as a dead end but as a learning opportunity, a moment to reassess and pivot if necessary. It helps entrepreneurs keep going through challenges, learn from failures, and maintain focus:

1. **Embrace failure:** View failure as a learning opportunity to reassess and pivot.
2. **Maintain momentum:** Keep making progress, even if it's incremental.
3. **Build resilience:** Develop the mental and emotional strength to withstand ups and downs.

Entrepreneurial Discipline with Patience

Entrepreneurial discipline with patience is a combination of structured focus and dedication that can help entrepreneurs achieve their goals. It can help entrepreneurs:

1. **Navigate challenges**
2. **Make better decisions**
3. **Build relationships**
4. **Be resourceful**
5. **Control actions and thoughts**
6. **Manage time**

The Entrepreneurial Eco-system

Legal and Intellectual Property Rights

Intellectual Property Rights (IPRs) are emerging as a strategic business tool for any business organisation to enhance industrial competitiveness. Startups, with limited resources and manpower, can sustain themselves in this highly competitive world only through continuous growth and development-orientated

innovations; for this, it is equally crucial that they protect their IPRs in India and outside.

Startup India Initiatives

The legal Support and Intellectual Property Right (IPR) Facilitation benefits provided under Startup India Initiative are as follows:

- Fast-tracking of Startup patent applications so that they can realize the value of their IPRs at the earliest possible.
- Panel of facilitators to assist in filing of IP applications. The list of these facilitators is available above.
- The Central Government shall bear the entire fees of the facilitators for any number of patents, trademarks or designs that a Startup may file, and the Startups shall bear the cost of only the statutory fees payable.
- Startups shall be provided an 80% rebate in filing of patents vis-à-vis other companies For more information, kindly contact the patent facilitators.

Copyright: With Copyright, Authors of original/unique literary, musical, or creative works are granted a copyright, which allows them to produce their work while prohibiting others from copying it.

Terms of Copyright

- (i) If published within the life time of the author of a literary work, the term is for the life time of the author plus 60 years.
- (ii) For cinematography films, records, photographs, posthumous publications, anonymous publication, works of government and international agencies, the term is 60 years from the beginning of the calendar year following the year in which the work was published.
- (iii) For broadcasting, the term is 25 years from the beginning of the calendar year following the year, in which the broadcast was made.

Rights of a Copyright Holder (which when violated lead to infringement)

- (a) In the case of literary, dramatic or musical work, not being a computer program: -

- (i) to reproduce the work in any material form including the storing of it in any medium by electronic means;
 - (ii) to issue copies of the work to the public not being copies already in circulation;
 - (iii) to perform the work in public, or communicate it to the public;
 - (iv) to make any cinematography film or sound recording in respect of the work;
 - (v) to make any translation of the work; to make any adaptation of the work;
 - (vi) to do, in relation to a translation or an adaptation of the Work, any of the acts specified in relation to the work in Sub-clauses (i) to (vi);
- (b) In the case of computer program –**
- (i) to reproduce the work in any material form including depiction in three dimensions of a two-dimensional work or in two dimensions of a three-dimensional work;
 - (ii) to communicate the work to the public;
 - (iii) to issue copies of the work to the public not being copies already in circulation;
 - (iv) to include the work in any cinematography film;
 - (v) to make any adaptation of the work;
 - (vi) to do, in relation to a translation or an adaptation of the work, any of the acts specified in relation to the work in sub-clauses (i) to (vi);
- (d) In the case of a cinematography film –**
- (i) to make a copy of the film including a photograph of any image forming part thereof;
 - (ii) to sell or give on hire or offer for sale or hire, any copy of the film, regardless of whether such copy has been sold or given on hire on earlier occasions;
 - (iii) to communicate the film to the public;

(e) In the case of sound recording –

- (i) to make any other sound recording embodying it;
- (ii) to sell or give on hire or offer for sale or hire, any copy of the, sound recording, regardless of whether such copy has been sold or given on hire on earlier occasions;
- (iii) to communicate the sound recording to the public;

Case Scenario

Established by Albinder Dhindsa and Saurabh Kumar in 2013, Grofers, now rebranded as Blinkit, is an Indian online grocery delivery service headquartered in Gurugram. This e-commerce platform offers a diverse range of everyday essentials such as groceries, bakery items, and baby care products to its customers.

