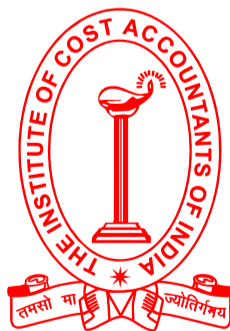TOLL FREE 18003450092 / 1800110910

1st PLACE

Azadi Ka Amrit Mahotsav

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Contents

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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.

Azadi Ka Amrit Mahotsav

PAPER: 1, PART: I
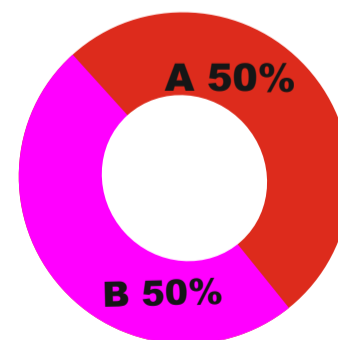
FUNDAMENTALS

OF ECONOMICS & MANAGEMENT

(FEM) - ECONOMICS

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Your Preparation Quick Takes

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 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 all of you are keeping fine. Study will be enjoyable if you find it interesting. All the teachers are trying their level best to make study full of fun. Economics is a very practical subject which is down to earth. Every body knows economics in his or her own unique way. An illiterate farmer knows very well how to maximize his profit in his own primitive way. In the text books of economic theory, we explain these clumsy primitive methods in a matured sophisticated way. This is the beauty of the subject. But for Heaven's sake, do not try to mug up. Try to follow the logic.

Let us start our usual exercise of mock test.

I. Choose the correct answer:

1. The supply function of a product x is Qx = 10 Px + 6, where Px stands for price of x. what will be the quantity supplied when the price is Rs.3?
   - A. 18
   - B. 36
   - C. 63
   - D. 13

2. What will be the shape of the demand curve for a "Giffen good"?
   - A. Downward falling to the right
   - B. Parallel to the x-axis
   - C. Parallel to the y-axis
   - D. Upward rising to the right

3. Given that P1=15, P2=10 and Q1=100, Q2=200. Find out the price elasticity of demand.
   - A. Price elasticity > 1
   - B. Price elasticity < 1
   - C. Price elasticity = 1
   - D. Price elasticity is infinity

4. State whether Economics is
   - A. A positive science only
   - B. Neither a positive nor a normative science
   - C. A science but not an art
   - D. None of the above

5. Suppose the budget line of the consumer is 100=5x+10y. What is the maximum amount of x the consumer can buy?
   - A. 5
   - B. 10
   - C. 20
   - D. None of the above

6. What will be the relative price of x and y which is also termed as marginal rate of substitution?
   - A. $\frac{1}{2}$
   - B. 1/3
   - C. $\frac{1}{4}$
   - D. None of the above

7. Suppose the total cost function is given by the equation $C=q^2+10q+2$. What will be the total fixed cost?
   A. 10
   B. 5
   C. 2
   D. None of the above

8. For the total cost function in Q.no.7, what will be the Average variable cost when the production level is 10?
   A. 10
   B. 20
   C. 100
   D. 200

9. For the total cost function in Q.no.7, what will be the Average cost when the production level is 5?
   A. 77
   B. 11
   C. 7
   D. 15.4

10. For the total cost function in Q.no.7, what will be the average fixed cost when the production level is 10?
    A. 0.1
    B. 0.5
    C. 0.2
    D. 0.4

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

II. Fill in the blanks:
1. Electricity supply corporation is an example of …………… …………… market.
2. Price rigidity is the feature ……………… market.
3. Product differentiation is the ……………….. …………… market.
4. Central bank enjoys the exclusive power of ……………… issue.
5. The main function of …………… is to regulate the business in stock markets and other securities market.

