

Class-10 (English)

(Total Videos # 384)

Chapter # 01

Hazrat Muhammad (S.A.W) an Embodiment of (42 Videos)

1.1 Vocabulary

1. Vocabulary Words (10)- [meanings & Sentences] Part 13
2. Words/Synonyms Part 1
3. Words/Synonyms Part 2
4. Phrasal Verbs (10)- [meanings & Sentences] Part 1
5. Phrasal Verbs (10)- [meanings & Sentences] Part 2
6. Translation of Sentences (Urdu to English) Part-1

1.2 Reading for Comprehension

1. Hazrat Muhammad (S.A.W) an Embodiment of Justice Part 1
2. Hazrat Muhammad (S.A.W) an Embodiment of Justice Part 2

1.3 Grammar

1. Concrete Nouns (explanation with examples)
2. Abstract Nouns (explanation with examples)
3. Exercise-Abstract Nouns-1
4. Definite and Indefinite Articles (explanation with examples)
5. Exercise-Articles
6. Articles (explanation/identify/insert articles)
7. Phrase (explanation with examples)
8. Noun, Verb, Prepositional Phrases (explanation with examples)
9. Past Simple Tense(Uses & Formation)
10. Past Simple Tense (Table)(explanation with examples)
11. Past Continuous Tense(Uses & Formation)
12. Past Continuous Tense (Table)(explanation with examples)
13. Punctuating a Passage Part-1
14. Punctuating a Passage Part-2
15. International Phonetic Alphabet (IPA) in English (Introduction)
16. Phonetics
17. Monophthongs: Sounds and Symbols Part 1
18. Monophthongs: Sounds and Symbols Part 2
19. Monophthongs: Sounds and Symbols Part 3
20. Diphthongs: Sounds and Symbols Part 1

21. Diphthongs: Sounds and Symbols Part 2
22. Diphthongs: Sounds and Symbols Part 3
23. Consonants: Sounds and Symbols Part 1
24. Consonants: Sounds and Symbols Part 2
25. Consonants: Sounds and Symbols Part 3

1.4 Oral Communication Skills

1. Comprehension-Fair Dealing of Hazrat Muhammad (S.A.W)-Part 1
2. More on Transitional Devices
3. Exercise Transitional Devices
4. Transitional Devices (explanation/fill blanks)
5. Proverb and Story Part 1

1.5 Writing Skills

1. Summary Writing Intro and Steps (explanation with examples)
2. Exercise-Summary Skills-1
3. Summary of a Short Passage (reading/outlining/checking/writing)
4. Comprehension-Fair Dealing of Hazrat Muhammad (S.A.W)-Part 1

Chapter # 02

Chinese New Year (30 Videos)

2.1 Vocabulary

1. Vocabulary Words (10)- [meanings & Sentences] Part 14
2. Exercise-Nouns-Mixed
3. Abstract Noun (change form/make sentences)
4. Translation of Sentences (Urdu to English) Part-2

2.2 Reading for Comprehension

1. Chinese New Year Part 1
2. Chinese New Year Part 2

2.3 Grammar

1. Collective Nouns (explanation with examples)
2. Exercise-Collective Nouns
3. Use of Must & Must Not
4. Present Simple Tense(Uses & Formation)
5. Present Simple Tense(Table) (explanation with examples)
6. Present Continuous Tense (Uses & Formation)
7. Present Continuous Tense (Table) (explanation with examples)
8. Punctuating a Passage Part-1
9. Punctuating a Passage Part-2
10. Use of Hyphens Part-1
11. Use of Hyphens Part-2

12. Use of Hyphens Part-3
13. Weak Forms
14. Syllable Division
15. Syllable Stress: Word Form
16. Dictionary Skills

2.4 Oral Communication Skills

1. Festivals (Eid ul Fitr/Azha/Christmas etc.)
2. Proverb and Story Part 2

2.5 Writing Skills

1. Summary Writing Intro and Steps (explanation with examples)
2. Exercise-Summary Skills-1
3. Summary of a Long Passage (reading/outlining/checking/writing)
4. More on Summary of a Long Passage
5. Comprehension Eid-ul-Azha Part 1
6. Comprehension-Eid-ul-Azha-Part 1

Chapter # 03

Try Again (22 Videos)

3.1 Vocabulary

1. Vocabulary Words (10)- [meanings & Sentences] Part 15
2. Words/Synonyms Part 3
3. Words/Synonyms Part 4

3.2 Reading for Comprehension

1. Try Again Part 1
2. Use of Simile: Activity
3. Figures of Speech-Simile/Metaphor/Imagery etc. Part-1

3.3 Grammar

1. Pronouns (explanation with examples)
2. Personal Pronouns (explanation with examples)
3. Degrees of Comparison (explanation with examples)
4. Exercise-Degrees of comparison
5. Order of Adjectives (explanation/choose the correct phrase)
6. Order of Adjectives (explanation/make sentences)
7. Adjective Phrases(explanation/replace phrase by adjective/make senten
8. Future Simple Tense (Uses & Formation)(explanation with examples)
9. Future Simple Tense (Table) (explanation with examples)

3.4 Oral Communication Skills

1. Expressing Agreement or Disagreement
2. Proverb and Story Part 3

3.5 Writing Skills

1. Paraphrasing Intro-Sample (writing a paraphrase of a story)
2. More on paraphrasing Intro-Sample
3. Summary Steps with Flow Chart (explanation)
4. Summary of a Poem(Daffodils) (reading/outlining/checking/writing)
5. An Essay on Quaid-e-Azam our National Hero (mind map/outline/writing)

Chapter # 04

First Aid (23 Videos)

4.1 Vocabulary

1. Vocabulary Words (10)- [meanings & Sentences] Part 16
2. Idioms (10)- [meanings & Sentences] Part 1
3. Idioms (10)- [meanings & Sentences] Part 2

