CMA STUDENT E-Bulletin

VOL 09 | NO. 01 | JANUARY 2024

An Initiative of Directorate of Studies

ICMAI
THE INSTITUTE OF
COST ACCOUNTANTS OF INDIA

Statutory Body under an Act of Parliament

www.icmai.in

About the Institute

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

The Institute is headquartered in Kolkata having four Regional Councils at Kolkata, Delhi, Mumbai and Chennai, 116 Chapters in India and 11 Overseas Centres. The Institute is the largest Cost & Management Accounting body in the world with about 1,00,000 qualified CMAs and over 5,00,000 students pursuing the CMA Course. The Institute is a founder member of International Federation of Accountants (IFAC), Confederation of Asian and Pacific Accountants (CAPA) and South Asian Federation of Accountants (SAFA). The Institute is also an Associate Member of ASEAN Federation of Accountants (AFA) and member in the Council of International Integrated Reporting Council (IIRC), UK.

Vision Statement

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

Mission Statement

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

Institute Motto

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

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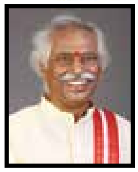
Bandaru Dattatraya
Governor, Haryana

सत्यमेव जयते

बंडारू दत्तात्रेय
राज्यपाल, हरियाणा



MESSAGE

I am pleased to learn that the Institute of Cost Accountants of India, a statutory body set up under an Act of Parliament in 1959, is going to publish CMA Student E-Bulletin motivating students across the globe.

I am told that in this E-Bulletin, students will find articles from subject matter experts and CMA students, success stories from accomplished CMAs, and information on the latest developments in the cost and management accounting field.

In today's world, the profession of conventional accounting and auditing has taken a back seat and cost and management accountants are increasingly contributing toward the management of scarce resources and applying strategic decisions.

Cost and management accountancy (CMA), a specialized field within the broader domain of accounting, plays a pivotal role in guiding organizations toward sound financial decision-making. Cost accountants focus on systematically analyzing and tracking the costs associated with producing goods or services, providing valuable insights into the cost structure of a company.

This discipline involves the collection, classification, and interpretation of financial information to assist management in strategic planning, budgeting, and performance evaluation. Cost and Management Accountants utilize various techniques such as cost accounting, budgeting, and variance analysis to ensure efficient resource allocation and control.

Their expertise extends beyond financial reporting to encompass management-oriented functions, enabling them to contribute significantly to the overall efficiency and profitability of an organization. By combining financial acumen with strategic insight, cost and management accountants play a crucial role in aiding businesses to navigate the complexities of modern economic environments and make informed decisions that drive sustainable success.

Best wishes!

(Bandaru Dattatraya)

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And
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MESSAGE

I am delighted to learn that the Institute of Cost Accountants of India is going to publish CMA Student E-Bulletin in January 2024.

The profession of Cost and Management Accountancy has a pivotal role in the field of cost competitiveness, cost management, efficient use of resources, structured approach to cost accounting and shaping the future of financial management. I hope that ICMAI will continue to contribute in the field of cost accountancy with professionalism, dedication and play an instrumental role in realizing the 'Viksit Bharat' vision of the Hon'ble Prime Minister of India.

I take this opportunity to extend my best wishes to the Institute of Cost Accountants of India (ICMAI) on their achievements and future endeavours.

(Admiral D K Joshi)
PVSM, AVSM, YSM, NM, VSM (Retd.)
Lt. Governor, A&N Islands
&
Vice Chairman, Islands Development Agency

PRESIDENT'S COMMUNIQUE

A New Year, A New Chapter in Excellence

Dear CMA Students,

As we step into the promising horizon of 2024, I extend my warmest greetings to each one of you. The beginning of a new year is not just a change in dates; it's an opportunity to embrace fresh perspectives, set new goals, and continue our journey towards excellence.

The field of Cost and Management Accountancy is dynamic and ever-evolving. In this digital age, where technology reshapes industries at an unprecedented pace, it becomes imperative for us, as future CMAs, to stay ahead of the curve. Our profession demands not just technical proficiency, but also adaptability and a keen understanding of emerging trends. As you traverse through your academic pursuits, remember that knowledge is not confined to textbooks alone; it extends to the realms of innovation, leadership, and global awareness.

In the January 2024 issue of the CMA Student E-Bulletin, we bring articles by subject matter experts and CMA students, and success stories of CMAs who have made significant strides in their careers. I encourage you to absorb the knowledge shared and let it fuel your aspirations. Your journey as a CMA student is not just about earning a degree; it's about shaping a future where you play a pivotal role in organizational success and financial stewardship.

Furthermore, I am delighted to announce that the ICMAI is actively working on initiatives to enhance your learning experience. We are collaborating with industry leaders, organizing workshops, and leveraging technology to provide you with a comprehensive and enriching education. Keep an eye out for updates and opportunities that will further augment your skills and prepare you for the challenges of the professional world.

Remember, each one of you is an integral part of the ICMAI family, and your success is our collective achievement. Embrace the opportunities that come your way, persevere through challenges, and continue to uphold the values of integrity and professionalism that define our esteemed profession.

May 2024 be a year of growth, learning, and triumphs for each one of you. Together, let us script a chapter of excellence in the journey of Cost and Management Accountancy.

Wishing you a year filled with success and fulfillment.

Warm regards,

CMA Ashwin G. Dalwadi
President, ICMAI
30th January 2024

VICE PRESIDENT'S COMMUNIQUE

Embracing Opportunities and Fostering Growth in 2024

Dear CMA Students,

As we stand at the threshold of a new year, I extend my heartfelt greetings to all of you. The dawning of 2024 brings with it a multitude of possibilities and opportunities for growth. In this January 2024 issue of the CMA Student E-Bulletin, I am pleased to share some reflections and insights that I believe will resonate with our dynamic community of aspiring Cost and Management Accountants.

Our journey in the field of Cost and Management Accountancy is marked by continuous learning and adaptability. The profession demands not only technical acumen but also a forward-thinking mindset to navigate the complexities of the business world. As you immerse yourself in your studies, internships, and networking opportunities, remember that each experience is a stepping stone toward your professional success.

This issue is curated to provide you with valuable perspectives on the latest industry trends, expert opinions, and practical knowledge that will empower you on your path to becoming a CMA. I encourage you to engage actively with the content, seek inspiration from the success stories of your peers, and leverage the resources provided to enhance your skills.

In the coming months, the ICMAI is committed to furthering initiatives that directly benefit you, our valued CMA students. We are working towards creating avenues for mentorship, expanding networking opportunities, and ensuring that you have access to the tools necessary for a well-rounded education. Stay tuned for announcements and updates that will shape your educational journey and contribute to your professional development.

Remember, your success is not only an individual achievement but also a testament to the collective dedication of the ICMAI community. Let us continue to foster a spirit of collaboration, curiosity, and excellence as we embark on the challenges and triumphs that 2024 holds for us.

I am honored to serve you and contribute to the growth of our esteemed profession. Wishing you a year filled with learning, accomplishments, and the fulfillment of your aspirations.

Best regards,

CMA Bibhuti Bhusan Nayak
Vice President, ICMAI
30th January 2024

CHAIRMAN'S COMMUNIQUE

Nurturing Excellence through Education: A Forward for the January 2024 CMA Student E-Bulletin

Dear CMA Students,

It gives me great pleasure to extend my warmest greetings as we commence the new year, filled with renewed energy and aspirations. As the Chairman of the Training & Educational Facilities Committee at ICMAI, I am delighted to pen this forward for the January 2024 issue of the CMA Student E-Bulletin.

Education is the cornerstone of professional growth, and your journey as a CMA student is a testament to your commitment to excellence. In this issue, we aim to provide you with resources, insights, and perspectives that will not only enrich your academic experience but also contribute to your holistic development as future Cost and Management Accountants.

The Training & Educational Facilities Committee is dedicated to ensuring that your educational journey is not only rigorous but also tailored to meet the evolving demands of the industry. Our focus remains on providing you with cutting-edge curriculum, practical exposure, and opportunities for skill development that go beyond the classroom.

In the pages of this E-Bulletin, you will find articles from subject matter experts and CMA students and success stories from accomplished CMAs. I encourage you to delve into the content, extract valuable lessons, and apply them to your academic and professional pursuits.

As we navigate the challenges and embrace the opportunities that the new year brings, remember that education is a lifelong journey. The skills you cultivate today will be the foundation upon which you build a successful and rewarding career. The ICMAI is committed to supporting you at every step, and the Training & Educational Facilities Committee is dedicated to enhancing the quality of your educational experience.

I extend my gratitude to the dedicated educators, committee members, and students who contribute to the vibrancy of our learning community. Your enthusiasm and commitment inspire us to continually strive for excellence.

May the year 2024 be a period of immense growth, self-discovery, and achievement for each one of you.

Best wishes for a successful and fulfilling year ahead.

Warm regards,

CMA Vinayaranjan P.

Chairman
Training & Educational Facilities Committee
ICMAI

30th January 2024

CMA FOUNDATION COURSE

Syllabus 2022

Topic

Module 1: Introduction

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) Religion
(b) Constitution of India, judicial precedents, customary laws, statutes and ordinance
(c) Acts enacted by the Parliament of India and State Legislatures
(d) Constitution of India

2. Which Article in the Constitution of India, 1950 has provisions for introduction of a bill in the Parliament of India?
(a) Article 109
(b) Article 101
(c) Article 107
(d) Article 103

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) Article 143
(b) Article 123
(c) Article 128
(d) Article 168

5. The essence of Sub-Ordinate legislation can be found in which Article of the Constitution of India, 1950?
(a) Article 12
(b) Article 22
(c) Article 13
(d) Article 15

6. When was the Constitution of India passed by the Constituent Assembly?
(a) 26th January 1956
(b) 26th November 1949
(c) 25th November 1958
(d) 15th August 1948

7. Which is the highest Court in India?
(a) Sessions Court
(b) Supreme Court of India
(c) International Court of Justice
(d) High Court

8. Which Articles of the Constitution of India have the power to entertain petitions of violation of Fundamental Right?
(a) Article 232
(b) Article 225
(c) Article 226 and Article 32
(d) Article 256

9. Which is the highest civil court in a district?
(a) High Court
(b) Supreme Court of India
(c) District Court
(d) Sessions Court

10. Which Article of the Constitution of India empowers the legislature to make laws?
(a) Article 212
(b) Article 243
(c) Article 241
(d) Article 245

11. When was the Supreme Court of India instituted?
(a) 26th November 1950
(b) 26th January 1950
(c) 28th January 1950
(d) 1st October 1950

12. Which Article of the Constitution of India stipulates law made by the Supreme Court of India?
(a) Article 141
(b) Article 241

(c) Article 341
(d) Article 342

13. What is the Schedule in the Constitution of India, for Separation of Subject for Legislature?
(a) 6th Schedule
(b) 7th Schedule
(c) 32nd Schedule
(d) 14th Schedule

14. What kind of formation does the Indian Constitution have?
(a) Autocracy
(b) Federal
(c) Unitary
(d) Totalitarian

15. Under which Article can we amend the provisions of the Constitution of India?
(a) Article 156
(b) Article 368
(c) Article 154
(d) Article 145

16. Which is the lowest court to move toward for criminal matters?
(a) High 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-IV
(d) Part-VI

19. Municipalities are provided for authority under which part of the Constitution of India?
(a) Part X
(b) Part IXA
(c) Part IV
(d) Part III

20. Under what Article of the Constitution of India, 1950 is the Governor of a State empowered to make an Ordinance?
(a) Article 123
(b) Article 143
(c) Article 145
(d) Article 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 145
(b) Article 254
(c) Article 168
(d) Article 232

23. Define Private Bill?
(a) A bill introduced by a member other than a Minister
(b) Bill introduced by a private citizen
(c) Bill introduced by a Private company
(d) A bill relating affairs which are private to individual

24. Secondary legislation cannot go beyond:
(a) The ambit of the Act
(b) The ambit of the Act or the Constitution of India
(c) The Constitution of India
(d) Directive Principles of State Policy

SECTION – B: BUSINESS COMMUNICATION

25. Use of coupons and samples come under which mode of marketing communication?

a) Sales promotion

b) Direct marketing

c) Personal selling

d) Advertising

26. What is the situation called when a bad image of the company is created?

a) Positive PR

b) Negative PR

c) Customer service

d) Promotion

27. Business communications help in establishing ________________ when marketing?

a) Professionalism

b) Insolence

c) Pessimism

d) Relaxed attitude

28. Participants involved in the process of communication must be __________.

a) Critical

b) Open-minded

c) Both a and b

d) None of the above

29. Which of the following is not one of the 8C's of communication?

a) Curiousness

b) Completeness

c) Consideration

d) Concreteness

30. Need of proper grammar and syntax comes under which C of communication?

a) Clarity

b) Coherence

c) Courteous

d) Correctness

ANSWER

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

Topic

Module 1:
Accounting Fundamentals

Module 4:
Fundamentals of Cost Accounting

FOUNDATION

Paper-2

Fundamentals of Financial and Cost Accounting (FFCA)

PART : A

Answer the following Questions –

1. Which of the following is an accounting event:
   a. Good Earth Company' s Peon visited Post Office to Collect a V.P.P worth Rs.5900/-
   b. Received the Business Pass Book from Bank, Bank Balance Rs. 38 Lacs confirmed by Bank
   c. Purchase Order for Rs.1.4 Crores released in favour of Mishra Dhatu Nigam Limited
   d. Distributed free samples worth Rs.500
   e. Appointment of COO at Rs. 3 Crore annual payment excluding performance bonus.

2. Specify whether the following are 'Cash' or 'Credit' transactions:
   a. Sold goods to Ram worth Rs.17 Crores
   b. Sold obsolete Plant to Rahim at Rs.1 Crore
   c. Purchase goods from Jishu on cash Rs.55 Lacs
   d. Paid by Cheque Rs.12 Lacs as office rent to Akbar Ali
   e. Paid salary in Cash to office staff Rs.14 lacs

3. Answer in 'Yes' or 'No' –
   a. Depreciation is a source of fund
   b. Cost of Fixed Asset to include overhead cost of Purchases Dept. also
   c. At 10% p.a Depreciation on any Asset under Straight Line and Written Down Value method will be same during the first year.
   d. Profit or loss on sale of Assets not to be recognized in Books of Accounts of 'Going Concern'
   e. Provisions are generally internal transactions

4. Mention 'True' or 'False':
   a. Overhauling charges for second hand Machinery to be capitalized in Books
   b. Anticipated profits to be considered in Books of Accounts
   c. Provision is a charge against Profit
   d. Insurance Premia on Asset is a Capital expenditure
   e. No entry to be passed for errors identified impacting 'Nominal Accounts both Debit and Credit' after preparation of 'profit and Loss Account'
   f. Only credit purchases are recorded in Purchase Day Book

PART B

5. Determine Sales Price for 1000 Units with the following information:

Material Cost Rs.20000 ; Labour Rs.40000 ; Overheads Rs.15000 ; Selling Cost Rs.10000 and Profit Rs.15000

6. Find Cost per Unit, when 9000 Units were Produced:

Raw Material Rs.40000; Labour Wages including Bonus Rs.15000; Purchases Rs.20000 and Administrative Overhead Rs.15000

7. 'Prime Cost' will be always lower than 'Works Cost' – True or False

8. Determine Opening WIP from the following:
   Direct Material Rs.80000 ; Direct Labour Rs. 60000; Overheads Rs. 90000 ; COGS (Cost of Goods Sold) Rs. 245000 ; Closing WIP Rs.15000.

9. Find 'Works Cost' from the following information –
   Raw Material Rs.200000 ; Direct Labour Rs.100000; Scrap Sale Rs.50000

10. Find Raw Material Consumed –
    Opening Stock Rs. 100500 ; Purchases Rs.1000500; Closing Stock Rs.99500

11. One Supervisor looks after 5 CNC Machines of equal capacity fixed in a shop floor. Supervisor wages to be /not to be equally apportioned to each Machine

12. By nature of behaviour Cost can classified as …………………………..

13. 'As is where is' one of the basis of sale of ……….

ANSWER PART: A

1. **a to e – Answer is 'No"**
2. **a. Credit ; b. Credit ; c. Cash ; d. Cash ; e – Cash**
3. **c & e – Yes ; a,b, & d - No.**
4. **a. True ; b. False ; c.True ; d .False ; e. True and f. True**

ANSWER PART: B

5- Rs.100 ; 6- Rs.10 ;7 – True ; 8 – Rs.30000 ; 9- Rs.250000 ; 10- Rs.1001500 ; 11 – be ; 12 – Fixed Cost, Variable Cost and Semi-variable Cost ; 13-Scra

Topic

Module 1:
Arithmetic

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.

Q1. In a ratio consequent is 5 times more than antecedent. The ratio is

(a) 5:1

(b) 1:5

(c) 1:2

(d) 2:5

Q2. If you deposit ₹10000 today you will get ₹X after 5 years when interest rate is 8% p.a. compounded quarterly. The value of X is

(a) ₹14693.28

(b) ₹11040.81

(c) ₹46609.57

(d) ₹14859.47

Q3. The ratio 1:5 is the sub triplicate ratio of a: b; The ratio a:b is

(a) 1:25

(b) 1:125

(c) 1:1.67

(d) 1:15

Q4. If X = 9 and Z = 289 then if X and Z are in continued proportion then mean proportional of X and Z is

(a) 32.11

(b) 3

(c) 17

(d) 51

Q5. If 10 men takes 5 days to assemble 30 cars, then for assembling 1000 cars, 50 men will take

(a) 33 days

(b) 20 days

(c) 167 days

(d) 12 days

Q6. At 5% interest a deposit of ₹1000, gives you a lump sum amount of ₹1150 at the end of three years. Which one of the following is correct?

(a) Simple interest is given

(b) Interest is compounded monthly

(c) Interest is compounded quarterly

(d) Interest is compounded weekly

Q7. In a series

$t_n - t_{n-1} = t_{n-1} - t_{n-2} = t_{n-2} - t_{n-3} = \cdots \ldots \ldots \ldots \ldots = t_2 - t_1 = -5$,

then the series is called

(a) Geometric progression

(b) Harmonic progression

(c) Arithmetic progression

(d) Inverse Arithmetic progression

Q8. If the speed of a moving object is 10metre/second, then in 1 minute the object covers

(a) 100metre

(b) 600metre

(c) 10metre

(d) 1/60metre

Q9. Find the value of the first term for: …... 111, 119, 127, 135, and 143 for the series having 41 terms.

a. -175

b. -177

c. -179

d. -185

Q10. With 3.50% decrease in Distance and 7% decrease in Time, what would be the impact on Speed?

(a) Decrease by 3.76%

(b) Increase by 3.62%

(c) Increase by 3.76%

(d) Decrease by 3.62%

Q11. Calculate the value of ‘r’ for the series: (½) w, (½) w, (½) w, (½) w, (½) w

a. 1/2

b. -1

c. 1

d. Not Applicable

Q12. In how many years a sum becomes 8.50 times itself at 12% p.a. simple interest?

(a) 62 years 2 months

(b) 62 years 4 months

(c) 62 years 6 months

(d) 62 years 8 months

Q13. Find an amount doubles in 8 years, find the rate of compound interest.

(a) 9% p.a.

(b) 9% per month

(c)12% p.a.

(d)12% per month

Q14. If $a:b = c:d$ then Invertendo means

(a) $b:a = c:d$

(b) $b:a = d:c$

(c) $a:b = d:c$

(d) $ad:bc = 1$

Q15. If interest is compounded annually on a Principal amount for period then which one of the following is correct?

(a) Compound Interest = $P - P * FVIF_{r,n}$

(b) Compound Interest = $P * FVIF_{r,n}$

(c) Compound Interest = $P * PVIF_{r,n} - P$

(d) Compound Interest = $P * FVIF_{r,n} - P$

Q16. For a series if $\frac{t_{n-1}}{t_n} = \frac{t_{n-2}}{t_{n-1}} = \frac{t_{n-3}}{t_{n-2}} = \cdots \ldots\ldots\ldots\ldots\ldots = \frac{t_2}{t_1}$ the series is called

(a) Geometric progression

(b) Harmonic progression

(c) Arithmetic progression

(d) Inverse Geometric progression

Q17. A G.P. series starts with 128 and each term of the series is obtained by multiplying the previous term by 3 and thereby we obtain 2519424 as the last term. The common ratio of the series is

(a) 1/3

(b) 9

(c) 19683

(d) None of the above

Q18. While noting down the terms of an AP series of 45 terms with 2.85 as last term, 35th term is wrongly noted as 5.85. Number of terms of the series is

(a) 10

(b) 30

(c) 45

(d) 44

Q19. In a bar diagram the length of a bar is

(a) Inversely proportional to the value it represents

(b) Inversely proportional to the width of it

(c) Proportional to the width of it

(d) Proportional to the value it represents

Q20. Statistics is concerned with

(a) Qualitative information

(b) Quantitative information

(c) a or b

(d) Both a and b

Q21. Following is a frequency distribution

Class	Frequency
0 -10	5
10 – 20	8
20 – 30	15
30 – 40	6
40 – 50	4

For the class 20-30, cumulative frequency is

(a) 20

(b) 13

(c) 28

(d) 15

Q22. Mode of a distribution can be obtained form

(a) Histogram

(b) Less than type Ogives

(c) More than types Ogives

(d) Frequency polygon

Q23. The number of observations between 250 and 300 from the following data is

Value (greater than)	Frequency
200	56
250	38
300	15
350	0

(a) 56

(b) 23

(c) 15

(d) 8

Q24. The following data relate to the marks of a group of students:

Marks	No of Students
Below 10	15
Below 20	38
Below 30	65
Below 40	84

Below 50	100

Number of students got marks more than 30 is

(a) 65

(b) 50

(c) 35

(d) 43

Q25. Median of distribution can be obtained from

(a) Less than type Ogives

(b) Point of Intersection of Less than and greater than Ogives

(c) Both a and b

(d) None of these

For Q26 to Q30 Refer following table: Frequency distribution of weights of 16 students

Weights in Kg (Class Interval)	No of Students (Frequency)
44 – 48	4
49 – 53	5
54 – 58	7

Q26. Class mark for the first class interval is

(a) 4

(b) 46

(c) 44

(d) 48

Q27 Width of class interval for the second class interval is

(a) 4

(b) 5

(c) 46

(d) 44-48

Q28. Frequency density of the second class interval is

(a) 0.80

(b) 0.90

(c) 1.00

(d) 1.10

Q29. Relative frequency for the second class interval is

(a) 1/11

(b) 5/4

(c) 5/16

(d) ¼

Q30. Relative frequency for the third class interval

(a) 7/16

(b) 7/4

(c) 16/7

(d) None of the above

Answer Keys:

Q1	b	
Q2	d	$10000 * (1 + \frac{0.08}{4})^{5*4}$
Q3	b	$\sqrt[3]{a} : \sqrt[3]{b}$ *is the subtriplicate ratio of* $a : b$
Q4	d	Mena proportion $Y = \sqrt{XZ}$
Q5	d	No of Men (M) ∝ $No\ of\ Cars\ (N)$ & No of Men (M) ∝ 1/ $No\ of\ days\ (D)$
Q6	a	Interest 150 = P*r*t/100 = 1000*5*3/100
Q7	c	
Q8	b	
Q9	b	Value of the 1st Term for : ….., 111, 119, 127, 135, 143 Having 41 terms in the series 'd' = n term – (n-1) term = 143 – 135 = 8 t_n = a+(n-1)*d 143 = a+ (41-1)*8 or, 143 = a + 40*8 or, 143 = a+320 or, a = 143-320 = -177

Q10	c	Let Distance be 100 – Decrease by 3.50% - New Distance = 96.5 Let time be 50 – Decrease by 7% - New Time = 46.5 Original Speed = 100/50 = 2, New Speed = 96.5/46.5 = 2.0753 Change in Speed = 2.0753-2 = 0.0753 Increase (%) = 0.0753/2*100 = 3.76%
Q11	c	r = 2^{nd} term / 1^{st} Term = (½)w / (½)w = 1
Q12	c	$A = 8.50P$, $I = A - P = 8.50P - P = 7.50P$, $r = 12\%\ p.a. or\ 0.12$ $I = P * n * r$ $7.50P = P * n * 0.12$ $7.50 = n * 0.12$ $n = \frac{7.50}{0.12} = 62.50\ or\ 62\ years\ 6\ months.$
Q13	a	$2P = P\,(1+r)^n$ $2 = (1.0r)^8$ $\log 2 = \log(r)^8$ $0.3010 = 8 * \log r$ $\log r = \frac{0.3010}{8} = 0.037625$ $\log r = 0.037625$ $r = 1.090 - 1 = 0.090\ or\ 9\%\ p.a.$
Q14	b	
Q15	d	
Q16	a	
Q17	d	Each term is obtained by multiplying previous term with 3, means common ratio is 3
Q18	c	No calculation is needed as number of terms in the series is already mentioned in the question
Q19	d	
Q20	d	
Q21	c	
Q22	a	
Q23	b	
Q24	c	
Q25	c	
Q26	b	
Q27	b	
Q28	c	
Q29	c	
Q30	a	

Suggestions:

The study guide needs to be read thoroughly. Supplementary readings could be made from other resources. In this issue MCQs are based on basic concepts of the respective chapters as discussed in the study guide. Students should try to understand the correct answer of each question. For development of clear concept brief explanations are given in selected answers. Formula used here are all covered in study guide.

Topic

Module 1:
Basic Concepts

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 2024

Hallow friends !! hope you are doing well with your studies. But health comes first and education comes next. You must have heard or gathered the news from the newspaper that Corona virus is spreading fast in India. As India is a vastly populated country, it is very difficult to put the spreading of the virus under control. time In such a situation, it will be wise to follow certain simple rules to stave away the deadly virus. Use mask whenever you go out. Avoid crowd. Wash your hands frequently. Do not touch any part of anything outside after washing your hand with sanitizer. This covid epidemic has a profound impact on the economy. World economy has changed due to corona virus endemic which has become a topic of serious research. Now let us concentrate on the mock test.