Key: 1. Discriminating monopoly 2. Oligopolistic 3. Monopolistic competition 4. Note 5. SEBI

III. True or False:
1. During the period of inflation borrowers will lose
2. The short term bills form a much smaller proportion of the bank finance in India as compared to Western countries.
3. Consumption depends not only present income but also on future income.
4. According to Keynes, the rate of interest decides the value of money
5. Tax policy comes under monetary policy

Key: 1. False, 2. True, 3. True, 4. True, 5. False

IV. Matching:

1.	Demand for salt	A. highly elastic
2.	Supply curve of labour	B. NABARD
3.	Luxurious goods	C. FERA
4.	ARDC	D. backward bending
5.	FEMA	E. highly inelastic

Key: 1. E, 2. D, 3. A, 4. B, 5. C

So friends, I do hope that you have enjoyed solving problems in the mock test. It was fun all the way…. No? It was a bit mathematical. But mathematics will concretize your concepts so hard that you will never forget. So always try to solve such problems whenever you lay your hands on them. This is the only way to prepare yourself for the exam. Best of luck!!!
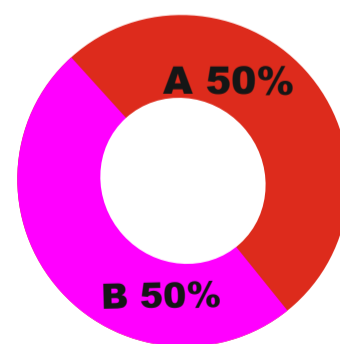
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PAPER: 1, PART: II

FUNDAMENTALS

OF ECONOMICS & MANAGEMENT
(FEM) – MANAGEMENT

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Your Preparation Quick Takes

A 50%

B 50%

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. **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
   Answer: B

2. **The principles of management serve as a general guideline for _____**
   A. Decision making
   B. Managerial actions
   C. Both A and b are correct
   D. Both A and b are incorrect
   Answer: C

3. **Which of the following is the correct meaning of concentration of decision-making authority?**
   A. Span of management
   B. Centralization
   C. Decentralization
   D. None of the above
   Answer: B

4. **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
   Answer: D

5. **The real owner of Joint stock company is:**
   A. Board of directors
   B. Financer
   C. Shareholders
   D. Debenture holder
   Answer: C

6. **In which form of business organization there is a direct relationship between efforts and reward:**
   A. Partnership
   B. Cooperatives organization
   C. Sole proprietorship
   D. Joint stock company
   Answer: C

7. **Which business organization has maximum secrecy?**
   A. Partnership
   B. Sole proprietorship
   C. Cooperative organization

D.   Joint stock company

Answer: B

8. **A budget is a statement showing:**
   A.   Forecast of the financial activities of the business
   B.   It is an estimate to achieve a specific goal
   C.   It is a policy statement of an enterprises
   D.   None of these

   Answer: B

9. **Which of the following is true?**
   A.   Authority and power are same
   B.   Authority gives power
   C.   Power gives authority
   D.   None of these

   Answer: C

10.   **"Maslow need Hierachy" theory is related with:**
   A.   Motivation
   B.   Direction
   C.   Controlling
   D.   Planning

   Answer: A

11.   **Which among these is not a service business?**
   A.   Banking
   B.   Petroleum
   C.   Clearing
   D.   Education

   Answer: D

12.   **Which is not a part of Trade?**
   A.   Economic sector
   B.   Buying and selling
   C.   Export and Import
   D.   Transfer of goods and services

   Answer: D

13.   **For which type of ownership registration is compulsory?**
   A.   Proprietorship
   B.   Partnership
   C.   Joint stock company
   D.   None of these