4.2 Reading for Comprehension

1. First Aid Part 1
2. First Aid Part 2

4.3 Grammar

1. Position of Adverbs in a sentence (explanation with examples)
2. Position of a Single Adverb in a Sentence
3. Adverb Phrase (explanation with examples)
4. Exercie-Adverb Phrase
5. Gerund (explanation with examples)
6. Gerunds(explanation/complete phrases/make sentences)
7. Infinitive (explanation with examples)
8. Use of Infinitives(explanation/make sentences)
9. More on Use of Infinitives
10. Active and Passive Voice (explanation with examples)
11. Active and Passive Voice Table Part 1 (explanation & examples)
12. Active and Passive Voice Table Part 2 (explanation & examples)

4.4 Oral Communication Skills

1. Proverb and Story Part 4
2. How to Express a Wish

4.5 Writing Skills

1. Writing a Narrative Paragraph Part 1
2. Writing a Narrative Paragraph Part 2

3. Transitional Devices (explanation/fill blanks)
4. More on Transitional Devices

Chapter # 05

The Rain (30 Videos)

5.1 Vocabulary

1. Vocabulary Words (10)- [meanings & Sentences] Part 17
2. Synonyms & Antonyms Part 1(syllabus based)
3. Real-Life Connections Between Words and their Use
4. Shades of Meanings Verbs and Adjectives
5. Use of Thesaurus (synonyms)

5.2 Reading for Comprehension

1. The Rain Part 1
2. Use of Metaphor
3. Comprehension of a Poem Part 2

5.3 Grammar

1. Transitive Verb (explanation with examples)
2. Intransitive Verb (explanation with examples)
3. Verbs (explanation with examples)
4. Prepositions of Movement or Direction
5. Prepositions of Place
6. Active and Passive Voice Table Part 3 (explanation & examples)
7. Active and Passive Voice Table Part 4 (explanation & examples)
8. Exercise-Active & Passive Voice

5.4 Oral Communication Skills

1. Proverb and Story Part 5
2. Expressing Needs and Wants
3. Comprehension: Flood, Blessing in Disguise Part 1

5.5 Writing Skills

1. Paraphrasing Intro-Sample (writing a paraphrase of a story)
2. More on paraphrasing Intro-Sample
3. Paraphrasing the Stanzas of a Poem (editing/writing)
4. Paraphrasing (explanation with examples)
5. More on Paraphrasing
6. Summary (explanation with practice using short poems)
7. Summary Steps with Flow Chart (explanation)
8. Summary of a Poem(Daffodils) (reading/outlining/checking/writing)
9. Paragraph Writing Intro-Outline (explanation with examples)
10. Paragraph Writing Sample(writing of a paragraph)

11. Comprehension-Rain in Summer (Poem)-1

Chapter # 06

Television vs. Newspaper (32 Videos)

6.1 Vocabulary

1. Vocabulary Words (10)- [meanings & Sentences] Part 18
2. Translation of Sentences (Urdu to English) Part-3

6.2 Reading for Comprehension

1. Television vs. Newspaper Part 1
2. Television vs. Newspaper Part 2

6.3 Grammar

1. Modal Verbs (explanation with examples)
2. More on Modal Verbs
3. Exercise-Modal Verbs
4. Modal Verbs (explanation/use of modal verbs to describe various situa
5. Active and Passive Voice (explanation with examples)
6. Active and Passive Voice Table Part 1 (explanation & examples)
7. Active and Passive Voice Table Part 2 (explanation & examples)
8. Active and Passive Voice Table Part 3 (explanation & examples)
9. Active and Passive Voice Table Part 4 (explanation & examples)
10. Exercise-Active & Passive Voice
11. First Conditional: Activity
12. Pronunciation: Silent letters in Words (with focus on silent and roll
13. Pronunciation: Silent letters in Words (with focus on "lk", "wr", "kn")

6.4 Oral Communication Skills

1. Essay Outline (Social Media) Part 1
2. Essay Outline (Social Media) Part 2
3. Essay Outline (Social Media) Part 3

6.5 Writing Skills

1. Summary of a Short Passage (reading/outlining/checking/writing)
2. Comparison and Contrast Essay Sample(writing of essay)
3. More on Comparison and Contrast Essay Sample (writing of essay)
4. More on A Comparison and Contrast Essay
5. Reading Comprehension Passage: Media and Its Impact (with Q and A) pa
6. Reading Comprehension Passage: Media and Its Impact (with Q and A) pa
7. Reading Comprehension Passage: Media and Its Impact (with Q and A) pa
8. Formal/Informal Letter Comparison & Parts in Detail (discussion)
9. Formal Letter Sample (reading and discussion of sample)
10. A Sample Formal Letter/Application (outline/explanation)

11. More on A Formal Letter

Chapter # 07

Little by Little One Walks Far! (21 Videos)

7.1 Vocabulary

1. Vocabulary Words (10)- [meanings & Sentences] Part 19
2. Phrasal Verbs (10)- [meanings & Sentences] Part 1
3. Phrasal Verbs (10)- [meanings & Sentences] Part 2
4. Translation of Sentences (Urdu to English) Part-4

7.2 Reading for Comprehension

1. Little by Little One Walks Far! Part 1
2. Little by Little One Walks Far! Part 2

7.3 Grammar

1. Kinds of Pronouns (personal/possessive)(explanation)
2. Kinds of Pronouns (reflexive/indefinite)(explanation)
3. Kinds of Pronouns (identify various pronouns in sentences)
4. Subject-Verb Agreement Part 1 (explanation with examples)
5. Subject-Verb Agreement Part 2 (explanation with examples)
6. Present Perfect Tense (Uses&Formation)
7. Present Perfect Tense(Table) (explanation with examples)

