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CONTENTS

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.

PAPER: 1, PART: I

FUNDAMENTALS
OF ECONOMICS & MANAGEMENT
- (FEM) - ECONOMICS

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Your Preparation Quick

A 50%

B 50%

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

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 behavior 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

Hallow friends!!! Hope you have enjoyed the KALI PUJA and DIWALI celebrations to your hearts' content. I am sure, you have burst crackers and all sorts of sparkling and dazzling fire works during the Diwali and Kali puja festival. Now that all the festivities are over, even the last but not the least Bhai Ponta is also over, its high time that you pull up your socks and tighten your belt and get ready for a solid preparation for your up-coming exam. Go through the STUDY MATERIAL thoroughly because all the questions in your final exam will be based on your study -material. Let us start with our usual exercise of our MOCK TEST.

I. **Choose the correct answer:**

1. **Which of the following is a positive economics statement?**
   A. Full employment policies should be pursued
   B. Govt. should tax the rich and subsidize the poor
   C. If minimum wage rates rise, then employment will fall
   D. Govt. should help the homeless

2. **If the price of good A rises and the demand for good B rises along with it, then A and B are**
   A. Substitutes
   B. Compliments
   C. Unrelated goods
   D. Inferior goods

3. **If the price elasticity of demand is infinity, the demand curve will be**
   A. Upward rising

B. Downward falling

C. Parallel to the quantity-axis

D. Parallel to the price-axis

4. **Which statement is false?**

A. Giffen good is a subset of the inferior goods

B. The demand curve for giffen good is upward rising, while that for conspicuous goods is not

C. As the price of giffen good falls, the demand for it falls also

D. The giffen good does not obey the law of demand

5. **LAC curve is U-shaped because of**

A. Internal economies and diseconomies of scale

B. External economies and diseconomies of scale

C. Law of diminishing marginal productivity

D. Constant returns to scale

6. **Which of the following is not a feature of perfect competition?**

A. Large number of buyers and sellers

B. Homogeneous goods

C. Selling cost

D. Free entry and free exit

7. **Under Monopolistic competition, in the long run equilibrium, the firm will**

A. Enjoy super-normal profit

B. Enjoy only normal profit

C. Incur loss

D. None of the above

8. **Price discrimination will not be possible when**

A. Price elasticities of demand are different

B. Two markets are separated by a tariff wall

C. Two markets are separated from one another by geographical distance

D. Resale of a product (or a service) is allowed

9. **Measurement of national income cannot be done by**

A. Product method

B. Income method

       C. Expenditure method

       D. Census method

10. Marginal efficiency of capital means

       A. Additional physical product obtained due to the employment of an extra unit of capital

       B. Net current product of the capital good minus the cost of capital good

       C. Prospective yields from a capital asset throughout its life

       D. Additional efficiency of capital stock

KEY:

1.C	2.A	3.D	4.B	5.A	6.C	7.B	8.D	9.D	10.C

Fill in the blanks:

1. Money market deals with …………. Term credit
2. Indian money market is controlled by ……………
3. Example of unsecured promissory notes is …………… ………….
4. …………. …………. Represent the amount borrowed by commercial banks from each other for short term
5. Generally commercial bills are prepared for a period of ………… days

KEY:

1.Short	2.RBI	3.Commercial paper	4.Call money	5.90

II. True or false:

1. A firm faces shut down situation in the short run under perfect competition when P=AC
2. NABARD is the apex bank for agricultural credit in India
3. Marshall was the father of economics
4. Firm will be maximizing profit in the long run under perfect competition if AC=AR
5. Marginal utility begins to be negative, when the total utility starts to decrease

KEY:

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

III. Matching:

1.	Labour	A.	semi-finished goods
2.	Inventory investment	B.	factor of production
3.	Government bond	C.	inductive method
4.	Normative science	D.	what ought to be
5.	Statistical method	E.	Government liability

KEY:

1.B	2.A	3.E	4.D	5.C

So, friends! We have just completed another mock test. I hope you all have enjoyed it. Study is really a fun. Try to get the logic behind all the concepts. Once you do, you will start feeling excited. As teacher, we try to make things interesting to you. Once you find interest in your studies, you won't look back any more. Study hard for your exam and prepare yourself by writing all the answers several times. Wish you all the best!!!
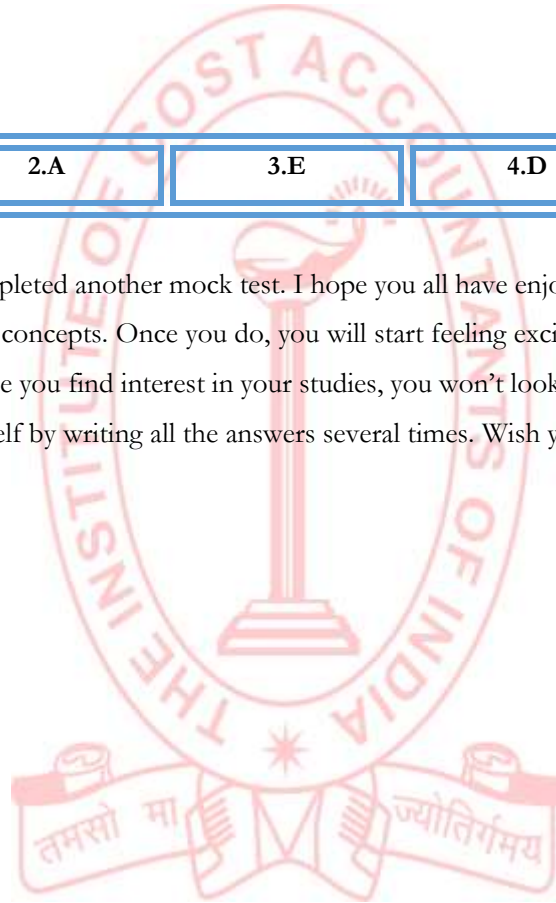
PAPER: 1, PART: II

FUNDAMENTALS

OF ECONOMICS & MANAGEMENT
- (FEM) - MANAGEMENT

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Your Preparation Quick

Syllabus Structure

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

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

Management

1. **Managing Director is the position of _____ level of management in a large company**

   A. Middle level of management.

   B. Lower level of management.

   C. Middle and Lower level of management.

   D. Top-level management.

2. **Top management is concerned with the formulation of _____**

   A. Long-term plans.

   B. Short-term plans.

   C. None of these.

   D. Guidelines for supervisors.

3. **Which one of the following is not important to management?**

   A. Developing society.

   B. Disciplining employees.

   C. Inculcating creativity.

   D. Integrating various interest groups.

4. **Which of the following is true about managers within an organization?**

   A. Management skills apply to managers at top levels in an organization

   B. Management skills apply to managers at all levels in an organization

   C. Management skills apply to managers at middle levels in an organization

   D. Management skills apply to managers at executive levels in an organization

5. **Which of the following describes the principle of harmony, not discord?**

   A. The management should properly investigate any task

   B. The management should engage in scientific enquiry

C. The management should focus on observation and analysis

D. The management should share the gains or profits of a company with their workers

6. **Which of the following is the main objective of the Unity in Direction principle?**

A. Coordination

B. Unity in action

C. Both a and b are correct

D. Both a and b are incorrect

7. **Which of the following is the main objective of standardization within a business?**

A. It helps to establish standards of excellence within a company

B. It helps to reduce products to fixed sizes, features or types

C. It helps to bring in more significant exchangeability of various parts

D. All of the above

8. **Which Principle of Scientific Management says that employees must be rewarded when they make suggestions that lead to cost savings within the company?**

A. Cooperation not individualism

B. Harmony not discord

C. Science, not a rule of thumb

D. All of the above

9. **Management is what a manger does_____**

A. Peter F. Drucker

B. Terry

C. Louis Allan

D. Henry Fayol

10. **Management is the art and science of decision making and leadership _____**

A. Harold Koontz

B. Donald J. Clough

C. Louis Allan

D. Terry

11. **Every subordinate should receive orders from and be accountable to only one superior is _____**

A. Unity of direction

B. Unity of command

C. Centralization

D. Scalar chain

12. **The chain of command from the highest authority to the lowest level in the organization is _____**

A. Unity of direction

B. Unity of command

C. Centralization

D. Scalar chain

13. **A study relating to the fixing of the working hours with rest periods to recoup the energy while performing in a job is called _____**

A**.** Fatigue study

B. Time study

C. Motion study

D. Work-study

14. **The assumptions about future derived from forecasting and used in planning are known as _____**