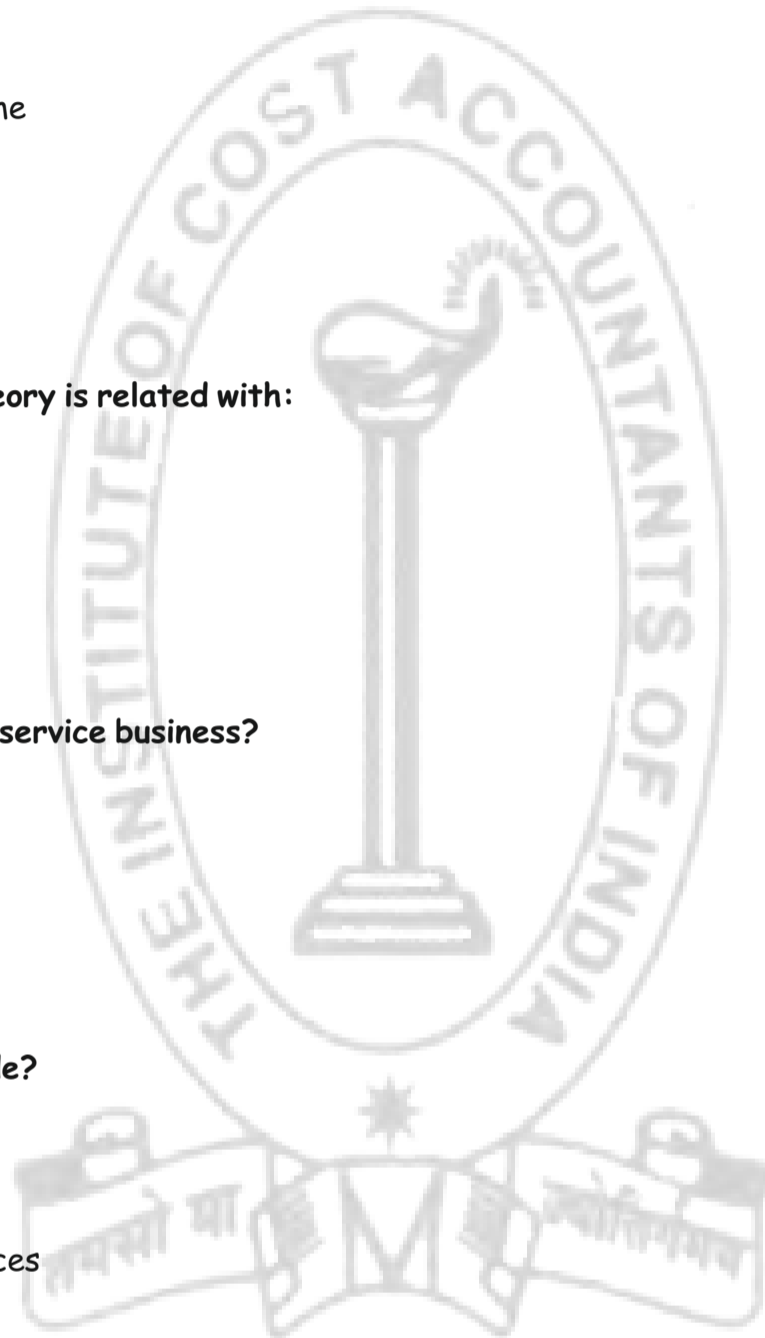   **Answer: C**

14.   **Which is not a method of selection?**
   A.   Interview
   B.   Group discussion
   C.   Trade testing
   D.   Trade union's demand

   Answer: D

15.   **High morale leads to –**
   A.   High hopes
   B.   High competition
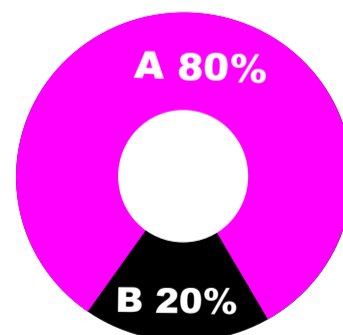   C.   High productivity
   D.   High conflict

   Answer: C

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PAPER: 2

FUNDAMENTALS

OF ACCOUNTING (FOA)

Your Preparation Quick Takes

A 80%

B 20%

Syllabus Structure

A Fundamentals of Financial Accounting **80%**

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.

FINANCIAL OF ACCOUNTING

Welcome once again to another new issue in your e bulletin. Soon your plus two results will be declared and new life will be opened up to shape your future. Decide according to your choice and prioritise your tastes and preference. A right decision at right time makes your path smooth. Take a decision and try to ensure that the decision taken is right for you. To prove this, you require a good amount of self-confidence. Ample opportunities are waiting for you. If you are confused take help of seniors and counsellors to guide. Best wishes to all you.

In the last issue we have revised the basic concepts. Here again some exercises are given for your practice and revision of the chapter – Final Accounts of Non Trading Organisations :

State whether the following statements are True' or False'

1. Receipts and payments account is nothing but a consolidated summary of the cash book.
2. Receipts and payments account is a real account.
3. Income and expenditure account is a real account.
4. Entrance fees unless otherwise stated is to be taken as a capital receipt.
5. Donations unless otherwise stated is to be taken as a capital receipt.
6. Sale of old materials must be credited to capital fund in the balance sheet.
and expenditure account.
7. Income and expenditure relating to special funds should not be dealt with in the income

8. Receipts and payments account is a summary of all capital receipts and payments.
9. Any subscriptions received in advance are treated as capital receipts and are therefore taken to the liabilities side of the balance sheet.
10. Payment of honorarium is treated as a capital expenditure.