7.4 Oral Communication Skills

1. How to Take an Interview

7.5 Writing Skills

1. Summary of a Short Passage (reading/outlining/checking/writing)
2. Comprehension-Sports and Sportsmanship-Part 1
3. Flow Chart of a School Event
4. Comprehension of a Descriptive Essay Part 1
5. Formal Letter Sample (reading and discussion of sample)
6. A Sample Formal Letter/Application (outline/explanation)
7. More on A Formal Letter

Chapter # 08

Peace (36 Videos)

8.1 Vocabulary

1. Vocabulary Words (5)- [meanings & Sentences] Part 20

2. Words/Synonyms Part 5
3. Shades of Meanings Verbs and Adjectives
4. Idioms (10)- [meanings & Sentences] Part 3
5. Idioms (10)- [meanings & Sentences] Part 4

8.2 Reading for Comprehension

1. Peace Part 1
2. Peace Part 2

8.3 Grammar

1. Relative Pronouns & antecedent(explanation with examples)
2. More on Relative Pronouns
3. Exercise-Relative Pronouns
4. Kinds of Pronouns Mixed Part-2
5. Interrogative Pronouns
6. Joining Sentences by inserting "Who"
7. Joining Sentences by inserting "Which"
8. Joining Sentences by inserting "Which or Who"
9. Present and Past participle (explanation with examples)
10. Exercise-Present & Past Participles
11. Gerund (explanation with examples)
12. Gerunds(explanation/complete phrases/make sentences)
13. Infinitive (explanation with examples)
14. Use of Infinitives(explanation/make sentences)
15. More on Use of Infinitives
16. Phrase (explanation with examples)
17. Noun, Verb, Prepositional Phrases (explanation with examples)

8.4 Oral Communication Skills

1. Syllable Stress: Word Form
2. Intonation Patterns with Examples
3. Weak Forms

8.5 Writing Skills

1. Paraphrasing Intro-Sample (writing a paraphrase of a story)
2. More on paraphrasing Intro-Sample
3. Paraphrasing the Stanzas of a Poem (editing/writing)
4. Paraphrasing (explanation with examples)
5. More on Paraphrasing
6. Summary (explanation with practice using short poems)
7. Summary Steps with Flow Chart (explanation)
8. Comprehension-A Terrible Earthquake-Part 1
9. Comprehension: Flood, Blessing in Disguise Part 1

Chapter # 09

Selecting the Right Career (17 Videos)

9.1 Vocabulary

1. Vocabulary Words (5)- [meanings & Sentences] Part 21

9.2 Reading for Comprehension

1. Selecting the Right Career Part 1
2. Selecting the Right Career Part 2

9.3 Grammar

1. Noun Clause (explanation with examples)
2. Phrase (explanation with examples)
3. Noun, Verb, Prepositional Phrases (explanation with examples)
4. Present Perfect Continuous Tense (Uses&Formation)
5. Present Perfect Continuous Tense (Table) (explanation & examples)
6. Use of Since and For

9.4 Oral Communication Skills

1. Professions (teacher, doctor etc.-sentences)
2. Comprehension of a Play Part 1

9.5 Writing Skills

1. Summary of a Short Passage (reading/outlining/checking/writing)
2. Comprehension Women as Role Models Part 1
3. An Essay on Quaid-e-Azam our National Hero (mind map/outline/writing)
4. Formal Letter Sample (reading and discussion of sample)
5. A Sample Formal Letter/Application (outline/explanation)
6. More on A Formal Letter

Chapter # 10

A World Without Books (30 Videos)

10.1 Vocabulary

1. Word Pairs (5)- [meanings & Sentences] Part 1
2. Idioms (10)- [meanings & Sentences] Part 1
3. Phrasal Verbs (10)- [meanings & Sentences] Part 1
4. Abbreviations Part 1

10.2 Reading for Comprehension

1. A World Without Books Part 1

2. A World Without Books Part 2

10.3 Grammar

1. Relative Pronouns & antecedent(explanation with examples)
2. More on Relative Pronouns
3. Exercise-Relative Pronouns
4. Adjective Clauses (explanation/identify/fill blanks)
5. More on Adjective Clauses
6. Kinds of Adjectives (explanation with examples)
7. Adjective Phrases(explanation/replace phrase by adjective/make senten
8. Adverb Phrases(explanation/replace phrase by adjective/make sentences)
9. Second Conditional: Activity
10. Active and Passive Voice (explanation with examples)
11. Active and Passive Voice Table Part 1 (explanation & examples)
12. Active and Passive Voice Table Part 2 (explanation & examples)
13. Active and Passive Voice Table Part 3 (explanation & examples)
14. Active and Passive Voice Table Part 4 (explanation & examples)
15. Exercise-Active & Passive Voice

10.4 Oral Communication Skills

1. Essay Outline (Social Media) Part 1
2. Essay Outline (Social Media) Part 2
3. Essay Outline (Social Media) Part 3

10.5 Writing Skills

1. Argumentative Essay Sample-Part-1 (writing of essay)
2. Argumentative Essay Sample-Part-2 (writing of essay)
3. Argumentative Essay Sample-Part-3(writing of essay)
4. Persuasive/Argumentative Essay Comparison(explanation with table)
5. A Sample Persuasive Essay (explanation)
6. A Sample Argumentative Essay (explanation)

Chapter # 11

Great Expectations (37 Videos)

11.1 Vocabulary

1. Word Pairs (5)- [meanings & Sentences] Part 2
2. Idioms (10)- [meanings & Sentences] Part 2
3. Phrasal Verbs (10)- [meanings & Sentences] Part 2
4. Abbreviations Part 2
5. Prefix and Suffix
6. Root Words and Affixes- Explanation and Examples