A**.** Planning premises

B. Freehold premises

C. Business premises

D. Corporate premises

15. **Contingent plan to meet environmental pressures is _____**

A. Objective

B. Strategies

C. Policies

D. Rules

Answer:

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

PAPER: 2

FUNDAMENTALS
OF ACCOUNTING (FOA)

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Your Preparation Quick

A 80%

B 20%

Syllabus Structure

A Fundamentals of Financial Accounting **80%**

B Fundamental of Cost Accounting **20%**

Financial of Accounting

Hope you all are keeping well. Happy Dewali to you all. Wish this Dewali enlighted your knowledge. Knowledge is such which requires an instinct to blink. Its something like a fire to add on the crackers to burst. This fire is the "curiosity" from inside or "encouragement" form outside force. Whatever it is, the fact remains - be knowledgeable. Knowledge - the most powerful asset of anyone which never depreciates. Nourish it always.

Here is some practice material for you:

Let's concentrate on this now:

In this issue we will focus on cost accounting. Read the sentences carefully and think whether it says true or false:

A

1. Financial accounts provide information for income determination.
2. The purpose of Financial Accounting is to provide information for fixing prices.
3. Since pricing is a matter of managerial policy, cost information is useless for price fixation.
4. Historical costing is the ascertainment of costs after they are incurred.
5. Cost accounting is an essential tool of management.
6. A good system of costing serves as a means of control expenditure and helps to secure economy i manufacture.
7. Cost accounting is not a post-mortem examination.
8. Contract costing is an example of Specific order costing.
9. Installation of good Cost Accounting System need not have proper Financial Accounting System.
10. Cost Accounting is a rigid system.

B

1. Direct cost is that which cannot be easily allocated to cost units.
2. Salaries paid to salesmen come under direct cost and are included for the calculation of prime cost.
3. Period costs are invariable and are expended out as and when the inventory is sold.
4. Conversion cost is equal to direct wages and factory overhead.

5. Under functional classification of cost, the cost is classified into direct material, direct labour, direct expenses and overheads.

6. When a premises is owned and it is used for business, a charge in lieu of rent is called 'imputed cost".

7. If an expense can be identified with a specific cost unit, it is treated as direct expense.

8. Future costs are not relevant while making management decisions.

9. Notional expenses are not included for ascertaining cost.

10. Office rent is an example of semi-variable cost.

11. Expenditure incurred in formulating the policy, directing the organization, controlling and managing the operations of an undertaking are called as 'administration overhead'.

12. Labour cost may be viewed as a committed cost rather than discretionary cost.

13. Notional costs and imputed costs mean the same thing.

14. In decision making management should consider only future costs.

15. Marginal cost is the cost, which would not be avoided if the unit was not produced.

16. A cost which is partly fixed and partly variable is called semi-variable cost.

17. Increase in total variable cost is due to increase in sales.

18. A cost per unit which increases or decreases when volume of output decreases or increases is known as 'variable cost.

19. Fixed costs are costs which do not vary with variation of output.

20. All the variable expenses are in the nature of indirect expenses.

ANSWER

A	
1	T
2	F
3	F
4	T
5	T
6	T
7	T
8	T
9	F

10	F
B	
1	F
2	F
3	F
4	T
5	T
6	T
7	T
8	F
9	T
10	F
11	T
12	T
13	T
14	T
15	F
16	T
17	F
18	F
19	T
20	F
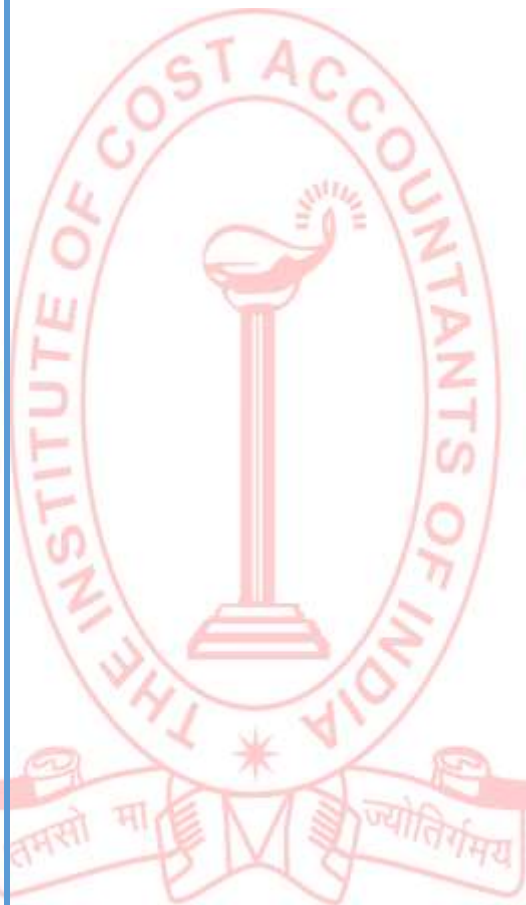
PAPER: 3