I. Choose the correct answer:

1. Who was the father of economics?
   A. Paul A. Samuelson
   B. Alfred Marshall
   C. Adam Smith
   D. None of the above

2. An improvement in production technology leads to a
   A. Leftward shift of the PPC
   B. Rightward shift of the PPC
   C. No change in PPC
   D. None of the above

3. The market demand curve for a commodity can be derived from the
   A. Horizontal summation of individual demand curves
   B. Vertical summation of individual demand curves
   C. Cumulative summation of individual demand curves
   D. None of the above

4. If the price of a substitute good rises, the demand curve shifts
   A. Rightward
   B. Leftward
   C. Upward
   D. None of the above

5. A steeper demand curve implies
   A. Relatively elastic demand
   B. Relatively inelastic demand
   C. Completely elastic demand
   D. None of the above

6. If the demand curve is a rectangular hyperbola, then it implies
   A. $E>1$
   B. $E<1$
   C. $E=1$
   D. None of the above

7. For a durable good, the price elasticity of demand(E) will be
   A. $E>1$
   B. $E<1$
   C. $E=1$
   D. None of the above

8. When AP is falling, then
   A. $AP=MP$
   B. $AP<MP$
   C. $AP>MP$
   D. None of the above

9. When TP is falling, we have
   A. $MP=0$
   B. $MP>0$
   C. $MP<0$
   D. None of the above

10. The law of variable proportion operates during
    A. Medium run
    B. Short run
    C. Long run
    D. None of the above

11. The term ‘L’ in PESTEL stands for
    A. Land
    B. Legal

C. Left
D. Legend

12. Which is inherent in managerial job and embodied in all the functions of management?
    A. Planning
    B. Organizing
    C. Control
    D. Co-ordination

13. The final step indecision making process is
    A. Selection of an alternative
    B. Developing alternative
    C. Evaluation of alternative
    D. Implementation and follow up of decision

14. Participation, recognition and power are some of the examples of
    A. Financial motivation
    B. Non-finantial motivation
    C. Extrinsic motivation
    D. Intrinsic motivation

15. A manager has to exhibit the style of leadership depending on the
    A. Performance
    B. Time
    C. Situation
    D. Period

16. Who emphasized the principle of self-coordination?
    A. Henry Fayol
    B. George Terry
    C. Brown
    D. Peter

17. Non-programmed decisions are taken by
    A. Low level managers
    B. Top level managers
    C. Middle level managers
    D. None of the above

Key: 1. C, 2. B, 3. A, 4. A, 5. B, 6. C, 7. B, 8. B, 9. C, 10. B, 11. B, 12. D, 13. D, 14. B, 15. C, 16. C, 17. B

II. Fill in the blanks:

1. Bonds, Govt. securities are categorized as ………… Money
2. If the CRR is increased by the central bank, the demand for bank loan will ……………
3. Doctor's service is an example of ………….. ………….. market
4. The long run equilibrium condition under perfect competition is ……………
5. Brain storming is called a …………….. technique

Key: 1. Near, 2. Decrease, 3. Discriminating, monopoly, 4. P=AC, 5. Creative

III. True or false:

1. Product differentiation is the other name of monopoly market
2. Fisher's theory of money states that money is demanded for transaction purposes
3. The firm under monopoly is a price taker
4. Responsibility is absolute and cannot be delegated

Key: 1. False, 2. True, 3. False, 4. True

IV. Matching:

1. Adam Smith's invisible hand	A. Keynes
2. Price rigidity	B. Simon
3. Management=Decision making	C.Price system
4. Multiplier theory	D.Oligopoly

Key: 1. C, 2. D, 3. B, 4. A

So friends!

Hope you have enjoyed the mock test. To utilize this type of mock test, you should not consult the key before you have solved all the problems yourself. Finally you should consult the key and make a self marking. Store the marks of all such mock tests as a record of your performance. Thus you will have a fair evaluation of your progress. Wish you a grand success in your exam.

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 two special type of contract as per Indian Contract Act, 1872.

Special Contract: Laws of Agency

Chapter ten of the Indian Contract Act deals with Agency. Section 182 provides that an 'agent' is a person employed to do any act for another or to represent another in dealing with the third person. Some significant concepts associated with Laws of agency are enumerated below.

1. Principal

The person for whom such act is done, or who is so represented is called the' principal'. Provisions regarding to Agent

- a person may become an agent-
- if he is of the age of majority according to the law to which he is subject;
- he is of sound mind;
- no consideration is necessary for the appointment of agent;
- the authority of an agent may be expressed or implied;

Section187 defines the terms 'expressed authority' and implied authority. An authority is said to be express, when it is given by words spoken or written. An authority is said to be implied when it is to be inferred from the circumstances of the case; and things spoken or written, or the ordinary course of dealing, may be accounted circumstances of the case.

Example: *A owns a shop in Barasat, himself living in Calcutta, and visiting the shop occasionally. The shop is managed by B, and he is in the habit of ordering goods from C in the name of A for the purposes of the shop, and of paying for them out of A's funds with A's knowledge. B has an implied authority from A to order goods from C in the name of A for purposes of the shop.*

Section 184 provides that as between the principal and third persons, any person may become agent, but no person who is not of the age of the majority and of sound mind can become an agent, so as to be responsible to his principal according to the provisions in that behalf.

Section185 provides that no consideration is necessary to create an agency

Section 188 provides that an agent having an authority to do an act has authority to do every lawful thing which is necessary in order to do such act. An agent having an authority to carry on a business has authority to do every lawful thing necessary for the purpose, or usually done in the course of conducting such business.

Examples:

a. *A is employed by B, residing in London to recover at Bombay a debt due to B. A may adopt any legal process necessary for the purpose of recovering the debt, and may give a valid discharge for the same;*
b. *A constitutes B his agent to carry on his business of a shipbuilder. B may purchase timber and other materials, and hire workmen, for the purposes of carrying on his business.*

Section 189 provides the agent's authority in an emergency. According to this section, an agent has authority, in an emergency; to do all such acts for the purpose of protecting his principal from loss as would be done by a person of ordinary prudence, in his own case, under similar circumstances.

Examples:

1. *An agent for sale may have goods repaired if it be necessary;*
2. *A consigns provisions to B at Calcutta, with direction to send them immediately to C at Cuttack. B may sell the provisions at Calcutta, if they will not bear the journey to Cuttack without spoiling.*

Section 190 provides that when agent cannot delegate his authority. An agent cannot lawfully employ another to perform acts which he has expressly or impliedly undertaken to perform personally, unless by the ordinary custom of a trade a sub-agent may, or from the nature of the agency, a sub-agent must, be employed.

2. Subagent

Section 191 defines the term 'sub-agent 'as a person employed by, and acting under the control of, the original agent in the business of the agency.

Section 192 provides that where a subagent is properly appointed, the principal is, so far as regard third persons, represented by the sub agent, and is bound by and responsible for his acts, as if he were an agent originally appointed by the principal. The agent is responsible to the principal for the acts of the subagent. The subagent is responsible for his acts to the agent, but not to the principal except in cases of fraud or willful wrong.

Section 193 provides for the responsibility of the agent for sub agent appointed without authority. Where an agent, without having authority to do so, has appointed a person to act as a sub-agent, the agent stands towards such person in the relation of a principal to an agent, and is responsible for his acts both to the principal and to third persons; the principal is not represented by, or responsible for, the acts of the person so employed, nor is that person responsible to the principal.

Section 194 provides that where an agent, holding an express or implied authority to name another person to act for the principal in the business of the agency, has named another person accordingly, such person is not a sub-agent but an agent of the principal for such part of the business of the agency as is entrusted to him.

Examples:

1. *A directs B, his solicitor, to sell his estate by auction, and to employ an auctioneer for the purpose. B names C, an auctioneer, to conduct the sale. C is not a sub-agent, but A's agent for the conduct of the sale.*
2. *A authorizes B, a merchant in Calcutta, to recover the money due to A from C &Co., B instructs D, a solicitor, to take legal proceedings against C &Co for the recovery of the money. D is not a sub-agent, but is a solicitor for A.*

3. Agent's duty

Section 195 provides that in selecting such agent for his principal, an agent is bound to exercise the same amount of discretion as a man of ordinary prudence would exercise in his own case; and if he does this, he is not responsible to the principal for the acts or negligence of the agent so selected.

Examples:

1. *A instructs B, a merchant, to buy a ship for him. B employs a ship surveyor of good reputation to choose a ship for A. The surveyor makes the choice negligently and the ship turns out to be unseaworthy and is lost. B is not, but the surveyor is, responsible to A.*
2. *A consigns goods to B, a merchant, for sale. B, in due course, employs an auctioneer in good credit to sell the goods of A and allows the auctioneer to receive the proceeds of the sale. The auctioneer afterwards becomes insolvent without having accounted for the proceeds. B is not responsible to A for the proceeds.*

Topic

Module 1: Accounting Fundamentals

INTERMEDIATE

Group I - Paper-6

Financial Accounting (FA)

BANK RECONCILIATION STATEMENT

Bank Reconciliation Statement is a record book of the transactions of a bank account. This statement helps the account holders to check and keep track of their funds and update the transaction record that they have made. Bank Reconciliation statement is also known as bank passbook. The balance mentioned in the bank passbook of the statement must tally with the balance mentioned in the cash book. In the statement, all the deposit will be shown in the credit column and withdrawals will be shown in the debit column. However, if the withdrawal exceeds deposit it will show a debit balance (overdraft).

Need of preparing Bank Reconciliation Statement

A Bank Reconciliation Statement is a statement reconciling the balance as shown by the bank passbook and the balance as shown by the Bank column of the Cashbook. The objective of preparing such a statement is to know the causes of difference between the two balances and to reconcile these differences.

Causes of differences between Cash Book and Pass Book

The reasons for difference in balance of the cash book and pass book are as under:

Cheques issued by the Trader but not yet presented for payment: When cheques are issued by Trader in favour of his creditors, these are shown on the payment side of the bank column of the cash book. It reduces the bank balance as per cash book. The bank will debit the firm's account when these cheques are presented for payment. There is a time period between the issue of cheque and its being presented in the bank for payment. This may cause difference to the balance of cash book and pass book.

Cheques deposited into bank but not yet collected or credited by the Bank: When cheques are deposited into bank, the firm immediately enters it on the debit side of the bank column of cash book. It increases the bank balance as per the cash book. However, it takes time in, collecting the amount of cheques, so Bank Balance does not increase on the same date on which cheque has been deposited in the bank. This may cause the difference between cash book and pass book balance.

Amount directly deposited by customers/debtors in the bank account: When the debtors of the businessman have been given the authority to deposit the amount due from them in the firm's account with the bank, the bank credits the firm's account with the amount deposited but the same amount is not recorded in the cash book on the day it is deposited. As a result, the balance in the cash book will be less than the balance shown in the Pass book.

Bank charges charged by the Bank: The bank charges, fees or commission from time to time for various services provided to the customer and debits the customers' account without intimation to the firm/customer. As a result, the balance of the cash book will be more than the balance of the pass book.

Interest and dividend received by the bank on behalf of the customer: The interest on debentures or dividend on shares held by the account holder is directly deposited by the company in the bank account of customer through Electronic Clearing System (ECS). But there may not be any entry in the cash book for such items because the firm does not get the information till it receives the bank statement. As a consequence, the firm enters it in its cash book on a date later than the date on which it is recorded by the bank. As a result, the balance as per cash book and pass book will differ.

Dishonour of cheques deposited with bank: A firm may receive a number of cheques from its customers. Some of the cheques deposited by the firm with the bank may be dishonoured. In this case, the Bank debits firm's account. But the firm records the same when it receives the information from the bank. As a result, the balance as per cash book and that of pass book will differ.

Errors committed in recording transactions by the firm: The firm may commit certain errors e.g., omission or wrong recording of transactions relating to cheques deposited, cheques issued and wrong balancing etc. In this case, there would be a difference between the balances as per Cash Book and as per Pass Book.

Errors committed in recording transactions by the Bank: The bank may also commit errors while recording transactions in the customer's account, e.g., omission or wrong recording of transactions relating to cheques deposited etc. As a result, the balance of the bank pass book and cash book will not agree.

Importance of Bank Reconciliation Statement

Generally, while making a comparison between the company's cash book and bank balance, the balance does not tally. Therefore, it is important to determine the cause for the difference and display them in the bank reconciliation statement and then tally the two balances.

The bank reconciliation statement helps in explaining the differences in the amount between the company's cash book and bank balance.

Types of Bank Reconciliation Statement

The Bank Reconciliation Statement can be prepared in 2 ways:

- Documenting of bank reconciliation statement without adjusting the cash book balance.
- Filing of bank reconciliation statement after adjusting the cash book balance.

Steps to Prepare Bank Reconciliation Statement:

- First, the date on which the statement is recorded is mentioned.
- After which the balance displayed in the cash book is mentioned in the statement. Sometimes, the balance mentioned in the passbook can also be mentioned.
- The deposited cheques which are not collected are deducted.
- Then the cheques issued but the deposited for payment, but amount directly deposited in the bank account are recorded
- All the transactions like overdraft interest, amount debited by the bank but not recorded in the cash book, cheques and bills dishonoured are deducted.
- All the credits and profit collected by the company and directly deposited in the bank is added.
- Adjustments of errors are made
- Now the balance between the cash book and statement should be equal or the same.

Problem

From the following particulars, prepare a bank reconciliation statement as on March 31, 2023.

a. Debit balance as per cash book is Rs. 10,000.

b. A cheque for Rs. 1,000 deposited but not recorded in the cash book.

c. A cash deposit of Rs. 200 was recorded in the cash book as if there is not bank, column therein.

d. A cheque issued for Rs. 250 was recorded as Rs. 205 in the cash column.

e. The debit balance of Rs. 1,500 as on the previous day was brought forward as a credit balance.

f. The payment side of the cash book was under cast by Rs. 100.

g. A cash discount allowed of Rs. 112 was recorded as Rs. 121 in the bank column.

h. A cheque of Rs. 500 received from a debtor was recorded in the cash book but not deposited in the bank for collection.

i. One outgoing cheque of Rs. 300 was recorded twice in the cash book.

Solution:

Bank Reconciliation statement as on March 31, 2023

	Particulars	(+) Amount Rs.	(–) Amount Rs.
1	Debit balance as per cash book	10,000	
2	Error in carrying forward	3,000	
3	Cheque recorded twice in cash book	300	
4	Cheque deposit not record in bank column	200	
5	Cheque deposit but not recorded	1,000	
6	Under casting of payment side		100
7	Cheque issued but not entered		250
8	A cash discount wrongly recorded in bank column		121
9	Cheque recorded but not deposited		500
10	Credit balance as per passbook		13,529
		14,500	14,500

Questions

Q1. The statement used to reconcile the bank balance as per the cash book and bank statement is called:

a. Financial Statement

b. Bank Reconciliation Statement

c. Bank Statement

d. Income Statement

Q2. Bank reconciliation statements are:

a. Parts of the bank statement

b. Part of the journal

c. Memorandum statement

d. Ledger account

Q3. Which of the following would not affect bank reconciliation?

a. Dishonored cheque

b. Discount received

c. Bank interest

d. Cheque not presented

Q4. What is the most prominent purpose of preparing the Bank Reconciliation Statement?

a. To confirm the cash collections have been deposited into the bank suitably and the payments have been processed

b. To know about the balance of the Bank Book

c. To know about the balance of the Cashbook

d. None of all of these

Q5. Bank reconciliation statement compares a bank statement with _________

a. Cash payment journal

b. Cash receipt journal

c. Financial statements

d. Cashbook

Q6. What type of cheques is that which is issued by a firm but not yet presented to the bank

a. Uncredited cheques

b. Outstanding cheques

c. Uncollected cheques

d. Bounced cheques

Q7. How is the Bank Reconciliation Statement prepared?

a. By matching entries in the passbook with entries in the bank and cash column of the cash book

b. By matching the entries in the passbook with entries in the bank column of the cash book

c. By matching the entries in the passbook with entries in the cash column of the cash book

d. None of the above

Q8. Who is preparing the Bank Reconciliation Statement?

a. Debtor

b. Creditor

c. Account Holder

d. Bank

Question No	Answer
1	b
2	c
3	b
4	a
5	d
6	b
7	c
8	c

Topic

Module 2:
Heads of Inome

INTERMEDIATE

Group I - Paper-7

Direct and Indirect Taxation (DITX)

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 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 under:

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): 1. Actual Gratuity received; 2. ₹ 20,00,000; 3. 15 working days[1] salary[2] for every completed year of service[3] [$^{15}/_{26}$ * 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) 1. Actual Gratuity received; 2. ₹ 20,00,000; 3. $^{1}/_{2}$ * Completed year of service[4] * Average Salary p.m.[5]

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 includes any fraction in excess of 6 months.
4. Completed year of service ignores 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 **<u>from the date of retirement</u>**. 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 <u>Uncommuted Pension.</u> On the other hand, pension received in lump sum is known as <u>Commuted pension.</u>

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	1/3rd of total value of commuted pension, which he is normally entitled, is exempted. [Sec. 10(10A)(iia)]
ii) If employee does not receive gratuity	½ of 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	

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

Illustration

Mr. Narayan retired from service on 1/6/2023. 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 1/1/2024, 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.2024-25

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

Topic

Module 2:
Cost Ascertainment - Elements of Cost

INTERMEDIATE

Group I - Paper-8

Cost Accounting (CA)

EOQ – AN IMPORTANT FACET OF INVENTORY MANAGEMENT

Introduction

Material cost is the most significant aspect of the total cost of the product. It is the most visible aspect of the product cost, as well. For example, when you drink a cup of coffee at Cafe Coffee Day, you are paying for many things (the cup of coffee, charges of the person who serves you, the ambience, the air condition etc.) but the most visible aspect you pay for is the cup of coffee (milk, sugar, coffee powder). According to a study, on an average, raw material cost as percentage of gross sales is 46.46% for the Indian manufacturing industry[1].

Inventory (stock) represents the cost of materials recorded in the Balance Sheet as on a specific date, after adjustment of sales from the opening stock and purchase (or cost of goods sold in case of manufacturing units). Inventory is categorised as raw material, work in progress and finished goods in organisations which manufactures goods. In trading organisations inventory comprise of finished goods only.

Why hold inventory?

There are three reasons for maintaining inventories; transaction motive, precautionary motive, and speculative motive.

1. *Transaction motive* - The transaction motive is the motive to maintain inventories for the purpose of meeting daily production requirements in manufacturing organizations or sales needs in trading organizations.
2. *Precautionary motive* - Additional inventory might be required as a precautionary measure in response to uncertainties regarding future demand of the product or fluctuations in the supply of raw materials
3. *Speculative motive* – In case there is anticipation of fluctuations in input prices, a company may speculate regarding the expected changes. Based on this speculation, the company might hold a certain level of inventory other than specified by the other two motives. This reflects the speculative motive of holding inventory.

It is important to note that the precautionary motive and the speculative motive are typically overlooked in the quantitative models in finding the most economic quantity of inventory to be purchased. Generally, only the transaction motive is considered in the EOQ model.

1 https://www.researchgate.net/publication/46563474_An_Analysis_of_Raw_Material_Cost_in_Indian_Manufacturing_ Industry.

Management of inventory

The importance of the material cost has been highlighted in the previous lines. Inventory management discourses on the whole gamut of purchase, storage and issue of material. The purchase of material is the foremost aspect of inventory management. The quantity of material to be purchased is mathematically determined such that the total cost of inventory is the minimum. The Economic Order Quantity (EOQ)[2] is the quantitative model of inventory management which aids the purchase department to identify the right quantity of material to be purchased such that the total inventory cost is the minimum.

Economic Order Quantity (EOQ)[3]

EOQ is a particular order quantity which, if ordered, minimizes the total inventory cost. The base model of EOQ is operative under a number of assumptions. In the following lines we discuss the understanding of *order quantity, the composition of inventory cost* and *the assumptions* of the models. For the purpose, we take a hypothetical example of consumption of rice in the household.

Let us assume that your mother has made an estimate that in a year she requires 312 kgs (= D, for the purpose of the model) of rice to feed the members of household. The price of rice is Rs 120 per kg (= C_o).

- *Order quantity* – your mother may decide on making a onetime purchase of 312 kgs of rice. In this case the order quantity (Q) is 312 kgs and there will be onetime ($\frac{D}{Q} = \frac{312}{312} = 1$) purchase of 312 kgs. On the other extreme she can decide to make purchases of 1 kg of rice at a time (Q = 1 kg). In this case, purchase will be made 312 times ($\frac{D}{Q} = \frac{312}{1} = 312$). Thus, the extreme values of Q are 312 kgs or 1 kg. The advantages and the disadvantages of the two extreme cases are easy to comprehend. In buying 312 kgs, your mother has to buy once and store the same for the whole year. This will avoid a situation of stock out (inventory shortage to meet unexpected hike in consumption) but this will result in higher storage cost. In case the buying quantity is 1

2 There are various models of EOQ which are modification to the base model which is generally used in cost accounting. These models arise as the stringent assumptions of the base model is relaxed, one by one.

3 Only the base model of EOQ is considered in the study material (paper 8). And adjustment to the model (price break) is also considered which is basically a situation which develops as one of the assumptions of the base model (purchase price of material is constant) is relaxed as discount is offered by the supplier for bulk purchase.

kg then the number of buying will be 312 times which will incur more of ordering cost. But there will be reduction in the storage cost as she does not have to store the rice in the small kitchen4 for the whole year. Therefore, in both the cases the total cost of inventory will be high.

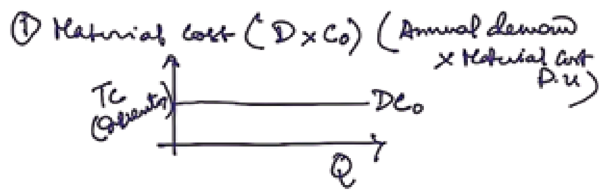
- The economic order quantity (Q*) is one such Q (quantity purchased) which will minimize the cost of inventory. Thus in this case the Q* will be between the two extremes of 312 kgs and 1kg.
- We are, as such, in search of one such purchase quantity (Q*) which will be the most cost efficient amongst the various purchase quantities (Q).

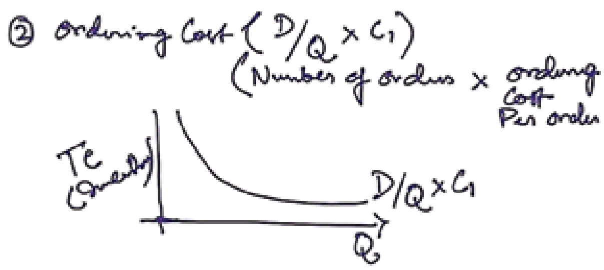
- *Composition of total inventory cost* – inventory cost comprises of three items of cost namely;
  1. material cost – this is the total cost of buying the inventory for the period and is given as $D \; X \; C_0$ (annual demand × cost of material per unit). In our case, this is 312 kgs × 120 per kg = Rs 37440. This cost does not depend on the decision of how much quantity of rice (Q) to buy at a time. Thus this is *irrelevant* to the decision of how much to buy at one time which will minimize the total cost of inventory (Q*).
  2. ordering cost (cost of placing an order) – this is the cost of placing an order. For example, in this case, if it is known that the rickshaw puller takes Rs 50 to deliver the rice to your home, then C_1 = 50 and the total ordering cost will be the number of orders ($\frac{D}{Q}$) times the ordering cost per order (C_1=50). Here the assumption of the model is that C_1 remains constant for all quantities ordered (may be 312 kgs or 1 kg). It is easy to comprehend that the total ordering cost will go up with the number of orders placed. If 1 kg is ordered at a time, you will have to place 312 orders and the ordering cost will be Rs 15600 (312×Rs 50).
  3. stock holding cost – this is also referred as carrying cost. This is the cost which will be incurred for holding (carrying) one unit of inventory in the store for whole period under consideration and is given as C_2. In this example, if you buy 1 kg at a time there would not be much of stock holding cost as this is not going to use up much space in the small kitchen. But if we buy 312 kgs at a time then this cost will be much high as more space will be used up. For this purpose, we assume that the next order (Q) is placed only when the quantity of inventory reaches zero. Thus maximum quantity of inventory is Q and the minimum quantity is 0. And the average quantity is $(\frac{(Q+0)}{2} = \frac{(Q)}{2})$. This is to be carried in stock and the stock holding cost will be $\frac{Q}{2} \times C_2$. We assume that in this case, in order to carry 1 kg of rice for a year you will have to spend Rs 5 as stock holding cost (C_2 = 5).

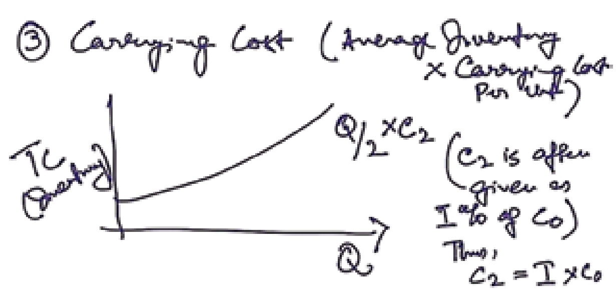
4 There used to be a separate room for storing food materials in the old days. But there is generally no such provision in modern day flats.

- *Assumption of the base model*: The assumptions of the model may be summed up as;
  - The annual demand (D) is identified with certainty. The rate of consumption is uniformly distributed throughout the year.
  - Replenishment of order is instantaneous.
  - Ordering costs per order (C_1) is constant for any level of order
  - Carrying costs (C_2) is relatable to the average inventory and is constant.
  - Material cost per unit (C_0) does not change implying that there is no discount on bulk purchases.

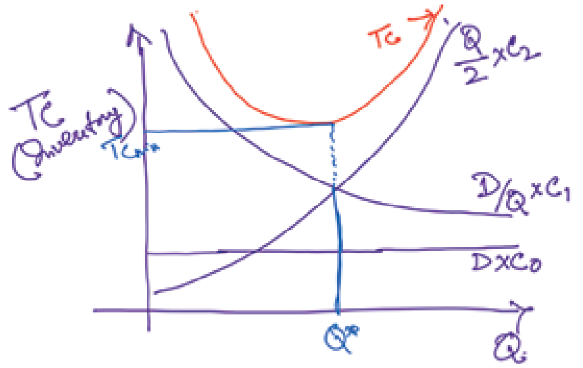
Pictorial representation







If the above three costs are put in one frame, we get the following;



In the above figure, Q* is the quantity, which if ordered, will minimize the total cost of inventory (TC_{min}). As is seen in the diagram, Q* is determined where ordering cost ($\frac{D}{Q} \times C_1$) and carrying cost ($\frac{Q}{2} \times C_2$) intersects. It may also be noted in the diagram that the material cost ($D \times C_0$) is a straight line parallel to the x axis (signifying that it does not depend on Q) and is thus irrelevant in determining TC_{min}.

