

SAMPLE CONTENT

SOLUTIONS TO HSC BOARD QUESTION BANK

(COMMERCE)

Based on Question Bank released by
SCERT Maharashtra

- ECONOMICS
- SECRETARIAL PRACTICE
- MATHEMATICS & STATISTICS (I & II)
- ORGANISATION OF COMMERCE AND MANAGEMENT

Target Publications® Pvt. Ltd.

SOLUTIONS TO HSC BOARD QUESTION BANK (Commerce)

Salient Features

- Covers solutions to the Entire Question Bank of Std. XII released by State Council of Educational Research and Training, Maharashtra in the March 2021
- Questions from reduced syllabus (2021-22) are marked with symbol **R**
- Includes Economics, Organisation of Commerce and Management, Secretarial Practice, Mathematics & Statistics (I & II)
- Hints provided for questions wherever deemed necessary.
- Answers framed for all questions are based on Government Textbook and as per the prescribed marking scheme

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PREFACE

The Question Bank for Std. XII was released by State Council of Educational Research and Training, Maharashtra in the month of March 2021 as a respite to all the HSC students whose education had suffered due to the ongoing pandemic & the resultant restrictions at that point of time. The board exam for the year 2021 couldn't be conducted due to the pandemic but the question bank released by the Board remains a guiding light for all the students who will be appearing for the board exam in the year 2022 and the further years as well.

Target's '**Solutions to HSC Board Question Bank**' is intended for every state board student of standard XII. As the name suggests, the book includes the solutions to each and every question that was provided in the question bank. The book encompasses all the question types as per the given sequence in the question bank for each subject, that is, for Economics, Organisation of Commerce and Management, Secretarial Practice, Mathematics & Statistics (I & II). Keeping in the mind syllabus reduced for the academic year 2021-22, questions belonging to the reduced syllabus are marked with symbol **R**.

The answers framed in the book are completely based on the Government Textbook. At certain points, we have simplified or modified the answers for the ease of understanding. We have ensured that the answers are as per the prescribed marking scheme so that the student's efforts bear the desired fruits.

To aid students, hints are provided for questions wherever deemed necessary.

We hope that the students find the book as one stop solution to the Question Bank .

- Publisher
Edition: First

The journey to create a complete book is strewn with triumphs, failures and near misses. If you think we've nearly missed something or want to applaud us for our triumphs, we'd love to hear from you.

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A book affects eternity; one can never tell where its influence stops

Disclaimer

This reference book is transformative work based on Solutions to '**HSC Board Question Bank (2020-21)**' for Economics, Organisation of Commerce and Management, Secretarial Practice, Mathematics & Statistics (I & II) released by State Council of Educational Research and Training, Maharashtra. We the publishers are making this reference book which constitutes as fair use of textual contents which are transformed by adding and elaborating, with a view to simplify the same to enable the students to understand, memorize and reproduce the same in examinations.

This work is purely inspired upon the course work as prescribed by the Maharashtra State Bureau of Textbook Production and Curriculum Research, Pune. Every care has been taken in the publication of this reference book by the Authors while creating the contents. The Authors and the Publishers shall not be responsible for any loss or damages caused to any person on account of errors or omissions which might have crept in or disagreement of any third party on the point of view expressed in the reference book.

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Q.1. Objective Type Questions

Complete the correlation

- Scope of Micro-economics:
 - Theory of Product Pricing
 - Theory of Growth and Development
 - Theory of General Price Level and Inflation
 - Theory of Income and Employment

Options: (A) Only i (B) i, ii, iii
(C) ii, iii, iv (D) i, iii, iv
- Statements related to Macro-economics:
 - It is the study of aggregates.
 - It is based on certain assumptions.
 - It takes into account interdependence between aggregate economic variables.
 - It is a policy oriented science.

Options: (A) i, ii, iii, iv (B) i, ii, iii
(C) ii, iii, iv (D) i, iii, iv
- Exceptions to the law of diminishing marginal utility:
 - Cardinal measurement
 - Hobbies
 - Miser
 - Money

Options: (A) Only i (B) i, ii, iii
(C) ii, iii, iv (D) i, iii, iv
- Criticisms to the law of diminishing marginal utility:
 - Based on unrealistic assumptions
 - Not applicable to indivisible and bulky goods
 - The law is restricted to satisfaction of a single want.
 - In reality, cardinal measurement of utility not possible.