11.2 Reading for Comprehension

1. Great Expectations Part 1
2. Great Expectations Part 2
3. Elements of a Story Part 1
4. Elements of a Story Part 2

11.3 Grammar

1. Past perfect Tense (Uses&Formation)
2. Past perfect Tense (Table)(explanation with examples)
3. Past Perfect Continuous Tense (Uses&Formation)
4. Past Perfect Continuous Tense (Table)(explanation & examples)
5. Intro Direct/Indirect Speech
6. Intro Direct/Indirect Speech: Activity
7. Orders and Requests: Direct/Indirect Speech
8. Commas with Degrees, Titles and Direct Speech (Rule 14 to 16)
9. Commas with Direct Speech, Contrasting Parts and Introductory Items (
10. Active and Passive Voice (explanation with examples)
11. Active and Passive Voice Table Part 1 (explanation & examples)
12. Active and Passive Voice Table Part 2 (explanation & examples)
13. Active and Passive Voice Table Part 3 (explanation & examples)
14. Active and Passive Voice Table Part 4 (explanation & examples)
15. Exercise-Active & Passive Voice

11.4 Oral Communication Skills

1. Elements of a Story
2. Essay Outline (Women Education) Part 1
3. Essay Outline (Women Education) Part 2
4. Essay Outline (Women Education) Part 3

11.5 Writing Skills

1. Character Sketch(explanation/steps to follow)
2. Character Sketch(explanation/steps to follow)
3. More on Character Sketch
4. Descriptive/Narrative Essay Comparison & Expository/Descriptive Mindm
5. Book Review Intro and Tips (explanation with examples)
6. Book Review Sample (discussion of sample)
7. Book Reviews on Hellen Keller's 2 Books (explanation)
8. Book Review (Importance and tips to write book reviews-Explanation)

Chapter # 12

Population Growth and World Food Supplie (29 Videos)

12.1 Vocabulary

1. Word Pairs (5)- [meanings & Sentences] Part 3
2. Idioms (10)- [meanings & Sentences] Part 3

3. Phrasal Verbs (10)- [meanings & Sentences] Part 3
4. Abbreviations Part 3
5. Prefix and Suffix
6. Root Words and Affixes- Explanation and Examples
7. Prefixes, Root and Suffixes

12.2 Reading for Comprehension

1. Population Growth and World Food Supplies Part 1
2. Population Growth and World Food Supplies Part 2
3. More on Transitional Devices
4. Exercise Transitional Devices
5. Transitional Devices (explanation/fill blanks)
6. Cause and Effect Essay Sample (writing of essay)
7. More on Cause and Effect Essay Sample (writing of essay)

12.3 Grammar

1. Conjunctions(3 types)(explanation with examples)
2. Joining Sentences by inserting "or, and, but"
3. Joining Sentences by inserting "so or because"
4. Adverb Clause (explanation with examples)
5. Exercise-Adverb Clause-1
6. Exercise-Adverb Clause-2
7. Adverb Phrase (explanation with examples)
8. Exercise-Adverb Phrase

12.4 Oral Communication Skills

1. A Sample Comparison and Contrast Essay (outline/explanation)
2. More on A Comparison and Contrast Essay
3. Essay Outline (Pollution) Part 1
4. Essay Outline (Pollution) Part 2

12.5 Writing Skills

1. Summary of a Short Passage (reading/outlining/checking/writing)
2. Comparison and Contrast Essay Sample(writing of essay)
3. More on Comparison and Contrast Essay Sample (writing of essay)

Chapter # 13

Faithfulness (35 Videos)

13.1 Vocabulary

1. Prefix and Suffix
2. Word Pairs (5)- [meanings & Sentences] Part 4
3. Idioms (10)- [meanings & Sentences] Part 4
4. Idioms (10)- [meanings & Sentences] Part 5

5. Phrasal Verbs (10)- [meanings & Sentences] Part 5
6. Translation of Sentences (Urdu to English) Part-1
7. Translation of Sentences (Urdu to English) Part-2
8. Abbreviations Part 4
9. Abbreviations Part 5

13.2 Reading for Comprehension

1. Faithfulness Part 1
2. Faithfulness Part 2

13.3 Grammar

1. Third Conditional: Activity
2. All Conditionals: Activity
3. Compound Sentences (explanation with examples)
4. Complex Sentences (explanation with examples)
5. Independent/Dependent Clauses (explanation with examples)
6. Exercise-Independent & Dependent Clause
7. Exercise-Comma Clause
8. Commas with Clauses (Rule 3)
9. Conjunctions(3 types)(explanation with examples)
10. Intro Direct/Indirect Speech
11. Intro Direct/Indirect Speech: Activity
12. Orders and Requests: Direct/Indirect Speech
13. Commas with Direct Speech, Contrasting Parts and Introductory Items (

13.4 Oral Communication Skills

1. Kinds of Adjectives (explanation with examples)
2. Use of Question Words
3. Tag Questions
4. Identifying Expressions w.r.t. Types
5. Essay Outline (Corruption) Part 1
6. Essay Outline (Corruption) Part 2
7. Essay Outline (Corruption) Part 3

13.5 Writing Skills

1. Character Sketch(explanation/steps to follow)
2. Summary of a Short Passage (reading/outlining/checking/writing)
3. Summary of a Long Passage (reading/outlining/checking/writing)
4. More on Summary of a Long Passage

Class-10 (Mathematics)

(Total Videos # 486)

Chapter # 01

Quadratic Equations (26 Videos)

1.1 Quadratic Equation

1. Quadratic Equations in 1 Variable
2. Problem-Quadratic Equations in 1 Variable

1.2 Solution of Quadratic Equations

1. Solving Quadratic Equations-Completing Squares
2. Problem1-Solving Quadratic Equations-Completing Squares
3. Problem2-Solving Quadratic Equations-Completing Squares
4. Solving Quadratic Equations by Factorization
5. Problem-Solving Quadratic Equations by Factorization

1.3 Quadratic Formula

1. Derivation of Quadratic Formula by Completing Square
2. Problem-Derivation of Quadratic Formula by Completing Square
3. Solving Quadratic Equation-Quadratic Formula
4. Problem1-Solving Quadratic Equation-Quadratic Formula
5. Problem2-Solving Quadratic Equation-Quadratic Formula