This realisation marked the inception of their entrepreneurial journey. Their vision was to create a comprehensive platform addressing local delivery needs, offering on-demand pickup and drop services. Their platform aimed to optimise logistics by facilitating deliveries from neighbourhood stores such as grocery outlets, pharmacies, and eateries. In the initial phases, they facilitated grocery deliveries from nearby stores and supermarkets, laying the groundwork for their startup.

During the delivery process from the warehouse to the customer's doorstep, Blinkit manages multiple stages involving logistics, delivery partners, suppliers, vendors, and technology and merchant partners. Despite the complexity of these operations, this is where the revenue generation primarily occurs.

Blinkit, an online grocery delivery platform, guarantees to deliver a selection of nearly 7,000 products within a remarkable 10-minute timeframe. Operating across more than 30 cities nationwide, Blinkit strategically partners with stores located within a 2 km radius to facilitate swift deliveries. In Delhi alone, Blinkit boasts over 60 partner stores. Through enhanced in-store planning and technological advancements, Blinkit

has significantly improved its operational efficiency, enabling orders to be packed within a mere 2.5 minutes of placement.

Through the Blinkit mobile application, users can conveniently browse and purchase their desired products, scheduling deliveries at their preferred times. Grofers' dedicated employees then ensure the timely delivery of these items to customers' doorsteps. Presently, Blinkit operates across 23 cities in India, serving a growing customer base.

Blinkit meticulously monitors the quality of all groceries stocked in its warehouses, ensuring an efficient handling process. When a customer places an order via the Blinkit mobile app, it seamlessly connects with various brands and local stores. Blinkit earns a commission ranging from 8% to 15% on each transaction. Additionally, Blinkit is strategically investing in private brands, which have already begun to generate substantial revenue streams.

Blinkit was acquired by Zomato, a leading food tech unicorn, in a significant deal worth \$569 million (Rs 4,447 crore) on June 24, 2022.

(Source:<https://www.meritshot.com/blinkit-case-study/>)

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

1. Entrepreneurship skills help:
 - (a) To develop ability to handle failure
 - (b) In making difference to the society
 - (c) To develop critical thinking
 - (d) All of the above

Answer (b)

2. Which one of the following statements is not correct?
 - (a) Communication skills allow individuals to express thoughts, ideas, and feelings clearly through speaking, writing, and other forms of expression.
 - (b) Strong critical and creative thinking skills are essential for entrepreneurs to build and expand their businesses.
 - (c) Sales skills are not vital for salespeople and valuable for entrepreneurs, as they need to know how to sell their businesses to potential customers and investors.
 - (d) Strategic thinking and planning skills allow entrepreneurs to analyze information, adapt, manage projects, solve problems, and make informed decisions.

Answer (c)

3. Blinkit is a -----type of startup.
 - (a) Online grocery delivery platform
 - (b) Online Health products
 - (c) Fintech services
 - (d) Edtech services

Answer (a)

4. Blinkit was acquired by
 - (a) Amazon
 - (b) Flipkart
 - (c) Meesho
 - (d) Zomato

Answer (d)



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Ref. No.: DOS/SKILLS TRAINING/1/2025

Date: - January 14, 2025

CIRCULAR

Sub: Clarification on Modalities of New Skills Training Scheme for Intermediate Course

New Skills Training Scheme – Intermediate Course

Sl. No	Skills Training Modules	Hours	Mode of Training	Delivery Channel	Remarks
1	Tally ERP	40 hrs	Online	DoS	For Oral and Postal Students (Dec 2023, June 2024, Dec 2024 term and onwards)
2	Communication & Soft Skills	20 hrs	Online	DoS through IIT Madras (NPTEL)	For Oral and Postal Students (Dec 2023, June 2024, Dec 2024 term and onwards)
3	MS-Office	40 hrs	Hybrid	Regions/Chapters/CMASCs (For Oral Students of Dec 2024 term and onwards)	For Postal Students – DoS (Dec 2023, June 2024, Dec 2024 term and onwards)
4	E-Filing	20 hrs	Hybrid	Regions/Chapters/CMASCs (For Oral Students of Dec 2024 term and onwards)	For Postal Students – DoS (Dec 2023, June 2024, Dec 2024 term and onwards)
	Intermediate Skills Training Requirement	120 hrs			

Note:

- Old Oral Students (Dec 2023 & June 2024 term) who have not received Skills Training Login/Communication from the DoS earlier, shall be directly trained by the DoS through online mode as per the above scheme. However, if any student of Dec 2023/June 2024 term who has completed the Skills Training Programme from Regions/Chapters/CMASCs, does not require to participate in this Training Programme again in the online mode provided by the DoS.
- If any Postal Student who has already completed MS-Office & E-Filing Training from Regions/Chapters/CMASCs, does not require to participate in this Training Programme again in the online mode provided by the DoS.
- Login Credentials for Communication & Soft Skills Training provided by IIT Madras (NPTEL) for the remaining students of Dec 2023 and June 2024 term will be shared shortly.
- Please refer to the Circular (**Circular no: DOS/SKILLS TRAINING/12(2)/2024 dated December 27, 2024**) for more clarifications (attached).