FUNDAMENTALS
OF LAWS AND ETHICS (FLE)

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Your Preparation Quick

B 30%

A 70%

Syllabus Structure

A Fundamentals of Commercial Laws **70%**
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 and Ethics

U nder the changed environment, the examinations*, dear students, you can no longer resort to selective study based on past questions. You are expected to be studying in greater depth and gather more range of knowledge.*

Under the MCQ pattern, you will be given several questions first and then **asked to answer among a set of options where there may be one or more wrong answers**. *You must try to lay* **emphasis on details** and therefore **keep studying regularly every day** and **make short notes** and **keep revising repeatedly until your brain can retain it for a long term. You must pay particular emphasis on getting your concept clear with sound fundamentals.** You must learn to think logically in normal sequence and develop the knack to distinguish between similarities and differences which might be confusing, yet be the basis used to distinguish correct choices from among the choices given with each question. *Always remember that MCQ tests are designed to test your knowledge and ability.*

Now, you will realize the importance of reading the Sections and definitions so that you understand what the Sections lays and/or what the definition means. **You will notice that the question-setter will actually be rephrasing the words in the Section and/or definition and placing them before you as MCQs. Therefore, please study carefully because under the MCQ pattern you can fall prey to misleading options that will distract you as the options will look similar to the correct answer.**

So, now please note the few suggestive Rules to be kept in mind for taking MCQ type exams:

1. Start a few deep breathing exercise before starting to read the entire question. **Never read the answers before reading the question.**

2. After reading the question, repeat the question mentally and find the correct answer .*Now check whether your answer matches with any of the options given. Select the best answer.*

3. In this manner keep answering the questions you know confidently. If you have doubts, simply mark (CROSS OUT) that question with a PENCIL and continue with the next question. DO NOT WASTE ANY TIME. Attempt to any these Crossed Out questions at the end.

4. In case you have confusion with words, in the options given, try to find your own logic. Answers that seem logical are generally ultimately incorrect. If your mind prompts you with a logical alternative, that means that, that word is just to misguide you. Therefore, that option is not correct.

5. Please remember that when you are given options such as "All the above" and "None of the above", never select "All the above" if you think that any one answer is incorrect. Similarly never select "None of the above" option, if you feel that at least one option is true. Interestingly, if you notice two correct options to a MCQ , you can choose "All the above".

6. A study of MCQ pattern reveals that *generally the correct answer gives out more information than the other options given with that question.*

Now, let us start revising part by part, what we have read in the previous issues.

The Sale of Goods Act,1930

What are the implied conditions and warranties in a contract of sale of goods?

Please read Sections 14 to 17 of the Sale of Goods Act. The implied conditions and warranties in a contract of sale of goods are as follows :

Implied Conditions -

1. Title – that the seller has the right to sell the goods and that he shall have the right to sell the goods at the time when the property in the goods is to pass.

2. Description – that the goods shall correspond to the description – physical characteristics, mention of trade mark, brand, etc. under which the sale agreement was made or those goods are normally sold.It is expected that the goods will be same as the goods described.

3. Sample – that goods shall be supplied as per the sample shown and agreed upon .That the buyer will get the opportunity of comparing the goods supplied with the earlier sample shown and the quality of the goods supplied matches with the quality of the sample shown and that the defects , if any, cannot be detected apparently on reasonable examination and inspection.

4. Sample and Description – where goods are sold by sample as well as by description, it is expected that the goods will correspond both - with the sample and the description.

