

TOLL FREE 18003450092 / 1800110910



CMAStudent E - Bulletin FOUNDATION





THE INSTITUTE OF COST ACCOUNTANTS OF INDIA

(Statutory Body under an Act of Parliament)

www.icmai.in

Headquarters: CMA Bhawan, 12 Sudder Street, Kolkata - 700016 Ph: 091-33-2252 1031/34/35/1602/1492 Delhi Office: CMA Bhawan, 3 Institutional Area, Lodhi Road, New Delhi - 110003 Ph: 091-11-24666100

Vol: 5, No.: 4. April 2020, Issue

Message from The Chairman CMA Biswarup Basu

Vice President & Chairman, Training & Education Facilities and Placement Committee



MESSAGE FROM THE CHAIRMAN

Dear Students,

Greetings!!

"Happiness is when what you think, what you say and what you do are in harmony"-M.K. Gandhi

'Rethinking' is the need of the hour. The world has given us the opportunity to rethink and restructure our basic lifestyle. Before the 'lockdown' we were in a world full of amenities and scopes. Mother earth had offered us with her plenty of treasures and we had used those in an unbridled manner. The world needs people with high values to make it a better place to live in. It requires a vigorous study to enrich the knowledgebase. Towards this end, we may prefer to see that our students are contributing to the development of the nation by the implementation of requisite knowledge towards the restructuring of the society. During this pandemic of COVID19 we request our students to 'Stay home, Stay safe' and meantime enhance the habit of self study and self teaching as well.

The Directorate of Studies is continuously trying to offer the best to the students to help them carry on their study. Live Webinars are getting conducted for the benefit of the students to study from home with the already recorded webinars are kept in the e-library, Answers to the Mock Test Papers (MTPs), updated Work Books and monthly E-bulletins are also being uploaded on our website. Eminent academicians and industrial personnel are contributing in their own way for the development of our students too. Being the Chairman of Training & Education Facilities and Placement Committee, I am really thankful to all of them. You please try to grab the opportunities being offered by the Directorate of Studies.

My appeal to all of you is, try to be determined in your own way to enable the society to cope up with this pandemic.

Always keep in mind that, "Where there is love there is life".

Best wishes as always,

CMA Biswarup Basu Chairman, Training & Education Facilities and Placement Committee

Be a CMIA, be a Proud Indian







Message from the Chairman -	i
Knowledge Update –	1
Paper: 1, Part: I - Fundamentals of Economics and Management (FEM) - Economics -	2
Paper: 1, Part: II – Fundamentals of Economics and Management (FEM) – Management –	5
Paper: 2 - Fundamentals of Accounting (FOA) -	8
Paper: 3 - Fundamentals of Laws and Ethics (FLE) -	11
Paper: 4 – Fundamentals of Business	
Mathematics and Statistics (FBMS) -	15
Practical Advice –	20
Submission -	21
Message from the Directorate of Studies -	22

Few Snapshots

23

0

KNOWLEDGE Update

In this section of e-bulletin we shall have a series of discussion on each of these chapters to provide a meaningful assistance to the students in preparing themselves for the examination at

the short end and equip them with sufficient knowledge to deal with real life complications at the long end.



Dr. Bibekananda Raychaudhuri

Associate Professor, Department of Economics, N.S.O.U., Kalyani, W.B. **He can be reached at:** brchaudhuri@gmail.com

PAPER: 1, PART: I FUNDAMENTALS OF ECONOMICS & MANAGEMENT

(FEM) - ECONOMICS

Your Preparation Quick Takes



Syllabus Structure

A Fundamentals of Economics **50%** B Fundamentals of Management **50%**

2



Learning Objectives:

- Studying economics, one will be able to develop the analytical skills needed to work successfully in the field, including the study of logical analysis.
- Students will be able to identify and explain economic concepts and theories related to the behaviour of economic agents, markets, industry and firm structures, legal institutions, social norms, and government policies.
- Students will be able to integrate theoretical knowledge with quantitative and qualitative evidence in order to explain past economic events and to formulate predictions on future ones.
- Students will be able to evaluate the consequences of economic activities and institutions for individual and social welfare.

Economics

Hi Friends !! hope you are remaining indoors and fighting with the lethal virus - CORONA. Don't worry we will definitely win this battle as we live in a tropical country and the summer season is knocking at the door. Corona virus has to surrender when we will be having scorching sun above and temperature will be rising. Corona virus cannot survive in high temperature. But Corona virus has been successful in damaging the demand side of our economy. Since we all are confined in our home, the demand for different industrial products are seriously disrupted. To a businessman production is meaningless if the product cannot be marketed. So everything depends on demand in the market. Therefore it is imperative to understand the analysis of demand.

When we talk of demand, we consider only one commodity at one go. Suppose, we are concerned with commodity x. Then, demand for x, denoted by Q_x , depends on $P_x M$, $P_y P_z T$. Here, P_x stands for price of the commodity, M stands for the money income of the consumer, P_y stands for the price of its substitute, P_z stands for the price of its complement and T stands for the taste and preference of the consumer. The law of demand states that demand for x, Q_x and price of it, P_x will be inversely related when all other things are held constant. Other things include M, $P_y P_z$ and T.