Thus the relevant costs of inventory which depends on our decision of quantity to be purchased (Q) is the sum total of the total ordering cost and the total stock holding cost.

Thus TC_{inv} = (number of orders × ordering cost per order) + (average inventory × carrying cost per unit)

$$TC_{inv} = \frac{D}{Q} \times C_1 + \frac{Q}{2} \times C_2$$

In order to find the minimum $TC_{inv,}$ we will have to apply the rules of *maxima* and *minima* which states that in order to find the minimum point of the function, we have to set the first order derivative of the function to zero and calculate the Q.

Then we calculate the second order derivative and if it is more than or equal to zero, we say that the function is at the minimum point (at the calculated Q).

Thus we calculate the first order derivative of the function ($TC_{inv} = \frac{D}{Q^*} \times C_1 + \frac{Q^*}{2} \times C_2$) and set it = 0

We find,

$$Q = \sqrt{\frac{2\,D\,C_1}{C_2}},$$

The second order derivative of the function

$$(TC_{inv} = \frac{D}{Q} \times C_1 + \frac{Q}{2} \times C_2) \geq 0.$$

Thus at $Q^* = \sqrt{\frac{2\,D\,C_1}{C_2}}$, the function

($TC_{inv} = \frac{D}{Q^*} \times C_1 + \frac{Q^*}{2} \times C_2$) is at its minimum point.

And we say that at Q* the total inventory cost is minimum.

In this example, we can plug in the values into $Q^* = \sqrt{\frac{2\,D\,C_1}{C_2}}$,

And,

$$Q^* = \sqrt{\frac{2 \times 312 \times 50}{5}} = 78.99 \text{ kgs} \approx 79 \text{ kgs}$$

Thus the economic order quantity (EOQ) is 79 kgs, implying that if 79 kgs is ordered at a time then the total cost of inventory would be minimum which may be calculated below.

$$TC_{inv} = D \times C_0{}^{5} + \frac{D}{Q^*} \times C_1 + \frac{Q^*}{2} \times C_2$$

$$TC_{inv} = 312 \times 120 + \frac{312}{79} \times 50 + \frac{79}{2} \times 5$$

$$= 37440 + 197.47^{6} + 197.50^{6}$$

$$= 37834.97 \approx \text{Rs } 37835$$

Applying the EOQ formula we gather the very pertinent information that if we order 79 kgs of rice at a time, then the total cost of rice for household for the year will be lowest at Rs 37835.

It may be stated that, EOQ (Q*), as a model has serious implication due to the rather simplistic assumptions of the model. It is important to note that the model is a base model and there are several advancements to the model[7] .

5 Though this cost is irrelevant for decision making, it is an important aspect of the total inventory cost.

6 Total ordering cost = Total stock holding cost. In this case there is slight difference because we made approximation of the Q* as 79 kgs.

7 Calculation of the minimum cost of inventory in case of discount for bulk purchase, referred as price break is included in the syllabus of paper 8. Some of the advanced models are discoursed in the chapter 'inventory management' in operations research. For the advanced models please refer to chapter 11 of 'Operations Research: An Introduction', Eighth Edition *by* Hamdy A. Taha, Perason, Prentice Hall.

OVERHEAD ACCOUNTING – THE BASICS

Introduction

Cost accounting is primarily concerned with the identification and control of costs. The main purpose of cost accounting is generation of cost information which in turn depends on the identification of costs. Management accounting, on the other hand, provides a broader range of information to support internal decision-making. Thus cost accounting may be considered as a subset of management accounting. Major share of the subject of cost accounting delves with how to identify and accumulate the costs of production[1].

Traceability of cost

In cost accounting, costs are classified as traceable costs and untraceable costs.

- Traceable costs are costs which have direct linkage to the cost object. When the product or service is at consumption stage, these costs can be identified clearly.

  For example, when we drink a cup of tea (in a paper cup) at the road side tea shop paying Rupees twelve, we exactly know that we are paying for tea leaf, milk, sugar and water. These directly attributable costs are *material cost* in cost accounting parlance. We can reasonably assume that the sum total of these items attributable to one cup of tea is Rupees five. Thus the material cost is Rupees five. The cost of the paper cup which we, as such, do not consume is the *direct expense*, in cost accounting parlance. This cost adds direct value to the cup of tea (as consuming the cup of tea without the paper cup is impossible). Let's assume that one paper cup costs Rupee one. The man who is preparing the tea has to be paid and this is the labour cost in cost accounting parlance. This is also directly attributable[2] and can be easily identified to the cup of tea. Let's assume that the labour cost for making a cup of tea is Rupees three.

- On the other, an untraceable cost, also known as an indirect cost or common cost, is a cost that cannot be easily or directly linked to a specific cost object. For example, the tea shop owner pays rent for the shop of Rupees 17000 for a month. This cost cannot be easily and directly taken to each cup of tea. Simply speaking, when we drink that cup of tea it would not be possible for us or the shop keeper to identify how much of rent expense is attributable to one cup of tea. The rent of the shop has to be also identified to biscuits, cakes or other products that the shop keeper is selling as that rent adds value to all the products that the shopkeeper is offering. This is referred as *overhead* (or *indirect cost*) in cost accounting parlance. This is referred as overhead as it goes over the head of the product and is not directly identifiable to the product. This is also referred as *period cost* or *fixed cost.*[3]

On the basis of the above assumption the cost structure of the shop keeper will be as follows;

Particulars	**Rs per cup of tea**
Direct Material	5.00
Direct Labour	3.00
Direct expense	1.00
Variable cost of producing One Cup of Tea	9.00
Rent for the Month Rs 17000	

How to charge this *overhead* of Rs 17000 per month to one cup of tea is the crux of the problem.

Herein lies the basic understanding of absorption costing.

Absorption costing

Absorption costing, referred as *full costing,* is a cost accounting method that involves assigning all production costs — both variable and fixed — to the units of a product. We have previously noted that variable cost of production is traceable to the product and is easily assignable to one unit of the product. Thus the problem lies with the assignment of fixed cost to the cost object; one cup of tea in this case. Overhead accounting deals with this; assignment of overheads to production department and service department (*primary distribution*), reassignment of service department overheads to production departments (*secondary distribution*) as the service department only aids proper functioning of the production departments and the final products are not readily identifiable with any service departments. And finally, total overheads are to be absorbed to the unit of the final product on the basis of some pre-determined rates (*absorption* of overhead). The fundamental assumption of absorption costing is that all manufacturing costs are to be included in cost of

1 Paper 8 of the course deals with cost accounting, while paper 12 deals with management accounting. The last section of unit 1 of paper 8 discourses the cost sheet which summarizes the basic cost accumulation process. Module 5 (methods of cost accounting) categorizes the cost accumulation process in case of various kinds of products and services on the basis of which *job, batch, contract, process* and *service costing* is decided upon.

2 In some instances, labour is considered as indirect cost. indirect labour costs are not readily associated with specific units and are considered overhead costs

3 Costs are functionally classified as direct or indirect. In this case the term *overhead* is used to mean indirect cost. When costs are classified on the basis of their behaviour, the term *fixed cost* is used to mean costs which are not directly traceable to the product and is as such *period* cost.

production; while variable costs are easily traceable and can be assimilated, fixed overhead are to be *absorbed* to the product on the basis of some suitable predetermined rates[4].

For example, in our case of calculating the cost of cup of tea, if the shop owner budgets that in the next month he will be able to sell 34000 cup of tea. Then he may calculate the overhead absorption rate as;

$$Overhead\ Absorption\ Rate\ (OAR) = \frac{total\ overhead}{budgeted\ number\ of\ units}$$

$$OAR = \frac{Rs\ 17000}{34000} = 0.50$$

Thus the cost structure of the shop owner will be;

Particulars	Rs per cup of tea
Direct Material	5.00
Direct Labour	3.00
Direct expense	1.00
Variable cost of producing One Cup of Tea	9.00
Overhead (rent) absorbed	0.50
	9.50

Since the sale price of a cup of tea is Rs 12.00, the shop keeper will make a profit of Rs 2.50 (12.00 - 9.50). This is on the basis of an assumption that the shopkeeper is able to forecast the sales in the next month at 34000 cups of tea. If this assumption fails (the actual cups of tea sold is less than or more than 34000) or if the actual rent incurred is not the anticipated amount of rent of Rs 17000 then the issue of *under –absorption* or *over-absorption* will arise.

An illustration of what is discussed in previous lines follows;

Mr Woodpecker runs a furniture manufacturing factory, name WOODY. He specialises in production of desks and chairs which is produced in the same factory. The factory has two departments, assembly and finishing. The following is known regarding the cost of desks and chair.

- Each desk uses 3 kg of wood at a cost of Rs 4 per kg., and takes 4 hours to produce – 3 hours in assembly and 1 hour in finishing.
- Each chair uses 2 kg of wood at a cost of Rs 4 per kg, and takes 1 hour to produce – ½ hour in assembly and ½ hour in finishing.
- All labour is paid at the rate of Rs 2 per hour.
- Fixed costs of production are estimated to be Rs 700000 p.a. Of this total, Rs 100000 is the salary of the supervisors – Rs 60000 to Assembly supervisor, and Rs 40000 to Finishing supervisor. The remaining overheads are to be split 40% to Assembly and 60% to Finishing.

The company expects to produce 30000 desks and 20000 chairs.

(Overheads to be absorbed on a labour hour basis)

Mr Woodpecker requests you to calculate the cost per unit for desks and for chairs.

Solution

Calculation of Labour Hour Rate (for absorption of overhead)

Particulars	Basis	Overhead	Assembly Department	Finishing Department
Supervisor's Salary	actual[5]	100000	60000	40000
Other Overhead	40: 60[6]	600000	240000	360000
Total overhead allocated and apportioned **(A)**			**300000**	**400000**
Total Hours Worked:				
Desk: 30000 × 3 hrs			90000 hrs	
Chair: 20000 × ½ hrs			10000 hrs	
Desk: 30000 × 1 hr				30000 hrs
Chair: 20000 × ½ hrs				10000 hrs
Total Labour Hours **(B)**			**100000 hrs**	**40000 hrs**

$$Overhead\ Absorption\ Rate\ (OAR) = \frac{total\ overhead\ (A)}{Total\ labour\ hours(B)} = \quad \frac{300000}{100000} = 3/hr \quad \frac{400000}{40000} = 10/hr$$

Cost Card

Particulars	Chair	Desk
Material:		
3 kgs × Rs 4 per kg	12.00	
2 kgs × Rs 4 per kg		8.00
Labour:		
4 hrs × Rs 2 per hour	8.00	
1 hr × Rs 2 per hour		2.00
Overhead absorbed Assembly Department @ Rs 3 per hour	9.00	1.50
Finishing Department @ Re 1 per hour	10.00	5.00
Per Unit Cost	**39.00**	**16.50**

4 There are several predetermined rates. Some of the most commonly used are; units produced (budgeted), percentage of direct labour cost, percentage of prime cost, direct labour hour, direct machine hour.

5 Since overhead (supervisor's salary, in this case) is assigned to the production departments on the basis of 'Actual', this is know*n and allocation of over***head.**

6 Since overhead (other, in this case) is assigned to the production departments on the basis of a ratio, this is referred as *apportionment of overhead***.**

Topic

Module 2:
Operations Planning

INTERMEDIATE

Group II - Paper-9

Operations Management and Strategic Management (OMSM)

OPERATIONS MANAGEMENT

In this issue let us discuss resource aggregate planning with numeric illustration

Production planning in the intermediate range of time is termed as "Aggregate Planning" or "Aggregate Production Planning (APP)".

It determines the resource capacity a firm will need to meet its demand over an intermediate range of time---6 to 12 months in the future.

It bypasses the details of individual products and the detailed scheduling of facilities and personnel.

We use the term *aggregate* because the plans are developed for product lines or product families rather than individual products.

Aggregate plans require development of some logical overall unit for measuring aggregate output---e.g Maruti Udyog Ltd may plan for producing 10000 units of cars in the next 6 months without going into details of no of units for different varieties.

Under this planning resource capacity is also expressed in aggregate terms, typically as labour or machine hours---labour hours would not be specified by type of labours----Skilled, Unskilled etc.

Within this time frame of 6 to 12 months it is usually not feasible to increase capacity by building new facilities or purchasing new equipment. Because of this physical plant equipment capacity would be fixed over the planning horizon. This is a constraint and under this constraint---

To start with sales forecast of demand for the intermediate range (as done by Maruti Udyog ltd above) is to be made.

And based on this sales forecast one has to develop the aggregate production plan in the following manner:

- Check as to whether the total requirements for the forecast period are within the combined equipment and manpower capacity of the plant;
- If the forecast sales requirements cannot be met by existing plant capacity including any additional capacity that can be installed within the intermediate planning period we have the following different strategies in hand:
    1. Overtime and Under time;
    2. Hiring and layoff: Working single or multiple shifts;
    3. Carrying inventories to meet the peak demands;
    4. Having backlog of orders;
    5. Sub-contracting to other companies;
    6. Turning down some sales demands;

Each of these strategies has a cost factor associated with it.

Some of the cost items that may be relevant are:

- Payroll costs;
- Costs of overtime, second shifts, and subcontracting;
- Costs of hiring and laying off workers;
- Costs of excess inventory and backlog;
- Costs of production rate changes;

If demand for a company's products or services are stable over time or its resources are unlimited, then APP is trivial. APP becomes a challenge when demand fluctuates over the planning horizon and resources are limited (Like fixed plant capacity, fixed manpower on payroll etc). With fluctuating demand-limited resources we could meet our challenges:

- Producing at a constant rate and using inventory to absorb fluctuations in demand (Level production);
- Hiring and firing workers to match demand(Chase demand);
- Increasing or decreasing working hours (Overtime and Under time);
- Providing the service or product at a later time period (Backordering); etc.

When one of these is selected, a company is said to have a ***Pure Strategy*** for meeting demand. When two or more are selected a company has a ***Mixed Strategy***.

The level production strategy shown in the following figure sets production at a fixed rate (usually to meet average demand) and uses inventory to absorb variations in demand. During periods of low demand, overproduction is stored as inventory, to be depleted in periods of high demand. The cost of this strategy is the cost of holding inventory, including the cost of obsolete or perishable items that may have to be discarded.

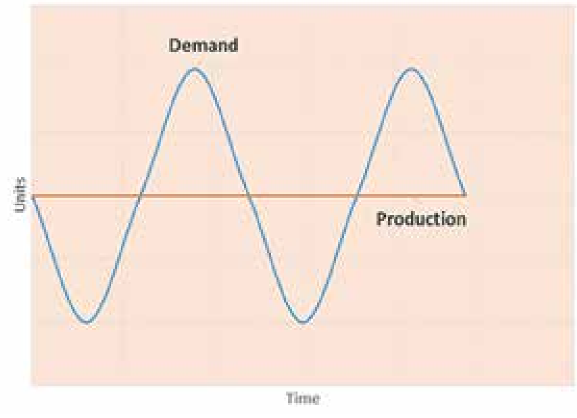


Illustration:

S industries has the following demand forecast for the next 12 months.

Month	Jan	Feb	March	April	May	June	July	August	Sept	Oct	Nov	Dec
Demand (Units)	900	700	800	400	500	800	900	300	200	800	700	700

The firm can have the strategies of overtime, sub-contracting (outsourcing), and making inventory in its aggregate planning of production.

Given the following details, develop an optimal production plan for the firm. (The demands of the customer are always met).

a. Regular time production capacity : 600 units per month maximum;
b. Overtime production capacity: 100 units per month maximum;
c. Beginning inventory: 50 units;
d. Desired inventory at the end of 12 months: 150 units;
e. Cost of regular production : ₹100 per unit;
f. Cost of overtime production: ₹160 per unit;
g. Cost of Sub-contracting: ₹180 per unit;
h. Inventory Carrying Cost: ₹36 per unit per annum;

Answer:

Regular time production cost: ₹100/unit.
Overtime production cost: ₹160/unit.
Subcontracting cost: ₹180/unit.
Inventory Carrying Cost: ₹36/12 = ₹3 per unit per month
Cost of producing in regular time and carrying the inventory to the next month = 100+3 = ₹103.

The approach to the aggregate planning will be done on trial & error basis:
During regular time produce as per requirement
If this quantity is not adequate to meet the demand, produce the additional quantity in overtime.
However, the maximum overtime production possible in a month is 100 units.
Hence in any month the maximum that can be produced in regular plus overtime would be = 600+100=700units.
If in any month the demand is more than this produce (i.e.700 units) the deficit amount will be met through subcontracting.

1st Trial:

The prelim plan is as follows:

In January demand is 900 units. Opening stock is 50 units. So there should be 900 – 50 = 850 units of production. (Regular + overtime) mode could produce maximum 700 (i.e.600+100) units. So balance quantum 850 – 700 = 150 units are to be arranged through subcontracting (outsourcing)

Following this policy the details of per month regular production, overtime production and procurement through outsourcing are as follows

1	2	3	4	5	6	7	8	9
Month	Demand	Opening Inventory	Regular Production	Balance after Regular + inventory	Overtime	Balance after Overtime	Outsourcing	Total
				(2-3-4)		(5-6)		(3+4+6+8)
Jan	900	50	600	250	100	150	150	900
Feb	700		600	100	100	0	0	700
March	800		600	200	100	100	100	800
April	400		400	0	0	0	0	400
May	500		500	0	0	0	0	500
June	800		600	200	100	100	100	800
July	900		600	300	100	200	200	900
August	300		300	0	0	0	0	300
Sept	200		200	0	0	0	0	200
Oct	800		600	200	100	100	100	800
Nov	700		600	100	100	0	0	700
Dec	850		600	250	100	150	150	850

Cost details for this plan is

1	2	3	4	5	6	7	8
Month	Regular Units & Inventory	Overtime Units	Outsource Units	Regular cost @100 Inventory @ 103	Overtime @160 (3*160)	Outsourcing @180 (4*180)	Total Cost
Jan	650	100	150	65150	16000	27000	108150
Feb	600	100	0	60000	16000	0	76000
March	600	100	100	60000	16000	18000	94000
April	400	0	0	40000	0	0	40000
May	500	0	0	50000	0	0	50000
June	600	100	100	60000	16000	18000	94000
July	600	100	200	60000	16000	36000	112000
August	300	0	0	30000	0	0	30000
Sept	200	0	0	20000	0	0	20000
Oct	600	100	100	60000	16000	18000	94000
Nov	600	100	0	60000	16000	0	76000
Dec	600	100	150	60000	16000	27000	103000
							897150

In January regular production cost is 600*100 + 50*103 (inventory production and carrying cost)

2nd Trial:

If Demand > Opening stock then only produce and Produce at maximum capacity. If demand < opening stock don't produce. But if in any month the demand is less than quantity produced during regular time, the quantity over and above 600 units will have to be inventoried.

On the other hand if in any month the demand exceeds 700 units with no inventory, the quantity over and above will have to be sub contracted.

The aggregate production plan can now be as follow:

1	2	3	4	5	5	6	7	8	9
Month	Demand	Opening Inventory	Regular Production	Closing Inventory	Balance after Regular + inventory	Overtime	Balance after Overtime	Outsourcing	Total
					(2-3-4)		(5-6)		(3+4-5+6+8)
Jan	900	50	600	0	250	100	150	150	900
Feb	700	0	600	0	100	100	0	0	700
March	800	0	600	0	200	100	100	100	800
April	400	0	600	200	0	0	0	0	400
May	500	200	600	300	0	0	0	0	500
June	800	300	600	100	0	0	0	0	800
July	900	100	600	0	200	100	100	100	900
August	300	0	600	300	0	0	0	0	300
Sept	200	300	0	100	0	0	0	0	200
Oct	800	100	600	0	100	100	0	0	800
Nov	700	0	600	0	100	100	0	0	700
Dec	850	0	600	0	250	100	150	150	850

In the month of April total demand is 400. We could utilize maximum regular production for 600 units and balance 200 units are kept as inventory.

In the month of May total demand is 500 units. From opening inventory 200 units are consumed. Through regular production at maximum level additional 600 units are produced. And therefore 300 units are kept as inventory.

In the month of June demand is 800 units. Opening inventory and regular production at maximum level gives 300+600 =900. So after satisfying full demand 100 units remain as closing inventory.

In August maximum production through regular 600 units. After satisfying demand 300 units remain as closing inventory from where after satisfying demand for September 100 units remain for opening inventory of October. In September since demand < opening inventory, no fresh production is made.

Production costs for this aggregate plan are:

Jan: 50*103+ 600*100 + 100*160 +150*180 = ₹ 108150;

Feb: 600*100+100*160 = ₹ 76000

March: 600*100+100*160 + 100*180 = ₹ 94000

April: 400*100 = ₹ 40000

May: 200*103+300*100 = ₹ 50600

June: 300*103 +500*100 = ₹ 80900

July: 100*103+600*100+100*160+100*180 = ₹ 104300

August: 300*100 = ₹ 30000

September: 200*103 = ₹ 20600

October: 100*106+600*100+100*160 = ₹ 86600

November: 600*100+100*160 = ₹ 76000

December: 600*100+100*160+150*180 = ₹ 103000

Total: ₹ **870150**

Details are as follows:

1	2	3	4	5	6	7	8
Month	Regular Units & Inventory	Overtime Units	Outsource Units	Regular cost @100 Inventory @103	Overtime @160 (3*160)	Outsourcing @180 (4*180)	Total Cost
Jan	650	100	150	65150	16000	27000	108150
Feb	600	100	0	60000	16000	0	76000
March	600	100	100	60000	16000	18000	94000
April	400	0	0	40000	0	0	40000
May	500	0	0	50600	0	0	50600
June	800	0	0	80900	0	0	80900
July	600	100	100	70300	16000	18000	104300
August	300	0	0	30000	0	0	30000
Sept	200	0	0	20600	0	0	20600
Oct	600	100	0	70600	16000	0	86600
Nov	600	100	0	60000	16000	0	76000
Dec	600	100	150	60000	16000	27000	103000
							870150

3rd Trial:

Now for the month of April total demand can be met through regular production at 400 level and for the month of May total demand can be met through regular production at 500 level without producing at 600 level. In that case there will be no opening inventory for the month of June and demand of June can be met with regular production at 600 level, 100 units from overtime and 100 units through outsource.

Then April cost will remain at 400*100 = 40000 & cost of May cost remain at 500*100 = 50000

But then there will be no opening inventory in June and Demand for June is to be met through regular production at 600 level, Overtime at 100 level and subcontracting at 100 level. Cost of June then will be 600*100+100*160+100*180 = 94000 a sharp jump of (94000-80900) = 13100

Instead if we produce 600 units each in April & May then there will be 300 units in June as opening stock. Then the cost of June under this trail will be 600*100+200*106 = 81200 a jump of (81200-80900) = 300.

Similarly if we if we produce 600 units each in April & May then there will be 100 units in July as opening stock. Then the cost of July under this trial will be 600*100+100*106+100*160+100*180 = 104600 a jump of (104600-104300) = 300.

Now if we produce 300 units in August and 600 units in September then Cost of meeting demand of October, November and December will be respectively 80600, 70600 and 95900.

But if we produce 600 units in August and 200 units in September then Cost of meeting demand of October, November and December will be respectively 81200, 70900 and 103000.

So let us make the plan

A) in the following order in increasing order of cost:

a. Supply through Regular production;

b. Supply through Inventory @103 p.u with one month old inventory or @106 p.u with two months old inventory or @ 109 p.u with three months old inventory

c. Supply through overtime;

d. Supply through Outsourcing;

B) Produce at maximum in April, May & August in which demand < maximum production. For other months demand > maximum production. For September where demand < maximum production, produce as per demand.

Details are as follows:

Month	Demand	Supply through Regular	Supply through 1 month old stock	Supply through 2 month old stock	Supply through 3month old stock	Overtime	Outsource	Remaining Inventory	Production	Cost
Jan	900	600	50	0	0	100	150	0	600	108150
Feb	700	600	0	0	0	100	0	0	600	76000
March	800	600	0	0	0	100	100	0	600	94000
April	400	400	0	0	0	0	0	200	600	40000
May	500	500	0	0	0	0	0	200+100	600	50000
June	800	600	0	200	0	0	0	100	700	81200
July	900	600	0	100	0	100	100	0	600	104600
August	300	300	0	0	0	0	0	0	300	30000
Sept	200	200	0	0	0	0	0	400	600	20000
Oct	800	600	200	0	0	0	0	200	600	80600
Nov	700	600	0	100	0	0	0	100	600	70600
Dec	850	600	0	0	100	100	50		600	95900
										851050

4th Trial:

Now for the month of December 100 units are through overtime and 50 units through outsourced. These 150 units if we can arrange through inventory then we could save a lot. Only in the month of August unutilized capacity is available for producing this 150 units and if we produce 450 units in August then we could reduce the cost further as follows:

Month	Demand	Supply through Regular	Supply through 1 month old stock	Supply through 2 month old stock	Supply through 3month old stock	Overtime	Outsource	Remaining Inventory	Production	Cost
Jan	900	600	50	0	0	100	150	0	600	108150
Feb	700	600	0	0	0	100	0	0	600	76000
March	800	600	0	0	0	100	100	0	600	94000
April	400	400	0	0	0	0	0	200	600	40000
May	500	500	0	0	0	0	0	200+100	600	50000
June	800	600	0	200	0	0	0	100	700	81200
July	900	600	0	100	0	100	100	0	600	104600
August	300	300	0	0	0	0	0	150	450	30000
Sept	200	200	0	0	0	0	0	150+400	600	20000
Oct	800	600	50	150	0	0	0	350	600	81050
Nov	700	600	0	100	0	0	0	250	600	70600
Dec	850	600	0	0	250	0	0		600	87250
									Total	842850

There is no limit on the amount to subcontract.

The production costs for this aggregate production plan are as:

1st Trial = ₹897150;

2nd Trial = ₹870150;

3rd Trial: = ₹851050;

4th Trial: = ₹842850; the chosen plan.

Therefore to arrive at the optimal plan we have to arrange the alternatives in the ascending order of cost and as per the order attempts will be made to utilise the lowest cost alternatives to the maximum extent possible in order to avoid highest cost alternatives like overtime and subcontracting. In this illustration FIFO method of issuing inventory is used.