1.4 Equations Reducible to Quadratic Form

1. Solving Degree Four Equation
2. Solving Rational Equations
3. Solving Reciprocal Algebraic Equation
4. Problem-Solving Reciprocal Algebraic Equation
5. Solving Exponential Equations
6. Solving Algebraic Equations in Products Factors

1.5 Radical Equations

1. Solving Radical Equations in 1 Variable
2. Problem1-Solving Radical Equations in 1 Variable
3. Problem2-Solving Radical Equations in 1 Variable
4. Solving sum of radicals equal to constant
5. Solving Sum of Radicals Equal to Linear Expression
6. Problem-Solving Sum of Radicals Equal to Linear Expression
7. Quadratic Equations-Miscellaneous-Exercise-1-Question 1 to 2 part 2
8. Quadratic Equations-Miscellaneous-Exercise-1-Question 2 Part 3

Chapter # 02

Theory of Quadratic Equations (49 Videos)

2.1 Nature of the Roots of a Quadratic Equa

1. Discriminant of Quadratic Expression
2. Problem on Discriminant of Quadratic Expression
3. Finding Discriminant of Quadratic Equation
4. Problem on Finding Discriminant of Quadratic Equation
5. Nature of the Roots of a Quadratic Equation
6. Problem on Nature of the Roots of a Quadratic Equation
7. Verification of Nature of Roots of Equation
8. Finding s when Nature of Roots is given
9. Problem on Finding s when Nature of Roots is given
10. Problem on Finding s when Nature of Roots is given-2

2.2 Cube Roots of Unity and Their Properties

1. The Cube Roots of Unity
2. Problem on The Cube Roots of Unity
3. Recognise Complex Cube Roots of Unity
4. Properties of Cube Roots of Unity
5. Problem-properties of Cube Roots of Unity
6. Problems on Cube Roots of Unity
7. Problem- Cube Roots of Unity

2.3 Roots and Co-Efficients of a Quadratic

1. Roots & Coefficients of Quadratic Equation
2. Problem 1: Roots & Coefficients of Quadratic Equation
3. Finding Sum of Roots from Their Product
4. Problem on Finding Sum of Roots from Their Product
5. Finding Sum of Roots from Their Square
6. Problem on Finding Sum of Roots from Their Square
7. Two Roots Differ by a Given Number
8. Roots Satisfy a Given Relation
9. Sum & Product of Roots Equal to a Number.

2.4 Symmetric Functions of the Roots of a Q

1. Symmetric Functions of Roots Equation
2. Problem on Symmetric Functions of Roots Equation
3. More on Symmetric Functions of Roots Equation

2.5 Formation of a Quadratic Equation

1. Find a Quadratic Equation from Given Roots
2. Form Quadratic Equations Whose Roots are Given

3. Problem on Form Quadratic Equations Whose Roots are Given

2.6 Synthetic Division

1. Synthetic Division Method
2. Finding Quotient & Remainder
3. Problem on Finding Quotient & Remainder
4. Finding s when Zeros of a Polynomial are Given
5. Finding s when Factors of a Polynomial are Given
6. Solve a Cube Equation, If a Root of Equation is Given
7. Problem on Solve a Cube Equation, If a Root of Equation is Given
8. Solving Quartic Equation, If Roots are Given
9. Problem on Solving Quartic Equation, If Roots are Given

2.7 Simultaneous Equations

1. Solving Simultaneous Quadratic Equations
2. Problem Leading to Quadratic Equations.
3. Problem on Problem Leading to Quadratic Equations.
4. Theorey of Quadratic Equations-Miscellaneous-Exercise-2-Question 1
5. Theorey of Quadratic Equations-Miscellaneous-Exercise-2-Question 2 Pa
6. Theorey of Quadratic Equations-Misc-Exercise-2-Question 2 Part 8 to 11
7. Theorey of Quadratic Equations-Misc-Exercise-2-Question 2 Part 12 to
8. Theorey of Quadratic Equations-Misc-Exercise-2-Question 3 Complete

Chapter # 03

Variations (44 Videos)

3.1 Ratio, Proportions and Variations

1. Introducing Ratio
2. Problem-Introducing Ratio
3. Direct Variation
4. Problem-Direct Variation
5. Problem2-Direct Variation
6. Problem3-Direct Variation
7. Problem-Inverse Variation
8. Problem1-Inverse Variation
9. Problem2-Inverse Variation
10. Introducing Proportion
11. Problem-Introducing Proportion
12. Law of Proportion
13. Problem 1: Law of Proportion
14. Fourth Proportional
15. Problem on Fourth Proportional
16. Third Proportional.

17. Problem on Third Proportional.
18. Mean Proportional.
19. Problem on Mean Proportional.
20. Continued Proportion
21. Problem-Continued Proportion

3.2 Theorems on Proportions

1. Invertendo Theorem
2. Problem-Invertendo Theorem
3. Alternando Theorem
4. Problem-Alternando Theorem
5. Componendo Theorem
6. Problem-Componendo Theorem
7. Dividendo Theorem
8. Problem-Dividendo Theorem
9. Componendo and Dividendo Theorem
10. Problem on Componendo-Dividendo Theorem
11. Problem1-Componendo and Dividendo Theorem

3.3 Joint Variation

1. Introducing Joint variation
2. Problem-Introducing Joint variation
3. Problems related to joint variation

3.4 K-Method

1. Introduction to K-Method.
2. Problem 2: Introduction to K-Method.
3. Problem 3: Introduction to K-Method.
4. Problem 3: Introduction to K-Method.
5. Word Problem of Ratio of Shadow & Height
6. Problem-Word Problem of Ratio of Shadow & Height
7. Variations-Miscellaneous-Exercise-3-Question 1
8. Variations-Miscellaneous-Exercise-3-Question 2
9. Variations-Miscellaneous-Exercise-3-Question 3