SHIFT IN THE DEMAND CURVE: Demand schedule for a commodity shows the relationship between the price of a commodity and its demand. However, we also know that the demand for a commodity depends not only on the price of this commodity but also on a host of other factors. In drawing a demand schedule, we assume that these other factors are held constant. What happens when these other factors change? The answer is : the level of the demand schedule changes ie., the demand curve shifts its position. Hence, at all possible prices the demand for the commodity will change. This is called a change in demand. If at each price level the demand for a commodity becomes more than before, it is called an increase in demand. In this case, the demand curve would shift towards the rightward direction. On the other hand, if the demand for a commodity

effect. When the price of a good falls, the consumer will have greater purchasing power (even if his income does not change). In fact, the real income of the consumer rises with a fall in the commodity price (when money income is divided by the price, we get real income). This usually induces him to increase his demand for the good. This effect of a price-fall on demand is called the income effect because it is as if the consumer's income has increased. If the demand for a commodity increases because of this income effect, it is called a normal commodity. However, if the demand for a commodity decreases because of this income effect, it is called an inferior commodity.

The fall in price will have another effect on demand. This other effect is called the substitution effect. When the price of a commodity falls, this commodity becomes more attractive to the consumer than other commodities. The consumer will then substitute (replace) other commodities and take this commodity instead. So, the demand for this commodity will increase.

LAW OF DIMINISHING MARGINAL UTILITY THEORY:

This theory can also be used to explain the negative slope of the demand curve. We know that the consumer attains maximum satisfaction, the will be established when MU=P, where MU must be falling. Now, if P falls, MU will become greater than P. So, in order to restore equilibrium, MU should fall. If the consumption of the commodity rises further then only for the additional consumption MU would fall. Thus, it becomes clear that as P falls, demand (or the consumption) for the commodity will rise.

EXCEPTIONS TO THE LAW OF DEMAND

- (a) **CONSPICUOUS CONSUMPTION:** In this case, an individual wants to show his wealth to other people through the consumption of very costly goods. In this case, the demand for such goods will rise with an increase in its price. So, demand curve becomes positively sloped.
- (b) **SPECULATIVE MOTIVE:** Generally, the individuals who invest in the stock/share market, try to purchase more of a share whose price is rising with the expectation that it

becomes less than before at each price level, it is called a decrease in demand. In this case, the demand curve would shift towards the leftward direction.

MOVEMENT ALONG A DEMAND CURVE: The demand can also change along a fixed demand curve. When the price of a commodity falls, its demand rises along the given demand curve. This is contraction in demand. So, when we want to show the change in demand resulting from a change in commodity's price, we have to show this change by a movement along a fixed demand curve. This is

REASONS FOR DOWNWARD SLOPING DEMAND CURVE : INCOME EFFECT AND SUBSTITUTION EFFECT: There are two forces behind the law of demand and hence, a downward sloping demand curve: the income effect and the substitution would rise further. In this case also, we find a positive relation between price and quantity demanded.

- (c) **VEBLEN EFFECT:** According to Veblen, some people judge the quality of a commodity by its price. They purchase more of those commodities whose prices have increased.
- (d) **GIFFEN GOODS**: These are such inferior goods for which negative income effect (i.e., demand reducing effect) becomes more powerful than the substitution effect. So with a fall in the price of such goods, less of those goods are demanded.

3

ELASTICITY OF DEMAND

When we want to determine the sensitivity of demand for any commodity in response to change in the own price or a change in the income of the consumer or a change in the price of a related commodity, we step into the concept of elasticity of demand.

TYPES OF ELASTICITY

- (a) Price elasticity of demand: By price elasticity of demand we mean the ratio between the percentage change in demand and that in price. In other words, it is the percentage change in demand per one percent change in price. So, price elasticity of demand (ep) or own price elasticity of demand can be expressed as, ep = (-)Percentage change in quality demanded/Percentage change in price
- (b) Income elasticity of demand: A measure of the sensitivity of demand with respect to income is given by the income elasticity of demand (ei) is defined as ei = percentage change in quantity demanded/ percentage change in income
- (c) Cross elasticity of demand: Cross elasticity of demand (ec) for a commodity X with respect to the price of another commodity Y is defined as

ec = percentage change in demand for X/percentage change in the price of Y

Friends, since we have all the time in the world to brush up our knowledge of economics, let us study the STUDY MATERIAL thoroughly so that we have a solid preparation for the exam and we do not have to fumble at the last moment. Economics requires strong common sense and some hard work. Then it will be a cake-walk for you if you want to score very high marks.



4



CMA (Dr.) Sumita Chakraborty

Additional Director, Research & Studies **She can be reached at:** research.hod@icmai.in studies.addldir1@icmai.in

PAPER: 1, PART: II FUNDAMENTALS

OF ECONOMICS & MANAGEMENT (FEM) - MANAGEMENT

Your Preparation Quick Takes





Syllabus Structure

A Fundamentals of Economics **50%** B Fundamentals of Management **50%**

6



6

Learning Objectives:

- Students will demonstrate their knowledge of business and management principles
- · Students will reveal effective written and oral communication
- Students will exhibit an awareness of the global environment in which businesses operate Students will display the ability to recognize when change is needed, adapt to change as it
- occurs, and lead



Co-ordination - The process by which a manager integrates their activities is known as coordination. Coordination is an orderly arrangement of group efforts to maintain harmony among individuals efforts towards the accomplishment of common goals of an organisation. It is the force that integrates all functions of the management.