Answers
1. True, 2. True, 3. False, 4. False, 5. True, 6. False, 7. True, 8. False, 9. False, 10. False.

Fill in the blanks:

11. in a receipts and payments account the payments are recorded on the…………………..side.
12. The closing debit balance in the receipts and payments account indicates the………………balance at the end of the year.
13. The income and expenditure account is prepared on the basis of……………………….system of accounting.
14. A debit balance in the income and expenditure account denotes excess of……………………….over.
15. Income and expenditure matches all……….receipts against………………payments pertaining to the relevant accounting year.
16. Any amount received towards Endowment funds is a…….receipt.
17. Interest received on special fund investments will be added to……….fund in the balance sheet.
18. Subscriptions received in advance will figure in the……………………..
19. Any revenue expenditure relating to special fund must be deducted from……………….
20. Out of Rs. 5,00,000 collections for the building Rs. 3,00,000 is invested and the balance spent on building. Income from investments Rs. 20,000. The balance to be shown in the building fund Rs…………………….

Answers
11. Credit, 12. Cash, 13. Mercantile, 14. Expenditure, Income, 15. Revenue, Revenue, 16. Capital, 17. Special, 18. Balance Sheet, 19. Special Fund, 20. Rs. 5,20,000.
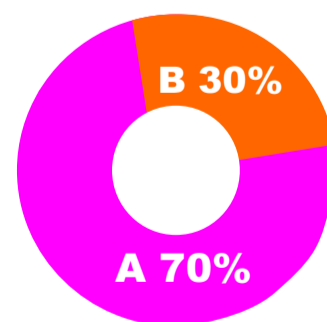
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PAPER: 3

FUNDAMENTALS
OF LAWS AND ETHICS (FLE)

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Your Preparation Quick Takes

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.

LAWS & ETHICS

It is hoped that you keep on reading and recapitulate 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 start studying the subject and raise questions to yourself first and then find your own answers. Even as a student now, you must start thinking like A Teacher.

Indian Contract Act, 1872 (Contd.)

Under **Essential Elements of Contract**, we read that there must be a Lawful Consideration. So, **what is consideration?**

Section 2(d) of the Contracts Act 1872 defines consideration. All past, present and future promise, desire to do or abstain from doing something is a consideration for the promise . For example : A agrees to sell his Motorcycle to B for Rs.15,000. For A the consideration is Rs.15,000 for the promise and for B the consideration is the Motorcycle.

The question arises – **What is past consideration ?**

This can be explained with an example : X is asked by Z to do certain special extra work which X performs in the month of December,2017. In January,2018 X is paid Rs.5000 by Z to compensate for the work done in December,2017. In this case, the consideration of X is past consideration.

Almost all contracts require consideration, so the question is - What agreements are valid without consideration ? Please read Sec.25(1), Sec.25(3) and Sec 25(explanation 2)

Section 25(1) specifies those cases where agreement without consideration is valid and those are :
1. The agreement is freely made in writing
2. The written document is registered with the Appropriate Authority
3. The agreement is made on account of natural love and affection ;
4. The parties to the agreement stand in near relation to one another.

At this point, an interesting question comes to mind – **Can a stranger to a contract sue on a contract ?**

A stranger to a contract is a person who is not a party to the contract and so he cannot go to court to enforce it. However, **if a stranger is a party to the contract, he can sue to enforce it**. For example : There is an agreement between Anil, Billu and Chand , where Anil pays money to Billu to deliver to Chand. In this case, Chand can enforce the agreement even though he did not pay any part of the consideration.

Therefore, the next question is - What are the exceptions to the rule that a stranger to the contract cannot sue upon it ?

The exceptions are as follows :
1. An agreement to create a trust can be enforced by the beneficiary;
2. A party to a contract can transfer his rights under the contract to third parties. For example : A bearer cheque drawn on an individual can be transferred to any person he wishes.
3. In case of family disputes settled by mutual agreement , where the terms of settlement are written down in a document, such Family Settlements can be enforced by those persons who were not original parties to the settlement.