Dr. Madhumita Sen Gupta
Joint Director & HOD – Studies
(Training & Central Stores)

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Ref. No.: DOS/SKILLS TRAINING/12(2)/2024

Date: - December 27, 2024

CIRCULAR

Sub: Transition of Remaining CMA Intermediate students to the New Skills Training Program

With reference to the Circular vide Ref. No.: DOS/CIRCULAR/10/2024 dated October 08, 2024, it is further clarified that -

- The remaining Intermediate students (for the December 2023 and June 2024 exam terms) will be transitioned to the new 'Skills Training Program 2024.' (Link:https://icmai.in/studentswebsite/Skill_Training_Intermediate_Cours_e.php). Details regarding the new program will be communicated shortly by the Directorate of Studies (DoS).
- Intermediate students who have already received login credentials must complete the recorded sessions and undertake the respective assessment tests. (Access the recorded sessions via https://eicmai.in/Webinar_Portal/StudentsTraining/StudentLogin.aspx) The assessment test schedule will be announced soon.
- Intermediate students who have already completed their training under the Old Skills Training Program (SAP and others) are exempted from further training under the New Skills Training Program.

CMA (Dr.) D.P. Nandy
Secretary (Officiating) & HoD – Studies

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Ref. No.: DOS/8/12(1)/2024

Date: - December 20, 2024

CIRCULAR

Sub: Submission of relevant documents for processing of result of Provisional Admit Card Holders who have appeared in the December -2024 term of examinations of Foundation, Intermediate & Final Course.

With reference to the Circular vide Ref. No.: DOS-CIRCULAR/10-2/2024 dated 24/10/2024 regarding issuance of Admit Cards for appearing in the **December -2024** term of examinations and based on students' undertakings in the Provisional Admit Card, relevant documents are to be submitted by the students within the specified due dates-

- 10+2 Pass Mark Sheet for Foundation Course **by 06/01/2025**
- Graduation Mark Sheet or equivalent Certificate for Intermediate Course **by 31/01/2025**
- Practical Training & IOTP Training for Final Course **by 31/01/2025**
- Practical Training Submission **Form T5B** by **10/02/2025**

If the relevant documents are not submitted within the specified due dates, result could not be published as per your undertakings.

This is for information and final reminder of all concerned students of the Institute who have already appeared in the **December -2024** term of examinations.

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

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Copy to:

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**THE INSTITUTE OF
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(STATUTORY BODY UNDER AN ACT OF PARLIAMENT)
CMA BHAWAN
12, SUDDER STREET, KOLKATA – 700 016.

Telephones: +91-33- 4036-4779/4721/
4726/4777
Website : www.icmai.in

Ref. No.: G/128/01/2025

Date: January 9, 2025

NOTIFICATION

**Sub.: Revised Fees Waiver Scheme for the Students of North-Eastern States,
Jammu & Kashmir and Ladakh**

The Council of the Institute in its 355th Meeting, held on 5th September, 2024 has decided that the students from the North-Eastern States of India (Arunachal Pradesh, Assam, Manipur, Meghalaya, Mizoram, Nagaland, Sikkim and Tripura), Jammu & Kashmir and Ladakh shall be eligible for a 50% fees waiver of the total course fee for taking admission in the CMA Courses (Foundation, Intermediate and Final Levels).

To avail this waiver scheme, students of the above mentioned states have to take Admission/Registration/Enrolment to their nearest Chapter by Pay-fees mode only. The concerned Chapter will keep a close track of such students appearing in Exams and will report to the Directorate of Studies on a regular basis.

This Notification supersedes the earlier Notification Ref. Nos.: G/128/09(1)/2023 & G/128/09(2)/2023 both dated 1st September, 2023 regarding 'Fees Waiver Scheme for the Students of Jammu and Kashmir' and 'Fees Waiver Scheme for the Students of North Eastern States of India' respectively.