Coordination is the unification, integration, synchronization of the efforts of group members so as to provide unity of action in the pursuit of common goals. Management seeks to achieve co-ordination through its basic functions of

- planning, •
- organizing,
- staffing,
- directing and controlling.



- Coordination Integrates Group Effort (1)
- Coordination Ensures Unity of Action (2)
- Coordination is a Continuous Process (3)
- (4) Coordination is an All-pervasive Function
- Coordination is the Responsibility of All Managers (5)
- Coordination is a Deliberate Function (6)

The two primary types of coordination are internal coordination or establishing a relationship between all the employees, departments, etc. and external coordination or establishing a relationship between the employees and the outsiders.

The four common elements of an organization include common purpose, coordinated effort, division of labor, and hierarchy of authority.

Objectives: Reconciliation of Goals, Total Accomplishment, Economy and Efficiency, Good Personal Relations, Retention of Managerial and Other Personnel.

The six basic elements of organizational structure are:

• departmentalization,



- chain of command,
- span of control,
- centralization or decentralization,
- work specialization and the degree of formalization.

An effective Coordination activities and structures can bring a sense of order to the resulting chaos. Coordination in general may be defined as intentional actions to harmonize individual responses to maximize impact and achieve synergy. a situation where the overall effect is greater than the sum of the parts.

When the organisation structure is created and departments are designed, managers coordinate the activities of these departments to achieve organisational goals. Top managers communicate organisational goals to departmental managers and help them carry out the functions of planning, organising, staffing, directing and controlling for their respective departments.

They integrate objectives of the organisation with objectives of the departments and harmonies departmental goals with organisational goals. Coordination, thus, helps to coordinate the work of different departments and within each department, it integrates all the functions of management. Coordination is, therefore, rightly called the essence of management. It helps each managerial function and each departmental activity contribute to organisational goals.

Coordination is neither department-specific nor function-specific. All managerial functions (planning, organising, staffing, directing and controlling) for all departments have to be coordinated to achieve the overall goals. However, the intensity of managerial functions can vary at different points of time for different departments.

Sometimes, coordinated efforts have to focus more on planning while at other times, focus has to be more on controlling. Irrespective of the degree of focus, the essence of coordination highlights its need which is pervasive in all departments, at all levels, at all points of time.

Contemporary organisations are open systems. Their active and continuous interaction with the environment presupposes presence of a strong system of coordination in the organisations. Coordination is the strength of organisational success.

"Go forward with new zeal and determination, and through your example shine the light of the gospel in this troubled world."



0



PAPER: 2 FUNDAMENTALS OF ACCOUNTING (FOA)

CMA (Dr.) Nibir Goswami Associate Professor in Commerce Vidyasagar Mahavidyalaya, W.B. **He can be reached at:** drnibirgoswami@gmail.com

Your Preparation Quick Takes



Syllabus Structure

A Fundamentals of Financial Accounting 80%

8

B Fundamental of Cost Accounting 20%

Learning Objectives:

In order to internalize the concepts of subjects like accountancy one has to have an understanding of the learning objectives of the chapters. Try to go through the Statement of Objects and Reasons issued for every topics as it would give you a background to your study.

FUNDAMENTALS OF ACCOUNTING

Hope you all are keeping well. Please stay at home and stay safe. You are staying home means you are saving the whole world. "Think locally but act globally." Under such distressed period of lockdown let us revise some issues today and solve some basic problems to nurture your brain cells. Consider this issue to be an assignment.

Accounting Equation

Problem 1 Fill in the missing information below:

	Assets	Liabilities	Shareholders' Equity
Business #1		181,000	212,000
Business #2	75,000		36,000
Business #3	30,000	21,000	19/
Business #4	25,000	/	(10,000)*

*Business #4's equity is in an accumulated loss position.

Accounting Equation

Problem 2

Fill in the missing information below:

	Assets	Liabilities	Shareholders' Equity
Business #1		80,000	60,000
Business #2	1,250,000		1,100,000
Business #3	75,000	48,000	-
Business #4	52,000		(9,000)*

*Business #4's equity is in an accumulated deficit position.

Journal ledger Trial balance and Balance sheet

Problem 1

Ab Cleaners had been operating for several years. On March 1, the company had the following account balances: Cash 5,000; Accounts Receivable 300; Equipment (net) 3,000; Accounts Payable 500; Bank Loan 2,000; Capital 100; and Retained Earnings 5,700. 6,000 on account. Payment is due in 30 days.

- March 11 Collected amount owed to us from February.
- March 15 Completed a cleaning job. Billed 1,000, collected half.
- March 16 Paid employees' salaries of 2,500.
- March 19 Paid 500 to repair a broken vacuum.
- March 22 Received and paid a heating bill: 100.
- March 24 Received a telephone bill: 50, did not pay.
- March 28 Collected money from the March 4 cleaning job.
- March 29 Completed major cleaning job. Billed 7,000, payment is due on April 29.
- March 31 Paid employees' salaries of 2,500.
- March 31 Paid interest of 75 on the bank loan.
- March 31 Shareholders took a dividend totaling 700.