11

It may be noted that except for the three exceptions mentioned above, a contract does not give any right upon a person who is not a party to the contract.

Now, let us appreciate that we are all in the Computerized Environment. Therefore, Offers, Acceptances and Contracts can be electronically performed. Such **e-contracts** are paperless in the electronic form -made , communicated, executed ,deployed through software systems. All the essential elements of contract are satisfied but in order to give it the legal validity, The Information Technology Act,2000 has laid regulations for such e-contracts. It requires the parties to the contract to obtain Digital Signatures from the Competent Authority and affix the digital signature instead of the conventional manual signature. Digital Signatures are legally valid and cannot be denied as the signature is in digital form and delivered electronically. In this case, the lawful process of negotiation, acceptance of the terms and the final Contract is through E-mails which are valid in law.

Sale of Goods Act,1930 (Contd.)

let us know **the difference between a Condition and a Warranty .**

Sec.12 of the Sale of Goods Act defines conditions and warranties.
In a Contract of Sale, the terms or the stipulations laid , with reference to purchase and sale of goods, can be conditions or warranties.

We must understand that, a **Condition** is a stipulation which is **Essential** to the main objective/purpose of the contract. Any breach/violation of such condition/s may call for repudiation of the contract.

On the other hand, a **Warranty** is also a stipulation but such stipulation is **Collateral** to the main objective/purpose of the contract. Any breach/violation of such warranty may call for **Claim for damages,** but the contract can neither be repudiated nor can the goods be rejected.

So, we understand that both Condition and Warranty are terms/stipulations laid in a Contract of Sale, but whether the terms/stipulations are conditions or stipulations, depends on how the terms are laid, meant and construed to be understood in the contract. In many cases it is seen that a term in a contract is called as warranty but is actually a condition laid and such interpretations are left for the courts to decide.

Sec.11 of the Sale of Goods Act , lays that a stipulation as to time of payment, must not be deemed as conditions unless the terms of contract throws some indication to such intentions. Both conditions and warranties can be indicated in writing or may be implied on case to case basis, depending on the terms of the contract.

Suppose a contract of sale specifies a condition that goods sold shall be repaired at the premises of the buyer . This condition can be waived by the buyer who decides to carry the goods to the repair shop himself for repairs. In such a case the condition can be treated as a warranty. A buyer may even decide to treat a breach of condition as a breach of warranty and in such cases the buyer cannot repudiate or reject the goods but can accept the goods and sue for damages suffered .

That takes us to the question – **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.

Auction Sale :

In an auction sale, there is an Auctioneer who is appointed by the owner of a property to sell property by inviting bids publicly and the property is sold to the highest bidder. However, the Auctioneer warrants the following :-

1. That the auctioneer has authority to sell
2. That the auctioneer has no knowledge that property under sale on behalf of his principal has any defects as to title ; and
3. The buyer shall get quiet title to the possession of the property against payment of a price.

The question arises, what could be the **Rules regarding Sales by auction ?**

Section 64 of the Sale of Goods Acts lays the rules which are as follows :
1. Where the goods are put to sale in lots, each lot is deemed to be subject to separate contract of sale;
2. The sale is complete only after the customary fall of the hammer when the auctioneer repeats the final offer **three times and** announces the completion of the sale. Until the fall of the hammer the bidder may retract his/her bid. The fall of the hammer amounts to acceptance of the offer.
3. The Seller may expressly reserve his right to bid in the auction. Such a sale has to be notified in advance. If such a right is expressly reserved, seller or any other person on his behalf may, bid at the auction. It may be kept in mind that without any express reservation and advance notification, the seller or any person on his behalf , cannot bid at an auction as it shall not be lawful and considered as fraudulent by the buyer acting on behalf of the seller.
4. The sale may be notified to be subject to a Reserved Price , that is, a price below which the goods/property will not be sold. The Reserve Price can be kept secret.
5. Where the seller resorts to pretended bidding, just to raise the price, the sale becomes voidable at the opinion of the buyer.
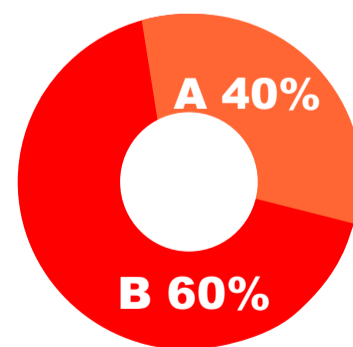
Azadi Ka Amrit Mahotsav