Options: (A) Only i (B) i, ii, iii
(C) ii, iii, iv (D) i, ii, iii, iv
- Statements that explain Giffen's paradox:
 - It is an exception to the law of demand.
 - It is applicable to inferior or low quality goods.
 - Demand increases when the prices of inferior goods fall.
 - It was identified by Prof. Alfred Marshall.

Options: (A) Only i (B) i, ii
(C) ii, iii, iv (D) i, ii, iii, iv
- Statements related to decrease in demand:
 - It is a type of change in demand.
 - It takes place due to unfavourable changes in other factors like tastes, income etc.
 - Price remains constant.
 - Demand curve shifts to the right hand side of the original demand curve.

Options: (A) i, ii, iii, iv (B) i, ii, iii
(C) ii, iii, iv (D) i, iii, iv

- Statements that are incorrect in relation to perfectly inelastic demand:
 - Percentage change in price has no effect on quantity demanded.
 - Co-efficient of elasticity is equal to 1 ($ed = 1$).
 - Demand curve is a horizontal line parallel to X axis.
 - It is a type of price elasticity of demand.

Options: (A) i, ii, iii, iv (B) i, ii, iii
(C) ii, iii (D) i, ii
- Statements that are related to cross elasticity of demand:
 - Change in quantity demanded of one commodity due to a change in the price of other commodity
 - It is a type of elasticity of demand.
 - It is applicable to complementary goods and substitutes.
 - It is expressed as $E_y = \frac{\% \Delta Q}{\% \Delta Y}$.

Options: (A) i, ii, iii, iv (B) i, ii, iii
(C) Only ii (D) i, ii
- Statements related to the concept of stock:
 - It is the total quantity of a commodity available with the seller at a particular point of time.
 - By increasing production, stock can be increased.
 - Normally, stock exceeds supply.
 - Stock is a flow concept.

Options: (A) i, ii, iii, iv (B) i, ii, iii
(C) Only ii (D) i, ii
- Exceptions to the law of supply:
 - Constant cost of production
 - Constant technique of production
 - Does not apply to agricultural goods
 - No change in weather conditions

Options: (A) i, ii, iii, iv (B) i, ii, iii
(C) only iii (D) i, ii
- Features of oligopoly market:
 - There are few firms or sellers.
 - Sellers sell differentiated product.
 - There is free entry and exit of firms.
 - There is considerable element of uncertainty in this type of market.

Options: (A) i, ii (B) i, ii, iii
(C) ii, iii (D) i, iv



12. Characteristics of long period market:
- All factors of production and costs are variable.
 - Firms are able to adjust all costs.
 - It is for a few years, generally up to five years.
 - Supply of commodity cannot be increased.
- Options:** (A) i, iii, iv (B) i, ii, iii
(C) ii, iii, iv (D) i, ii, iii, iv
13. Features of index numbers:
- It is useful in framing suitable economic policies.
 - It is useful to present financial data in real terms.
 - Index numbers are statistical devices.
 - Index numbers are specialized averages.
- Options:** (A) iii, iv (B) i, ii
(C) ii, iii, iv (D) i, ii, iii, iv
14. Statements related to weighted index number:
- Suitable weights are assigned to various commodities.
 - It gives relative importance to the commodity in the group.
 - In most cases, quantities are used as weights.
 - Laaspeyre's Price index and Paasche's Price Index are methods of constructing weighted index number.
- Options:** (A) i, iii, iv (B) i, ii, iii
(C) ii, iii, iv (D) i, ii, iii, iv
15. Precautions to be taken while estimating national income by output method:
- Only value of final goods and services must be taken in to account.
 - Indirect taxes included in the market prices are to be deducted.
 - Subsidies given by the government on certain products must be added.
 - Sale and purchase of second hand goods should be considered.
- Options:** (A) Only i (B) i, ii, iii
(C) ii, iii, iv (D) i, iii, iv
16. Practical difficulties in the measurement of national income:
- Illegal income
 - Problem of double counting
 - Inadequate and unreliable data
 - Valuation of inventories
- Options:** (A) i, iii (B) i, ii, iii
(C) ii, iii, iv (D) i, iii, iv
17. Essential characteristics of a tax:
- It is a voluntary contribution to the government.
 - Every citizen of the country is legally bound to pay the tax imposed upon him.