Required:

- a.) Record all necessary journal entries based on the transactions above.
- b.) Prepare a balance sheet as on 1st March
- c.) Prepare a trial balance dated March 31. After posting the transactions in the ledger

Journal ledger trial balance and balance sheet

Problem 2

Tutoring Service provides extra help for students. The company has been operating successfully for several years and has the following account balances entering April: Cash 8,000; Accounts Receivable 1,500; Supplies 5,000; Computers (net) 15,000; Accounts Payable 300; Bank Loan Payable 3,500; Capital 50; Retained Earnings 25,650. The following transactions occurred

The following transactions occurred during the month of March.

- March 1 Purchased (and used) cleaning supplies for cash: 600.
- March 2 Paid off the 500 that was owed from February.
- March 4 Completed a major cleaning job. Billed 3,000 but did not collect.
- March 9 Purchased a new Super Sucker brand vacuum for

in April:

- **April 1** Paid off account payable owing from March.
- April 3 Paid 3,000 for advertising for the month of April.
- April 4 Purchased supplies on account: 1,000.
- April 6 Collected the 1,500 receivable from March.
- April 8 Received, but did not pay a 250 electricity bill.
- April 12 An employee who was short of money borrowed 500. He signed a note and promised to repay the company after payday. He is a good employee and the company chose not to charge him any interest

9

or fees.

- April 15 Paid employees' salaries of 4,000.
- April 18 Employee repaid the 500 loan.
- April 20 Borrowed 10,000 from the bank with the intention of purchasing new computers.
- April 21 Purchased new computers 8,500.
- April 24 Received and paid telephone bill 150.
- April 26 Paid employees' salaries of 4,000.
- April 29 Paid electricity bill received on April 8.
- April 30 Paid interest on the loans for the month of 100.
- April 30 Billed 18,000 for the month of tutoring service. Collected 16,000 in cash, awaiting payment for the remainder.

Required:

- a.) Record all necessary journal entries based on the transactions above.
- b) Prepare a balance sheet as on 1st March
- c) Prepare a trial balance dated March 31. After posting the transactions in the ledger



10



PAPER: 3 FUNDAMENTALS OF LAWS AND ETHICS (FLE)

CA Partha Ray He can be reached at: prapray@rediffmail.com

Your Preparation Quick Takes



Syllabus Structure

A Fundamentals of Commercial Laws 70%

Ð

B Fundamentals of Ethics 30%



Learning Objectives:

- Read the Study Material minutely.
- For details or if you don't understand Study Material or the section is important to identify the topic, then refer to Bare Act, otherwise reference to Bare Act is not necessary. For Company Law, book by Avtar Singh is recommended. For other laws Institute Study Material is sufficient.
- The words used in any of the texts as mentioned above should be understood by immediate reference to the Dictionary.
- The main points coming out in any of the provisions should be either underlined or written in separate copy which has to be repeated again and again.
- Theoretical knowledge should be adequate and clear before solving practical problems.
- Don't write wrong English. It changes the meaning and therefore answer may be wrong even when the student's conception is clear. Also don't make spelling mistakes.

LAW & ETHICS

In the previous issues, you have read about Sale of Goods Act. It is hoped that you keep on reading and recapitulating all that you have read for which you must prepare a time-table with time allotted for each subject - to read, write and revise.

Now, let us understand why this paper is really very important for all of you who are aspiring to be true professionals and are all eager to proudly proclaim aloud that - Yes, behind every successful decision, there is a CMA.

The first TIP is that you must start thinking like A Teacher. You must start studying the subject and raise questions to yourself and find your own answers.

Now, let us continue to deal more with the Sale of Goods Act, 1930

In respect of such papers , the students are reminded that they must study the relevant Sections of the Act , write what the question wants and then attempt to elaborate by analyzing and commenting on the interpretations of the Act.

To start with, let us discuss **Rules with regard to delivery of** goods. Sections 31 to 44 of the Sale of Goods Act, lays Rules with regard to delivery of goods. Those are explained briefly:

- 1. Mode of Delivery : Can be anything agreed between the parties to put the goods in the possession of the buy or any other person authorized by the buyer.
- 2. Delivery and Payment of Price: Both parties ,that is the seller must be ready to deliver the goods and the buyer must be willing to take the delivery and pay the price for the goods .How the buyer will take possession of the goods or how the seller will send the goods to the buyer depends on the terms of the contract.

the buyer.