This Revised Fees Waiver Scheme shall be **applicable from December, 2025 term of examination.**

This is for information of all concerned.

Sd/-

CMA (Dr.) Debaprosanna Nandy
Secretary (Officiating)

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Telephones: +91-33- 4036-4748/4721/4726

Website : www.icmai.in

Ref. No.: G/128/12/2024

Date: December 18, 2024

NOTIFICATION

Sub.: Change of Elective Paper for the CMA Final Level students

Further in continuation of the Notification vide Ref. No. G/128/11-1/2024 dated 25th November, 2024, it is hereby notified that the CMA Final Level students, who are willing to change their Elective Paper by paying a nominal fee of Rs.1,000/-, can apply through online mode only:

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

This is for information of all concerned.

Sd/-

CMA (Dr.) Debaprosanna Nandy
Secretary (Officiating)

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Invitation to Contribute Articles for CMA Student E-Bulletin - Showcasing Your Expertise!

Dear CMA Student,

We are excited to extend an invitation to you to contribute an article for the **CMA Student E-Bulletin**, our esteemed monthly e-journal exclusively crafted for CMA students. This platform, managed by the Directorate of Studies at ICAI, aims to provide a space for your insights, experiences and knowledge-sharing within the CMA community.

Submission Guidelines:

- ⦿ **Article Length:** Please prepare articles ranging between 1200 to 1500 words.
- ⦿ **Topic:** The articles can cover a wide spectrum of subjects, including but not limited to advancements in finance, industry insights, case studies, personal experiences and emerging trends in the field.
- ⦿ **Originality:** We encourage you to share your unique perspectives and experiences. Ensure that your submission has not been published elsewhere.

Submission Deadline: We kindly request you to submit your article by **20th of the previous month of publication**. This will allow us ample time to review and prepare the upcoming issues of the CMA Student E-Bulletin.

Submission Process: Please send your article to studies.ebulletin@icmai.in with the subject line "**CMA Student E-Bulletin Submission - [Your Name, Registration No.]**". Include a brief author bio and a high-resolution photograph to be featured alongside your article.

Recognition and Rewards: Selected articles will be featured prominently in the CMA Student E-Bulletin, providing you with a valuable platform to showcase your expertise. Additionally, authors of published articles will be acknowledged and the top contributors may be eligible for special recognition and rewards.

We believe that your unique insights and experiences will contribute significantly to the enrichment of the CMA Student E-Bulletin. Your participation will not only enhance your visibility within the CMA community but also foster a culture of knowledge-sharing and collaboration.

Best Regards,

Team DoS

The Institute of Cost Accountants of India

E-mail – studies.ebulletin@icmai.in

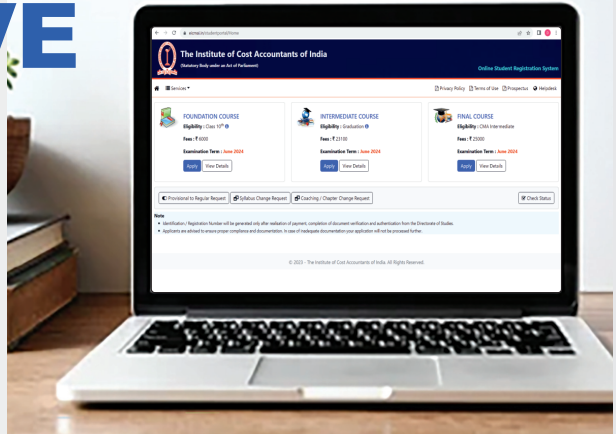


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NEW IT INITIATIVE TO PROVIDE ENHANCED FACILITIES TO CMA STUDENTS



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

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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- MCQ Portal
- Tutorial Workshops
- Coaching - Oral/Postal (E-learning)
- Skills Training
- Practical Training
- Industry Oriented Training Programme

Admission Deadlines

- For June Exam - 31st January of same Calendar Year
- For December Exam - 31st July of same Calendar Year

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- 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 Engineers

Course Fees

Foundation - ₹6,000/-

Intermediate - ₹23,100/-*

Final - ₹25,000/-*

*Installation facility available



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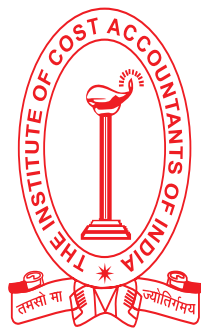
Headquarters

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