Suggestions:

The study notes need to be read thoroughly. Supplementary readings could be made from other resources. This issue is based on RAP on operations management. The problem is just indicative type from which maximum benefits could be reached once Guide book on the paper 9- Operations Management & Strategic Management written and issued by Institute on New Syllabus along with reference books are to be thoroughly consulted.

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 ACCOUNTING FOR ISSUE OF SHARES, FORFEITURE OF SHARES WITH PRO-RATA ALLOTMENT

⊙ Concept of Pro-rata Allotment

The term 'pro-rata means 'proportional '. In the context of public issue of shares, the concept of pro-rata allotment comes to the picture when the shares offered by a company are over-subscribed by the investors.

In the event of over-subscription, it does not become possible for the company to allot shares to every applicant in the number that has been applied for. In this situation, the company allots the shares in a proportionate manner so that all the applicants have been allotted or refused allotment of shares on proportionate basis.

Pro-rata allotment refers to the allotment of shares in proportion of the shares applied for. In the event of pro-rata allotment, the issuer company adjusts the excess money received on application firstly, towards the allotment and thereafter towards other call(s).

⊙ Illustration on Issue and Forfeiture of Shares with Pro-rata Allotment

X Ltd. made a public issue of 15,000 equity shares of Rs.10 each at a premium of Rs.5 per share payable as follows:

On Application:	Rs.5 per share (including Rs. 2 as premium)
On Allotment:	Rs.6 per share (including the balance of premium)
On First call:	Rs.2 per share
On final call:	The balance of issue price

Applications were received for 24,000 shares. No allotment was made to the applicants for 4,000 shares and their application moneys were refunded along with letters of regret. Pro-rata allotment was made to the applicants for 20,000 shares. Mr. A, who had applied for 120 shares, failed to pay allotment and both the call moneys. Mr. B, who was allotted 60 shares, failed to pay two calls. Shares of Mr. A and B were forfeited after the final call was made. All the forfeited shares were re-issued to Mr. C on payment of Rs.12 per share. Show the journal entries in the books of X Ltd. to give effect to the above.

Solution:

Books of X Ltd.

Journal

Date	Particulars	Dr. Rs.	Cr. Rs.
	Bank A/c ....Dr. To Equity Share Application A/c [24,000 x 5] (Being application money received on 24,000 shares @ Rs.5 per share including premium)	1,20,000	 1,20,000
	Equity Share Application A/c ....Dr. To Equity Share Capital A/c [15,000 x 3] To Securities Premium A/c [15,000 x 2] To Bank A/c To Equity Share Allotment A/c (Being application money transferred to Share Capital A/c and. Securities Premium A/c and excess money refunded and adjusted with allotment, as per Board's Resolution No ... . dated. .....)	1,20,000	 45,000 30,000 20,000 25,000
	Equity Share Allotment A/c [15,000 x 6] ....Dr. To Equity Share Capital A/c [15,000 x 3] To Securities Premium A/c [15,000 x 3] (Being allotment money due on 1 5,000 shares @ Rs.6 per share including premium, as per Board's Resolution No .... dated . . . .)	90,000	 45,000 45,000

	Bank A/c ....Dr. Calls-in-Arrear A/c ....Dr. To Equity Share Allotment A/c (Being allotment money received on all the shares except 90 equity shares - WN: 5)	64,610 390	 65,000
	Equity Share First Call A/c [15,000 x 2] ....Dr. To Equity Share Capital A/c (Being Equity Shares first call money due on 15,000 shares @ Rs.2 per share, as per Board's Resolution No. ....dated. . ...)	30,000	 30,000
	Bank A/c ....Dr. Calls-in-Arrear A/c ....Dr. To Equity Share First Call A/c (Being Equity Share First Call money received on all the shares except 150 equity shares @ Rs.2 per share - WN: 5)	29,700 300	 30,000
	Equity Share Final Call A/c [15,000 X 2] ....Dr. To Equity Share Capital A/c (Being final call money due on 15,000 shares@ Rs.2 per share, as per Board's Resolution No. ....dated. . ...)	30,000	 30,000
	Bank A/c ....Dr. Calls- in- Arrear A/c ....Dr. To Equity Share Final Call A/c (Being final call money received on all the shares except 150 equity shares - WN:5)	29,700 300	 30,000
	Equity Share Capital A/c [150 x 10] ....Dr. Securities Premium A/c [90 x 3] . ....Dr. To Calls-in-Arrear A/c [390 + 300 + 300] To Forfeited Shares A/c (Being 150 shares forfeited for non-payment of allotment and call money, as per Board's Resolution No. . ...dated.. ...)	1,500 270	 1,500 300
	Bank A/c [150x1 2] ....Dr. To Equity Share Capital A/c [150 x 10] To Securities Premium A/c [150 x 2] (Being 150 shares re-issued @ Rs.12 per share, as per Board's Resolution No. . . ..dated. . . ..)	1,800	 1,500 300
	Forfeited Shares A/c ...Dr. To Capital Reserve A/c (Being profit on re-issue of forfeited shares transferred to Capital Reserve - WN; 6)	780	 780

Working Notes:

1. Pro-rata allotment of 15,000 shares was made to the applicants for 20,000 shares.

2. Pro-rata allotment & Refund	
Excess applications received for pro-rata allotment	9,000
Excess applications money received for pro-rata allotment [5,000 x 5]	Rs. 25,000
Excess application money per share [25,000/15,000]	Rs.1.67**
Appl. money refund on 4,000 shares [4,000 x 5]	Rs.20,000

Note: Since, excess application money per share (Rs.1.67) < Amount due (capital portion) on allotment (Rs.3), it implies on failure of allotment money by the shareholder(s), the premium money remains uncollected. So, on subsequent forfeiture of these shares, the entire Securities Premium per shares has to be cancelled.

3. No. of shares allotted to defaulting shareholders		
Name	Applied	Allotted
Mr. A	120	90 [120 x 15,000/20,000]
Mr. B	80 [60 x 20,000/15,000]	60

4. Calls-in-Arrear during allotment & calls [No. of shares]			
Shareholders	Allotment	First Call	Final Call
Mr. A Mr. B	90 -	90 60	90 60
Total	90	150	150
5. Calls-in-Arrear and amount received on allotment & calls			
Particulars	Allotment	First Call	Final Call
Amount receivable	65,000 [(15,000x6)-25,000 (WN: 2)]	30,000 [15,000x2]	30,000 [15,000 x 2]
(-) Calls-in-Arrear	390 [65,000 X 90] /15,000	300 [150x2]	300 [150x2]
Amount received	Rs.64,610	Rs.29,700	Rs.29,700

6. Profit on re-issue of forfeited shares [Fig. in Rs.]	
Amount forfeited on re-issued shares:	
<u>Shares of Mr. A</u>	
Application money on 90 shares [90 x 3]	270
Excess Application money [(120- 90) x 5]	150
<u>Shares of Mr. B</u> [60 X (3 + 3)]	360
	780
(-) Amount used in re-issue	Nil
Profit on Re-issue	780

SECTION B: AUDITING
BASIC CONCEPTS OF AUDITING

Multiple Choice Questions

1. Copies of management letters are a part of

A. Current Audit File
B. Permanent Audit File
C. Both Current and Permanent Audit File
D. None of the above

2. Which of the following is a part of periodicity-wise classification of audit?

A. Internal audit
B. Cost audit
C. Tax audit
D. Continuous audit

3. Scope of audit is covered in _________.

A. SA 200
B. Sa 210
C. Sa 230
D. SA 500

4. Which of the following is not an objective of audit planning?

A. Allocation of work
B. manage time
C. ensure that no important matter is left
D. increase in audit fees

5. Audit working papers are the property of

A. the client
B. the auditor
C. the government
D. the audit clerks

[Answer: 1-A; 2-D; 3-A; 4-D; 5-B]

Descriptive Questions

1. "Auditing, in its modern form, has adopted a multidimensional approach." – In the light of the given statement, discuss how auditing has evolved over the time.

Answer:

Over the time, the auditing profession has revised its method of work. In the early part of the twentieth century, the emphasis in auditing was on the detection of error and fraud by thorough checking of accounting entries in the books of accounts. However, the growth in the volume of the business transactions and the mechanization and computerization of accounting records, has made this approach increasingly unrealistic. The profession has responded by switching the emphasis of its auditing procedure from thorough checking of individual items to establishing whether the entities have reliable system of accounting. The modern audit has increasingly concerned itself with establishing that the annual accounts have been prepared from a reliable accounting system on which a prudent auditor can reasonably place reliance and then apply thorough testing and reviewing the final accounts themselves.

Moreover, the profession is now going beyond the duties prescribed on it by the Companies Act in that it is developing its own auditing standards, regulations and guidelines. It also sought for standardization of the accounting procedure through issue of mandatory accounting standards.

At present, the scope of auditing is not only limited to financial audit under the Companies Act. The purpose of auditing has been extended to cost accounts, managerial policies, operational efficiencies, system applications, social implications of business organizations and even environmental aspects too. Even non-business entities also avail the services of qualified auditors and get their accounts audited. At present, the field of audit also covers:

1. Checking cost accounting records and verifying whether costing principles are followed while preparing and presenting costing data.
2. Comprehensive examination and review of managerial policies and operational efficiency.
3. Checking the performance of the organizations and conduct a comparative analysis of an entity's performance vis-à-vis its industry.
4. Critical analysis of an organization's contribution towards the benefit of the society.
5. Evaluation of the performance and efficiency of the human resources in the organizations.

Thus, the scope of auditing has extended over the years to adopt a multidimensional approach.

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)

(BASED ON STUDY MATERIAL, MTP, RTP AND PREVIOUS END-TERMS QUESTIONS)

Financial Management

Instruments in Financial Markets

Money market instruments

The instruments traded in the Indian money market are as follows:

1. **Treasury Bills (T-bills):** Treasury bills are sold at a discount. The difference between the sale price and the redemption value is the return on the treasury bills or the treasury bill rate. The 91-day T-bills are auctioned every Wednesday. The multiple price-based auction technique is used. The 364-days T-bills are auctioned on second and fourth Wednesday of the month using the uniform price-based auction.

   The yield of T-bill is calculated as per the following formula:

$$Y = \frac{(100 - P) \times 365 \times 100}{P \times D}$$

where,

Y = Discounted yield

P = Price

D = Days to maturity

2. **Cash Management Bills (CMBs):** The CMBs have the generic character of T-bills but are issued for maturities less than 91 days. Like T-bills, they are also issued at a discount and redeemed at face value at maturity.
3. **Call/notice money market—Call (overnight) and short notice (up to 14 days):** When money is borrowed or lent for a day, it is known as call (overnight) money. Intervening holidays and/or Sundays are excluded for this purpose. When money is borrowed or lent for more than a day and upto 14 days, it is known as notice money. No collateral security is required to cover these transactions. The call money market is a highly liquid as well as volatile market.
4. **Commercial Papers (CPs):** A commercial paper is an unsecured short-term promissory note, negotiable and transferable by endorsement and delivery with a fixed maturity period. It is generally issued at a discount by the leading creditworthy and highly rated corporates to meet their working capital requirements.
5. **Certificates of Deposits (CDs):** Certificates of deposit (CDs) are unsecured, negotiable, short-term instruments in bearer form, issued by commercial banks and development financial institutions.
6. **Commercial Bills (CBs):** A commercial bill is a short-term, negotiable, and self-liquidating instrument with low risk. It enhances the liability to make payment on a fixed date when goods are bought on credit.
7. **Collateralized Borrowing and Lending Obligation (CBLO).** CBLO is a discounted instrument available in electronic book entry form for the maturity period ranging from 1 day to 19 days. The maturity period can range up to one year as per the RBI guidelines. The CBLO is an obligation by the borrower to return the borrowed money, at a specified future date, and an authority to the lender to receive money lent, at a specified future date with an option/privilege to transfer the authority to another person for value received.

Repos/Reverse Repos: A repo/reverse repo/ready forward/repurchase (buy-back) is a transaction in which two parties agree to sell and repurchase the same security. The seller sells specified securities, with an agreement to repurchase the same at a mutually decided future date and price.

Capital market instruments

Capital market or Security market is market where equity shares, preference shares, debentures and bonds are traded. Capital market has two segments (a) primary and (b) secondary market.

The issue of securities by companies can take place in any of the following methods in primary market:

1. **Public issue through prospectus:** Under this method, the issuing companies themselves offer directly to the general public by issuing prospectus, a fixed number of shares at a stated price which in the case of new companies is invariably the face value of the securities, and in the case of existing companies, it may sometimes include a premium amount, if any.

Initial Public Offer (IPO): An IPO is an offer of shares/convertible securities by an unlisted issuer to the public for subscription including an offer for sale by existing holders in an unlisted issuer.

Further Public Offer (FPO): A FPO is an offer of shares/convertible securities by a listed issuer including an offer for sale in a listed issuer.

Tender/Book building: Under this method, the investors are required to quote the number of securities and the price at which they wish to buy from the company though the bidding process.

2. **Offer for sale:** Under this method, instead of the issuing company itself offering its shares directly to the public, it offers through the intermediary of issue houses/ merchant banks/investment banks or firms of stockbrokers.
3. **Placement:** Under this method, securities are acquired by the issue houses, as in offer for sale method, but instead of being subsequently offered to the public, they are placed with the clients of the issue houses, both individual and institutional investors.
4. **Rights issue:** Rights issue is the sale of securities to the existing shareholders.

Secondary market has further two components:

- **Spot Market:** Where securities are traded for immediate delivery and payment.
- **Futures Market:** Where the securities are traded for future delivery and payment. Example: Futures and Options.

Capital markets instruments can be classified into three categories: Pure, Hybrid and Derivatives.

1. **Pure Instruments**: Equity shares, preference shares, debentures and bonds which are issued with the basic characteristics without mixing the features of other instruments are called pure instrument.
2. **Hybrid Instruments:** Instruments which are created by combining the features of equity, preference, bond are called as hybrid instruments.

   Example: Hybrid instruments are: -

   - Convertible preference shares
   - Non-convertible debentures with equity warrant
   - Partly convertible debentures
   - Secured premium notes
3. **Derivative Instrument:** A derivative instrument is a financial instrument which derives its value from the value of some other financial instrument or variable.

Example: Futures and Options belong to the categories of derivatives.

Fill in the following blanks by appropriate answers

1. Money market is a market for ------------funds having maturity of -----------.
2. Pricing of issues is left to the investors in ------------------.
3. A listed company can raise funds upto-------- times of its networth through qualified institutional placement.
4. A maximum of----------- per cent of the issue size can be allotted to one single QIB/ allottee.

Answer:

1. short-term, one year or less
2. book building method
3. five
4. fifty

Multiple Choice Questions (MCQs)

1. Risk of two securities having different expected return can be compared with:
   (a) standard deviation of securities
   (b) variance of securities
   (c) coefficient of variation
   (d) None of the above
   Answer: (c)

2. Which of the following is not correct for the Deep Discount Bond?
   (a) It is form of zero-interest bonds.
   (b) It is not sold at a discounted value.
   (c) There is no interest payment during the lock in period.

(d) Issuing company may also give options for redemption for periodical intervals.

Answer: (b)

3. Interest rates in the call and notice money market are determined by -

(a) Reserve Bank of India

(b) Ministry of Finance

(c) Banking Regulation Act, 1949

(d) Market

Answer: (d) **Market**

Business Data Analytics

Introduction to Data Science for Business Decision-making

Multiple Choice Questions (MCQs)

1. Which among the following is not a type of treasury bill issued in India?

(a) 45 days

(b) 91 days

(c) 182 days

(d) 364 days

Answer: (a)

2. The tenor of certificate of deposit issued by commercial banks ranges from ______ to ________.

(a) 1 day, 1 year

(b) 7 days, 1 year

(c) 1 year, 3 years

(d) 14 days, 3 years

Answer: (b)

3. SEBI (Disclosure and Investor Protection) Guidelines, 2000 are not applicable to:

(a) All public issues by unlisted companies

(b) Public sector banks

(c) Infrastructure companies

(d) Both (a) and (b) above

Answer: (d)

4. SEBI (Disclosure and Investor Protection) Guidelines, 2000 are not applicable to:

(e) All public issues by unlisted companies

(f) Public sector banks

(g) Infrastructure companies

(h) Both (a) and (b) above

Answer: (d)

5. Consider the following:

1. Liquidity Adjustment Facility
2. Open market operations
3. Market Stabilisation Scheme
4. Marginal Standing Facility

6. Which of the above is/are components of Monetary Policy of RBI?

(a) 1 only

(b) 2, 3 and 4

(c) 1 and 2

(d) 1, 2, 3 and 4

Answer: (d)

Business Data Analytics

Introduction to Data Science for Business Decision-making

Data and Business Data: Data is information, facts, or statistics that can analyze and interpret. One can use data across various fields and industries to guide decision-making, optimize processes and uncover valuable insights. Business data is the collective information related to a company and its operations. It includes company's characteristics, interests, and tendencies.

Types of business data

Sales data	Supply chain management information	Warehouse and inventory data	Customer contact information
Purchase data	Notes of varying campaigns	Future business ideas and trends	
Interactions between team members, stakeholders, and customers	Website traffic statistics	Future business ideas and trends	Marketplace data

Business and sales plans	Social media campaign information	Product data and descriptions	Business and sales plans
Emails to prospective clients	Blog posts added to your website	Information from customer surveys and interactive content	Email marketing details

Data and Business Data

1. **Quantitative data:** Quantitative data Quantitative data is information that is expressed in numerical values, such as numbers, percentages and units of time. If you wanted to know how many units of a particular product your business sold, quantitative data would be the most appropriate data type to use, as you can easily count the total sales figures.

2. **Qualitative data:** Qualitative data, on the other hand, is non-numerical information describing qualities, characteristics, or opinions. Examples customer feedback, colors, or textures. Analyzing qualitative data often involves categorizing, coding, or interpreting the information to reveal patterns or themes. Nominal data and ordinal data are types of qualitative data. Some of the most common methods of gathering qualitative data are: Interviews, Surveys, Questionnaires, Observations and Focus groups discussion.

3. **Nominal data:** Nominal data refers to categorical information that lacks inherent order or ranking. Examples gender, nationality, or hair color. While analyzing nominal data, we can create frequency tables or bar charts to visualize the distribution of categories.

4. **Ordinal data:** Ordinal data represents information with a clear order or ranking, but the differences between the values are not quantifiable. Examples like customer satisfaction ratings, educational levels, or survey responses. Analyzing ordinal data typically involves calculating measures of central tendency, such as the median, and using graphs like bar charts or pie charts to display the data distribution.

5. **Discrete data:** Discrete data consists of distinct, separate values or categories that we can measure. It represents the whole numbers, such as the number of employees in a company, the number of cars in a parking lot, or the number of customers visiting a store. When analyzing discrete data, we can use summary statistics, including mean, median, and mode, as well as visualizations like histograms or bar charts to display the data distribution.

6. **Continuous data:** Continuous data embodies information that can assume any value within a defined range or interval. It's typically measured on a continuous scale, such as time, temperature, or distance. While analyzing continuous data, we can apply various techniques, including calculating summary statistics (mean, median, standard deviation) and visualizing data with histograms, scatterplots, or line charts to identify trends and relationships.

Benefits of data analysis

Several benefits of using data are mentioned below:

1. **Informed decision-making:** Data can help you make evidence-based decisions, leading to improved outcomes and reduced uncertainty. By relying on objective information, we can minimize the impact of personal biases and emotions on your choices.

2. **Identifying patterns and trends:** Data analysis allows to spot patterns, trends, and relationships, helping you make better predictions and uncover valuable insights.

3. **Performance measurement:** Data enables to measure performance, set benchmarks, and track progress. This information can be vital for assessing the effectiveness of strategies, programs, or policies and making necessary adjustments.

4. **Enhancing customer experience:** Data can help better understand customer behavior, preferences, and needs, allowing you to tailor products, services, and marketing efforts to better meet customer expectations.

Topic

Module 1: Introduction to Management Accounting

INTERMEDIATE

Group II - Paper-12

Management Accounting (MA)

MODULE 1: INTRODUCTION TO MANAGEMENT ACCOUNTING

Conceptual Understanding

Management accounting is a branch of accounting that focuses on providing information and analysis to help management make informed business decisions. Unlike financial accounting, which is primarily concerned with reporting historical financial data to external stakeholders, management accounting is forward-looking and is primarily used by internal management for planning, controlling, and decision-making purposes.

Chartered Institute of Management Accounting (CIMA) states that "management accounting is 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 is about utilizing accounting techniques and principles to produce information that helps management in the effective and efficient running of the organization. It goes beyond traditional cost accounting and financial reporting to include a variety of tools and analyses that support the strategic objectives of the business. This alignment with management needs distinguishes management accounting from other branches of accounting that may have a broader external reporting focus.

Relationship between Management Accounting and Cost Accounting

Management Accounting and Cost Accounting are closely connected, and Cost Accounting is a fundamental part of Management Accounting. In other words, they go hand in hand, and one supports the other within the larger context of managing a business. Cost Accounting, as a subset of Management Accounting, primarily focuses on the identification, measurement, and analysis of costs related to the production of goods or services. It delves into tracking and allocating costs to ensure accurate product costing, aiding in inventory valuation and cost control.

In contrast, Management Accounting extends beyond the specific realm of costs to encompass a comprehensive set of activities aimed at providing information for internal decision-making, planning, and control. While Cost Accounting deals with historical costs and is instrumental in assessing past performance, Management Accounting emphasizes a dual time orientation, considering both historical data and future-oriented information to facilitate strategic planning and decision support.

Moreover, Cost Accounting is an integral component of Management Accounting, contributing crucial cost data that is seamlessly integrated with other financial and non-financial information. The flexibility of Management Accounting allows for a holistic approach, incorporating diverse data sources to support various managerial decisions and strategies across the organization.

The user base for Cost Accounting primarily consists of internal managers involved in production, operations, and inventory management, whereas Management Accounting caters to a broader audience, including top-level executives, department heads, and operational managers spanning different functions within the organization.

A comparative analysis between the two is presented in tabular format in the below mentioned lines:

The basis for Comparison	Cost Accounting	Management Accounting
Meaning	Cost accounting revolves around cost computation, cost control, and cost reduction.	Management accounting helps management make effective decisions about operations of the business.
Application	Cost accounting prevents a business from incurring costs beyond budget.	Management accounting offers a big picture of how management should strategize.
Scope	The scope is much narrower.	The scope is much broader.
Measuring grid	Quantitative.	Quantitative and qualitative.
Sub-set	Cost accounting is one of the many sub-sets of management accounting.	Management accounting is the universal set.

Basis of decision making	The task of decision making very less. Even if there is some, it is based on historic information	Historic and predictive information is the basis of decision-making.
Statutory requirement	Statutory audit of cost accounting is a requirement in some specified industries[23]	The audit of management accounting has no statutory requirement.
Dependence	Cost accounting isn't dependent on management accounting to be successfully implemented.	Management accounting is dependent on both cost & financial accounting for successful implementation.
Used for	Management, shareholders, and vendors.	Only for management.

In summary, the relationship between Management Accounting and Cost Accounting is symbiotic. Cost Accounting serves as a specialized tool within the larger Management Accounting framework, providing essential cost-related information to support internal decision-making, planning, and control processes across the organization.

Scope of Management Accounting

The scope of Management Accounting is broad and dynamic, covering various aspects of an organization's internal operations which include:

- Budgeting, planning and forecasting
- Measuring organizational, divisional and departmental performance
- Comparing results and performance within and between organizations
- Assisting in the process of increasing effectiveness and efficiency
- Assessing the performance of past and future capital investments
- Advising on decisions about product mix, markets to be served and selling prices
- Advising on decisions on whether to outsource products, components, activities and services
- Advising on decisions involving the investment of scarce funds between a range of possible alternatives
- Assisting in the making of a wide range of strategic decisions

Role of a Management Accountant in Modern Business World

The role of a Management Accountant in the modern business world is multifaceted and crucial for the success and sustainability of organizations. Here are key aspects of their role:

- Developing budgets and financial forecasts to guide organizational planning.
- Analyzing financial data for insights that support strategic decision-making.
- Identifying, analyzing, and controlling costs to enhance efficiency and profitability.
- Implementing cost reduction strategies and process improvements.
- Designing and monitoring Key Performance Indicators (KPIs) to assess organizational performance.
- Conducting variance analysis to understand deviations from planned performance.
- Providing financial insights and analysis to aid strategic decision-making.
- Evaluating the financial implications of various business options.
- Identifying and assessing financial and operational risks.
- Developing strategies to manage and mitigate identified risks.
- Preparing and presenting internal reports for management use.
- Ensuring compliance with accounting standards and regulations.
- Advising on tax implications of business decisions.
- Engaging in strategic tax planning to optimize outcomes.
- Utilizing technology and data analytics to streamline financial processes.
- Facilitating communication between various departments within the organization.
- Coordinating financial and operational activities to achieve overall objectives.

In summary, management accountants play a crucial role in guiding organizations through financial challenges, providing valuable insights, and contributing to the overall efficiency and success of modern businesses. Their responsibilities span various functions, reflecting the dynamic and strategic nature of their role in the contemporary business environment.

MCQ

1. What is the primary focus of management accounting?
   a) External reporting
   b) Providing information for decision-making
   c) Historical financial performance
   d) Compliance with regulations
2. Which of the following is a characteristic of cost accounting?
   a) Focus on future planning
   b) Emphasis on external stakeholders
   c) Emphasis on financial reporting
   d) Recording and analyzing costs
3. Statement: Management accounting primarily focuses on providing information for internal decision-making.