Chapter # 04

Partial Fractions (11 Videos)

4.1 Fraction

1. Partial Fractions

4.2 Resoluton of Fraction into Partial Frac

1. Problem-Resolving Fractions-Non-Repeated Linear Factors
2. Resolving Fractions-Repeated Linear Factors

3. Problem1-Resolving Fractions-Repeated Linear Factors
4. Resolving Fractions-Non-Repeated Irreducible Factors
5. Problem1-Resolving Fractions-Non-Repeated Irreducible Factors
6. Resolving Fractions-Repeated Irreducible Factors
7. Problem1-Resolving Fractions-Repeated Irreducible Factors
8. Partial Fractions-Miscellaneous-Exercise-4-Question 1 to 2 Part 4
9. Partial Fractions-Miscellaneous-Exercise-4-Question 2 Part 5 to Part 7
10. Partial Fractions-Miscellaneous-Exercise-4-Question 2 Part 8 to Part

Chapter # 05

Sets and Functions (116 Videos)

5.1 Sets

1. Set Definition
2. Set Notation & its Characteristics
3. Presentation of a Set
4. Empty Set & Singleton Set
5. Problem on Empty Set & Singleton Set
6. Finite & Infinite Set
7. Problem on Finite & Infinite Set
8. Subset Definition
9. Problem on Subset Definition
10. Proper Subset & Improper Subset
11. Problem on Proper Subset & Improper Subset
12. Properties of Subset
13. Problem on Properties of Subset
14. Power Set
15. Problem on Power Set
16. Equal & Equivalent Sets
17. Problem on Equal & Equivalent Sets
18. Union of Two Sets
19. Problem on Union of Two Sets
20. Intersection of Set
21. Problem on Intersection of Set
22. Universal Set
23. Complement of a Set
24. Problem-Complement of a Set
25. Definition of One to One Correspondence
26. Disjoint Set
27. Overlapping Sets
28. Some Important Sets of Numbers
29. Set Builder Notation

30. Problem on Set Builder Notation
31. Associative Property of Union of Sets
32. Problem on Associative Property of Union of Sets
33. Associative Property of Intersection of Sets
34. Problem on Associative Property of Intersection of Sets
35. Distributive Property of Union Over Intersection
36. Problem on Distributive Property of Union Over Intersection
37. Demorgan Law 1
38. Problem on Demorgan Law 1
39. Demorgan Law 2
40. Problem on Demorgan Law 2
41. Introduction to Venn Diagrams
42. Problem on Introduction to Venn Diagrams
43. Commutative Law of Union of Sets
44. Problem-Commutative Law of Union of Sets
45. Commutative Law of Intersection of Sets
46. Problem-Commutative Law of Intersection of Sets
47. Intersection Associativity for Overlapping Sets
48. Problem on Intersection Associativity for Overlapping Sets
49. Intersection Associativity for Disjoint Sets
50. Intersection Associativity for Disjoint Sets
51. Intersection Associativity for Sets
52. Problem on Intersection Associativity for Sets
53. More on Intersection Associativity for Sets
54. Problem on More on Intersection Associativity for Sets
55. Union Associativity for Overlapping Sets
56. Problem on Union Associativity for Overlapping Sets
57. Union Associativity for Disjoint Sets
58. Problem on Union Associativity for Disjoint Sets
59. Union Associativity for Sets
60. Problem on Union Associativity for Sets
61. More on Union Associativity for Set
62. Problem on More on Union Associativity for Set
63. Distributivity of Union Over Intersection of Sets
64. Problem on Distributivity of Union Over Intersection of Sets
65. Distributivity of Intersection Over Union of Sets
66. Problem on Distributivity of Intersection Over Union of Sets
67. Difference of Sets for Overlapping Sets
68. Problem on Difference of Sets for Overlapping Sets
69. Difference of Sets for Disjoint Sets
70. Problem on Difference of Sets for Disjoint Sets
71. Difference of Sets for a Set & its Subset
72. Problem on Difference of Sets for a Set & its Subset
73. Complement of Union for Overlapping Sets
74. Problem on Complement of Union for Overlapping Sets

75. Complement of Intersection for Overlapping Sets
76. Problem on Complement of Intersection for Overlapping Sets
77. Complement of Intersection for Disjoint Sets
78. Problem on Complement of Intersection for Disjoint Sets
79. Complement of Union for Disjoint Sets
80. Problem on Complement of Union for Disjoint Sets
81. Complement of Union for Set & its Subset
82. Problem on Complement of Union for Set & its Subset
83. Complement of Intersection for Set & its Subset
84. Problem on Complement of Intersection for Set & its Subset
85. Demorgans Law for Overlapping Sets
86. Problem on Demorgans Law for Overlapping Sets
87. Demorgans Law for Disjoint Sets
88. Problem on Demorgans Law for Disjoint Sets
89. Demorgans Law for Set & its Subset
90. Problem on Demorgans Law for Set & its Subset
91. Introduction to Ordered Pairs
92. Problem on Introduction to Ordered Pairs
93. Cartesian Product of Sets
94. Problem on Cartesian Product of Sets
95. Cartesian Coordinate System & Cartesian Plane
96. Problem on Cartesian Coordinate System & Cartesian Plane

5.2 Binary Relation

1. Introduction to Binary Relation
2. Problem 2-Introduction to Binary Relation
3. Domain & Range of Binary Relation
4. Problem1-Domain & Range of Binary Relation

5.3 Function or Mapping

1. Introduction to Function
2. Problem on Introduction to Function
3. Into Function
4. Problem on Into Function
5. Onto Function
6. Problem on Onto Function
7. One to One Function
8. Problem on One to One Function
9. Bijective Function
10. Problem on Bijective Function
11. Injective Function
12. Problem on Injective Function
13. One-One Function
14. Sets and Functions-Miscellaneous-Exercise-5-Question 1
15. Sets and Functions-Miscellaneous-Exercise-5-Question 2
16. Sets and Functions-Miscellaneous-Exercise-5-Question 3