- 6. Time of Delivery : Unless specifically agreed between the seller and buyer, goods must be sent to the buyer within a reasonable period of time/ reasonable hour or else the delivery may be treated as ineffectual. Reasonableness has to be decided depending on various factors.
- 7. Goods in the possession of a Third Party : Suppose at the time of sale the goods being sold, are in the possession of a third party, there is no delivery by the seller to buyer , unless and until, such third party acknowledges to the buyer that, the goods are held by him on his behalf.
- 8. Cost of Delivery : Unless agreed between the buyer and seller, all expenses including incidental expenses incurred for putting the goods in a deliverable state is borne by the seller.
- **9.** Delivery of wrong quantity : The can be three possibilities:
 - a) The seller may deliver to the buyer, a quantity which is less than the quantity agreed; or
 - b) The seller may deliver to the buyer, a quantity which is **more** than the quantity agreed; or
 - c) The seller may deliver to the buyer, a quantity which comprises of goods as per contract , mixed with goods of other description , not covered in the contract.

In such cases, the buyer may accept the lesser quantity actually received and pay for it at the contract rate, or in the second case, he may either accept only the ordered quantity and reject the excess quantity sent or accept the entire quantity sent and pay for it at the contract rate; or in the third case, the buyer may accept the goods as per the contract and reject the rest, or he may even reject the whole quantity sent.

- 3. Effect of part delivery : Where the goods are delivered in part, it shall amount to passing on the possession of the goods but any part delivery will not be treated as delivery of the remainder if the intention of the seller is to severe the remaining pat from the whole ordered quantity.
- 4. Buyer to apply for delivery : Unless agreed in writing, the seller is not bound to deliver goods until the buyer applies for delivery.
- **5. Place of Delivery :** Unless agreed otherwise, between the buyer and the seller, goods must be delivered at the agreed time and place for the buyer to take possession of the goods or the seller to initiate dispatch of the goods to

However, all decisions may be subject to usage of trade, special agreement and dealings between the seller and the buyer.

- 10. Installment Delivery :
 - a) A buyer of goods is not bound to accept delivery in installments unless agreed otherwise;
 - b) There may be instances where the seller fails to make delivery or makes one or more defective

D

deliveries or the buyer neglects or refuses to take delivery or pay or more installments, in such cases, the circumstances of each case shall decide whether there is a breach of contract calling for repudiation of the whole contract or a case giving rise to claim for compensation but not to a right to treat the whole contract as repudiated.

11. Delivery to Carrier or Wharfinger :

- a) Where as per contract, the seller is authorized or is required to send the goods to the buyer, delivery of goods to the carrier or delivery of goods to the wharfinger for safe custody, is prima facie deemed to be a delivery of the goods to the buyer.
- b) The seller shall make a reasonable contract with the carrier or wharfinger on behalf of the buyer for transmission of the goods under the contract. If the seller omits to do so and the goods are lost or damaged , the buyer may decline to treat the delivery to the carrier or the wharfinger as a delivery to himself(the buyer) and /or may hold the seller responsible for any damage.
- c) Unless otherwise agreed, if the seller sends goods to the buyer via. Sea route, where it is usual to get the goods insured, the goods shall be deemed to be at risk during the sea transit.

12. Risk where goods are delivered at Distant Place :

Where the seller undertakes to deliver the goods at his (the seller's) own risk , at a place other than that where the goods were when sold, the buyer shall nevertheless, unless otherwise agreed, take any risk of deterioration in the goods necessarily incidental to the course of transit.

13. Buyer's right of examining the goods :

Where the goods were not examined by the buyer before hand, the delivered goods shall not be deemed to have been accepted unless and until the buyer has got a reasonable opportunity of examining those goods for the sake of ascertaining that they are in conformity with the contract.

14. Acceptance:

Only after the Buyer intimates to the Seller that he has accepted the goods, the goods shall be deemed to have been accepted. Moreover, if after receiving delivery of the goods, the buyer does not act within a reasonable time and still retains those goods, without intimating about any rejection of the goods to the seller, the goods shall be deemed to have been accepted. also requests the buyer to take delivery and the buyer fails to take delivery within a reasonable time, the buyer becomes liable to the seller for any loss incidental to negligence or refusal of the buyer to take delivery and is responsible to pay the seller for a reasonable charge for the care and custody of the goods in question.

Now, we will ask ourselves a question - Who is an unpaid vendor/seller of goods ? The answer must be thought logically . A seller is considered unpaid if -

- 1. If the entire price of the goods sold has not been paid or remitted; or
- 2. If a Bill of Exchange or Negotiable Instrument has been received from the buyer by the seller as a conditional payment but that instrument has been dishonoured or the conditions on which it was issued has not been fulfilled. Please refer Sec.45(1)

That obviously raises a question - What shall be the Unpaid Seller's / Vendor's Right . It has may be remembered that the Vendor can exercise his rights even where the property in the goods has passed to the buyer. The following are the Rights of the Unpaid Vendor/Seller :-

1. Vendor's Lien :

The unpaid Vendor, who still holds possession of the goods, is entitled to retain possession of the goods (*this is called exercising the right of lien, for non-payment of the price but not for any other charges*. For example, the godown charges, if any, paid by the seller for storing the undelivered goods cannot be a reason for exercising lien) until the payment is made or remitted provided -

- a) The goods were sold without any stipulation as to credit'
- b) The goods were sold on credit, but the terms of credit has expired (it may be noted that the seller cannot refuse to hand over possession of the goods unless the terms of credit has expired); or
- c) The buyer has become insolvent. A question may come to mind - what happens if the seller has made part delivery of the goods? in such a case, the seller can exercise lien on the balance of the goods not yet delivered provided the part delivery was not made with an intention to waive the lien.
- 2. The Right of Stoppage in Transit .