PAPER: 4

FUNDAMENTALS

OF BUSINESS MATHEMATICS AND STATISTICS (FBMS)

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abanerjee8533@gmail.com

Your Preparation Quick Takes

A 40%

B 60%

Syllabus Structure
A Fundamentals of Business Mathematics **40%**
B Fundamentals of Business Statistic **60%**

BUSINESS MATHEMATICS AND STATISTICS

In this issue we discuss mainly on some conventional as well as some MCQ problems

Q1. Calculate the mean and standard deviation from the following data:

Value	Frequency
90-99	2
80-89	12
70-79	22
60-69	20
50-59	14
40-49	4
30-39	1

Answer:

Class Limit	Class boundary	Mid value (m)	$d' = \dfrac{x - 64.5}{10}$	f	fd'	fd'^2
90-99	89.5-99.5	94.5	3	2	6	18
80-89	79.5-89.5	84.5	2	12	24	48
70-79	69.5-79.5	74.5	1	22	22	22
60-69	59.5-69.5	64.5	0	20	0	0
50-59	49.5-59.5	54.5	-1	14	-14	14
40-49	39.5-49.5	44.5	-2	4	-8	16
30-39	29.5-39.5	34.5	-3	1	-3	9
Total				75	27	127

In the above computation A = Assumed Mean = 64.5, h = 10

$$\sigma = \sqrt{\frac{\Sigma f'^2}{N} - \left(\frac{\Sigma fd'}{N}\right)^2} \times h = \sqrt{\frac{127}{75} - \left(\frac{27}{75}\right)^2} \times 10 = \sqrt{1.6933 - 0.1296} \times 10 = 12.505$$

$$\overline{X} = A + \frac{\Sigma fd'}{N} \times h = 64.5 + \frac{27}{75} \times 10 = 68.1$$

Q2. Numerical ways of describing quantitative data is named
(a) Measures of Location
(b) Measures of Uncertainties
(c) Measures of Shapes
(d) Measures of errors

Q3. An average is a
(a) Measure of Dispersion that shows the central value of the data
(b) Measure of Shapes that shows the inclination of data to a specific value
(c) Measure of uncertainties that make the data set ambiguous
(d) Measure that shows the central value of the data set.

Q4. If we consider several sets of data using only central value, we may draw
(a) A probabilistic conclusion
(b) A leptokurtic conclusion

(c) An unbiased conclusion
(d) An erroneous conclusion

Q5. Dispersion is also called
(a) Spread
(b) Variation
(c) Inclination
(d) (a) & (b) not (c)

Q6. For a group of 10 items, $\sum X = 452$, $\sum X^2 = 24270$, and Mode = 43.7; Find the Pearson's coefficient of Skewness

Answer:

$$\text{Mean } (\bar{X}) = \frac{\sum X}{n} = \frac{452}{10} = 45.2$$

$$\text{S.D.} (\sigma) = \sqrt{\frac{\sum X^2}{n} - \left(\frac{\sum X}{n}\right)^2} = \sqrt{\frac{24270}{10} - (45.2)^2} = 19.59$$

Pearspn's coefficient of skewness:

$$Sk = \frac{\text{Mean - Mode}}{\text{Standard Deviation}} = \frac{45.2 - 43.7}{19.59} = 0.08$$

Q7. Compute the arithmetic average if the changes in the prices of securities in a certain stock exchange are as follows:

Class	frequency	Class	frequency
10% & over	54	-2% to 0%	149
8% to 10%	30	-4% to -2%	100
6% to 8%	50	-6% to -4%	74
4% to 6%	71	-8% to -6%	31
2% to 4%	119	-10% and under	51
0% to 2%	346	Total frequency	1075

Answer: Classes are open ended type. So for open ended class AM can be found out by the relation
Mean – Mode = 3 (Mean – Median)