- Tax is imposed on income, property or commodities or services.
- The tax payer receives direct and proportionate benefits from the government in return for the tax.

Options: (A) i, iv (B) ii, iii
(C) ii, iii, iv (D) i, iii, iv

18. Non tax revenue sources:
- Special assessment
 - Fines and penalties
 - Goods and Services tax
 - Gifts, grants and donations

Options: (A) i, ii, iv (B) i, ii, iii
(C) ii, iii, iv (D) i, iii, iv

19. Structure of organized sector of money market:
- Reserve Bank of India
 - Commercial banks
 - Co-operative banks
 - Indigenous bankers

Options: (A) i, ii, iv (B) i, ii, iii
(C) ii, iii, iv (D) i, iii, iv

20. Classification of commercial banks in India:
- Public sector banks
 - Private sector banks
 - Foreign banks
 - Central bank

Options: (A) Only i (B) i, ii, iii
(C) ii, iii, iv (D) i, iii, iv

21. Features of composition of India's foreign trade:
- Increasing share in Gross National Income
 - Increase in volume and value of trade
 - Division of labour and specialization
 - Stability in price level

Options: (A) i, iv (B) i, ii
(C) ii, iii (D) iii, iv

22. Statements incorrect in relation to Balance of Trade:

- It is also referred to as international trade balance.
- Trade surplus arises when export value is greater than import value.
- Trade deficit takes place when import value is greater than export value.
- Balance of trade includes value of imports and exports of visible goods only.

Options: (A) Only iv (B) Only i
(C) ii, iii, iv (D) i, ii, iii

Answers:

- | | | | |
|---------|---------|---------|---------|
| 1. (A) | 2. (D) | 3. (C) | 4. (D) |
| 5. (B) | 6. (B) | 7. (C) | 8. (B) |
| 9. (B) | 10. (C) | 11. (D) | 12. (B) |
| 13. (A) | 14. (D) | 15. (B) | 16. (C) |
| 17. (B) | 18. (A) | 19. (B) | 20. (B) |
| 21. (B) | 22. (A) | | |

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Q.1.
(A)

Select the appropriate option and rewrite the complete sentence

1. 'Entreprendre' means _____.
(A) to business (B) to enterprise
(C) to undertake
2. _____ is the function which supports to activate the plans with the help of employees.
(A) Directing (B) Staffing
(C) Controlling
3. _____ was regarded as Father of Scientific Management.
(A) Henry Fayol (B) F W Taylor
(C) Philip Kotler
4. Start-Up India is an initiative of the _____.
(A) Government of India
(B) RBI
(C) World Bank
5. Scalar chain means the hierarchy of _____ from the top level to the lower level for the purpose of communication.
(A) authority (B) unity
(C) discipline
6. In _____ policy, subject matter is insured for specific voyage irrespective of time.
(A) annuity (B) voyage
(C) floating
7. The function of management starts with _____ function.
(A) directing (B) planning
(C) controlling
8. The term market is derived from the _____ word 'mercatus'.
(A) Latin (B) French
(C) Italian
9. In modern competitive market, consumer is regarded as the _____.
(A) king (B) owner
(C) buyer
10. The government has established _____ to settle the consumer disputes by compromise.
(A) consumer organisations
(B) lok adalat
(C) national commission
11. _____ are trustees of the society.
(A) Businessmen (B) Employees
(C) Investors
12. Warehouse creates _____ utility.
(A) space (B) time
(C) possession
13. Principle of _____ is not applicable to life insurance.
(A) utmost good faith
(B) insurable interest
(C) indemnity
14. Business is a _____ activity.
(A) socio-economic (B) non-profit
(C) charitable
15. In online shopping, customers put the product in the _____.
(A) shopping cart (B) account
(C) digital cart

Answer:

- | | | | |
|---------|---------|---------|---------|
| 1. (C) | 2. (A) | 3. (B) | 4. (A) |
| 5. (A) | 6. (B) | 7. (B) | 8. (A) |
| 9. (A) | 10. (B) | 11. (A) | 12. (B) |
| 13. (C) | 14. (A) | 15. (A) | |