Chapter # 06

Basic Statistics (105 Videos)

6.1 Frequency Distribution

1. Construction of Discrete Frequency Table
2. Construction of Continuous Frequency Table
3. Problem on Construction of Continuous Frequency Table
4. Concept of Information Handling
5. Problem on Concept of Information Handling
6. Collection and Presentation of Data
7. Problem on Data, Collection of Data, Presentation of Data
8. Types of Data.
9. Problem on Types of Data.
10. Constant & Variable.
11. Problem on Constant & Variable.
12. Types of Variables
13. Problem on Types of Variables
14. Ungrouped & Grouped Data
15. Problem on Ungrouped & Grouped Data
16. Classification & No. of Classes
17. Problem on Classification & No. of Classes
18. Specification of Classes
19. Problem on Specification of Classes
20. Class interval & Class Limits
21. Problem on Class interval & Class Limits
22. Class Mark & Class Boundaries.
23. Problem on Class Mark & Class Boundaries.
24. Class Frequency
25. Problem on Class Frequency
26. Construction of Cumulative Frequency Table
27. Problem on Construction of Cumulative Frequency Table
28. Constructing Histogram with Equal Intervals
29. Problem on Constructing Histogram with Equal Intervals
30. Constructing Histogram with Unequal Intervals
31. Problem on Constructing Histogram with Unequal Intervals
32. Construction of Frequency Polygon
33. Problem on Construction of Frequency Polygon

6.2 Cumulative Frequency Distribution

1. Construction of Cumulative Frequency Table
2. Problem on Construction of Cumulative Frequency Table

3. Drawing of Cumulative Frequency Polygon
4. Problem on Drawing of Cumulative Frequency Polygon

6.3 Measures of Central Tendency

1. Measure of Location
2. Problem on Measure of Location
3. Problem 5-Types of Measures of Central Tendency
4. Problem 6-Types of Measures of Central Tendency
5. Problem 8-Types of Measures of Central Tendency
6. A.M of Ungrouped Data by Direct Method
7. Problem on A.M of Ungrouped Data by Direct Method
8. A.M for Grouped Data by Direct Method
9. Problem on A.M for Grouped Data by Direct Method
10. A.M for Ungrouped Data by Short formula Method
11. Problem on A.M for Ungrouped Data by Short formula Method
12. Arithmetic Mean for Grouped Data-Short Formula
13. Problem on A.M for Grouped Data by Short formula Method
14. A.M for Ungrouped Data by Coding Method
15. Problem on A.M for Ungrouped Data by Coding Method
16. A.M for Grouped Data by Coding Method
17. Problem on A.M for Grouped Data by Coding Method
18. Median for Ungrouped Data
19. Problem on Median for Ungrouped Data
20. Median for Grouped Discrete Data
21. Problem on Median for Grouped Discrete Data
22. Median for Grouped Continuous Data
23. Problem on Median for Grouped Continuous Data
24. Mode for Ungrouped Discrete Data
25. Problem on Mode for Ungrouped Discrete Data
26. Mode for Grouped Continuous Data
27. Geometric Mean of Ungrouped Data
28. Geometric Mean of Ungrouped Data by Logarithm
29. Problem on Geometric Mean of Ungrouped Data by Logarithm
30. Geometric Mean of Grouped Data by Logarithm
31. Problem on Geometric Mean of Grouped Data by Logarithm
32. Harmonic Mean for Ungrouped Data
33. Problem on Harmonic Mean for Ungrouped Data
34. Harmonic Mean for Grouped Data
35. Problem on Harmonic Mean for Grouped Data
36. Properties of Arithmetic Mean
37. Problem on Properties of Arithmetic Mean
38. Calculation of Weighted Mean
39. Problem on Calculation of Weighted Mean
40. Calculation of Moving Mean
41. Problem on Calculation of Moving Mean

6.4 Measures of Dispersion

1. Concept of Dispersion
2. Problem on Concept of Dispersion
3. Importance & Uses of Measures of Dispersion
4. Problem on Importance & Uses of Measures of Dispersion
5. Types of Measures of Dispersion
6. Problem on Types of Measures of Dispersion
7. Problem 1: Types of Measures of Dispersion
8. Calculation of Range for Raw or Ungrouped Data
9. Problem on Calculation of Range for Raw or Ungrouped Data
10. Introduction to Variance & S.D
11. Problem on Introduction to Variance & S.D
12. Calculation of Variance by Direct Method
13. Problem on Calculation of Variance by Direct Method
14. Variance using Proper Mean Formula
15. Problem on Calculation of Variance by Proper Mean formula
16. Calculation of Variance by Short Cut Method
17. Problem on Calculation of Variance by Short Cut Method
18. Calculation of S.D by Short Cut Method
19. Problem on Calculation of S.D by Short Cut Method
20. Calculation of S.D by Proper Mean formula
21. Problem on Calculation of S.D by Proper Mean formula
22. Calculation of S.D by Direct Method
23. Problem on Calculation of S.D by Direct Method
24. S.D & Variance for A Grouped Data
25. Problem on S.D & Variance for A Grouped Data
26. Basic Statistics-Miscellaneous-Exercise-6-Question 1
27. Basic Statistics-Miscellaneous-Exercise-6-Question 2

Chapter # 07

Introduction to Trigonometry (50 Videos)

7.1 Measurement of an Angle

1. Introduction to an Angle
2. Measuring an Angle in Sexagesimal System
3. Problem1-Measuring an Angle in Sexagesimal System
4. Sexagesimal System into Decimal form & Vice Versa
5. Problem-Sexagesimal System into Decimal form & Vice Versa
6. Radian Measure of an Angle
7. Problem1-Radian Measure of an Angle
8. Relationship Between Radians & Degrees.