Median is calculated from the formula

$$M_d = l_1 + \frac{\frac{N}{2} - c}{f} \times h$$

$$M_d = 0 + \frac{537.5 - 405}{346} \times 2 = 0.7659$$

& Mode is calculated from the formula

$$Mo = l_1 + \frac{f_1 - f_0}{(f_1 - f_2) + (f_1 - f_0)} \times h$$

$$M_0 = 0 + \frac{346 - 149}{(346 - 119) + (346 - 149)} \times 2 = 0.9292$$

So Mean – 0.9292 = 3 × (Mean – 0.7659) = 2Mean = 1.3685. So Mean = 0.684 Details computation for lower than cumulative frequencies are as follows:

Class	Frequency	Cumulative frequency
below (-10)	51	51
-8-(-6)	31	82
-6- (-4)	74	156
-4-(-)2	100	256
-2 - 0	149	405
0-2	346	751
2-4	119	870
4-6	71	941
6-8	50	991
8-10	30	1021
10-12	54	1075
Total	1075	

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Q8. Which one of the following is a Positional Average?
(a) Geometric Mean;
(b) Harmonic Mean;
(c) Mode;
(d) Progressive Average;

Q9. Because of heavy rain on Sunday average rainfall of a city for the week increased to 0.6 inch from the average rainfall 0.3 inch measured from Monday to Saturday. The rainfall on Sunday was-
(a) 2.4 inch;
(b) 0.3 inch;
(c) 2.1 inch;
(d) 1.5 inch

Q10. The mean of the frequency distribution $((x_1, f_1), (X_2, f_2), (x_3, f_3) \ldots\ldots\ldots\ldots (x_n, f_n))$ is

(a) $\dfrac{\uparrow x}{\Sigma f}$;

(b) $\dfrac{\Sigma x}{n}$;

(c) $\dfrac{\Sigma fx}{n}$;

(d) $\dfrac{\Sigma fx}{\Sigma f}$;

Q11. $\sum_{x=1}^{20} x = 54120$ While computing this it was observed that two entries were wrongly entered as 850 and 320 instead of

580 and 230. Correct value of $\overline{x}$ is
a) 2688;
b) 2746.5;
c) 2720;
d) 2662;

Q12. Calculate the population variance for the following set grouped data:

Class	0-199	200-399	400-599	600-799	800-999
Frequency	8	13	20	12	7

Answer:
We know that population variance is computed as $\sigma^2 = \dfrac{\Sigma f(x-\mu)^2}{N} = \dfrac{\Sigma fx^2}{N} - \mu^2$

Class	Class Mark (x)	Frequency (f)	(f)*(x)	Mean μ	x - μ	$(x-\mu)^2$	$f(x-\mu)^2$
0-199	99.5	8	796	489.5	-390	152100	1216800
200-399	299.5	13	3893.5	489.5	-190	36100	469300
400-599	499.5	20	9990	489.5	10	100	2000
600-799	699.5	12	8394	489.5	210	44100	529200
800-999	899.5	7	6296.5	489.5	410	168100	1176700
Total		60	29370				3394000

So, $\sigma^2 = \dfrac{\Sigma f(x-\mu)^2}{N} = \dfrac{3394000}{60} - 56566.67$

Q13. Using the data in the table below:

X	20	11	15	10	19	21
Y	5	15	14	17	10	11

  i) Fit the regression line;
  ii) Predict Y for X = 12;

Answer:

No of Items	X	Y	XY	X^2
1	20	5	100	400
2	11	15	165	121
3	15	14	210	225
4	10	17	170	100
5	19	10	190	361
6	21	11	231	441
Σ	96	72	1066	1648
	$\overline{X}$ = 96/6 = 16	$\overline{Y}$ = 72/6 = 12		

$\overline{X}^2 = (16)^2 = 256$

So b $= \dfrac{\Sigma XY - n\overline{X}\,\overline{Y}}{\Sigma X^2 - n\overline{X}^2} = \dfrac{(1066 - 6 \times 16 \times 12)}{(1648 - 6 \times 256)} = -\dfrac{86}{112} = -0.768$

So a $= \overline{Y} - b\overline{X} = 12 - (-)\,0.768 \times 16 = 24.288$

So the regression line is Y = 24.288 – 0.768X
If X =12 then Y = 24.288 – 0.768 * 12 = 15.072

Q14.Calculate the coefficient of correlation between X and Y series from the following data:

$\sum_{i=1}^{12}\left(X_i - \overline{X}\right)^2 = 360,\ \sum_{i=1}^{12}\left(Y_i - \overline{Y}\right)^2 = 250,\ \sum_{i=1}^{12}\left(X_i - \overline{X}\right)\left(Y_i - \overline{Y}\right)$

Answer:

We know that r $= \dfrac{\Sigma xy}{\sqrt{x^2}\,\sqrt{y^2}}$ where x = X - $\overline{X}$ & y = Y - $\overline{Y}$

So r $= \dfrac{225}{\sqrt{360}\,\sqrt{250}} = 0.75$

Q15.Karl Pearson's coefficient of correlation between two variables X and Y is 0.52, their covariance is +7.8. If the variance of X is 16, find the standard deviation of Y series.

Answer:

We know that r $= \dfrac{cov(X,Y)}{\sigma_x \sigma_y}$

In this problem r = 0.52, cov (X,Y) = 7.8

Variance of X is 16.

So $\sigma_x = \sqrt{16} = 4$

So $\sigma_y = \dfrac{7.8}{0.52 \times 4} = 3.75$

MCQ answer:
Q2/ (1), Q3/ (d), Q4/ (d), Q5/ (d), Q8/ (c). Q9/ (a), Q10/ (d), Q11/ (a)

Suggestions:
The study guide needs to be read thoroughly. Supplementary readings could be made from other resources. In this issue discussions are held on problems taken from different chapters on assorted basis both under conventional form as well as in MCQ pattern. These could be used as supplement to the study guide. Students should go thoroughly for clear concept on statistical formula from Guide book on the paper 4- Fundamental of Business mathematics and Statistics written and issued by Institute on Syllabus -16.

Azadi Ka
Amrit Mahotsav
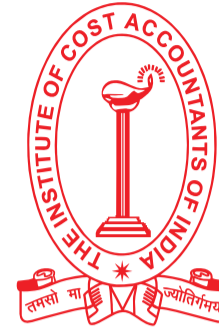
Examination
TIME TABLE

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, 8th July, 2022	**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)

STAY HOME STAY SAFE

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Behind every successful business decision, there is always a CMA
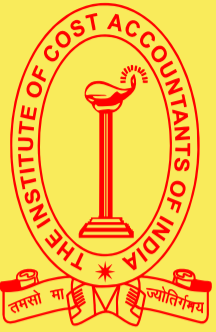
PRACTICAL
Advice

ABOUT YOUR STUDIES - FOUNDATION COURSE

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

START

01 Read Study Notes, MTPs,E-Bulletin, Work Books, Attend Webinar sessions

02 Solve Excercises given in Study Note

03 Assess Yourself

04 Appear For Examination

FINISHED

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.
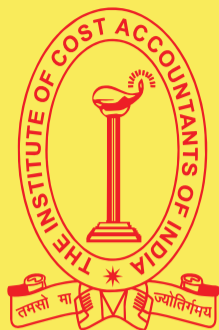
Dear Students,

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

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

60th National Cost Convention - 2022

Glimpses of National Students Convocation 2022 on 29 April 2022 at Kolkata

Glimpses of National Students Convocation 2022 on 29 April 2022 at Kolkata

CMA P Raju Iyer, President of the Institute with Swami Shukadevananda, Secretary, RKM Vivekananda College [Autonomous], Chennai & Other Officials of the College during the Board of Studies meeting held on 19th March 2022 at College Campus in Chennai.

Inauguration of CMA Classes & Mentoring of Students for CMA Curriculum, Value Added Courses such as GST, Forensic Audit, Internal Audit Members Present - CMA P Raju Iyer, President Along with [L to R] CMA Rakesh Shankar, Dr. S. Padmavathi, Principal of Shri Shankarlal Shasun Jain College for Women, Dr. S Rukmani, Vice Principal, Dr. C. Vimaladevi, Ms. Deepa Shridhar, Co-ordinator - CMA Support Centre
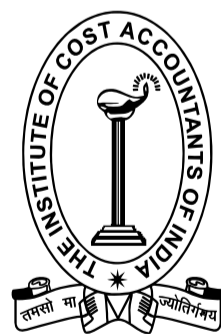
THE INSTITUTE OF COST ACCOUNTANTS OF INDIA

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Behind every successful business decision, there is always a CMA