   Reason: Financial accounting is more concerned with reporting historical financial data to external stakeholders.
   a) Both the statement and reason are correct, and the reason is the correct explanation of the statement.
   b) Both the statement and reason are correct, but the reason is not the correct explanation of the statement.
   c) The statement is correct, but the reason is incorrect.
   d) Both the statement and reason are incorrect.
4. Which task is related to managing and mitigating financial and operational risks in the role of a Management Accountant?
   a) Analyzing financial data for insights
   b) Developing budgets and financial forecasts
   c) Identifying and assessing risks
   d) Coordinating financial and operational activities
5. What is a primary function of Key Performance Indicators (KPIs) in the role of a Management Accountant?
   a) Monitoring compliance
   b) Assessing organizational performance
   c) Implementing cost reduction strategies
   d) Conducting variance analysis
6. What is a key function of Management Accounting in the realm of performance measurement?
   a) Assessing external stakeholders' satisfaction
   b) Comparing results and performance within and between organizations
   c) Evaluating market share
   d) Managing employee satisfaction
7. What role does Management Accounting play in the process of increasing effectiveness and efficiency?
   a) Advising on strategic decisions
   b) Assessing organizational culture
   c) Evaluating external competition
   d) Assisting in the budgeting process
8. Which one of the following is the external user of accounting information?
   a) Managers
   b) Employees
   c) Shareholders
   d) Potential Investors
9. What one of these is not the scope of management accounting?
   a) Budgeting
   b) Planning
   c) Forecasting
   d) Calculation for income tax
10. The Management accounting techniques, Standard Costing was introduced in___________.
    a) First phase (prior to 1950s)
    b) Second phase (1950s – 1965)
    c) Third phase (1965 – 1985)
    d) Fourth phase (1985 – till date)
11. Activity-based Cost (ABC) were popular in which phase?
    e) First phase (prior to 1950s)
    f) Second phase (1950s – 1965)
    g) Third phase (1965 – 1985)
    h) Fourth phase (1985 – till date)
12. The concept of Creation of Value through effective use of resources was popular in___________.
    a) First phase (prior to 1950s)
    b) Second phase (1950s – 1965)
    c) Third phase (1965 – 1985)

d) Fourth phase (1985 – till date)

13. The Financial Accounting use_________ data.
    a) Quantitative
    b) Qualitative
    c) Both quantitative and qualitative
    d) None of the quantitative and qualitative
14. Which of the following statement is not true about the Management Accounting?
    a) It uses qualitative and quantitative data
    b) Management accounting has no statutory requirement.
    c) The information presented is predictive
    d) It is not dependent on financial accounting

Answer

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

Fill in the blanks

1. Management accounting is an offshoot of __________and has specific linkages with cost accounting.
2. ___________ accounting helps management make effective decisions about the business.
3. In Cost accounting, the main emphasis is on cost ascertainment and cost control whereas in management accounting the main emphasis is on_____________.
4. The first stage (prior to 1950) which is also referred as the '________ era' is the period where the focus was on cost determination and financial control.
5. Management accounting analyses financial and non-financial information, which helps _________ make policies and strategies for the company.

Answer

1. financial accounting
2. Management
3. decision-making
4. classical
5. managers

State True or False

1. The scope of management accounting is broader than that of cost accounting.
2. Cost accountants improve an organization's efficiency and profits by providing various coordination tools such as budgeting, financial reporting, financial analysis and interpretation, and so on.
3. Management accountants create a wide range of reports to communicate results to the superiors.
4. The linkage between successful implementation of strategy and the accounting information generated is the subject matter of cost accounting.
5. Financial accounting and management accounting can exist independently as they make up two different areas of study.

Answer

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

CMA FINAL COURSE

Syllabus 2022

Topic

Module 1:
The Companies Act, 2013

FINAL

Group III - Paper-13

Corporate and Economic Laws (CEL)

PRACTICE QUIZZ

1. How many minimum members are required to form a public limited company?
   a) 3
   b) 4
   c) 6
   d) 7

2. In order to be a Govt. Company, 51% shares shall be held by: -
   a) Central Govt.
   b) State Govt.
   c) Both Central and State Govt. jointly
   d) Any or all of the above

3. In case of "limited" companies, what is limited?
   a) Shares
   b) Liability of members
   c) Capital of the company
   d) Powers of the shareholders

4. ABC Ltd. has 35% shares in XYZ Ltd. The majority of directors of XYZ Ltd. are appointed and removed by ABC Ltd. XYZ Ltd. is:
   a) Subsidiary of ABC Ltd.
   b) Not a subsidiary of ABC Ltd.
   c) Depends on Board of ABC Ltd.
   d) Depends on Board of XYZ Ltd.

5. Restriction in transfer of shares can be there in____
   a) Private Ltd. company
   b) Public Ltd. Company
   c) Govt. company
   d) Unlimited company

6. Foreign company is a company, registered out of India and_____
   a) Having a place of business in India
   b) Conducts any business in India
   c) Need not have any business in India
   d) Either (a) or (b)

7. Company which do not have any significant accounting transaction is called:
   a) Associate Company
   b) Non-functional company
   c) Dormant company
   d) Sleeping company

8. ABC Ltd. is registered in India with 100% shares being held by KYZ Ltd., a company registered in UK having no business in India. ABC Ltd. is a:
   a) An Indian Company
   b) Foreign company
   c) Wholly owned subsidiary of a foreign company but Indian Company
   d) Does not come under definition of foreign company

9. A partnership of more than ___ partners, need to be registered as a company.
   a) 10
   b) 20
   c) 30
   d) 50

10. Persons who sign the MOA are called:
    a) Promoters
    b) Shareholders
    c) Subscribers to MOA
    d) Members

11. Certificate of incorporation is issued by: -
    a) Regional director
    b) Registrar of companies
    c) Central Govt.
    d) None of the above

12. Section 8 companies cannot:
    a) Generate surplus
    b) Make profit
    c) distribute dividend
    d) Profit is to be given to Govt.

13. Bonus shares are issued:
    a) at a price lower than market price
    b) at market price
    c) to employees instead of payment of annual bonus
    d) none of the above

14.Covertible debentures are converted into:
    (a) preference shares
    b) equity shares
    c) non voting shares
    d) none of the above

15.In case of public issue of secured debentures, security is mortgaged to:
    a) the debenture holders
    b) debenture trustees
    c) Registrar of Companies
    d) Central Govt.

ANSWERS

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

Topic

Module 1: Investment Decisions, Project Planning and Control

FINAL

Group III - Paper-14

Strategic Financial Management (SFM)

INVESTMENT DECISIONS, PROJECT PLANNING AND CONTROL

Multiple Choice Questions

1. If the cost of an investment is Rs.25000 and it results in a net cash inflow of Rs.1800 per annum forever, the Net Profitability Index of the investment is ___________(assume a discount rate of 8%)
   A. 0.9
   B. (-) 0.1
   C. 1.11
   D. 0.8

Solution:

PV of NCF = 1,800/8% = Rs.22,500

Cost of Investment = Rs.25,000

Net Profitability Index = (22,500 – 25,000)/25,000 = (-) 0.1

So, the correct option is **(B)**

2. A project has the following cash flows:

Year	0	1	2	3
Cash Flow (Rs. Lakh)	-25	30	-15	40

If discount rate is 20%, then the NPV of the project is________

   A. 11.75
   B. 12.34
   C. 12.74
   D. 11.50

Solution:

NPV = $[30/(1.20)^1 - 15/(1.20)^2 + 40/(1.20)^3] – 25$ = 12.74

So, the correct option is (**C**)

3. A project with an initial investment of Rs. 100 lakhs and life of 10 years generates cash flows after tax (CFAT) of Rs. 20 lakh per annum. The Payback Reciprocal is ___________
   A. 25%
   B. 20%
   C. 10%
   D. 30%

Solution:

PBP = 100/20 = 5 years

Payback reciprocal = ,1/PBP = 1/5 = 0.20 = 20%

So, the correct option is (**B**)

4. The NPV of a 5-year project is Rs. 250 lakh and PVIFA at 10% for 5 years is 3.79. The Equivalent Annual Benefit of the project is ___________
   A. Rs. 65.96 lakh
   B. Rs. 947.5lakh
   C. Rs. 56.96 lakh
   D. Rs. 96.65 lakh

Solution

Equivalent Annual Benefit = NPV/PVIFA = 250/3.79 = Rs.65.96

So, the correct option is (**A**)

Comprehensive Question

Problem 1: Project Evaluation using Payback Period

The present output details of manufacturing department of X Ltd. are as follows:

Average output per week	48,000 units
Saleable value of output	Rs. 60,000
Contribution made by above	Rs. 24,000

The management plans to introduce more mechanization in the department at a capital cost of Rs.16,000. As an effect of this, the number of employees will be reduced from the existing strength of 160 nos. to 120 nos., but the output of individual employee will increase by 60%. As an incentive to achieve the extra output, the management propose to offer an one *per cent* increase in the existing piece work price of Re. 0.10 per article for every 2% increase in the individual output achieved. In order to sell the increased output, it will be necessary to reduce the sale price by 4%.

You are required to calculate extra weekly contribution resulting from the proposed changes, as above, and give your recommendation.

Solution:

Current output per employee per week	48,000 units/160 Nos. = 300 units
Output per employee per week after mechanization	300 units X 160/100 = 480 units
Total production after mechanization	480 units X 120 employees = 57,600 units

Current selling price	Rs. 60,000/48,000 units = Rs. 1.25
Revised selling price	Rs. 1.25 X 96/100 = Rs. 1.20

Calculation of Revised Piece Rate Wages

Current rate	Re. 0.10
Incentive @ Re. 0.05 per unit for 60% increase in output	0.03
	0.13

Calculation of Variable Cost Per Unit (Rs.)	
Sales	60000
Less: Contribution	24000
Variable cost including wages	36000
Less: Wages (48,000 units × Re. 0.10)	4800
Variable cost excluding wages	31200

Variable cost (excluding wages) per unit =
Rs. 31,200/48,000 units = Re. 0.65 per unit

Revised Profitability Statement After Mechanization (Rs.)

Sales (57,600 units @ Rs. 1.20)		69120
Less: Variable cost		
Wages @ Re. 0.13	7488	
Other Expenses @Re. 0.65	37440	
		44928
Contribution		24192

Current contribution		24000
Increase in contribution per week		192

Payback Period = Additional Investment/Incremental contribution per week

= Rs. 16,000/Rs.192 = 83.3 weeks or 1.6 years

Problem 2: Project Evaluation under NPV Method

A particular project has a four-year life with yearly projected net profit of Rs. 10,000 after charging yearly depreciation of Rs. 8,000 in order to write-off the capital cost of Rs. 32,000. Out of the capital cost Rs. 20,000 is payable immediately (Year 0) and balance in the next year (which will be the year 1 for evaluation). Stock amounting to Rs. 6,000 (to be invested in year 0) will be required throughout the project and for debtors a further sum of Rs. 8,000 will have to be invested in year 1. The working capital will be recouped in year 5. It is expected that the machinery will fetch a residual value of Rs. 2,000 at the end of 4th year. Income tax is payable @ 40% and the Depreciation equals the taxation writing down allowances of 25% per annum. Income tax is paid after 9 months after the end of the year when profit is made. The residual value of Rs. 2,000 will also bear tax @ 40%. Although the project is for 4 years, for computation of tax and realization of working capital, the computation will be required up to 5 years.

Taking discount factor of 10%, calculate NPV of the project and give your comments regarding its acceptability.

Solution

Calculation of NPV of Project

Particulars	Year					
	0	1	2	3	4	5
Capital expenditure	(20,000)	(12,000)	-	-	-	-
Working capital	(6,000)	(8,000	-	-	-	-
Net profit	-	10,000	10,000	10,000	10,000	-
Depreciation added back	-	8,000	8,000	8,000	8,000	-
Tax	-	-	(4,000)	(4,000)	(4,000)	(4,800)
Salvage value	-	-	-	-	2,000	-
Recovery of working capital	-	-	-	-	-	14,000
Net cash inflow	(26,000)	(2,000)	14,000	14,000	16,000	9,200
Discount factor @ 10%	1.000	0.9091	0.8264	0.7513	0.6830	0.6209
Present values	(26,000)	(1,818)	11,570	10,518	10,928	5,712
NPV						10,910

Suggestion - Since NPV is Rs. 10,910 which is positive, it is suggested to accept the project.

Topic

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

FINAL

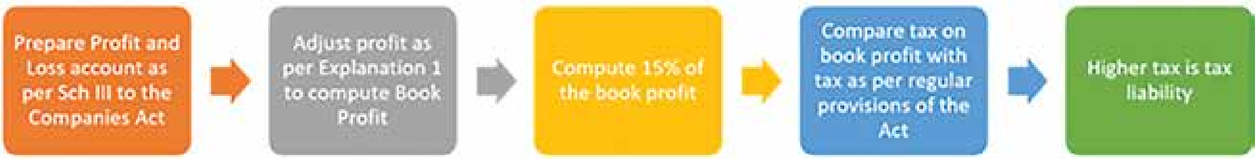
Group III - Paper-15

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[1]	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: ⦿ 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
		xxxx
***Less**: <u>Following items (if they are credited to the statement of profit and loss</u>*		
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	

[1]**The amount of Income-tax shall:**

- ***includes***:
  - Any interest under Income Tax Act;
  - Surcharge and cess on income-tax.
- ***does not incl**ude*:
  - 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**;**

[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 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: ⦿ 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 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: 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	
Amount of brought forward loss or unabsorbed depreciation, whichever is *less* 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 provision 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.

Topic

Module 1:
Introduction to
Strategic Cost
Management

FINAL

Group III - Paper-16

Strategic Cost
Management (SCM)

INTRODUCTION TO STRATEGIC COST MANAGEMENT

01.00: Concept

A firm's strategy aims to match its own capabilities with the available opportunities. In other words, strategy defines as to how an organization creates value for its customers while distinguishing itself from its competitors.

Strategic Cost Management (SCM) refers to the cost management that specifically focuses on strategic issues such as:

a. the company's cost, productivity, or efficiency advantage relative to competitors or
b. the premium prices a company can charge over its costs for distinctive product or service features.

Strategic Cost Management (SCM) refers to the cost management that specifically focuses on strategic issues.

Strategic Cost Management, thus, plays a vital role in formulating beneficial strategies relevant for the firm by providing information about the sources of competitive advantage.

Strategic Cost Management may, thus, be stated as the process of identifying, accumulating, measuring, analysing, interpreting, and reporting cost information useful to both internal and external groups concerned with the way in which an organization utilises its resources to achieve its strategic objectives. As such, Strategic cost management needs to be perceived as the application of cost management techniques with a view to enhance the strategic posture of a firm and reduce the costs.

Strategic Cost Management is a process of combining the decision-making structure with the cost information, in order to reinforce the business strategy as a whole. It measures and manages costs to align the same with the company's business strategy. In Strategic Cost Management, primary importance is given to constant improvement in the product or service to deliver better quality to its target customers. SCM, therefore, encompasses every facet of the value chain of an organisation.

02.00: The Three Pillars

Strategic cost management has three important pillars, viz.,

1. Strategic Positioning Analysis (SPA)
2. Cost Driver Analysis (CDA)
3. Value Chain Analysis (VCA)

02.01: Strategic Positioning Analysis

Strategic Positioning Analysis determines the company's comparative position in the industry in terms of performance. Strategic positioning is all about where a company stands in the market. It determines how a company sets itself apart from the competition and delivers a product to the customers. By understanding its position, a business can make strategic decisions that will help it succeed.

No matter what an enterprise's position is, it can still compete and derive a competitive advantage. However, in order to do it, not only do they have to be different, but also differentiated. Understanding and developing a strong strategic position is crucial for a business to succeed and grow in today's highly competitive market. In general, businesses follow one of two broad strategies, i.e., either Cost Leadership or Product Differentiation. Low-Cost-Carriers (Airlines) are known to provide quality products or services at low prices by toeing the cost leadership strategy. Electronic giants such as Apple are known to garner premium prices by following product differentiation strategy.

02.02: Cost Driver Analysis

Cost is driven by different interrelated factors. In strategic cost management, the cost drivers are divided into two categories, i.e., structural cost drivers and executional cost drivers. Structural cost drivers are derived from the business strategic choices about its underlying economic structure such as scale and scope of operations, complexity of products, use of technology, etc. Executional cost drivers are derived from the execution of the business activities such as capacity utilization, plant layout, work-force involvement, etc.

Cost drivers can directly influence business activities. An activity can have multiple cost drivers associated with it. Activity cost drivers can cause the cost of an activity to decrease or increase. For example, let us consider labour as a cost driver of most activities in product manufacturing. If the cost of direct labour increases, so does the cost of production. If warehousing costs increase, so do the expenses incurred for production and rendering services. When the cost of production increases, so does the ultimate cost of the manufactured product. Proper activity cost driver identification is crucial for effective product costing as it can help to give business owners a clearer understanding of their operations.

Cost driver analysis examines, measures and explains the financial impact of the cost driver concerned with the activity. Thus, cost driver analysis refers to the analysing of the various cost drivers involved in production activity and explaining the cause-and-effect relationship between the cost driver and the total cost incurred.

Cost driver analysis may provide businesses with a comprehensive view of their financial situation, helping them to plan effective business policies. This analysis can also act as an early warning, showing business when the cost of operations rises. From there, management can make better-informed decisions concerning future actions to increase profits and decrease costs.

02.03: Value chain analysis (VCA)

Value chain analysis (VCA) is a process where a firm identifies its primary and support activities that add value to its final product and then analyse these activities to reduce costs or increase differentiation. Value chain analysis relies on the basic economic principle of advantage - companies are best served by operating in sectors where they have a relative productive advantage compared to their competitors. Simultaneously, companies should ask themselves where they can deliver the best value to their customers.

Conducting a value chain analysis prompts a firm to consider how each step adds or subtracts value from its final product or service. This, in turn, can help it realize some form of competitive advantage, such as:

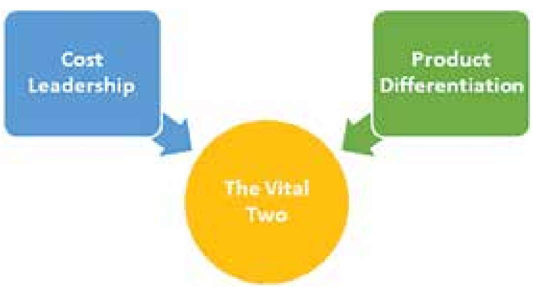
- Cost reduction, by making each activity in the value chain more efficient and, therefore, less expensive
- Product differentiation, by investing more time and resources into activities like research and development, design, or marketing that can help the product stand out.

VCA depicts the manner in which customer-value accrues along the activity chain that results in the final product or service.

03.00: The Vital Two

03.01: Cost Leadership

Cost Leadership Strategy involves the firm winning market share by appealing to cost-conscious or price-sensitive customers. This is achieved by having the lowest prices in the target market segment, or at least the lowest price to value ratio (price compared to what customers receive). To succeed at offering the lowest price while still achieving profitability and a high return on investment, the firm must be able to operate at a lower cost than its rivals.



There are three main ways to achieve cost leadership. The first approach is achieving a high asset utilization. In service industries, this may mean for example a restaurant that turns tables around very quickly, or an airline that turns around flights very fast. The second approach is achieving low direct and indirect operating costs. This is achieved by offering high volumes of standardized products, offering basic no-frills products and limiting customization and personalization of service. The third approach is control over the value chain encompassing all functional groups to ensure low costs. For supply / procurement chain this could be achieved by bulk buying to enjoy quantity discounts, squeezing suppliers on price, instituting competitive bidding for contracts, working with vendors to keep inventories low by using methods such as Just-in-Time purchasing or Vendor-Managed Inventory.

03.02: Product Differentiation

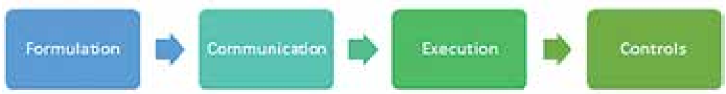
Product differentiation is fundamentally a marketing strategy to encourage the consumer to choose one brand or product over another in a crowded field of competitors. It identifies the qualities that set one product apart from other similar products and uses those differences to drive consumer choice.

Today, differentiation strategies usually revolve around quality, features, and price. However, there are several other ways in which a product can stand out. For example, your differentiation strategy might be based on finding a different audience to buy your product, making another channel irrelevant. A partner/ecosystem strategy that accelerates access to the product, such as placing your product in prime locations within a store, is another potential differentiation strategy.

Other approaches to product differentiation include creating awareness of the product with effective marketing, having superior quality that other competitors can't match (for example, Apple in the smartphone and computer market), or offering customizations that can't be found in other products.

04.00: The Four Stages

After examining the organization structure, examining and categorizing cost drivers, and identifying the various aspects of the organizational value chain, Cost Management practices are implemented in Four Stages:



i. **Formulation**: The first stage is that of identifying and formulating the methods for strengthening the organization's competitive position by reducing costs.
ii. **Communication: The second stage** refers to the process of **c**ommunicating the strategies throughout the organization.
iii. **Execution: The third stage** includes identifying and implementing the relevant tactics in furtherance of the identified strategies.
iv. **Controls:** Controls include developing methods of monitoring and measuring activities; gauging the effectiveness of the strategies and their execution; and controlling the activities to ensure the achievement.

05.00: The Need

The need for SCM may be summarised as:

i. It is an updated form of cost analysis, in which the strategic elements are clearer and more formal.
ii. It helps in identifying the cost relationship between value chain activities and its process of management to gain competitive advantage.
iii. It is used to analyse cost information with a view to develop relevant tactics to garner a sustainable competitive advantage.
iv. It provides a better understanding of the overall cost structure in the quest for gaining a sustainable competitive advantage.
v. It uses cost information specifically to govern the strategic management process – formulation, communication, implementation and control.

06.00: Quick Take

In a nutshell, strategic cost management is not just about controlling the costs but also using the information for strategic decision making. The fundamental objective of strategic cost management is to gain a sustainable competitive advantage by way of cost leadership and product differentiation.

Topic

Module 16: Audit of Different Service Organisations

Module 14: Internal Control and Internal Audit

FINAL

Group IV - Paper-17

Cost and Management Audit (CMAD)

DRAFT A DETAIL AUDIT PROGRAMME FOR AN EDUCATIONAL INSTITUTION

i. Documents relating to formation of the institution, affiliation, Management structure, Governing Body, ownership etc. requires due attention for fund monitoring, donation, affiliation fees payment etc.. Examine the Trust Deed, or Regulations in the case of school or college and note all the provisions affecting accounts. In the case of university, refer to the Act of Legislature and the Regulations framed thereunder.

ii. Approving authority for expense, fund transfer, bank account operation etc. Read through the minutes of the meetings of the Managing Committee or Governing Body, noting resolutions affecting accounts to see that these have been duly complied with, especially the decisions as regards the operation of bank accounts and sanctioning of expenditure.

iii. Semester / class-wise Student Register with details of Student name, address, Aadhar No./ Card, Guardian etc. and fee structure (full fees, half fees, sanctioned waiver etc.) mapped for ensuring accuracy of collection. Where collection through direct Banking takes place, the Bank Statement to be equivated with 'fees receivable/ recoverable' for completeness check and proper revenue /collection (advance/ arrear collection) recognition. Fees collected and Fees Book counterfoil reconciliation also can be carried out. Check names entered in the Students' Fee Register for each month or term, with the respective class registers, showing names of students on rolls and test check amount of fees charged; and verify that there operates a system of internal check which ensures that demands against the students are properly raised.

iv. Check admission fees with admission slips signed by the head of the institution and confirm that the amount had been credited to a Capital Fund, unless the Managing Committee has taken a decision to the contrary.

v. See that free studentship and concessions have been granted by a person authorized to do so, having regard to the prescribed Rules.

vi. Confirm that fines for late payment or absence, etc., have either been collected or remitted under proper authority.

vii. Confirm that hostel dues were recovered before students' accounts were closed and their deposits of caution money refunded.

viii. Caution Deposit, Laboratory Deposit etc. collected and refunded are accounted for correctly in the relevant period. Verify rental income from landed property with the rent rolls, etc.

ix. Verify the inventories of furniture, stationery, clothing, provision and all equipment, etc. Tag against the spent booked for the period under review and physical existence. Reference to Stock Register and values applied to various items should be test checked.

x. Vouch income from endowments and legacies, as well as interest and dividends from investment; also inspect the securities in respect of investments held.

xi. Verify any Government or local authority grant with the relevant papers of grant. If any expense has been disallowed for purposes of grant, ascertain the reasons and compliance thereof.

xii. Review of Receipts and Payments, Income and Expenditure for completeness and accuracy of Fund balances against bank balances. Report any old heavy arrears on account of fees, dormitory rents, etc, to the Managing Committee. Vouching to be carried out for proper supporting and due approval w.r.t Income and expenses.

xiii. Confirm that caution money and other deposits paid by students on admission have been shown as liability in the balance sheet and not transferred to revenue.

xiv. See that the investments representing endowment funds for prizes are kept separate and any income in excess of the prizes has been accumulated and invested along with the corpus.

xv. Verify that the Provident Fund money of the staff has been invested in appropriate securities.

xvi. Vouch donations, if any, with the list published with the annual report. If some donations were meant for any specific purpose, see that the money was utilized for the purpose.

xvii. Vouch all capital expenditure in the usual way and verify the same with the sanction for the Committee as contained in the minute book.

xviii. Vouch in the usual manner all establishment expenses and enquire into any unduly heavy expenditure under any head.

xix. See that increase in the salaries of the staff have been sanctioned and minute by the Committee.

xx. Ascertain that the system ordering inspection on receipt and issue of provisions, foodstuffs, clothing and other equipment is efficient and all bills are duly authorized and passed before payment.

xxi. Confirm that the refund of taxes deducted from the income from investment (interest on securities, etc.) has been claimed and recovered since the institutions are generally exempted from the payment of income tax.

xxii. Verify the annual statements of accounts and while doing so see that separate statements of account have been prepared as regards Poor Boys Fund, Games Fund, Hostel and Provident Fund of Staff, etc.

Planning and Execution of Internal Audit (Function Based) : Audit Prog. on Sales & Marketing ('gh Dealers)

- Whether appointment of Dealers /Stockists is made based on selection criterion e.g experience, market reach, financial strength etc. laid down by Company.
- Whether agreement entered into with dealers/ stockists etc. specifically mentions rights and liabilities including payment to be made to Company from sales through retail outlets.
- Whether appropriate Security Deposits are obtained from Dealers /Stockiest before initiation of trade.
- Whether validation of Customer Master is carried out at regular intervals.
- Whether price revisions are made/captured timely to apply on deliveries/despatches at appropriate rate/s for realization of correct value.
- Whether appropriate inco terms are captured for ensuring billing accuracy.
- Whether 'Credit Notes' for cash discount (prompt payment) are considered separately based on actual payment made against the relevant Invoice.
- Whether target based volume discount, regional discount, trade discount, scheme discount (Independence week, Diwali bumper etc.) are dealt separately for each market/ dealer /stockist etc.
- Whether 'credit limit' is appropriately fixed and monitored.
- Whether collections are monitored Dealer-wise and reversals for bouncing instruments are passed immediately for giving ensuring accuracy in outstanding balance and denial of prompt payment incentive.
- Whether evaluation of dealers is taken place periodically to assess potential to cater, off-take during relevant period, growth, payment habit etc. and ranked accordingly.