15. Buyer not bound to return rejected goods :

Unless otherwise agreed, where the buyer legally holding the right to reject any goods sent by the seller, rejects any goods after receiving delivery, he (the buyer) is not bound to return the goods to the seller. In such case, the buyer just has to intimate the seller that he refuses to accept the goods sent.

16. Liability of Buyer :

Where the seller intimates to the buyer that he (the seller) is ready and willing to deliver the goods and

Suppose the goods were dispatched to the buyer, but before the goods were delivered or before the seller got payment of the price, the buyer became insolvent, in such a case, the seller can resume possession of the goods from the carrier.

This is called the right of stoppage in transit. Please note the following points :

- a. Goods are in transit from the time they are delivered to the carrier, till the time they are delivered to the buyer or his agent.
- b. The right to stoppage in transit comes to an end as soon as the goods are delivered to the buyer or his agent. However, if the after arrival of the goods at



the destination, the carrier intimates to the buyer that the goods are being held by him (the carrier) on behalf of the buyer, the seller's right to take back possession comes to an end.

- c. If the carrier wrongfully refuses to deliver the goods to the buyer, the transit of the goods comes to an end and the seller's right to stop transit too ceases.
- d. Where the seller made part delivery of the goods, in such a case, the seller can only stop the goods in transit, provided it can be proved that the part delivery was not made with an intention to waive the lien.

e. The buyer need not be declared insolvent in the court of law. Insolvency here, denotes that the buyer has become financially embarrassed.

f. The vendor/seller can exercise right of stoppage, by either taking actual possession of the goods or by directing the carrier to send back the goods to him or his agent and the expense of such return delivery shall be borne by the seller.

The Right to Resale

The unpaid seller/vendor who has retained possession of the goods by exercising his lien or has taken back possession from the carrier upon insolvency of the buyer **can resell the goods**, under the following circumstances:

a) If the goods are perishable, those can be sold off

without notice to the buyer; otherwise

 b) By first giving notice to the buyer and allowing him reasonable opportunity and time to pay/ remit the price, and then resell only if the buyer fails to pay;

Here too, if the seller , upon resale, gets more value for the goods, he can retain the excess amount, but , if the sale value is less than what was due from the buyer, the seller can sue the buyer for the balance. The buyer remains liable to compensate the seller for damages, if any, suffered by the seller. The next buyer gets good title of the goods.

Suit for Price :

3.

- a) Under a contract of sale, where the property in the goods has passed on to the buyer, and the buyer does not act as per term s of the contract and fails to pay or neglects to pay, the seller can sue the buyer for the price of the goods;
- b) If under the terms of a contract, the buyer is to pay the price on a certain day irrespective of the actual delivery of the goods and the buyer fails to pay or neglects to pay, the seller can sue the buyer for the price even though the property in the goods has not passed to the buyer.

1



PAPER: 4 FUNDAMENTALS OF BUSINESS MATHEMATICS

AND STATISTICS (FBMS)

CMA Ankan K Bandyopadhyaya He can be reached at: abanerjee8533@gmail.com

Your Preparation Quick Takes



Syllabus Structure

A Fundamentals of Business Mathematics 40%

B

B Fundamentals of Business Statistic 60%



Learning Objectives:

- To understand the basic concepts and needs of Business Mathematics.
- To Know the reasonableness and explanation in calculation.
- To know the application of various mathematical techniques.

BUSINESS MATHEMATICS

In this issue we will discuss some conventional problems simple & compound interest.

Q1. Calculate the value 5 years hence of a deposit of R1000 made today if the interest rate is 8% p.a. if (i) simple interest is given (ii) compound interest is given

Ans:

(i) On simple interest

Interest amount at the end of 5 years = 1000 × 0.08 × = 400 So the matured amount will be = 1000 + 400 = 1400

(ii) On compound interest The matured amount $A = 1000 \times (1 + 0.08)^5 = 1000 \times 1.469 = 1469$

Q2. Find the present value of R1000 receivable 6 years hence if the rate of interest is 6%

Ans: Let the present value today is = P So by question we could write $1000 = P(1 + 0.06)^{6} = P \times (1.06)^{6}$

So P = $\frac{1000}{(1.06)^6}$ = 704.96

Q3. Find the present value of R1000 receivable after 20 years if the rate of interest is 8% p.a.

Ans: Let the present value today is = P So by question we could write $1000 = P \times (1+0.08)^{20} = P \times (1.08)^{10} \times (1.08)^{10}$ $(1.08)^{10} = 2.16$ So $P = \frac{1000}{2.16 \times 2.16} \cong 214$

Q4. If you deposit R5000 today at 12% p.a. interest in how many years will this amount grow to R160000?

Ans:

By question we could write $160000 = 5000 (1 + 0.12)^{\dagger}$, We have to find out the value of t

From above we can write $\frac{160000}{5000}$ (1.12)[†] Or, 32 = (1.12)[†]

Log 32 = † Log (1.12)



Or, 1.505 = t × 0.049

Or, t \cong 31 Years

Q5. A finance company offers to give R8000 after 12 years in return for R1000 deposited today. Find out the approximate interest offered p.a?