5. Fitness or Quality – Where the buyer tells the seller about the purpose for which the goods are required, and relies on the seller's skill or judgment, it is implied that the seller agrees to the implied condition

of fitness and description of the goods. Where the supplier deals in goods of such description laid by the buyer, it is implied that the goods shall be of desired quality and fit for sale – whether manufactured or traded by the supplier. However, if the goods are bought after inspection by the buyer, it will be implied that the inspection of the goods bought ought to have detected and revealed the defects.

Implied Warranties -

1. That the buyer shall have quiet possession of the goods, that is, the vendor has the right to transfer the goods,
2. That the goods are free from any charge or encumbrances in favour of any third party , not known to the buyer or not revealed to the buyer at the time of the contract.
3. That a warranty as to fitness for a particular purpose may be annexed to a contract of sale by normal practice in trade or a custom or usage.

Now, let us discuss about – **Performance of the Contract of Sale**

In any contract of sale, there has to be two parties – the **Buyer and the Seller.** Both are expected to perform as per agreed terms – The **Seller to deliver the goods and the buyer to accept the goods and pay the price.**

The seller is obliged to deliver the goods as per the terms of contract at the specified – time, place, quantity and quantity. **The buyer is obliged to accept the goods and pay the agreed price.** Depending on the terms of the contract, the payment can be taken in advance, or on stipulated period of credit and the delivery too can be off-the-shelf, ex-godown, free-on-board, staggered etc.

Performance of a contract depends on two criteria – **timely delivery by the supplier and agreed payment terms of the buyer.** The seller shall be ready to give possession of the goods in exchange for payment of the price and the buyer to be ready to take possession of the goods from the seller in exchange for price.

1) **Delivery can mean Physical or actual transfer of possession from one person to another**

2) **Delivery can be through different modes – viz.**
    a) **Actual Delivery –** where the goods are physically delivered to the buyer by the seller – directly or through an agent.
    b) **Symbolic –** just as we see in reality shows where the keys of a motor car is handed over to the winner
    c) **Constructive –** where the delivery order is issued to a third party for making delivery – Example – A Company selling Potatoes ,issuing Delivery Order to the Cold Storage in a

different location asking them to deliver certain Number of Potato Bags to the buyer on receipt of the Issue Slip.

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.

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 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.

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 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 beforehand, 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.

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 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.
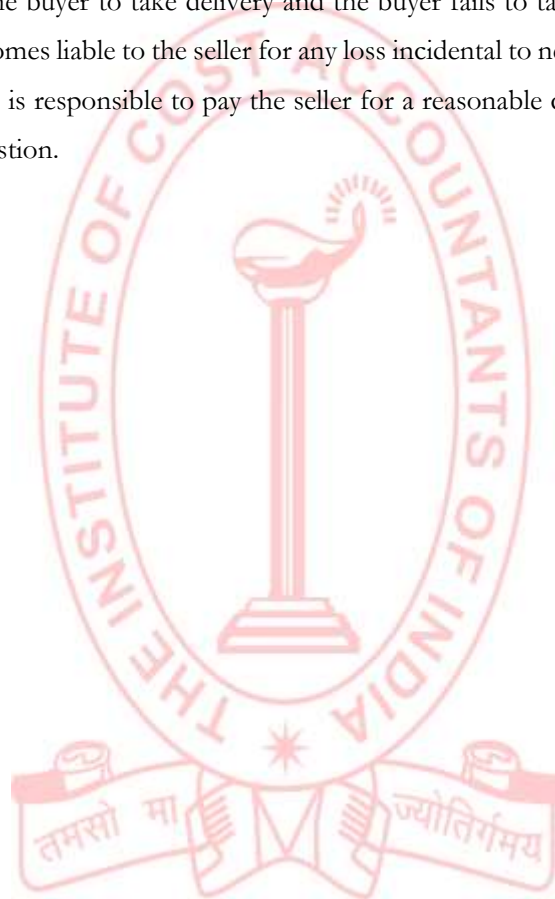
PAPER: 4

FUNDAMENTALS
OF BUSINESS MATHEMATICS
AND STATISTICS (FBMS)

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Your Preparation Quick

Syllabus Structure
A Fundamentals of Business Mathematics 40%
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 and Statistics

In this issue we discuss Conventional problems on Central Tendency

Q1. Given

$\bar{X}$ = 42 .5, Md = 41.0; Find Mode

Answer:

We know that $Mean - Mode = 3\,(mean - Median)$

So $42.5 - Mode = 3\,(42.5 - 41)$

Or, $Mode = 42.5 - 3\,(42.5 - 41) = 38$

Q2. Find Z (mode) for the following data

X:	10	20	30	40	50	60	70	80
F:	4	9	30	48	51	24	12	2

Answer:

X	f	II	III	IV	V	VI
10	4					
20	9	13				
30	30		39	43		
40	48	78			87	
50	51		99			129
60	24	75		123		
70	12		36		87	
80	2	14				38

We prepare a grouping table as above

Under frequency column (column I) highest frequency 51 marked

In column II the frequency is grouped in twos starting from the top. Their totals are found out and the highest total (78) is marked

In column III the frequency is grouped in twos leaving the first frequency. Their totals are found out

and the highest total (99) is marked

In column IV the frequency is grouped in threes starting from the top. Their totals are found out and the highest total (123) is marked

In column V the frequency is grouped in threes leaving the first frequency. Their totals are found out and the highest total (87) is marked

In column VI the frequency is grouped in threes leaving the first and two. Their totals are found out and the highest total (129) is marked

In the following analysis table we have shown the X values against the highest marked items of above table to find the X values which occur maximum times.

Column	Size of items containing maximum frequency							
	10	20	30	40	50	60	70	80
I					50			
II			30	40				
III				40	50			
IV				40	50	60		
V		20	30	40	50	60	70	
VI			30	40	50			
Total	0	1	3	5	5	2	1	0

So mode is 40 & 50

Q3. Find mode for following data. (Cumulative Series)

X	Lessthan100	90	80	70	60	50	40	30	20
F	500	467	404	295	177	102	47	21	6

Answer:

$$M_O = l_1 + \frac{f_0 - f_1}{2f_0 - f_1 - f_2} * h$$

Less than 20	6	
20-30	15	
30-40	26	
40-50	55	
50-60	75	l1
60-70	118	Modal class
70-80	109	l2
80-90	63	
90-100	33	

$$M_O = l_1 + \frac{f_0 - f_1}{2f_0 - f_1 - f_2} * h = 60 + \frac{118 - 75}{2*118 - 75 - 109} * 10 = 68.27$$

Q4. M (Median) and Z of the following given series in 67 and 68. If N = 115; Find the values of missing frequencies.

X	0-20	20-40	40-60	60-80	80-100	100-120	120-140
F	2	8	30	?	?	?	2

Answer: Let the missing frequencies are f1, f2, f3

Class	f	c.f	
0-20	2	2	
20-40	8	10	
40-60	30	40	
60-80	f1	40+f1	Median & Modal class
80-100	f2	40+f1+f2	
100-120	f3	40+f1+f2+f3	
120-140	2	42+f1+f2+f3	

By question we can write

$$42 + f1 + f2 + f3 = 115$$

$$M: 67 = 60 + \frac{\frac{115}{2} - 40}{f1} * 20 \ \ Or, f1 = 50$$

$$Mo = Z: 68 = 60 + \frac{f1 - 30}{2f1 - 30 - f2} * 20$$

Or, $8 = \frac{50-30}{2*50-30-f2} * 20$

Or, $8 = \frac{20}{70-f2} * 20$

Or, $70 - f2 = 50$

Or, $f2 = 20$

So $42 + f1 + f2 + f3 = 115 \ Or, 42 + 50 + 20 + f3 = 115. So \ f3 = 3$

Q5. Calculate Geometric mean from the following data

X:(Variable)	10	52	110	120	50	80	60	37

Answer:

$$g = AntiLog\left(\frac{\sum_i^n logx_i}{n}\right)$$

X	Log X
10	1.000
52	1.716
110	2.041
120	2.079
50	1.699
80	1.903
60	1.778
37	1.568
Total	13.785

$$g = AntiLog\left(\frac{\sum_i^n logx_i}{n}\right) = Antilog\left(\frac{13.785}{8}\right) = 52.86$$

Q6. Compute Geometric mean

X	10	15	18	20	25
F	2	3	5	6	4

Answer:

$$g = AntiLog\left(\frac{\sum_i^n f_i logx_i}{\sum f}\right)$$

X	f	logX	f * logX
10	2	1	2
15	3	1.176091259	3.52827378
18	5	1.255272505	6.27636253
20	6	1.301029996	7.80617997
25	4	1.397940009	5.59176003
Total	20		25.2025763