Topic

Module 6: Consolidated Financial Statements and Separate Financial Statements

FINAL

Group IV - Paper-18

Corporate Financial Reporting (CFR)

Accounting of balance sheet items of subsidiary for consolidation (I) at the acquisition date and (II) at the subsequent reporting date.

(I) Consolidation at the acquisition date

	Parent	Subsidiary	Consolidation process
Non-current assets	Book value	Fair value	Addition
Investment in subsidiary	Book value		Replaced
Goodwill for acquisition			Measured
Current assets	Book value	Fair value	Addition
Equity	Book value	Nil	1. Equity just before acquisition plus change in equity for purchase consideration. 2. Controlling Interest in subsidiary is cancelled against purchase consideration. 3. Non-controlling interest is recognised and measured at fair value or at proportionate net assets.
Gain on bargain purchase	Other equity	nil	Measured as negative goodwill and added to other equity of parent
Non-current liabilities	Book value	Fair value	Addition
Current liabilities	Book value	Fair value	Addition

(II) Consolidation at the subsequent reporting date.

	Parent	Subsidiary	Consolidation process
Non-current assets	Book value	Book value	Addition plus (fair value – book value at acquisition)
Investment in subsidiary	Book value		Replaced
Goodwill for acquisition			Measured at acquisition
Current assets	Book value	Book value	Addition
Equity	Book value	Nil	1. Equity just before acquisition plus change in equity for purchase consideration plus parent's share in post-acquisition profits of subsidiary. 2. Controlling Interest in subsidiary is cancelled against purchase consideration. 3. Non-controlling interest is recognised and measured at fair value or at proportionate net assets at acquisition plus non-controlling share in post-acquisition profits of subsidiary.
Gain on bargain purchase	Other equity	nil	Measured as negative goodwill at acquisition and added to other equity of parent
Non-current liabilities	Book value	Fair value	Addition
Current liabilities	Book value	Fair value	Addition

Let us take up one illustrative example.

Company P Ltd. acquires 40% shares of company S Ltd. on 1/4/2021 by issue of equity shares of Rs. 10 each (market value Rs. 30). The financial data of the companies at 31-3-2021 and 31-3-2022 are stated below. Non-Controlling Interest is valued on net proportionate net asset basis. (All amounts are in Rs. Lakhs).

	On 31-3-21			On 31-03-2022	
	P ltd.	S Ltd.	Fair Value of S Ltd.	P Ltd.	S Ltd.
PPE	640	580	830	850	650
Investment in S Ltd. at cost (20% holding on 31-03-2021)	186			660	
CA	400	320	300	406	340
Equity	600	300		1274	380
Noncurrent Liability	410	400	410	372	380
Current Liability	216	200	180	270	230

Show consolidated and separate balance sheet (abstract) on 01-04-21 and on 31-03-22.

Solution

(I) Consolidation at acquisition on 01-04-21.

(All amounts are in Rs. Lakhs)

P's share = 20% + 40% = 60%

NCI = 40%

WN 1. Purchase consideration for 40% stake = 660 – 186 = 474 (paid up 10: premium 20; Equity share capital = 474*10/30 = 158 and Security Premium 474*20/30 = 316)

WN 2. Fair Value of Net Identified Assets at acquisition

	FV of S
PPE	830
CA	300
Noncurrent Liability	(410)
Current Liability	(180)
Net Assets	540

WN 3: NCI at proportionate net asset value = 40%*540 = 216.

WN 4. FV of previously held interest = (20%/40%)*474 = 237.

WN 5. Revaluation Profit on previously held interest = 237 – 186 = 51

WN 6. Goodwill = Consideration + NCI + FV of previously held interest – Net Assets = 474 + 216 + 237 – 540 = 387

Consolidated Balance Sheet (abstract) of P Ltd. and S Ltd. at 1-4-21

	WN		Consolidated	Separate
PPE		640+830	1470	640
Goodwill	6		387	
Investment				660

CA		400+300	700	400
Total Assets			**2557**	**1700**
Equity	1, 5	600+474+ 51	1125	1074
NCI	4		216	-
Noncurrent Liability		410+410	820	410
Current Liability		216+180	396	216
Total of Equity and Liability			**2557**	**1700**

(II) Consolidation at subsequent reporting date 01-04-22.

WN 7: Equity of S

Balance on 31-03-22		380	
Less Balance on 31-03-21		300	
Increase		80	
Revaluation loss of Current assets	20		
Revaluation profit of Current liabilities	20		
Net result	0		
Revaluation net result reverted		0	
Post acquisition change in other equity		80	
P's share 60%*80 (20% + 40%)		48	
NCI 40%*80			32

WN 7: Consolidated equity = 1274 + 51 (WN 5) + 48 (WN 7)= 1373

WN 8: NCI on 31-03-22 = 216 (WN3) +32 (WN 7) = 248

Consolidated Balance Sheet (abstract) of P Ltd. and S Ltd. at 31-3-22

	WN		Consolidated	Separate
PPE		850+650+250 (Rev of S)	1750	850
Goodwill			387	
Investment				660
CA		406+340	746	406
Total Assets			**2883**	**1916**
Equity	7		1373	1274
NCI	8		248	
Noncurrent Liability		372+380 + 10 (Rev of S)	762	372
Current Liability		270 +230	500	270
Total of Equity and Liability			**2883**	**1916**

Topic

Module 13: Transition to GST (Transitional Provisions)

FINAL

Group IV - Paper-19

Indirect Tax Laws and Practice (ITLP)

TRANSITION PROVISIONS UNDER GST

GST is a significant reform in the field of indirect taxes in our country. Multiple taxes lev-ied and collected by the Centre and States would be replaced by one tax called Goods and Services Tax (GST). GST is a multi-stage value added tax on consumption of goods or ser-vices or both.

As GST seeks to consolidate multiple taxes into one, it is very essential to have transitional provisions to ensure that the transition to the GST regime is very smooth and hassle-free and no ITC (Input Tax Credit)/benefits earned in the existing regime are lost. The transition provisions can be categorised under three heads:

A. Relating to Input Tax Credit
B. Continuance of existing procedures such as job work for a reasonable period without any adverse consequence under GST law
C. All claims (pending as well as future) pertaining to existing laws filed before, on or after the appointed day

A. Transitional arrangements for ITC

Elaborate provisions have been made to carry forward the ITC earned under the existing law. Such credit should be permissible under the GST law. However, the taxable person opting for composition scheme would not be eligible for carry forward of the existing ITC. ITC of various taxes under the existing laws (CENVAT credit, VAT etc.) would be carried forward as under:

a. Closing balance of the credit in the last returns:

The closing balance of the CENVAT credit /VAT in the last returns filed under the existing law can be taken as credit in electronic credit ledger. Such credit would be available only when returns for the previous last six months have been filed under the existing law. In order to claim this credit, declaration in form GST TRAN 1 is required to be furnished on the common portal within ninety days from the appointed day i.e. 1st July, 2017 or within such extended time.

b. Un-availed credit on capital goods:

The balance installment of un-availed credit on capital goods credit can also be taken by filing the requisite declaration in the GST TRAN 1.

c. Credit on duty paid stock:

A registered taxable person, other than the manufacturer or service provider, may have duty paid goods in his stock on the appointed day. GST would be payable on all supplies of goods or services made after the appointed day. It is not the intention of the Government to collect tax twice on the same goods. Hence, in such cases, it has been provided that the credit of the duty/ tax paid earlier would be admissible as credit. Such credit can be taken as under:

i. Credit shall be taken on the basis of invoice evidencing payment of duty of excise or VAT
ii. Such invoices should be less than one-year old
iii. Declare the stock of duty paid goods within the prescribed time on the common portal

d. Credit on duty paid stock when Registered Person does not possess the document evidencing payment of excise duty/VAT

For traders who do not have excise or VAT invoice, there is a scheme to allow credit to them on the duty paid stock. The features of this scheme are as under:

i. The scheme is operative only for six months from the appointed day. It is not available to manufacturer or supplier of service. It is available to traders only.
ii. Credit @ 60% on such goods which attract central tax @ 9% or more and @ 40% for other goods of GST paid on the stock cleared after the appointed day would be allowed. However, such goods should not be unconditionally exempted goods or taxed at nil rate under the existing law. It has also been provided that where integrated tax is paid on such goods, the amount of credit shall be allowed at @ 30% and 20% respectively of the said tax.
iii. Credit would be allowed after the GST is paid on such goods subject to the condition that the benefit of such credit is passed on to the customer by way of reduced prices.
iv. The statement of supply of such goods in each of the six tax periods has to be submit-ted.
v. Stocks stored should be easily identifiable

(e) Credit relating to exempted goods under the existing law which are now taxable

Input Tax Credit of CENVAT/VAT in respect of input, semi-finished and finished goods in stock attributable to exempted goods or services which are now taxable can also be taken in the same manner.

f. Input/input services in transit

There might be a scenario where input or input services are received on or after the ap-pointed day but the duty or tax on the same was paid by the supplier under the existing law. Registered person (RP) may take credit of eligible duties and taxes, provided the in-voice has been recorded in the books within 30 days from the appointed day. The period can be extended by the Commissioner GST by another 30 days. A statement of such in- voices have to be furnished. ISD can also distribute such credit.

g. Tax paid under the existing law under composition

scheme

Those taxpayers who paid tax at fixed rate or fixed amount in lieu of the tax payable un-der the existing law but are working under normal scheme under GST can claim credit on their input stock, semi-finished and finished stock on the appointed date, subject to the following conditions:

i. Such input stock used for taxable supply under this Act
ii. Registered Person is not covered under section 10 (composition scheme) of this Act
iii. Registered Person is eligible for ITC under this Act
iv. Registered Person is in possession of the invoice or other duty payment documents
v. Such invoices are not more than twelve months old on the appointed day

h. ITC in case of Centralised Registration under service tax

Such Registered Person can take credit of the amount of CENVAT carry forwarded in return furnished under the existing law, if the original/revised return under the existing law has been filed within three months. Such credit may be transferred to any of the Registered Persons having the same PAN for which the centralised registration was obtained.

i. Reclaim the reversed Input Service credit

CENVAT credit reversed on account of non-payment of consideration within three months can be reclaimed if payment is made to the supplier of service within 3 months from 1st July, 2017

j. Where any goods or capital goods belonging to the principal are lying at the premises of the agent on the appointed day

This provision is specific to SGST law. In such cases, agent shall be entitled to take credit, subject to the following conditions:

i. The agent is a registered taxable person
ii. Both the principal and the agent declare the details of stock
iii. The invoices are not older than twelve months
iv. The principal has either reversed or not been availed on the input tax credit

B. Transition provisions relating to job work, goods returned/sent on approval etc.

a. Job work

Inputs, semi-finished goods or finished goods were sent to the job worker or any other premises without payment of duty/VAT under the existing law. No GST is payable by the job worker when such goods are returned by him within six months after the appointed day. The period can be extended by the Commissioner, GST by another two months.

If not returned within the prescribed period, then ITC shall be liable to be recovered from the principal as per second provision to section 141(1) of the Act. In addition, the job worker will have to pay the GST on such supplies. In case of semi-finished goods, the manufacturer may transfer the goods to premises of a Registered Person without payment of tax within the prescribed period. In case of finished goods, the manufacturer may transfer the goods

If not returned within the prescribed period, then ITC shall be liable to be recovered from the principal as per second provision to section 141(1) of the Act. In addition, the job worker will have to pay the GST on such supplies. In case of semi-finished goods, the manufacturer may transfer the goods to premises of a Registered Person without pay-ment of tax within the prescribed period. In case of finished goods, the manufacturer may transfer the goods on payment of tax or clear for export within the prescribed period.

b. Goods removed before 6 months of the appointed day i.e. 1st July, 2017 but returned within 6 months from 1st July, 2017:

If such goods are returned by an unregistered person, then refund of the duty/VAT paid under the existing law can be claimed.

If returned by a Registered Person, then the return of goods shall be treated as supply of goods (ITC can be claimed).

c. Goods sent on approval basis before 6 months of the appointed day i.e. 1st July, 2017 but returned within 6 months from 1st July, 2017:

No tax is payable by the person returning the goods. Commissioner may extend the period by 2 months. If returned after that, tax is payable if the supply is taxable under GST (by the recipient). If not returned, tax is payable by the person who sent the goods on approval basis.

d. TDS deducted in VAT

Where a supplier has made any sale of goods, and tax was required to be deducted under VAT Act, and invoice was issued before the appointed day. however, the payment was made on or after the appointed day. In such cases, no TDS under GST is to be deducted.

e. Price revision in respect of existing contracts

In case of upward price revision, a registered person will issue a supplementary invoice or debit notes within 30 days from the date of revision and such revision shall be treated as supply under GST, and tax is payable under this Act.

In case of downward revision, Registered Person may issue credit note within 30 days from such revision and credit note shall be deemed to have been issued in respect of outward supply made under this Act. A Registered Person will reduce his tax liability for such credit note, subject to reversal of credit by the recipient.

Topic

Module 1: Introduction to Performance Management

Module 6: Laws and Compliance in Business Valuation

ELECTIVES

Paper-20A

Strategic Performance Management and Business Valuation (SPMBV)

MODULE 1: INTRODUCTION TO PERFORMANCE MANAGEMENT

Strategic performance management in finance involves the application of performance management principles to achieve financial objectives aligned with an organization's overall strategic vision. It encompasses a systematic approach to planning, monitoring, measuring, and enhancing financial performance to support broader strategic goals.

Critical aspects of strategic performance management in finance include:

Alignment with Strategy: Ensuring that financial objectives are consistent with the organization's strategic plan, with financial metrics directly contributing to broader business goals.

Financial Planning: Developing financial plans and budgets that align with strategic objectives, involving forecasting revenues, expenses, and capital needs for efficient resource allocation.

Key Performance Indicators (KPIs): Identifying and tracking financial KPIs such as ROI, profitability ratios, and liquidity ratios critical for the organization's success.

Risk Management: Assessing and managing financial risks to navigate uncertainties, involving risk identification, mitigation strategies, and ongoing monitoring.

Performance Measurement: Regularly monitoring financial performance against benchmarks and targets, including comparing actual results to budgeted figures and analyzing variances.

Financial Reporting: Providing transparent and accurate financial reports to stakeholders, fostering understanding of the organization's financial health and its alignment with strategic goals.

Cost Management: Controlling costs and expenses, identifying cost-saving opportunities, and ensuring optimal resource allocation to initiatives contributing to strategic objectives.

Capital Allocation: Making informed decisions on capital allocation to projects based on strategic significance and potential return on investment.

Continuous Improvement: Implementing a continuous improvement mindset in financial processes, regularly reviewing and refining strategies to adapt to changing market conditions and optimize financial performance.

Strategic performance management in finance is essential for organizations to navigate business complexities, make informed financial decisions, and contribute to long-term success. Collaboration between financial and non-financial departments is crucial to integrate financial strategies into the broader organizational framework.

Performance and productivity are gauged through diverse methodologies and metrics, contingent upon the organizational context, industry, and specific objectives. Various approaches can be employed:

Key Performance Indicators (KPIs): KPIs are precise, quantifiable metrics reflecting critical success factors for an organization. These encompass financial metrics, customer satisfaction, employee productivity, and other pertinent facets of performance.

Quantitative Metrics: Productivity is quantitatively measured by factors like output per hour, units produced, revenue generated, or other relevant units. These metrics offer an objective assessment of task efficiency.

Quality Metrics: In conjunction with quantity, quality metrics, such as error rates, defect counts, or customer satisfaction scores, elucidate process effectiveness and the value delivered to customers.

Employee Performance Reviews: Individual performance is often appraised through periodic performance evaluations. These reviews involve discussions between employees and managers to assess achievements, pinpoint areas for enhancement, and establish future goals.

Balanced Scorecard: The balanced scorecard, as a strategic performance management tool, considers various facets of organizational performance, encompassing financial, customer, internal processes, and learning and growth perspectives.

Benchmarking: Comparative assessment against industry benchmarks or competitors facilitates valuable insights, allowing organizations to identify areas for improvement and comprehend their relative standing.

Time Tracking: The monitoring of time allocated to tasks and projects serves as a useful productivity measure. This practice identifies bottlenecks, inefficiencies, and areas where time can be optimized.

Efficiency Ratios: These ratios gauge the effectiveness of resource utilization in diverse realms, including manufacturing processes, labor utilization, and financial resource management.

Project Milestones and Deadlines: Meeting project milestones and deadlines signifies productivity. Delays or missed deadlines may indicate underlying issues requiring attention.

Customer Feedback: The sentiments conveyed through customer satisfaction surveys, reviews, and feedback serve as pivotal indicators of performance. Contented customers often correlate with successful and productive processes.

It is imperative to tailor the measurement approach to specific goals and the nature of the work being undertaken. The amalgamation of diverse measures provides a comprehensive understanding of overall performance and productivity within an organization. Furthermore, periodic evaluation and adjustment of metrics are paramount to maintaining their relevance and alignment with organizational objectives.

Certainly, here's a rewritten version in a plagiarism-free style:

In the realm of performance management, a range of financial ratios is routinely employed to evaluate and analyze an organization's financial well-being and operational efficiency. These ratios serve as indicators, offering insights into diverse facets of an entity's performance and aiding stakeholders in making well-informed decisions. Below are some essential ratios frequently utilized in performance management:

Liquidity Ratios:

Current Ratio: Calculated as Current Assets divided by Current Liabilities.

Quick Ratio (Acid-Test Ratio): Obtained by dividing (Current Assets minus Inventory) by Current Liabilities.

Profitability Ratios:

Profit Margin: Determined by dividing Net Profit by Revenue.

Return on Assets (ROA): Calculated as Net Income divided by Average Total Assets.

Return on Equity (ROE): Derived by dividing Net Income by Average Shareholders' Equity.

Gross Margin: Obtained from the formula ((Revenue minus Cost of Goods Sold) divided by Revenue).

Efficiency Ratios:

Asset Turnover: Calculated as Revenue divided by Average Total Assets.

Inventory Turnover: Determined by dividing Cost of Goods Sold by Average Inventory.

Accounts Receivable Turnover: Obtained by dividing Revenue by Average Accounts Receivable.

Solvency Ratios:

Debt-to-Equity Ratio: Calculated as Total Debt divided by Shareholders' Equity.

Interest Coverage Ratio: Derived by dividing Earnings Before Interest and Taxes (EBIT) by Interest Expense.

Market Ratios:

Price-to-Earnings Ratio (P/E Ratio): Obtained by dividing Market Price per Share by Earnings per Share (EPS).

Dividend Yield: Calculated as Dividends per Share divided by Market Price per Share.

Return Ratios:

Return on Investment (ROI): Derived from the formula ((Net Profit minus Cost of Investment) divided by Cost of Investment).

Return on Capital Employed (ROCE): Obtained by dividing Earnings Before Interest and Taxes (EBIT) by (Total Assets minus Current Liabilities).

Operating Ratios:

Operating Margin: Calculated as Operating Income divided by Revenue.

Operating Cash Flow Ratio: Derived by dividing Operating Cash Flow by Current Liabilities.

Earnings Per Share (EPS):

Basic EPS: Determined by the formula ((Net Income minus Preferred Dividends) divided by Weighted Average Number of Common Shares Outstanding).

Diluted EPS: Adjusted for the potential dilution of securities.

Human Resources Ratios:

Revenue per Employee: Obtained by dividing Revenue by the Number of Employees.

Profit per Employee: Calculated as Net Profit divided by the Number of Employees.

Customer Satisfaction Ratios:

Customer Retention Rate: Calculated as ((Number of Customers at End of Period minus Number of Customers Acquired during Period) divided by Number of Customers at Start of Period) multiplied by 100.

These ratios collectively provide a comprehensive overview of an organization's financial and operational performance. Their utility lies in the ability to analyze trends, identify strengths, and pinpoint areas for improvement over time. It is imperative to note that the selection of ratios is contingent upon the industry, business model, and specific objectives of the organization. Additionally, incorporating non-financial performance indicators can enhance the comprehensiveness of a performance management strategy.

Case Study: XABY Manufacturing Company

XABY Manufacturing Company is a medium-sized manufacturing firm specializing in the production of electronic components. The company is keen on evaluating its financial and operational performance using various ratios. Let's explore how different ratios can be applied in this scenario:

Liquidity Ratios:

Current Ratio: XABY calculates its current ratio to ensure it has enough short-term assets to cover its liabilities. A ratio above 1 indicates a healthy liquidity position.

Quick Ratio (Acid-Test Ratio): The quick ratio is monitored to assess the company's ability to meet short-term obligations without relying on inventory.

Profitability Ratios:

Profit Margin: XABY assesses its profit margin to gauge how efficiently it converts sales into profits. This ratio helps in identifying potential cost control or pricing strategies.

Return on Assets (ROA): The ROA ratio assists XABY in measuring how effectively it utilizes its assets to generate earnings.

Efficiency Ratios:

Asset Turnover: The asset turnover ratio helps XABY evaluate how efficiently it utilizes its assets to generate revenue. A higher ratio indicates effective asset utilization.

Inventory Turnover: XABY monitors its inventory turnover to ensure optimal management of stock levels, avoiding overstocking or understocking issues.

Solvency Ratios:

Debt-to-Equity Ratio: The debt-to-equity ratio is crucial for XABY to evaluate its capital structure and assess the level of financial risk associated with debt.

Interest Coverage Ratio: XABY monitors the interest coverage ratio to ensure it has sufficient earnings to cover interest expenses.

Market Ratios:

Price-to-Earnings Ratio (P/E Ratio): The P/E ratio helps XABY assess its market valuation compared to its earnings per share, aiding potential investors in their decision-making.

Dividend Yield: XABY calculates its dividend yield to communicate the return on investment to shareholders.

Return Ratios:

Return on Investment (ROI): XABY calculates its ROI to assess the profitability of specific investments, guiding future investment decisions.

Return on Capital Employed (ROCE): The ROCE ratio assists XABY in understanding the efficiency of capital utilization.

Operating Ratios:

Operating Margin: The operating margin ratio helps XABY evaluate the profitability of its core operations, excluding external factors.

Operating Cash Flow Ratio: XABY monitors its ability to cover short-term liabilities with operating cash flow.

Earnings Per Share (EPS):

Basic EPS: XABY calculates its basic EPS to communicate its profitability on a per-share basis to potential investors.

Diluted EPS: Diluted EPS is considered to account for potential dilution in XABY 's securities.

Human Resources Ratios:

Revenue per Employee: XABY assesses revenue per employee to understand the productivity and efficiency of its workforce.

Profit per Employee: This ratio helps XABY evaluate the overall contribution of each employee to the company's profitability.

Customer Satisfaction Ratios:

Customer Retention Rate: XABY monitors its customer retention rate to gauge the effectiveness of its customer satisfaction initiatives and loyalty programs.

By consistently analyzing these ratios, XABY Manufacturing Company can gain valuable insights into its financial health, operational efficiency, and overall performance. Adjustments and strategic decisions can be made based on the trends and benchmarks derived from these ratios, contributing to the company's long-term success.

MODULE 6: LAWS AND COMPLIANCE IN BUSINESS VALUATION

Discounted Cash Flow (DCF) Valuation:

Various methodologies exist for the valuation of a company, each chosen based on the intricacies of the business, industry characteristics, developmental stage, and the objectives of the valuation. The following are distinct approaches commonly employed:

Description: DCF, a foundational valuation method, estimates the present value of a company's forthcoming cash flows, accounting for the time value of money and associated risks.

Application: Suited for well-established companies exhibiting stable cash flows.

Comparable Company Analysis (CCA):

Description: CCA entails juxtaposing the target company against analogous publicly traded firms, utilizing valuation multiples such as the price-to-earnings (P/E) ratio for comparative analysis.

Application: Predominantly employed in industries with comparable publicly traded counterparts.

Comparable Transaction Analysis (CTA):

Description: CTA compares the target company with entities involved in previous mergers or acquisitions, providing insights into the valuation of analogous transactions.

Application: Valuable when recent comparable transactions within the industry exist.

Precedent Transactions Analysis:

Description: Similar to CTA, this method scrutinizes historical transactions to glean valuation insights, considering prices paid in past acquisitions.

Application: Particularly relevant when assessing historical M&A activities within a specific industry.

Asset-Based Valuation:

Description: Asset-based valuation calculates the company's value grounded in its net assets, employing methods such as the going concern approach or the liquidation approach.

Application: Apt for companies boasting substantial tangible assets.

Market Capitalization:

Description: Market cap, the aggregate value of a company's outstanding shares, is determined by multiplying the current stock price by the total outstanding shares.

Application: Commonly utilized for publicly traded entities.

Earnings Multiples:

Description: Multiples like the P/E ratio or EBITDA multiple are applied to the company's earnings to ascertain its value.

Application: Widely used for rapid assessments, particularly for publicly traded entities.

Option Pricing Models:

Description: Applied to companies possessing valuable real options, this method includes models such as the Black-Scholes model.

Application: Relevant for industries characterized by significant uncertainty and managerial flexibility.

Intangible Asset Valuation:

Description: Focuses on valuing intangible assets, including patents, trademarks, and brand value.

Application: Valuable when a substantial portion of the company's value is derived from intangibles.

Industry-Specific Methods:

Description: Certain industries employ unique valuation methods tailored to their specific characteristics. For instance, technology sectors may utilize metrics like user base or technology adoption rates.

Application: Applicable in industries where conventional financial metrics may not fully capture the intrinsic value of the business.

It is customary for analysts and valuation professionals to employ a combination of these methods, enhancing the reliability of results and fostering a comprehensive understanding of a company's value. The choice of method or combination thereof is guided by the specific circumstances of the company undergoing valuation and the ultimate purpose of the valuation exercise.

Background:

TechGen Innovations is a burgeoning technology startup that has developed a cutting-edge software solution for enhancing cybersecurity in cloud computing environments. The company is seeking a valuation for potential investment discussions and strategic planning.

Valuation Methods Applied:

Discounted Cash Flow (DCF) Valuation:

The DCF method is employed to estimate the present value of TechGen's expected future cash flows. This rigorous analysis considers the scalability of the cybersecurity solution and potential risks associated with the technology sector.