Ans:

By question we could write $8000 = 1000 \times (1+r)^{12}$

We have to find out the value of r

We could write



 $\frac{8000}{1000}$ = (1 + r)¹² Or, 8 = $(1 + r)^{12}$ Or, Log 8 = 12 Log (1 + r)Or, 0.90309 = 12 Log (1 + r) Or, 0.0752 = Log(1 + r)Or, 1.19 = 1 + r, by taking antilog Or, $r \cong 19\%$

Q6. How much does a deposit of R5000 grow to at the end of 6 years at 12% p.a. rate of interest compounded guarterly?

Ans: By question we could write $A = 5000 \left(1 + \frac{r}{4}\right) 4 \times 6$

Since interest is given quarterly so in a year it is given 4 times and for 6 years 24 times We can write

 $A = 5000 \times \left(1 + \frac{0.12}{4}\right)^{24}$ Or, $A = 5000 \times (1 + 0.03)^{24}$ Or, A = 10163.97

Q7. A bank offers 8% nominal rate of interest with guarterly compounding. What is the effective rate of interest?



Q8. A man invests R100 at the end of 2001, R200 at the end of 2002, R300 at the end of 2003, R400 at the end of 2004 & R500 at the end of 2005. If all interest accumulates at 5% p.a. what do his investments amount to at the end of 2006.

Ans:
By question we could write
$$A_1 = 100 \times (1.05)^5 = 127.6282$$

 $A_2 = 200 \times (1.05)^4 = 243.1013$
 $A_3 = 300 \times (1.05)^3 = 347.2875$
 $A_4 = 400 \times (1.05)^2 = 441$
 $A_5 = 500 \times (1.05)^1 = 525$

So at the end of 2006 total investment amounts to R1684.017

Q9. Mr S invests in a bank RX on the first day of 2006. In the subsequent years on the 1st of January he deposits money double that of the money deposited in the previous year after withdrawing the interest only on the same day. It was found that balance in his account on 2nd January 2015 was R2046. Find out the amount he deposited on 1st January 2006.

Ans: Let the money invested on 1st January 2006 be X then by question we could write



Or, 1023X = 2046 Or, X = 2



Q10. Find the interest on R1000 for 10 years at 4% p.a., the interest being paid quarterly?

Ans: By question we could write $A = 1000 \times \left(1 + \frac{0.04}{4}\right)^4 \quad \delta \quad 10$ Or, $A = 1000 \times (1.01)^{40}$ Or, A = 1488.864So Interest = 1488.864 - 1000 = 488.864

Q11. Someone promises to give you R5000 after 10 years in exchange for R1000 today. What interest rate is implicit in the offer?

```
Ans:
By question we could write
A = P \times (1+r)^{10}
Or, 5000 = 1000 × (1+r)^{10}
Or, 5 = (1+r)^{10}
Or, Log5 = 10Log(1+r)
Or, 0.69897 = 10Log(1+r)
Or, 0.0699 = Log(1+r)
Or, 1.174 \cong 1+r, taking antilog
Or, r = 0.174 = 17.4%
```

Q12. Find the present value of R10000 receivable after 8years if the rate of interest is 15% p.a?

Ans: By question we could write $10000 = P \times (1+0.15)^{8}$ $10000 = P \times (1+0.15)^{8}$ Or, $10000 = P \times (1.15)^{8}$ Or, P = 3269.018

Q13. If R1 was deposited in the post office savings bank on 1st April, 2003, what would it amount to on 1st April 2033 if compound interest at 3% p.a. was allowed?

Ans: By question we could write

 $A = 1 \times (1 + 0.03)^{30}$ Or, $A = (1.03)^{30} \cong 2.43$

Q14. A sum of money invested at compound interest amounts to R21632 at the end of 2nd year and R22497.28 at the end of third year. Find the rate of interest and sum invested.

Ans: By question we could write

 $21632 = P \times (1+r)^{2} \dots (1)$ $22497.28 = P \times (1+r)^{3} \dots (2)$ By (2) / (1) we will get $\frac{22497.28}{21632} = \frac{(1+r)^{3}}{(1+r)^{2}}$ Or, 1.04 = 1+r
Or, r = 0.04 = 4%
Now we can write $21632 = P(1.04)^{2}$ Or, P = 20000



Q15. What is the difference between the effective rate of interest and nominal rate of interest in the following case? "Nominal rate of interest is 24% and the frequency of compounding is twelve times a year"

Ans:
We know that effective rate of interestr :
$$\left(1 + \frac{k}{m}\right)^m - 1$$

Where

r = effective rate of interest k = nominal rate of interest m = no of times interest is given in a year

So by question we can write $r = \left(1 + \frac{0.24}{12}\right)^{12} - 1$

Or, $r = (1.02)^{12} - 1 \cong 0.268 = 26.8\%$

Q16. Mr Raghu deposits R10000 in a bank now. The interest rate is 10% and compounding is done semi-annually. What will the deposit grow to after 10 years?