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Q.1.
(A)

Select the correct answer from the options given below and rewrite the statements

1. Finance is the management of _____ affairs of the company.
(A) monetary (B) marketing
(C) production
2. Corporate finance deals with the acquisition and use of _____ by business corporations.
(A) goods (B) capital
(C) land
3. The benefit of depository receipt is ability to raise capital in _____ market.
(A) national (B) local
(C) international
4. Under _____ method, issue price of shares is based on bidding.
(A) book building (B) fixed price
(C) bonus issue
5. In _____, shares of a company are offered to the public for the first time.
(A) Further Public Offer
(B) Initial Public Offer
(C) ESOS
6. _____ is offered to existing equity shareholders.
(A) IPO (B) ESOS
(C) Rights issue
7. Secured debentures must be redeemed within _____ from the date of its issue
(A) 10 days (B) 10 years
(C) 15 years
8. Debenture certificate must be issued within _____ of allotment of debentures.
(A) 3 months (B) 6 months
(C) 60 days
9. The contract between company and debenture trustees of companies is called as _____.
(A) debenture trust deed
(B) letter of offer
(C) prospectus
10. Deposit can be accepted for a minimum of 6 months and maximum for _____ months.
(A) 36 (B) 3
(C) 30
11. Company issues _____ to invite its members to subscribe for its deposit scheme.
(A) advertisement (B) circular
(C) newspaper
12. Return of deposit must be filed every year on or before _____.
(A) 30th June (B) 31st March
(C) 30th April
13. Secretarial correspondence with members should be _____.
(A) lengthy (B) shortcut
(C) prompt and precise
14. Debentures repayable after a certain period are _____ debentures.
(A) convertible (B) registered
(C) redeemable
15. The rate of interest payable on debentures is _____.
(A) uncertain (B) floating
(C) fixed
16. Depositors are _____ of a company.
(A) members (B) creditors
(C) debtors
17. In physical mode, securities are held in _____ form.
(A) paper
(B) dematerialization
(C) electronic
18. Risk of losing certificates exists in _____ mode.
(A) physical (B) dematerialized
(C) digital
19. Depository Act was passed in _____.
(A) 1919 (B) 1996
(C) 1999
20. In India, ISIN for corporate securities is allotted by _____.
(A) NSDL
(B) central government
(C) state government
21. Dividend is recommended by _____.
(A) managing director
(B) secretary
(C) board of directors
22. Interim dividend is declared by _____.
(A) board of directors
(B) debenture holders
(C) depositors
23. Final dividend is declared by _____.
(A) board of directors (B) shareholders
(C) depositors



24. Dividend cannot be declared out of _____.
(A) capital (B) profit
(C) reserves
25. Payment of _____ dividend must be authorized by the Articles of Association.
(A) interim (B) final
(C) bonus
26. Money market is a market for lending and borrowing of funds for _____ term.
(A) short (B) medium
(C) long

Answer:

1. (A) 2. (B) 3. (C) 4. (A)
5. (B) 6. (C) 7. (B) 8. (B)
9. (A) 10. (A) 11. (B) 12. (A)
13. (C) 14. (C) 15. (C) 16. (B)
17. (A) 18. (A) 19. (B) 20. (A)
21. (C) 22. (A) 23. (B) 24. (A)
25. (A) 26. (A)

Sample Content

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01 Mathematical Logic

Note: The **R** marked questions are the part of reduced/non-evaluative portion for academic year 2020-21 only.

Q.1. Select and write the most appropriate answer from the given alternatives:

- i. Which of the following statement is true?
 - (A) $3 + 7 = 4$ or $3 - 7 = 4$
 - (B) If Pune is in Maharashtra, then Hyderabad is in Kerala
 - (C) It is false that 12 is not divisible by 3
 - (D) The square of any odd integer is even
- ii. Which of the following is not a statement?
 - (A) $2 + 2 = 4$
 - (B) 2 is the only even prime number
 - (C) Come here
 - (D) Mumbai is not in Maharashtra
- iii. If p is any statement, then $(p \vee \sim p)$ is a
 - (A) Contingency
 - (B) Contradiction
 - (C) Tautology
 - (D) None of these
- iv. If p and q are two statements, then $(p \rightarrow q) \leftrightarrow (\sim q \rightarrow \sim p)$ is
 - (A) Contradiction
 - (B) Tautology
 - (C) Neither (i) nor (ii)
 - (D) None of these
- v. Negation of $p \rightarrow (p \vee \sim q)$ is
 - (A) $\sim p \rightarrow (\sim p \vee q)$
 - (B) $p \wedge (\sim p \wedge q)$
 - (C) $\sim p \vee (\sim p \vee \sim q)$
 - (D) $\sim p \rightarrow (\sim p \rightarrow q)$
- vi. If p : He is intelligent
q : He is strong
Then, symbolic form of statement "It is wrong that, he is intelligent or strong" is
 - (A) $\sim p \vee \sim q$
 - (B) $\sim(p \wedge q)$
 - (C) $\sim(p \vee q)$
 - (D) $p \vee \sim q$
- vii. A biconditional statement is the conjunction of two _____ statements.
 - (A) Negative
 - (B) Compound
 - (C) Connective
 - (D) Conditional
- viii. If $p \rightarrow q$ is an implication, then the implication $\sim q \rightarrow \sim p$ is called its
 - (A) Converse
 - (B) Contrapositive
 - (C) Inverse
 - (D) Alternative
- R** ix. The dual of the statement $(p \vee q) \wedge (r \vee s)$ is
 - (A) $(p \wedge q) \wedge (r \wedge s)$
 - (B) $(p \wedge q) \vee (r \wedge s)$
 - (C) $(p \vee q) \vee (r \vee s)$
 - (D) $(p \vee q) \wedge (r \vee s)$
- x. The false statement in the following is
 - (A) $p \wedge (\sim p)$ is contradiction
 - (B) $(p \rightarrow q) \leftrightarrow (\sim q \rightarrow \sim p)$ is a contradiction
 - (C) $\sim(\sim p) \leftrightarrow p$ is a tautology
 - (D) $p \vee (\sim p)$ is a tautology

Answers:

- i. (C) ii. (C) iii. (C) iv. (B)
v. (B) vi. (C) vii. (D) viii. (B)
ix. (B) x. (B)

Hints:

- i. Note that 12 is divisible by 3.
 \therefore The statement '12 is not divisible by 3' is wrong.
 \therefore The truth value of the statement 'It is false that 12 is not divisible by 3.' is true.

- ii. Sentence given in option (C) is an imperative sentence. Hence, it can not be a statement.

iii.

p	$\sim p$	$p \vee \sim p$
T	F	T
F	T	T

- $\therefore (p \vee \sim p)$ is a tautology.
- iv. $(p \rightarrow q) \leftrightarrow (\sim q \rightarrow \sim p)$
Note that ' $\sim q \rightarrow \sim p$ ' is contrapositive of the statement ' $p \rightarrow q$ '
A conditional statement and its contrapositive are always equivalent.
Hence, $(p \rightarrow q) \leftrightarrow (\sim q \rightarrow \sim p)$ is tautology.
- v. Negation of $p \rightarrow q$ is $p \wedge \sim q$.
 $\therefore \sim[p \rightarrow (p \vee \sim q)] \equiv p \wedge \sim(p \vee \sim q)$
 $\equiv p \wedge (\sim p \wedge q)$
...[De-Morgan's Law]
- vi. The symbolic form of statement 'He is intelligent or strong' is $p \vee q$.
 \therefore The symbolic form of the given statement is $\sim(p \vee q)$.
- vii. Consider a biconditional statement $p \leftrightarrow q$
 $p \leftrightarrow q \equiv (p \rightarrow q) \wedge (q \rightarrow p)$
i.e., conjunction of two conditional statements.
- x. Consider, $(p \rightarrow q) \leftrightarrow (\sim q \rightarrow \sim p)$
Note that ' $\sim q \rightarrow \sim p$ ' is contrapositive of the statement ' $p \rightarrow q$ '
A conditional statement and its contrapositive are always equivalent.
Hence, $(p \rightarrow q) \leftrightarrow (\sim q \rightarrow \sim p)$ is tautology.
 \therefore Statement in option (B) is false.

[Note: Option (D) has been modified.]



Q.2. State whether the given statements are true or false.