Comparable Company Analysis (CCA):

A CCA is conducted by comparing TechGen with other cybersecurity-focused technology firms. Key metrics such as revenue multiples and growth rates are used to benchmark against industry peers.

Comparable Transaction Analysis (CTA):

CTA is leveraged to assess the value of recent mergers or acquisitions in the cybersecurity software space. Similar transactions provide insights into the market's perception of comparable technologies.

Asset-Based Valuation:

TechGen's tangible and intangible assets, including proprietary algorithms and patents, are meticulously evaluated. The going concern approach is applied, reflecting the company's potential for future growth.

Market Capitalization:

As a technology startup with publicly traded shares, TechGen's market capitalization is calculated by multiplying the current stock price by the total outstanding shares. This provides a snapshot of the market's collective valuation.

Earnings Multiples:

P/E and EBITDA multiples are computed, offering a quick assessment of TechGen's valuation relative to its earnings. This aids in understanding how the market values the company's profitability.

Option Pricing Models:

Given the innovative nature of TechGen's cybersecurity solution, real options such as the potential for strategic partnerships and expansion into new markets are considered. Option pricing models are applied to capture the value of managerial flexibility.

Intangible Asset Valuation:

TechGen's intangible assets, including its proprietary software, brand reputation, and customer relationships, are appraised. This analysis sheds light on the often substantial value derived from intangibles in the technology sector.

Steps in DCF Valuation:

Project Future Cash Flows:

Estimate the expected future cash flows the investment is anticipated to generate. This projection is typically done on an annual or periodic basis.

Determine the Discount Rate:

Calculate the discount rate, often using the WACC, which considers the cost of equity and debt. The discount rate reflects the opportunity cost of investing in the project compared to other investments with similar risk profiles.

Discount Future Cash Flows to Present Value:

Each projected cash flow is discounted back to its present value using the discount rate. The formula for discounting cash flows (CF) at a rate (r) for a given period (t) is:

$$DCF = \frac{CF_1}{(1+r)^1} + \frac{CF_2}{(1+r)^2} + \dots + \overbrace{\frac{CF_n}{(1+r)^n}}^{\text{Terminal Value}}$$

CF = Cash Flow

r = Discount Rate (WACC)

Sum Present Values:

Sum up the present values of all projected cash flows. The result is the Net Present Value (NPV), representing the total present value of future cash flows.

Incorporate Terminal Value:

If the valuation period does not cover the entire economic life of the investment, a terminal value is calculated to capture the value of cash flows beyond the projection period. This is often done using methods like the Gordon Growth Model or exit multiples.

Calculate Intrinsic Value:

Combine the NPV of projected cash flows with the terminal value to derive the intrinsic value of the investment.

Compare Intrinsic Value with Market Price:

Compare the calculated intrinsic value with the current market price of the investment. If the intrinsic value is higher, the investment may be considered undervalued, and vice versa.

Considerations and Challenges:

Cash Flow Projections:

Accuracy in projecting future cash flows is critical. Assumptions about revenue growth, expenses, and capital expenditures significantly impact the valuation.

Discount Rate Sensitivity:

Small changes in the discount rate can lead to substantial variations in the calculated present value. Sensitivity analysis is often performed to assess the impact of changes in the discount rate.

Terminal Value Assumptions:

The assumptions made in calculating terminal value, such as perpetual growth rates, can influence the overall valuation. These assumptions should be well-founded.

Risk Factors:

DCF assumes that future cash flows are certain, but in reality, they are subject to various risks. Adjustments or risk premiums may be applied to account for uncertainties.

Discounted Cash Flow valuation is a powerful tool for assessing the intrinsic value of an investment based on its expected future cash flows. While it provides a comprehensive and systematic approach to valuation, practitioners must be mindful of the assumptions and uncertainties inherent in projecting future cash flows and selecting appropriate discount rates.

Topic

Module 1: Introduction to Risk Management

Module 6: Introduction to Insurance Business

ELECTIVES

Paper-20B

Risk Management In Banking and Insurance (RMBI)

INTRODUCTION TO RISK MANAGEMENT

(A Brief on Risk Management in Banking Sector)

The recent string of bank failures and associated financial crises has brought the importance of Risk Management in Banking into sharp focus. As Banks facilitate the creation and management of Money, unnecessary risk-taking on their part can lead to significant financial losses that can slow down or even stall Economies both Local and Global.

Banking Risk Management is the process of a Bank Identifying, Evaluating, and Taking steps to mitigate the chance of something bad happening from its Operational or Investment Decisions. This is especially important in Banking, as Banks are responsible for creating and Managing Money for others.

Banks are Cornerstone Institutions of National and Global financial systems. So, while they are allowed to have some Degree of Risk, they are typically afforded much less risk than other industries. This is because if they fail, it slows or halts the creation and exchange of money, which has far-reaching impacts on the rest of the economy.

Some specific reasons for the importance of Risk Management in the Banking Sector are that it helps Banks to:

- Avoid Wasting or Needlessly losing the Money they need to stay in Business.
- Avoid Disruptions to their Operations.
- Maintain Confidence from Investors and Customers to Continue doing Business with them.
- Comply with Laws and Regulations to avoid paying non-compliance fines.

The Risk Management Process in Banking typically involves Six Components:

- **Identification**: Defining the nature of Risks, including where they originate from and why they pose a threat to the Bank.
- **Assessment and Analysis**: Evaluating how likely a risk will pose a threat to the Bank, and how grave that threat will likely be. This helps a Bank prioritize which risks deserve the most attention.
- **Mitigation**: Designing and implementing Bank Policies and processes that limit the chance that risks will become Threats, and that Minimize the Damage Threats may cause.
- **Monitoring**: Gathering Data on threat prevention and incident response to determine how well a Bank Risk Management strategy is working. This also involves researching emerging risk trends to determine if a Bank's Risk Management framework needs (or will need) updating.
- **Cooperation**: Establishing relationships between Risks and mitigation strategies across different areas of the Bank's Operations to create a more Centralized and Co-ordinated threat response system.
- **Reporting**: Documenting and Reviewing information related to the Bank's Risk Management efforts to gauge their effectiveness. This is also used to track how the Bank's overall Risk Profile changes over time.

These Components need to be carried out together and repeated regularly in order to give Banks as much protection against Risk as possible.

Bank Risk Management has a number of different threat areas to cover. The challenge isn't just how many different types of Risk there are though, it's also about how much Control an organization actually has over these factors.

To help Organizations Navigate the different Types of Risk Management areas to Analyse, we'll explore each in detail below.

1. **Credit Risk**: Credit Risk is one of the most

common types of risk for Banks. Put simply, it's the Risk of a Bank Lending Money to a customer and not having it paid back. This can decrease the amount of Assets a Bank has available to meet its Financial Obligations. It can also Cost the Bank Extra Money if it deploys methods of trying to recoup the Money it's owed.

How to Mitigate Credit Risk: Mitigating Credit Risk boils down to knowing two things. First is the bank's overall financial position, in terms of how much in losses it can take while still being able to operate effectively. Second is knowing a specific customer understanding their financial history and situation, as well as their general financial behaviour, to evaluate the amount of risk they pose of defaulting on a loan. A bank can then tailor a customer's lending agreement to have tighter or looser terms, depending on their level of risk.

2. **Market Risk**: Also known as Systematic Risk, Market Risk is the chance that an adverse event outside the banking industry itself will negatively affect a Bank's investments. This could be from an issue in a Single Industry such as the US Housing market Collapse in 2008 or from a general National or International Economic downturn. Other types of crises, such as Political instability or Natural Disasters, can also Increase Market Risk.

How to Mitigate Market Risk: In some cases, Market Risk can be mitigated by diversifying a Bank's Investment Portfolio. However, there are other times where this strategy won't work because a crisis will affect multiple interdependent industries. Some other tactics that can work include Investing in Staple Industries (such as utilities or consumer packaged goods), employing a long-term investing strategy, or keeping more of a bank's assets in liquid form.

3. **Operational Risk**: Operational Risk refers to risks incurred based on how a Bank is run from day to day. For example, if employees are poorly trained, they may make more errors that cost the bank time and money to correct. Or if the Bank has an inadequate IT infrastructure, its systems may break down, disrupting services to customers. A component of operational risk is cybersecurity risk. This is how likely cybercriminals are to successfully attack a bank's digital systems. The resulting theft or destruction of digital money or sensitive information can significantly hinder a bank's ability to operate effectively. It can also put customers and stakeholders at risk.

How to Mitigate Operational Risk: Operational risk can be limited in a few ways. One is to hire the right people and properly train them on both the bank's processes and its ethical culture. Another is to secure the bank's tech stack, including thoroughly vetting third-party service providers, as well as staying up-to-date with cybersecurity threats and trends. Automating processes with technology such as customer onboarding can help reduce human error. Implementing feedback and data collection programs can help address any updates needed as the bank's risk profile changes over time.

To Conclude, Risk management in Banking refers to Identifying, Assessing, and Mitigating Risks that banks face in their Day-to-Day operations. It is a comprehensive approach involving various Risk Management Tools, Techniques, and Methodologies to Manage Risks Effectively.

INTRODUCTION TO INSURANCE BUSINESS

Every day, we hear stories about accidents and other misfortunes that someone has suffered. Some of these include:

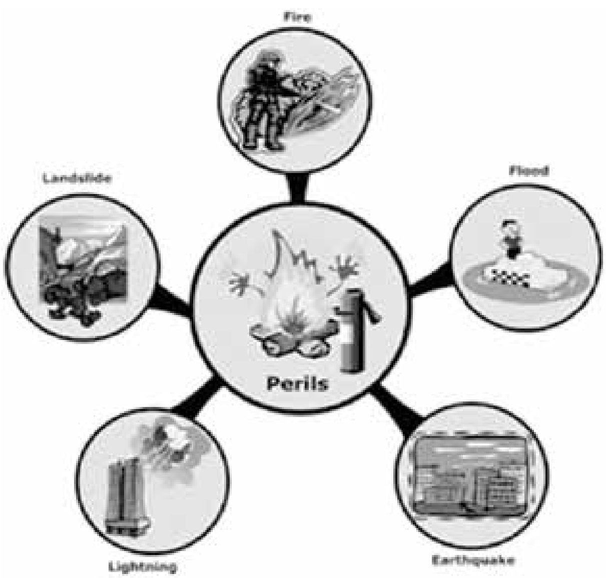
i. All of a sudden, people fall seriously ill.
ii. Motor vehicles are stolen and people die or get injured in accidents involving motor vehicles.
iii. House and belongings are destroyed by fire.
iv. Large scale loss of lives and destruction of property in cyclones and tsunamis.

Life is full of uncertainties and surprises. Protecting oneself, one's families and society from these uncertain events have been one of the biggest concerns of man for centuries.

'Risk' is a term that we use to refer to the chance of suffering a loss as a result of uncertain events like the above.

The events that give rise to such risks are known as perils.

Some Examples of Perils:



We face many such risks in our day-to-day life including risks to our life, health, property and so on.

We don't know whether and when something unfortunate will happen to us or our family members or property. It may not always be possible for us to prevent such a happening. For instance, we cannot prevent a storm or somebody's death from occurring.

Savings and Investment: It is possible for us to take measures to reduce the financial consequences that arise due to the above-mentioned risks and protect ourselves financially. One of the ways by which this is normally done is with the help of savings and investment.

Example: We would have seen or learnt from our parents or elders about the need to save for the future. By saving or investing money, the money so accumulated can be used to cope with the loss. However, such savings can only give back our own money plus some returns.

What would happen if a human life is lost or a person is disabled permanently or temporarily?

Example: A person dies suddenly. Where would the person's family get the money from to support itself? How would the person's family meet the various living expenses after his death?

A person suffers a paralytic stroke that leaves him permanently bed- ridden. Such an event would result in loss of income to the household and put the family in a lot of hardship.

The loss suffered is so large in all such situations that one's savings may not be sufficient to take care of the financial burden.

Insurance:

Luckily for us, there is something called '**Insurance**'. It is founded on a simple idea. Even though an event like death or a fire can come as a terrible economic blow to someone, when we take the society as a whole, during any given year, only a few would suffer in such manner. If a small contribution is collected from everyone in the community and pooled to create a common fund, the amount so pooled can be used to pay money to the few unfortunate members who have been subject to the loss.

Insurance is a Mechanism of Risk Transfer and sharing by pooling of risks and funds among a group of individuals who are exposed to similar kinds of risks for the benefit of those who suffer loss on account of the risk.

Insurance is, thus, a financial tool specially created to reduce the financial impact of unforeseen events and to create financial security. Indeed, everyone who wants to protect himself against financial hardship should consider insurance.

Traditionally, "the joint family" has been an informal social security in India. In modern society, social security is available only to those who are employed in the organised sector. Insurance is considered one of the tools of social security for formal and informal sectors and is largely carried out in two ways.

i. The first way is known as Social Insurance. Here, the State or government takes care of those who are subjected to losses due to some risk event. Examples are, providing a pension when one grows old or providing free medical treatment, meeting the cost of hospitalization etc. The fund for this purpose comes from a pool made up from taxes or mandatory social security contributions required to be made by all those who work and earn an income. The Employees' State Insurance scheme (ESI) that provides medical care and other benefits to employees and Employees' Provident Fund Organization (EPFO) that provides pensions and survivors' benefits in the event of an employee's death are the popular schemes under this head.

ii. The second way is through voluntary Private Insurance. Here, individuals and groups can buy insurance from an insurance company by entering into a contract of insurance with the company. The insurance company enters into a contract (an insurance policy) whereby it (insurer) undertakes, in exchange for a small amount of money (premium), to provide financial protection by agreeing to pay the insuring person (insured) a fixed amount of money (sum assured) on the happening of a certain event (insured peril).

Insurance Companies Collect Premiums to provide for this protection and losses are paid out of the premiums so collected from the insuring public. In other words, an **Insurance Contract Promises** to make good to the insured a certain sum in consideration for the premium received from the insured.

Topic

Module 2:
The Entrepreneurial Eco-system

ELECTIVES

Paper-20C

Entrepreneurship and Start Up (ENTS)

THE ENTREPRENEURIAL ECO-SYSTEM

"Entrepreneurship is neither a science nor an art. It is practice." - Peter Drucker.

Entrepreneurial ecosystem is a set of interdependent actors and factors coordinated in such a way that they enable productive entrepreneurship. It consists of a set of individual elements which are discussed below:

1. **Entrepreneurs:** They are the ones who set up a new business with their idea and the people who accompany them on their journey. Every entrepreneur has different skills and different fields of work. With their mission and vision, they work tirelessly to grow their organization and add value to the field.
2. **Supporting Organizations:**

   (a) Incubators: An incubator is an organization in a technology/management school or an independent setup that helps early-stage startups launch their business and grow by providing services such as work space, management training, captive mentor pool, access to technological services etc.

   (b) Accelerators: An accelerator is an organization, either an independent organization or a corporate program that supports early-stage companies through intense immersive education, mentorship, and financing. Startups enter accelerators for fixed time periods and graduate as established, robust companies which are ready to scale. Its objective is to accelerate the growth of the portfolio batch startups in a short period of time.

   (c) Mentors: Mentors (experienced individuals typically from the same industry) guide the less experienced startups with best practices, management tools, industry connections, etc.
3. **Funding Organisations:**

   (a) Angel Investors: These seed or early-stage investors typically put in a small amount of money as the assumed risk is very high. They are usually affluent or high net worth individuals.

   (b) Venture Capitalists/Private equity: These companies typically invest in growth and late stages of a company's lifecycle. Since they are firms /professional investors they also provide access to legal, accounting and networking support.
4. **Talent:** Talent is a natural aptitude or skill. It helps organizations grow better. Organizations will grow only if the right talent is brought into the business at the right time.
5. **New Knowledge:** People with knowledge and resources can be assets to the organization. It is required at every growing step of the organization and especially at the beginning.
6. **Networks:** Networking is the essential prerequisite for running a successful business. It is a good way to gain knowledge about the business world and entrepreneurship. Networks help with the ecosystem, venture capital, technologies, and new markets.
7. **Leadership**: Leader helps to grow the startup quickly. Leading any organization or a team is not easy, but it is the most important one of the important skills of an entrepreneurial journey. A leader is responsible for the company's growth and its team's growth simultaneously.
8. **Intermediary Services:** An ecosystem cannot run without intermediary services. It is the most crucial yet vital part of the entrepreneurial ecosystem.

(Source: https://www.startupindia.gov.in/content/sih/en/international/go-to-market-guide/government-initiatives.html)

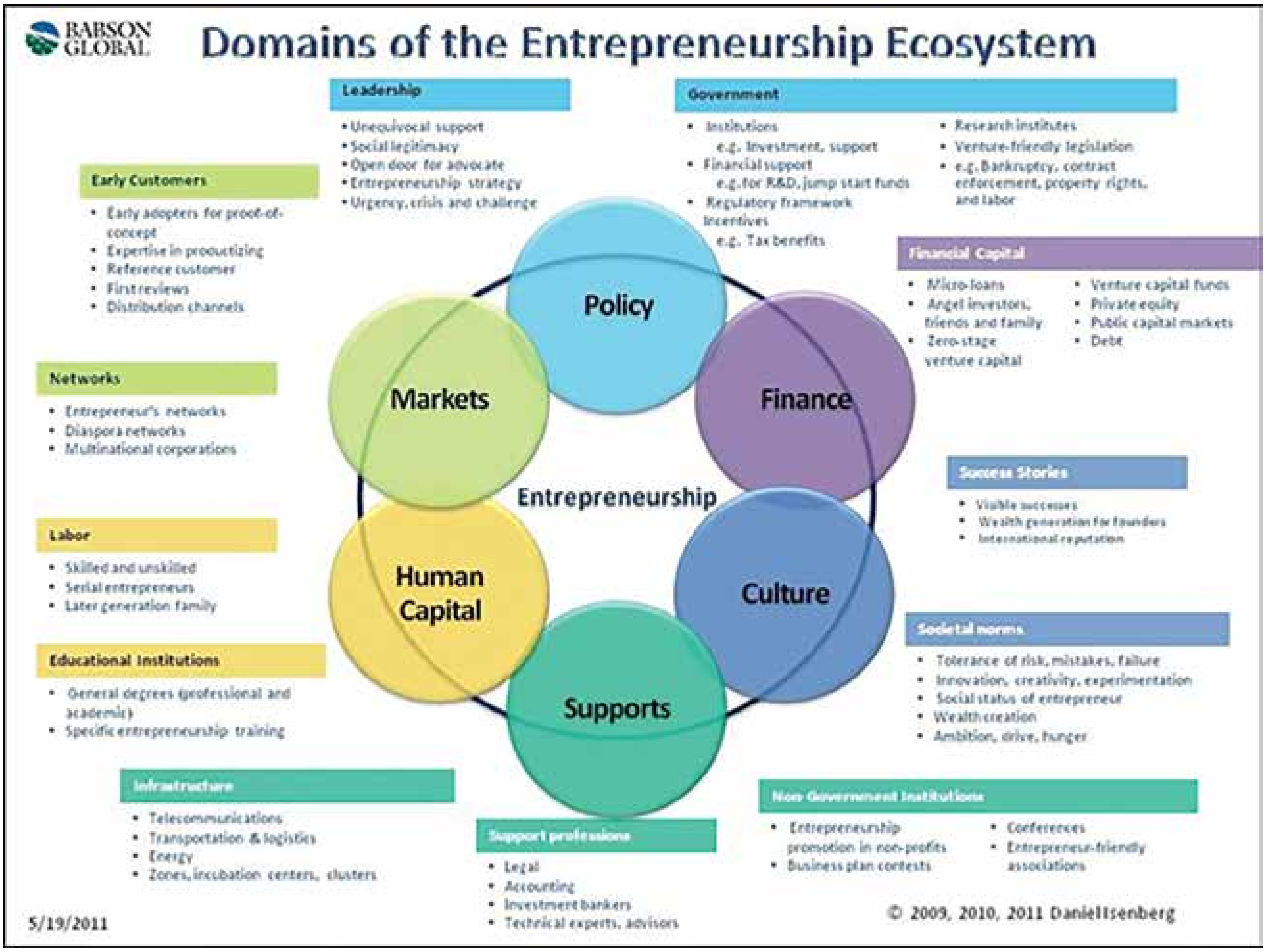
Domains of Entrepreneurship Ecosystem

According to Babson Global, the ecosystem has six parts: Culture, Markets, Human Capital, Finance, Supports, and Policy.

1. **Culture:** Culture covers societal norms and success stories that help to inspire people to become entrepreneurs.
2. **Markets:** Markets cover entrepreneurial networks and customers.
3. **Human Capital:** Human capital includes education system and the skill level of the workforce.
4. **Finance:** Finance domain includes the full

spectrum of financial services available to entrepreneurs.

5. **Supports:** Support domain includes non-governmental institutions, infrastructure and the professionals support such as investment bankers, technical experts and advisors.
6. **Policy:** Policy covers government regulations and support.



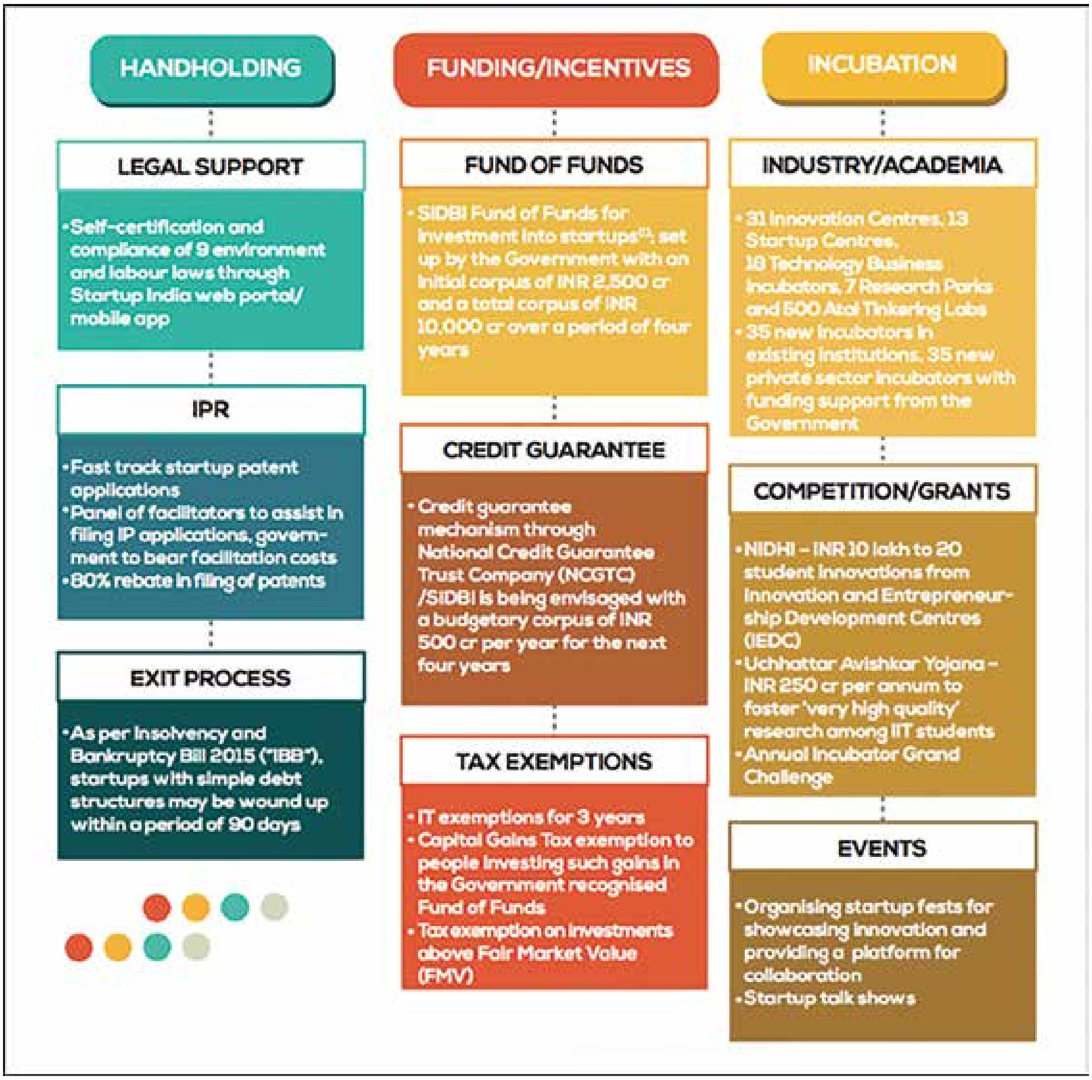
Startup India Initiatives

The Government of India has launched the Startup India Initiative in 2016 with an objective to escalate the startup culture in India and form an environment in which people having entrepreneurial capabilities would leave their comfort zone and gear up to become entrepreneurs of the country.

Over the past few years, the Indian Startup Ecosystem has witnessed a remarkable growth with significant developments on multiple fronts. Treading on the path leading to a consistently evolving startup ecosystem, India achieved a landmark feat in June 2022, with more than 1,00,000 startups being recognised by Startup India, Department for Promotion of Industry and Internal Trade (DPIIT).

As a result:

- India has emerged as the second-largest startup ecosystem all over the world.
- The most beneficiary sectors in the realm of startups are EdTech, online gaming and OTT, Fintech, ecommerce and enterprise tech.
- The rate at which the startup ecosystem culture in India is attaining growth is between 12 and 15%.
- With the objective to build a strong eco-system for nurturing innovation and Startups in the country the Government launched a Startup India Action Plan that offers the following support to recognized supports through:



(Source: https://www.startupindia.gov.in/content/sih/en/international/go-to-market-guide/government-initiatives.html)

Scenario of the Startup Ecosystem in India

India has emerged as the 3rd largest ecosystem for startups globally as of 31st May 2023. India ranks 2nd in innovation quality with top positions in the quality of scientific publications and the quality of its universities among middle-income economies.

Terms Related to Startups

- **Decacorn:** Current valuation of over USD 10 billion.
- **Unicorns:** Start-ups founded after the year 2000 with a valuation of USD 1 billion.
- **Gazelles:** Start-ups that are most likely to go Unicorn in the next three years.
- **Cheetahs:** Start-ups that could go Unicorn in the next five years.