Ans:

By question we could write

94

$$A = P \times \left(1 + \frac{r}{m}\right)^m$$

Here P = 10000, r = 0.10, m = no of times of interest is given in year = 2, t = 10 So we could write

A = 10000 ×
$$\left(1 + \frac{0.1}{2}\right)^{2 \times 10}$$

Or, A = 10000 × $(1.05)^{20}$

Or, A = 26532.98

Suggestions:

The study guide needs to be read thoroughly. Supplementary readings could be made from other resources. This issue is based totally on study guide issued by the institute. Standard books could be referred for additional expertise to attend the conventional questions. This lesson is an extension of discussion on the topic in guide book. Detailed discussions on different formulas are not done here to avoid repetition. This lesson is purely an aid to study guide on paper 4- Fundamental of Business mathematics and Statistics written and issued by Institute on Syllabus -16.

19





ABOUT YOUR STUDIES - FOUNDATION COURSE

Practical support, information and advice to help you get the most out of your studies.











Dear Students,



Updation of E-Mail Address/Mobile:

Students are advised to update their E-Mail id and Mobile Numbers timely We are very much delighted to receive responses from all of you; for whom our effort is!

We have noted your queries and your requests will definitely be carried out. Further, requesting you to go through the current edition of the bulletin. All the areas will be covered gradually. Expecting your responses further to serve you better as we believe that there is no end of excellence! One of the mails received is acknowledged below.

Please put your opinions so that we can make your ebulletin everything that you want it to be.

All rights reserved. No part of this Bulletin may be translated or copied in any form or by any means without the prior written permission of the Institute of Cost Accountants of India.

so that important communications are not missed as the same are sent through bulk mail/SMS nowadays. Student may update their E-Mail id/ Mobile Number instantly after logging into their account at www.icmai.in at request option.

Send your Feedback to: e-mail: studies.ebulletin@icmai.in website: http://www.icmai.in





Message from Directorate of Studies

Dear Students,

We from the Directorate of studies know your expectations from us and accordingly we are trying to delivery some meaningful tips through the publications of monthly E-bulletins. Other than this we are trying to help you through, Mock Test Papers (MTPs), Work Book, and we have conducted Webinar sessions.

You know that the nation is celebrating 150th birth anniversary of the father of the nation M.K. Gandhi. One of his inspirational message towards the students were:

"You must be the Change you wish to see in the World",

Let us observe his memory, following the above message.

Certain general guidelines are listed below and which will help you in preparing yourselves:

- Conceptual understanding & Overall understanding of the subject should be clear.
- Candidates are advised to go through the study material provided by the Institute in an analytical manner.
- Students should improve basic understanding of the subject with focus on core concepts.
- The Candidates are expected to give to the point answer, which is a basic pre-requisite for any
 professional examination.
- To strengthen the answers candidates are advised to give answer precisely and in a structured manner.
- In-depth knowledge about specific terms is required.
- Write question numbers correctly and prominently.
- Proper time management is also important while answering.

Please refer the links mentioned below :

ТНЕ МАНАТМА

For Mock Test Papers (MTP): http://icmai.in/studentswebsite/mtp2016_j19_fnd.php

For PPT on "Achieve your GOAL: http://icmai.in/studentswebsite

Recorded Webinar Link: http://icmai.in/Webinar_Portal/Students/StudentLogin.aspx

Ebulletin Link: https://icmai.in/studentswebsite/E-Bulletin.php

Don't give up
Don't give in
Don't give out

You can win!

GOOD LUCK

Be Prepared and Get Success;

Disclaimer:

Although due care and diligence have been taken in preparation and uploading this E-bulletin, the Institute shall not be responsible for any loss or damage, resulting from any action taken on the basis of the contents of this E-bulletin.

22





Few Snapshots





CMA Balwinder Singh, President along with CMA Ashwin G Dalwadi, Council Member of the Institute during Pre-Placement Orientation Training Programme held on 14th March 2020 at Ahmedabad.



Glimpses of the 41st Cost Conference on the theme "Sustainable Development through Inclusive Growth - Rising from the East" organised by the EIRC of the Institute on 28th & 29th February 2020 at Kolkata

INSTITUTE OF COST ACCOUNTANTS OF INDIA



Glimpses of the 41st Cost Conference on the theme "Sustainable Development through Inclusive Growth - Rising from the East" organised by the EIRC of the Institute on 28th & 29th February 2020 at Kolkata





Glimpses of the Golden Jubilee Conference 2020 of Kalyan Ambernath Chapter of the Institute organised on the theme 'Infrastructure - A Propeller' at Kalyan on 22nd February 2020. Glimpses of the Golden Jubilee Conference 2020 of Kalyan Ambernath Chapter of the Institute organised on the theme 'Infrastructure - A Propeller' at Kalyan on 22nd February 2020.

23





THE INSTITUTE OF COST ACCOUNTANTS OF INDIA

(Statutory body under an Act of Parliament) Headquarters: CMA Bhawan, 12, Sudder Street, Kolkata - 700 016 Phone: +91-33-2252-1031/34/35/1602/1492/1619/7373/7143 Delhi office: CMA Bhawan, 3, Institutional Area, Lodhi Road, New Delhi - 110 003 Phone: +91-11-2462-2156/2157/2158