- The negation of $10 + 20 = 30$ is, it is false that $10 + 20 \neq 30$.
- $x^2 = 25$ is true statement.
- $p \rightarrow q$ is equivalent to $p \rightarrow \sim q$.
- Truth value of $\sqrt{3}$ is not an irrational number is F.
- $(p \vee q) \wedge \sim p$ is a contradiction.
- $p \leftrightarrow q$ is false when p and q have different truth values.
- The dual of $(p \wedge q) \vee \sim q$ is $(p \vee q) \wedge \sim q$.
- Mathematical identities are true statements.
- $p \vee \sim p \equiv c$
- The converse of inverse of $\sim p \rightarrow q$ is $q \rightarrow \sim p$.

Answers:

- | | | |
|-----------|------------|------------|
| i. False | ii. False | iii. False |
| iv. True | v. False | vi. True |
| vii. True | viii. True | ix. True |
| x. False | | |

Hints:

- The negation of $10 + 20 = 30$ is, ' $10 + 20 \neq 30$ ' or 'it is false that $10 + 20 = 30$ '.
- $x^2 = 25$ is an open sentence. It is not a statement.
-

p	q	$\sim q$	$p \rightarrow q$	$p \rightarrow \sim q$
T	T	F	T	F
T	F	T	F	T
F	T	F	T	T
F	F	T	T	T

v.

p	q	$\sim p$	$p \vee q$	$(p \vee q) \wedge \sim p$
T	T	F	T	F
T	F	F	T	F
F	T	T	T	T
F	F	T	F	F

- The inverse of $\sim p \rightarrow q$ is $\sim(\sim p) \rightarrow \sim q$ i.e., $p \rightarrow \sim q$
 \therefore The converse of inverse of $\sim p \rightarrow q$ is $\sim q \rightarrow p$.

Q.3. Fill in the following blanks.

- Conjunction of two statement pattern p and q is symbolically written as _____.
- Negation of "Some men are animals" is _____.
- The truth value of negation of "London is in England" is _____.
- The truth value of the statement "Neither 27 is a prime number nor divisible by 4" is _____.
- The contrapositive of $p \rightarrow \sim q$ is _____.

Answers:

- $p \wedge q$
- All men are not animals
- False
- True
- $q \rightarrow \sim p$

Hints:

- Truth value of the given statement is T.
 \therefore Truth value of its negation is F.
- The contrapositive of $p \rightarrow \sim q$ is $\sim(\sim q) \rightarrow \sim p$ i.e., $q \rightarrow \sim p$

Q.4. Answer the following questions.

- Write the negation of the statement "An angle is a right angle if and only if it is of measure 90° ".

Solution:

Let p : An angle is a right angle.
 q : An angle is of measure 90° .

The given statement is $p \leftrightarrow q$.

Its negation is

$$\sim(p \leftrightarrow q) \equiv (p \wedge \sim q) \vee (q \wedge \sim p)$$

- The negation of given statement is 'An angle is a right angle and it is not of measure 90° or an angle is of measure 90° and it is not a right angle.'

- Write the following statements in symbolic form.

- Milk is white if and only if the sky is not blue.
- If Qutub – Minar is in Delhi then Taj-Mahal is in Agra.
- Even though it is not cloudy, it is still raining.

Solution:

- Let p : Milk is white.

q : Sky is blue.

The symbolic form is $p \leftrightarrow \sim q$.

- Let p : Qutub-Minar is in Delhi.

q : Taj-Mahal is in Agra.

The symbolic form is $p \rightarrow q$.

- Let p : It is cloudy.

q : It is raining.

The symbolic form is $\sim p \wedge q$.

- Use quantifiers to convert the given open sentence defined on N into a true statement.

- $n^2 \geq 1$
- $3x - 4 < 9$

- $Y + 4 > 6$

Solution:

- $\forall n \in N, n^2 \geq 1$

It is a true statement, since all $n \in N$ satisfy it.

- $\exists x \in N$, such that $3x - 4 < 9$

It is a true statement, since $x = 2, 3, 4, \dots \in N$ satisfy $3x - 4 < 9$.

- $\exists Y \in N$, such that $Y + 4 > 6$

It is a true statement, since $Y = 3, 4, \dots \in N$ satisfy $y + 4 > 6$.