Multiple Choice Questions

1. An infrastructure that helps entrepreneurs in their early stage of the start-up life cycle with plug and play facilities and other common services is called:

a. Incubator

b. Accelerator

c. Angel investment platform

d. Venture capital platform

Answer: (a)

2. For start-up success, the following must be a core competence:

a. Managing Government relations

b. Innovation and Creativity

c. Managing public relations

d. Managing banks

Answer: (b)

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ARTICLES

ARTICLES BY CMA STUDENTS

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FinTech
Revolution in India: A Comprehensive Look

Sachin Kushwaha
CMA Final Student
Registration number: 04182043146

Synopsis

Technology is the future we all are aware of this, may be 25 years ago no one thought of the future would witness such incredible version of technology which would completely change how the things works. Specifically talking regarding Finance sector, the world has witnessed a lot and it has been reshaping the whole landscape of finance globally and India is no exception. In recent years India has seen significant advancements in Finance technology A.K.A. FinTech, bringing about transformative changes in the way financial services are delivered and consumed. This article covers 4 major areas of such transition as:

1. The Magic of Blockchain and Cryptocurrency
2. Super-fast Digital Payments
3. Automated Investing : Robo Advisors
4. Hassle Free Compliance: RegTech

In addition to this we would also cover Role of CMAs in FinTech landscape

1. Blockchain and Cryptocurrencies:

Blockchain technology and cryptocurrencies have emerged as disruptive forces in India's financial landscape, ushering in a new era of decentralized and transparent transactions. The decentralized nature of blockchain, a distributed ledger system, ensures secure and tamper-proof records, while cryptocurrencies like Bitcoin and Ethereum offer alternative means of value exchange.

In recent years, Indian startups and enterprises have embraced blockchain for various applications beyond cryptocurrencies. From supply chain management to identity verification, blockchain is revolutionizing industries. Despite regulatory uncertainties surrounding cryptocurrencies, Indian investors and enthusiasts actively participate in the global crypto market.

****Case Study: Unocoin****

Unocoin, a Bangalore-based FinTech company, has been at the forefront of promoting blockchain and cryptocurrencies in India. The platform allows users to buy, sell, and store Bitcoin securely. Unocoin's adoption of blockchain technology has facilitated transparent and secure transactions, attracting a growing user base seeking alternative investment opportunities.

Cost and management accountants play a crucial role in assessing the financial implications of integrating blockchain solutions. They analyze the cost-effectiveness of blockchain implementation and guide organizations in navigating regulatory challenges.

2. Digital Payments:

Digital payments in India have undergone a revolutionary transformation in recent years, reshaping the way transactions are conducted and driving the nation towards a cashless economy. The advent of digital payment solutions has not only enhanced convenience for consumers but has also brought about financial inclusion and efficiency on a massive scale.

One of the key players in this transformation is the Unified Payments Interface (UPI), a real-time payment system developed by the National Payments Corporation of India (NPCI). UPI allows users to link multiple bank accounts to a single mobile application, providing a seamless and interoperable platform for transferring funds. Apps like Google Pay, PhonePe, and Paytm leverage UPI technology, allowing users to make instant payments, split bills, and even pay for goods and services at local stores.

Mobile wallets have also played a significant role in the digital payments landscape. Apps like Paytm, which started as a mobile wallet, have expanded their offerings to include a range of financial services, from bill payments to online shopping. These wallets provide users with a secure and convenient way to store money digitally and conduct transactions with a few taps on their smartphones.

The government's push for digital payments was evident during the demonetization drive in 2016, which aimed to reduce the reliance on physical currency. Since then, there has been a surge in the adoption of digital payment methods. Even small businesses, street vendors, and rural areas have witnessed a growing acceptance of digital transactions.

The success of digital payments in India is attributed to factors such as increasing smartphone penetration, affordable data plans, and the government's focus on building a robust digital infrastructure. Additionally, the ease of conducting transactions, coupled with cashback offers and discounts provided by digital payment platforms, has incentivized users to embrace this mode of payment.

While challenges such as cybersecurity and digital literacy persist, the trajectory of digital payments in India remains upward. The evolution of technology, coupled with ongoing government initiatives, is expected to further solidify India's position as a global leader in the digital payments space, fostering financial inclusion and economic growth.

Case Study: Paytm

Paytm, one of India's leading digital payment platforms, has transformed the way individuals conduct financial transactions. With features like mobile wallets, UPI payments, and contactless transactions, Paytm has become ubiquitous in the lives of millions. The platform's success lies in its user-friendly interface, seamless transactions, and innovative offerings.

Cost and management accountants contribute to this space by analyzing the financial viability of digital payment solutions. They assess transaction costs, evaluate the return on investment, and guide organizations in optimizing their digital payment infrastructure.

3. Robo-Advisors:

Robo-advisors represent a revolutionary shift in the landscape of financial services, combining technology with investment strategies to provide automated, algorithm-driven financial planning and wealth management services. These platforms have gained significant traction globally and are transforming the way individuals invest, offering a cost-effective and accessible alternative to traditional financial advisory services.

Robo-advisors leverage algorithms and artificial intelligence to analyze financial data, risk tolerance, and investment goals to generate personalized investment recommendations. This automation streamlines the investment process, eliminating the need for extensive human intervention. Investors, whether beginners or experienced, can benefit from the ease of use and the ability to access diversified portfolios with relatively lower fees compared to traditional financial advisors.

One notable advantage of robo-advisors is their ability to provide 24/7 accessibility. Investors can manage their portfolios and make investment decisions at any time, breaking away from the constraints of traditional office hours. Additionally, the minimum investment requirements for robo-advisors are often lower than those imposed by traditional advisory services, democratizing access to wealth management services for a broader range of investors.

Several successful robo-advisor platforms have emerged, demonstrating the effectiveness of this disruptive technology. For instance, Betterment and Wealthfront in the United States have garnered substantial user bases, offering diversified portfolios tailored to individual risk profiles and financial goals. In India, Zerodha Coin has gained prominence as a robo-advisor platform, allowing users to invest in mutual funds with minimal fees.

While robo-advisors provide various benefits, they are not without challenges. Concerns related to the lack of human touch, especially during turbulent market conditions, and the potential for over-reliance on algorithms highlight the importance of investor education and awareness. Additionally, the need for effective cybersecurity measures is paramount to protect sensitive financial information.

In conclusion, robo-advisors are reshaping the investment landscape by making financial advice and portfolio management more accessible and affordable. As technology continues to advance, the integration of artificial intelligence and automation in financial services is likely to expand, offering investors new avenues for wealth creation and financial planning. The continued success and evolution of robo-advisors will depend on addressing potential challenges and building trust among investors in this innovative approach to wealth management.

****Case Study: Zerodha Coin****

Zerodha, a leading Indian stock brokerage firm, introduced Zerodha Coin, a robo-advisory platform. It offers users the ability to invest in direct mutual funds with zero commission. Zerodha Coin leverages algorithms to provide personalized investment recommendations based on individual risk profiles and financial goals.

Cost and management accountants contribute by evaluating the cost efficiency of robo-advisory platforms. They analyze the impact of automation on operational costs and assess the overall financial performance of such solutions.

4. RegTech:

Regulatory Technology, or RegTech, has become essential for financial institutions to navigate the complex landscape of regulations efficiently.

****Case Study: Primechain Technologies****

Primechain Technologies, based in Pune, specializes in blockchain-based RegTech solutions. The company's platform assists financial institutions in compliance management, reducing the complexities associated with regulatory reporting. Their innovative approach leverages blockchain for secure and transparent regulatory processes.

Cost and management accountants play a critical role in implementing RegTech solutions by evaluating their cost-effectiveness and ensuring seamless integration with existing financial systems. They also contribute to risk management by assessing the financial impact of non-compliance.

Role of Cost and Management Accountants:

In the evolving FinTech landscape, cost and management accountants serve as strategic advisors. They contribute to decision-making processes by providing insights into the financial implications of adopting new technologies. Here are some key roles they play:

1. **Cost-Benefit Analysis:** Cost accountants evaluate the financial viability of FinTech solutions, considering implementation costs, operational savings, and potential revenue generation.
2. **Risk Management:** Management accountants assess the financial risks associated with adopting new technologies, ensuring that organizations comply with regulatory requirements and industry standards.
3. **Operational Efficiency:** Cost and management accountants guide organizations in optimizing their financial processes, identifying areas where automation and technology can enhance efficiency.
4. **Strategic Planning:** As strategic advisors, these professionals contribute to the development of long-term financial strategies, aligning technology adoption with organizational goals.

The Evolving Role of CMAs in Direct Taxation Strategies for Optimal Tax Efficiency

Somiya Santosh
CMA Final Student
Registration number: 04172019993

In the dynamic landscape of the finance field, the role of Cost Management Accountants (CMAs) in direct taxation extends beyond traditional boundaries, encompassing strategic tax planning and innovative tax-saving strategies. Tax planning, a pivotal aspect of financial management, involves the systematic analysis of an organization's financial situation to optimize tax efficiency. CMAs play a crucial role in formulating and implementing tax plans that align with the company's goals, ensuring compliance with relevant tax laws while maximizing available deductions and credits. By staying abreast of evolving tax regulations, CMAs contribute to minimizing tax liabilities and fostering sustainable financial growth.

Tax saving, another integral facet, revolves around identifying legal avenues to reduce the overall tax burden. CMAs leverage their expertise to explore tax-saving opportunities, such as exemptions, deductions, and credits, tailored to the specific needs and structure of the organization. Through meticulous analysis of financial data, CMAs identify optimal strategies that not only align with legal requirements but also contribute to the broader financial objectives of the company. This involves a comprehensive understanding of direct taxation concepts, enabling CMAs to navigate complex tax frameworks and implement measures that enhance the organization's fiscal health.

Furthermore, CMAs engage in continuous monitoring and evaluation of tax-saving initiatives, adapting strategies to accommodate changes in business dynamics and tax regulations. This proactive approach ensures that organizations remain resilient in the face of evolving financial landscapes. Additionally, CMAs collaborate with other financial professionals to integrate tax-saving strategies seamlessly into broader financial planning, reinforcing the overall financial sustainability of the organization.

In conclusion, the role of CMAs in the realm of direct taxation encompasses not only meticulous tax planning but also a strategic approach to tax saving. Their expertise in navigating the complexities of tax regulations positions them as key contributors to organizational success, as they strive to optimize tax efficiency, ensure compliance, and foster long-term financial growth. The dynamic nature of direct taxation requires CMAs to be adaptive and forward-thinking, solidifying their position as invaluable assets in the ever-evolving landscape of financial management.

Let's delve into specific examples of how Cost Management Accountants (CMAs) contribute to tax planning and tax saving in the realm of direct taxation.

Tax Planning

1. **Structuring Business Transactions:** CMAs play a vital role in advising on the optimal structure for business transactions. For instance, they might recommend restructuring a business deal to leverage available tax incentives or credits, ultimately reducing the tax liability.
2. **Timing of Income Recognition:** CMAs strategically analyze the timing of income recognition, advising organizations on when to recognize income to maximize tax advantages. This could involve deferring income to a future tax year or accelerating deductions to the current year, aligning with the organization's overall financial goals.
3. **Utilizing Tax Credits:** CMAs are adept at identifying and utilizing various tax credits. For example, in the context of direct taxation, they may guide businesses on taking advantage of research and development tax credits or investment tax

credits, providing tangible financial benefits.

Tax Saving

1. **Employee Benefits Planning:** CMAs often contribute to structuring employee benefit plans in a tax-efficient manner. This may include designing retirement plans that not only attract and retain talent but also offer tax advantages for both employees and the organization.

2. **Capital Expenditure Planning:** CMAs analyze the tax implications of capital expenditures, guiding businesses on the timing and nature of investments. By strategically planning capital projects, they help maximize available depreciation and other tax benefits, resulting in long-term tax savings.

3. **Utilizing Losses Wisely:** In times of financial downturns, CMAs advise on utilizing business losses efficiently. This might involve carrying forward losses to offset future profits, reducing taxable income in profitable years and providing a buffer during economic challenges.

Technology plays a pivotal role in enhancing the effectiveness and efficiency of Cost Management Accountants (CMAs) in the domain of direct taxation, particularly in tax planning and tax-saving strategies. Here are key aspects of technology's role in this context:

1. Data Analytics for Informed Decision-Making

Role: Technology enables CMAs to harness advanced data analytics tools to process vast amounts of financial data swiftly.

Example:Analyzing historical financial data using machine learning algorithms can help identify patterns and trends, allowing CMAs to make more informed decisions in tax planning and optimization.

2. Automation of Routine Tasks:

Role: Technology automates repetitive and time-consuming tasks, allowing CMAs to focus on strategic decision-making and analysis.

Example: Automated tax compliance software can handle routine calculations, data entry, and form generation, freeing up CMAs to concentrate on devising tax-saving strategies and advising on complex financial decisions.

3. Advanced Tax Software for Scenario Analysis:

Role:Technology facilitates the use of sophisticated tax software, enabling CMAs to conduct detailed scenario analysis and assess the impact of different tax strategies.

Example:Tax planning software can simulate the outcomes of various tax-saving scenarios, helping CMAs identify the most advantageous approaches for a particular business context.

4. Blockchain for Transparent Transactions:

Role: Blockchain technology enhances transparency and traceability in financial transactions, contributing to more accurate and reliable tax reporting.

Example: Implementing blockchain in financial systems ensures an immutable and transparent record of transactions, reducing the risk of errors and fraud in tax-related data.

5. Cloud Computing for Collaboration and Accessibility:

Role:Cloud-based platforms facilitate collaborative work and provide accessibility to financial data from anywhere, streamlining communication among stakeholders.

Example: CMAs can collaborate with tax experts and financial professionals seamlessly through cloud-based platforms, ensuring real-time updates and effective coordination in implementing tax strategies.

6. Artificial Intelligence (AI) in Predictive Analysis:

Role: AI-powered predictive analysis tools assist CMAs in forecasting future financial scenarios, aiding in proactive tax planning.

Example: AI algorithms can predict potential changes in tax regulations or economic conditions, allowing CMAs to adjust tax strategies preemptively.

In essence, technology empowers CMAs by providing tools and solutions that enhance their analytical capabilities, automate routine tasks, and facilitate collaborative efforts. Leveraging these technological advancements enables CMAs to navigate the complexities of direct taxation more effectively, ultimately contributing to better-informed decision-making and optimal financial outcomes.

Innovative Horizons: Exploring Future Finance Frontiers and the Integral Role of CMAs

Sonu Acharya
CMA Final Student
Registration number: 03192063534

Introduction:

In the **ever-evolving landscape of finance,** the role of professionals equipped with comprehensive skills and strategic insights is **becoming increasingly pivotal.** One such group that stands **at the forefront is the Cost and Management Accountant (CMA).** As we peer into the future of finance, it becomes evident that their role extends far beyond the traditional boundaries. In this exploration, we delve into the **profound impact that CMAs can have on emerging finance sectors,** unravelling the **essence of their contribution and the unique value** they bring to the table.

The Transforming Terrain of Finance:

Before we dissect the role of CMAs in the future, it's imperative to understand the dynamics of the emerging finance sectors. **From decentralized finance (DeFi)** to **sustainable investments and artificial intelligence-driven financial services,** the future promises of opportunities and challenges. T**he traditional notions of financial management are giving way to innovative, technology-driven solutions that demand a fresh set of skills and perspectives.**

CMAs as Architects of Financial Strategy

At the heart of this financial revolution, **CMAs emerge as architects of strategic financial management.** Their rigorous **training equips them not only with technical expertise but also with a holistic understanding of business dynamics.** In emerging sectors where adaptability and foresight are paramount, **CMAs** bring a **unique blend of financial acumen and business intelligence to the table.**

Strategic Planning in the Age of Uncertainty:

In the era of rapid change, the ability to plan **strategically is a priceless asset.** CMAs, **with their emphasis on strategic management accounting,** are **at navigating** uncertainties. T**heir skills in forecasting, risk management, and scenario analysis prove invaluable in guiding organizations through the uncharted waters of emerging finance sectors.**

Embracing Technological Disruption

The technological revolution sweeping through finance is undeniable. Blockchain, machine learning, and data analytics are reshaping the industry. CMAs, with their commitment to continuous learning, are well-positioned to embrace these disruptions. **By integrating technological tools into financial analysis and decision-making, they catalyse efficiency and innovation.**

Sustainability and Ethical Financial Practices

As the world grapples with environmental challenges, sustainability becomes a cornerstone of future finance. **CMAs, through their ethical training and commitment to responsible financial practices,** play a pivotal role in steering **organizations towards sustainable and socially responsible initiatives. In emerging finance sectors, where the spotlight on ethical practices is intensifying,** CMAs emerge as **catalysts** for positive change.

Interdisciplinary Collaboration

The complexity of emerging finance sectors necessitates collaboration across diverse disciplines. **CMAs, with their cross-functional skills, bridge the gap between finance, operations, and strategic management.** This interdisciplinary approach is crucial in understanding the interconnected nature of emerging sectors and **devising comprehensive solutions.**

Realizing Efficiency and Cost Optimization

In a rapidly changing financial landscape, efficiency and cost optimization are paramount. **CMAs, with their expertise in cost accounting and performance management, are instrumental in identifying areas for optimization. By streamlining** processes and identifying cost-effective strategies, they contribute significantly to the **financial health of organizations** operating in emerging sectors.

Leadership in Decision-Making

CMAs are **not just financial analysts;** they are **strategic leaders in decision- making.** The future of finance requires leaders who can navigate complexity, make informed choices, and **drive organizations towards success.** CMAs, with their focus on **decision analysis and strategic leadership,** are **well-positioned** to fill this crucial role.

Conclusion

As we journey into the future of finance, **the role of CMAs** becomes increasingly **pronounced and indispensable.** Their ability to blend financial expertise with **strategic insight,** embrace technological disruptions, and ethical financial practices positions them as key players in the **unfolding narrative of emerging finance sectors. The CMA's commitment to excellence and adaptability makes them not just observers but active architects of the financial future, shaping a landscape that is both dynamic and promising.**

Let's affirm again "Behind Every Successful Business Decision there's always a CMA"

CMA SUCCESS STORIES

CMA Susanta Kumar Sahoo
25 Years
June 2023 Term
Bhubaneswar, Odisha

Gas Authority of India Limited (GAIL)
Executive Trainee (F&A)
Dibiyapur, Dist - Auraiya, Uttar Pradesh
CTC - 19 Lakhs per annum (Approx)

I am elated to share the news that I have successfully qualified as a Cost and Management Accountant (CMA) securing an All India Rank (AIR) of 15. This accomplishment follows my earlier success in the CMA Intermediate examination, where I achieved an AIR of 45. The journey has been both challenging and rewarding, and I owe my success to persistent efforts, rigorous study, and the unwavering support of my mentors and peers.

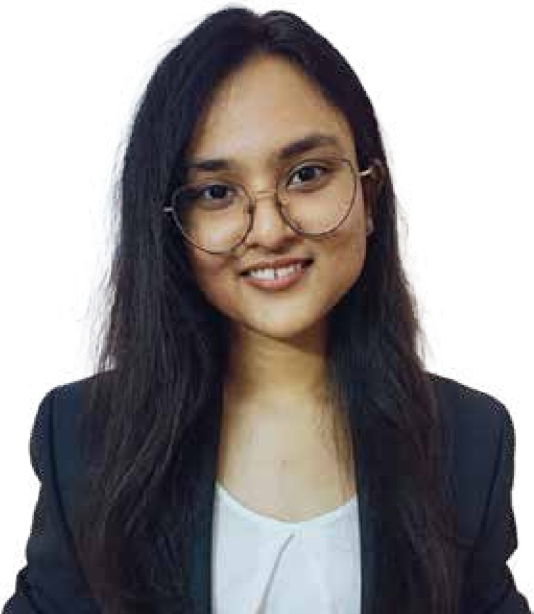
The CMA program has been instrumental in shaping my understanding of cost and management accounting, providing a comprehensive curriculum and practical exposure. The knowledge and skills acquired during the program have not only prepared me for the examinations but have also equipped me for real-world challenges in the professional sphere. I am grateful for the guidance and encouragement received from my professors and mentors throughout both the CMA Intermediate and Final levels. Achieving a remarkable AIR in both examinations is a testament to the quality of education and the emphasis on practical application within the CMA program.

Furthermore, I am thrilled to announce that I have been offered a placement at GAIL India through the campus recruitment process. Joining GAIL is a dream come true and a testament to the value of the education and training I received during my CMA journey. GAIL India's reputation as a leading organization in the energy sector makes this opportunity even more exciting, and I am eager to contribute my skills and knowledge to the company.

I extend my sincere thanks to the placement cell at my institute for facilitating this connection and providing a platform for students to connect with esteemed organizations like GAIL India. This achievement is not just a personal success but also a reflection of the quality of education and preparation that the CMA program offers.

As I embark on this new chapter in my professional journey, I am confident that the skills acquired through the CMA program will enable me to make meaningful contributions to GAIL India and excel in the dynamic and challenging field of cost and management accounting. I am excited to apply my knowledge in real-world scenarios and continue learning and growing in my chosen profession.

Thank you, CMA program, for shaping my career for this incredible opportunity. I am eager to contribute my best to the organization and uphold the standards of excellence set by both the CMA program and GAIL India.



CMA Prerona Saha
23 Years
June 2023 Term
Kolkata

Gas Authority of India Limited (GAIL)
Executive Trainee (F&A) E-2 Grade
New Delhi
CTC - 19 Lakhs per annum (Approx)

As a qualified Cost and Management Accountant (CMA), I am thrilled to share the excitement of joining GAIL as an Executive Trainee. Being part of a maharatna PSU feels like a dream come true and I feel a sense of accomplishment knowing that my education and hard work has opened the door to this exciting opportunity. The journey from a student to a professional has been highly fulfilling. The placement process of ICMAI has played a pivotal role in shaping this success, and I am genuinely grateful for the invaluable support and guidance provided by the Institute. The entire placement process was smooth thanks to the well-organized placement cell that worked tirelessly to connect us students with prospective employers. The informative sessions on core areas for CMAs, mock interviews, and resume building sessions of the Pre - placement Orientation Program conducted for the fresher CMAs were instrumental in refining my skills and boosting my self-assurance.

I extend my heartfelt gratitude to the faculty and mentors who played a significant role in nurturing my capabilities and developing my personality. The interaction and exposure gained from my peers and fellow CMAs during the days of the Pre-placement orietation Program has helped me build friendships and a strong network among professionals. The encouragement and practical insights received during my time as a student of the Institute have undoubtedly shaped my journey and contributed to my confidence in the professional arena. As I embark upon my journey in the professional world, I carry with me the knowledge and experiences gained from my Institute, forever grateful for the foundation that has set me on the path to success.

CMA Avhijith Sarkar
37 Years
December 2022 Term
North 24 Pgs., West Bengal

Lennox India Technology Centre Pvt. Ltd (LITC)
Senior Analyst Finance
Chennai
CTC - 13 Lakhs per annum (Approx)

I joined Indian Air Force (IAF) at 16 years of age where I received my initial training as an airman in Medical Assistant trade. Serving in the IAF had helped me to learn a lot of new things, aim for higher objectives all the while keeping me motivated.

During my service, I was able to harness various opportunities to learn the new provisions of budgeting and forecasting, inventory management, capital procurement, purchase of critical medical supplies, price agreements, contract and vendor management etc. This in turn opened my mind to finance and accounting.

I strived to stay updated and advance academically while in service and completed my intermediate, B.Com., PG Dip. in International Business and M.Com. in addition to Diploma in Dialysis Technology which I underwent as an organizational requirement. On completion of my postgraduation, I was inclined to transform my existing knowledge and experience into a respectable and recognized paradigm in finance which led me to pursue CMA from the prestigious ICMAI in June 2019.

Without compromising the organizational requirements and responsibilities I could complete my CMA in first attempt in Dec 2022 with an AIR-38. Subsequently, I was selected in Lennox India Technology Centre Pvt Ltd as a Senior Analyst Finance in the Campus Placement Drive held at Chennai in May 2023.

I would like to offer my heartfelt gratitude to entire placement team for their guidance and invaluable support during the entire placement drive.

I owe my current achievements to the CMA profession, which has undoubtedly provided me with a significant advantage over my peers. The unique expertise gained through this profession is unparalleled, and it has opened doors that no other course could have in just three years. Credit is due to the dedicated efforts of the CMA placement committee, whose seamless execution of the placement process ensured a hassle-free experience for everyone involved.

I received invitations from multiple reputable companies during the campus placement, but I made a strategic decision to focus solely on NBCC due to the compelling job profile it offered. The interview process conducted by the placement committee was commendable, and I appreciate their meticulous efforts in facilitating a smooth process.

My interview with NBCC was conducted by a panel of five seasoned professionals, each with an average experience exceeding my age. Lasting approximately 25 minutes, the interview covered essential questions such as my motivation for joining their organization, an analysis of their annual report, taxation aspects related to real estate, and my willingness to relocate. The challenging yet insightful interaction further solidified my conviction in pursuing a career with NBCC.

CMA Piyush Gupta
21 Years
June 2023 Term
Neemkathana, Rajasthan

NBCC India limited
MT (Finance)
Delhi
CTC - 13 Lakhs per annum (Approx)

CMA Taruna Mittal
24 Years
June 2023 Term
Delhi

Vedanta Limited (Cairn Oil & Gas)
Officer Trainee (OT)
Barmer Rajasthan
CTC - 13.45 Lakhs per annum (Approx)

I am expressing my sincere interest in joining vedanta. As a candidate with a strong academic background and a passion for corporate world, I am eager to contribute to and benefit from the exceptional opportunities my mother institute offers. I have consistently demonstrated my dedication to learning and excelling in my studies. I am confident thatparticipating in your pre placement orientation programme will not only broden my horizons but also provide me with the platform to launch a successful career in my life.

NOTES

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

Dear CMA Student,

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

Submission Guidelines:

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

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

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

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

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

Best Regards,

Team DoS
The Institute of Cost Accountants of India

E-mail – studies.ebulletin@icmai.in

THE INSTITUTE OF COST ACCOUNTANTS OF INDIA

Statutory Body under an Act of Parliament

www.icmai.in

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.

Behind every successful business decision, there is always a **CMA**

ICMAI

THE INSTITUTE OF COST ACCOUNTANTS OF INDIA

Statutory Body under an Act of Parliament

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