So

$$g = AntiLog\left(\frac{\sum_i^n f_i logx_i}{\sum f}\right) = Antilog\left(\frac{25.2025763}{20}\right) = 18.202$$

Q7. Find w1 given the geometric mean = 15.3

X	8.2	24.8	17	30
W	5	3	4	w_1

Answer:

8.2	5	0.9138	4.5691
24.8	3	1.3945	4.1834
17	4	1.2304	4.9218
30	w1	1.4771	1.4771w1
Total	12+w1		13.6742+1.4771w1

So by question we can write

$$g = AntiLog\left(\frac{\sum_i^n wlogx_i}{\Sigma w}\right)$$

Or,

$$15.3 = AntiLog\left(\frac{\sum_i^n wlogx_i}{\Sigma w}\right)$$

Or,

$$15.3 = AntiLog\,(P)$$

So $\frac{13.6742+1.4771w1}{12+w1} = Log(15.3) = 1.185$

Or, $13.6742 + 1.4771w1 = 14.22 + 1.185w1$

Or, $1.4771w1 - 1.185w1 = 14.22 - 13.6742$

Or, $0.2921w1 = 0.5458$

Or, $w1 = \frac{0.5458}{0.2921} = 1.87 \sim 2$

Q8. Calculate Harmonic mean from the following data

X	3834	382	63	0.8	0.4	0.03	0.009	0.0005

Answer:

$$H.M = \frac{n}{\sum_i^n \frac{1}{x_i}}$$

X	1/X
3834	0.000261
382	0.002618
63	0.015873
0.8	1.25
0.4	2.5
0.03	33.33333
0.009	111.1111
0.0005	2000
Total	2148.213

$$H.M = \frac{n}{\sum_{i}^{n} \frac{1}{x_i}} = \frac{8}{2148.213} = 0.0037$$

Q9. Calculate Harmonic mean from the following data

x:	10	20	25	40	50
F	20	30	50	15	5

Answer:

$$H.M = \frac{\sum f}{\sum_{i}^{n} \frac{1}{x_i} * f}$$

X	1/x	f	f* 1/X
10	0.1	20	2
20	0.05	30	1.5
25	0.04	50	2
40	0.025	15	0.375
50	0.02	5	0.1
Total		120	5.975

$$H.M = \frac{\sum f}{\sum_{i}^{n} \frac{1}{x_i} * f} = \frac{120}{5.975} = 20.084$$

Q10. Calculate Harmonic mean from the following data

x:	0-10	10-20	20-30	30-40	40-50
F	4	6	10	7	3

Answer:

$$H.M = \frac{\sum f}{\sum_{i}^{n} \frac{1}{x_i} * f}$$

Class	x = Mid value	1/x	f	f * 1/x
0-10	5	0.2	4	0.8
10-20	15	0.066667	6	0.4
20-30	25	0.04	10	0.4
30-40	35	0.028571	7	0.2
40-50	45	0.022222	3	0.0666667
Total			30	1.8666667

So

$$H.M = \frac{\sum f}{\sum_{i}^{n} \frac{1}{x_i} * f} = \frac{30}{1.8666667} = 16.071$$

Suggestions:

The study guide needs to be read thoroughly. Supplementary readings could be made from other resources. In this issue discussions are held on central tendency mainly median mode, GM and HM. without going detailing of formulae. Formulae are available in guide book. These sort of problems could facilitate in attempting MCQs. This could be used as supplement to the study guide. Students should go thoroughly for clear concept on formula from Guide book on the paper 4- Fundamental of Business mathematics and Statistics written and issued by Institute on Syllabus -16.
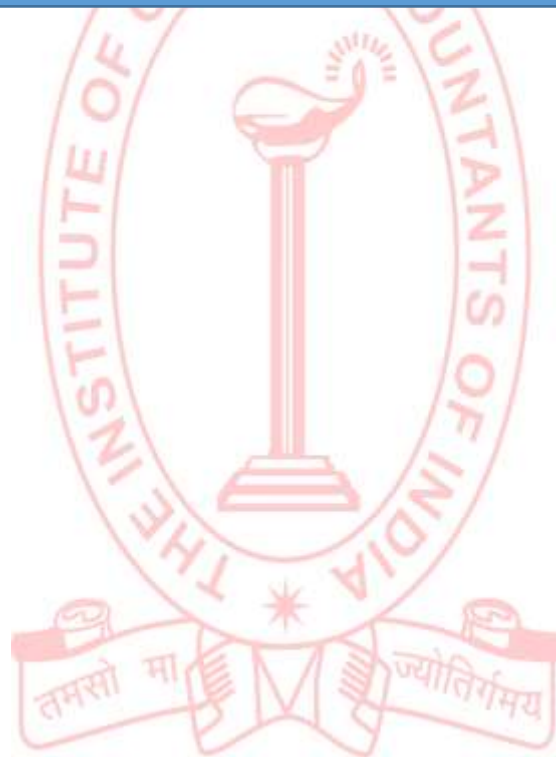
Examination Time Table