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Q.1. Choose the correct alternative.

- i. A salesman receives 3% commission on the sales up to ₹ 50,000 and 4% commission on the sales over ₹ 50,000. His total income on the sale of ₹ 2,00,000 is _____.
 (A) ₹ 6,000 (B) ₹ 7,550
 (C) ₹ 7,500 (D) ₹ 1,500
- ii. The present worth of ₹ 11,660 due 9 months hence is ₹ 11,000. The True discount is _____.
 (A) ₹ 660 (B) ₹ 750
 (C) ₹ 400 (D) ₹ 5,940
- iii. If A bill of ₹ 6,395 drawn on 15th February 2015 for 10 months was discounted on 28th May 2015 at 8% p.a. interest, then legal due date is _____.
 (A) 15th December 2015
 (B) 15th November 2015
 (C) 18th December 2015
 (D) 18th November 2015
- iv. The date on which the period of the bill expires is called _____.
 (A) Legal Due Date
 (B) Days of grace
 (C) The Nominal Due date
 (D) Date of Drawing
- v. The marked price is also called as _____.
 (A) Cost price (B) Selling price
 (C) Invoice price (D) List price

Answers:

- i. (B) ii. (A) iii. (C) iv. (C)
 v. (D)

Hints:

- i. Salesman earns 3% commission on the sales upto ₹ 50,000 and 4% commission on the sales over ₹ 50,000.
 His total sales is ₹ 2,00,000.
 \therefore Commission on sales upto ₹ 50,000
 $= 50,000 \times \frac{3}{100}$
 $= ₹ 1,500$
 Commission on sales over ₹ 50,000
 $= (2,00,000 - 50,000) \times \frac{4}{100}$
 $= 1,50,000 \times \frac{4}{100}$
 $= ₹ 6,000$
 Total commission = 1,500 + 6,000 = ₹ 7,500
 \therefore Total income on the sale of ₹ 2,00,000 is ₹ 7,500.

- ii. Sum due = ₹ 11,660, Present worth = ₹ 11,000.

$$n = \frac{9}{12} \text{ years}$$

$$\begin{aligned} \text{True discount} &= \text{Sum due} - \text{Present worth} \\ &= 11,660 - 11,000 \\ &= ₹ 660 \end{aligned}$$

- iii. Date of drawing = 15th February 2015
 Period of bill = 10 months
 Nominal due date = 15th December 2015
 Legal due date = 18th December 2015

Q.2. Fill in the blanks.

- i. An agent who gives guarantee to his principal that the party will pay the sale price of goods is called _____.
- ii. The difference between the _____ and the true discount is called Banker's Gain (B.G). It is equal to the interest on true discount.
- iii. The buyer is legally allowed _____ days grace period.
- iv. The date on which the bill is drawn is called as _____.
- v. When transactions like sale, purchase, auction etc. are done through some middlemen, such middlemen are called _____.

Answers:

- i. Del Credere Agent
- ii. Banker's Discount
- iii. 3
- iv. date of bill
- v. an agent

Q.3. State whether each of the following is True or False.

- i. The trade discount is first calculated on the catalogue (list) price.
- ii. A factor is an agent who is given the possession of goods and enters a contract for sale in his/her own name.
- iii. A person can get both, trade discount and cash discount.
- iv. The sum due is also called as Cash value
- v. If only one discount is given then List price = Invoice price.

Answers:

- i. True ii. True iii. True
- iv. False v. False

Hints:

- iv. The sum is also called as Face value.
- v. When only one discount is given then Invoice price = Net sellign price.



Q.4. Solve the following problems. [3 Marks]

i. Find the true discount Banker's discount and Banker's gain on a bill of ₹ 4,240 due 6 months hence at 9% p.a.