Examination Time Table

Day & Date	Foundation ExaminationSyllabus-2016	
	Time 10.00 A.M. to 12.00 Noon. Paper – 1 & 2 (200 Marks)	Time 2.00 P.M. to 4.00 P.M. Paper – 3 & 4 (200 Marks)
Friday, 13th January, 2023	Paper – 1 : Fundamentals of Economics & Management (100 Marks 50 Multiple Choice Questions)	Paper – 3: Fundamentals of Laws &Ethics (100 Marks 50 Multiple Choice Questions)
	Paper – 2 : Fundamentals of Accounting (100 Marks 50 Multiple Choice Questions)	Paper – 4 : Fundamentals of Business Mathematics & Statistics (100 Marks 50 Multiple Choice Questions)

Practical Advice

Submissions

SUBMISSIONS

Submissions

Updation of E-Mail Address/Mobile:

Students are advised to update their E-Mail id and Mobile Numbers timely 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.

Dear Students,

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 e-bulletin everything that you want it to be.

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

Message from Directorate of Studies

Message form
Directorate of Studies

Dear Students,

We from the Directorate of Studies understand your expectations from us and accordingly we are trying to deliver some meaningful tips through various publications in soft versions like-E-bulletins, Mock Test Papers (MTPs), and we also have conducted Webinar Sessions for the benefit of the students. Supplementary and Amendments are also uploaded from time to time to keep the students updated about the recent changes made in the papers; wherever applicable.

You must be aware that India is celebrating Azadi Ka Amrit Mahotsav, which is an initiative of the Government of India to celebrate and commemorate 75 years of independence and the glorious history of its people, culture and achievements. Along with pan India, your Institute has also observed and took part in various meaningful activities throughout the year. We also expect that our students should also take part in the development of the nation and make the country proud.

"Freedom has only one motto, may our country be happy and prosperous" ....

let you all observe the message cited above.

- Certain general guidelines are listed below and which will help you in preparing for the examinations:
- Conceptual understanding and overall understanding of the subjects should be clear,
- Students are advised to go through the study material provided by the Institute meticulously,
- Students should know and learn the basic understandings of the subjects with focus on core concepts,
- Students are expected to give to the point answer which is a pre-requisite for any professional examination,
- To strengthen the answers, students are advised to answer precisely and in the structured manner,
- Proper time management is also important while answering.

Please refer the link mentioned below:
https://icmai.in/studentswebsite/index.php

GOOD LUCK
Be prepared and be successful

Few Snapshots

Lighting of the Lamp: CMA Avijit Goswami, former Central Council Member, CMA Amal Kumar Das, Past President, CMA Biswarup Basu,Immediate Past President,CMA (Dr.) Sunder Ram Korivi, Academic Head, HSNC University& Adjunct Faculty of IICA, MCA, CMA Basant Maheswari, Portfolio Manager and CMA Chittaranjan Chattopadhyay, Chairman, BFSI Board (L to R)

President & VicePresident of the Institute congratulated the newly joined Secretary to the Government of India, Ministry of Corporate Affairs on 02 November 2022.

The Institute of Cost Accountants Of India has signed an MoU with Mallapuram District Panchayath for a GST Course to the students of the Panchayath. Glimpses of MoU sharing ceremony.

Corporate Laws Committee in association with Southern India Regional Council & Cochin Chapter of the Institute of Cost Accountants of India & Kochi Chapter of SIRC of the ICSI organised one day Seminar on "Powering towards inclusive and sustainable growth- Role of Professionals" at Kochi on 22nd October 2022.

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