Solution:

Given, S.D. = ₹ 4,240,

$$n = \frac{6}{12} = \frac{1}{2} \text{ year, } r = 9\% \text{ p.a.}$$

$$\text{Since, B.D.} = \frac{\text{S.D.} \times n \times r}{100}$$

$$\therefore \text{B.D.} = \frac{4,240 \times \frac{1}{2} \times 9}{100} = \frac{4,240 \times 9}{100 \times 2}$$

$$\therefore \text{B.D.} = ₹ 190.80$$

Let true discount be ₹ x

Now, B.D. = T.D. + Interest on T.D. for $\frac{1}{2}$ year at 9% p.a.

$$\therefore 190.80 = x + \left(x \times \frac{1}{2} \times \frac{9}{100} \right)$$

$$\therefore 190.80 = x + \frac{9x}{200}$$

$$\therefore 190.80 = \frac{209x}{200}$$

$$\therefore x = \frac{190.80 \times 200}{209}$$

$$\therefore x = ₹ 182.58$$

$$\therefore \text{T.D.} = ₹ 182.58$$

Also, B.G. = B.D. - T.D. = 190.8 - 182.58

$$\therefore \text{B.G.} = ₹ 8.22$$

\therefore True discount, banker's discount and banker's gain are ₹ 182.58, ₹ 190.80 and ₹ 8.22 respectively.

ii. Ananya gets salary of ₹ 15,000 per month and commission at 8% on the sales over ₹ 50,000. If she gets ₹ 17,400 in a certain month, Find the sales made by her in that month.

Solution:

Ananya gets a salary of ₹ 15,000 per month and 8% on the sales over ₹ 50,000.

Let the total sales be ₹ ' x '.

$$\therefore \text{Commission earned} = (x - 50,000) \times \frac{8}{100}$$

She has earned ₹ 17,400 in certain month.

$$\therefore \text{Total income} = \text{Salary per month} + \text{Commission on sale}$$

$$17,400 = 15,000 + (x - 50,000) \times \frac{8}{100}$$

$$17,400 = 15,000 + \frac{8x - 4,00,000}{100}$$

$$17,400 = \frac{15,00,000 + 8x - 4,00,000}{100}$$

$$17,400 \times 100 = 15,00,000 + 8x - 4,00,000$$

$$17,40,000 = 11,00,000 + 8x$$

$$8x = 17,40,000 - 11,00,000$$

$$8x = 6,40,000$$

$$\therefore x = 80,000$$

\therefore Ananya made sales of ₹ 80,000 in that month.

iii. Swastik Distributors allows 15% discount on the list price of washing machine. Further 5% discount is given for cash payment. Find the list price of the washing machine if it was sold for the net amount of ₹ 38,356.25.

Solution:

Let the list price be ' x '

Swastik Distributors gives 15% discount on list price.

$$\therefore \text{Discount} = x \times \frac{15}{100} = 0.15x$$

$$\therefore \text{Net price} = x - 0.15x = 0.85x$$

Further cash discount is given at 5%.

$$\therefore \text{Cash discount} = 0.85x \times \frac{5}{100} = 0.0425x$$

$$\therefore \text{Net selling price} = 0.85x - 0.0425x = 0.8075x$$

However, net selling price is ₹ 38,356.25.

$$\therefore 0.8075x = 38,356.25$$

$$\therefore x = \frac{38,356.25}{0.8075}$$

$$\therefore x = ₹ 47,500$$

\therefore List price of washing machine is ₹ 47,500.

iv. An agent sold a car and charged 3% commission on sale value. If the owner of the car received ₹ 48,500, find the sale value of the car. If the agent charged 2% from the buyer, find his total remuneration.

Solution:

Let sale value of the car be ₹ x .

Since, agent charged 3% commission on the sale value

$$\therefore \text{Agent's commission from seller} = 3\% \text{ of sale value} = 3\% \text{ of } x$$

$$= \frac{3}{100} \times x$$

$$= \frac{3x}{100}$$

$$\text{Amount received by the owner} = \text{Sale value of the car}$$

$$- \text{Agent's commission}$$

$$\therefore 48,500 = x - \frac{3x}{100}$$

$$\therefore 48,500 = \frac{97x}{100}$$

$$\therefore x = \frac{48,500 \times 100}{97}$$

$$\therefore x = ₹ 50,000$$

\therefore Sale value of the car is ₹ 50,000.

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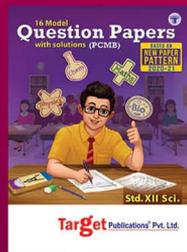
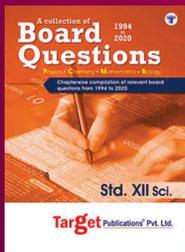
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