7.2 Sector of a Circle

1. Relationship of Radius-Central Angle-Arc Length
2. Problem1-Relationship of Radius-Central Angle-Arc Length
3. Area of a Circular Sector.
4. Problem1-Area of a Circular Sector.

7.3 Trigonometric Ratios

1. General Angles
2. Angle in Standard Position.
3. Problem-Angle in Standard Position
4. The Quadrants & Quadrantal Angles
5. Problem-The Quadrants & Quadrantal Angles
6. Trigonometric Ratios & Their Reciprocals
7. Problem2-Trigonometric Ratios & Their Reciprocals
8. Trigonometric Ratios of 45 Degree
9. Problem-Trigonometric Ratios of 45 Degree
10. Trigonometric Ratios of 30 & 60 Degree
11. Problem1-Trigonometric Ratios of 30 & 60 Degree
12. Problem2-Trigonometric Ratios of 30 & 60 Degree
13. Signs of Trigonometric Ratios in Different Quadrants
14. Problem1-Signs of Trigonometric Ratios in Different Quadrant
15. Values of Remaining Trigonometric Ratios
16. Values of Trigonometric Ratios at Quadrantal Angle
17. Problem-Values of Trigonometric Ratios at Quadrantal Angle

7.4 Trigonometric Identities

1. Proof of Fundamental Trigonometric Identity
2. Problem1-Proof of Fundamental Trigonometric Identity
3. More on Fundamental Trigonometric Identity
4. Problem2-Proof of Fundamental Trigonometric Identity
5. Problem3-Proof of Fundamental Trigonometric Identity
6. Problem4-Proof of Fundamental Trigonometric Identity
7. Problem6-Proof of Fundamental Trigonometric Identity

7.5 Angle of Elevation and Angle of Depress

1. Concept of Angle of Elevation & Depression
2. Problem-Concept of Angle of Elevation & Depression
3. Word problem when one Side and Angle of Elevation are Given
4. Problem-Heights and Distances
5. Word problem when one Side and Angle of Depression are Given
6. Problem1-when One Side & Angle of Depression are Given
7. Word problem when Hypotenuse and Angle of Elevation are Given
8. Problem-when Hypotenuse & Angle of Elevation are Given
9. Word Problem with given Sides-Angle of Elevation-Depression
10. Problem1-when Given Sides-Angle of Elevation-Depression
11. Problem2-when Given Sides-Angle of Elevation-Depression

12. Introduction to Trigonometry-Miscellaneous-Exercise-7-Question 1
13. Introduction to Trigonometry-Miscellaneous-Exercise-7-Question 2
14. Introduction to Trigonometry-Miscellaneous-Exercise-7-Question 3

Chapter # 08

Projection of a Side of a Triangle (06 Videos)

8.1 Demonstrative Geometry

1. Euclids Postulate1
2. More on Euclids Postulate2
3. Apollonius Theorem3
4. Projection of a Side of a Triangle-Miscellaneous-Exercise-8-Question
5. Projection of a Side of a Triangle-Miscellaneous-Exercise-8-Question
6. Projection of a Side of a Triangle-Miscellaneous-Exercise-8-Question

Chapter # 09

Chords of a Circle (24 Videos)

9.1 Basic Concepts of The Circle

1. Introduction to Circle & its Characteristics
2. Problem-Introduction to Circle & its Characteristics
3. Chord , Diameter & Circumference of a Circle
4. Problem-Chord , Diameter & Circumference of Circle
5. Arc of a Circle
6. Problem-Arc of Circle
7. Concept of Central Angle of Arc
8. Problem-Concept of Central Angle of Arc
9. Segment and Sector of Circle
10. Problem-Segment and Sector of Circle
11. Concept of Secant & Tangent Line
12. Problem-Introducing Secant and Tangent Line

9.2 Theorems on Circles

1. Theorem Three Non-Collinear Points Form a Circle
2. Problem1-Three Non-Collinear Points Form Circle
3. Problem2-Three Non-Collinear Points Form Circle
4. Theorem on a Line Bisecting the Chord
5. Theorem on a Perpendicular to a Chord
6. Theorem Congruent Chords are Equidistance from Circle

7. Problem1-Congruent Chords Equidistance from Circle
8. Problem2-Congruent Chords Equidistance from Circle
9. Theorem Chords Equidistance of Circle are Congruent
10. Problem-Chords Equidistance of Circle are Congruent
11. Chords of a Circle-Miscellaneous-Exercise-9-Question 1
12. Chords of a Circle-Miscellaneous-Exercise-9-Question 2

Chapter # 10

Tangent to a Circle (10 Videos)

10.1 Theorems on Tangent to a Circle

1. Theorem on Radial Segment and Tangent of a Circle
2. Problem-Tangent to Circle
3. Theorem on Circle Relation of Tangent and Radial Segment
4. Problem-Converse of Tangent to Circle
5. Theorem on Circle Equal Tangents
6. Problem-Equal Tangent Segments from a Point to a Circle
7. Theorem on Externally Touching Circles
8. Problem-Distance of Centers of Externally Tangent Circles
9. Theorem on Internally Touching Circles
10. Tangent to a Circle-Miscellaneous-Exercise-10-Complete

Chapter # 11

Chords and Arcs (05 Videos)

11.1 Theorems on Chords and Arcs

1. Theorem If Arcs Congruent, then Chords Congruent
2. Theorem If Chords Congruent, then Arcs Congruent
3. Theorem If Chords Congruent, then Central Angles Congruent
4. If Central Angles Congruent, then Arcs Congruent
5. Chords and Arcs-Miscellaneous-Exercise-11-Complete

Chapter # 12

Angle in a Segment of a Circle (08 Videos)

12.1 Theorems on Angle in a Segment of a Circle

1. Theorem on Circle Angle of Minor Arc
2. Problem1-Central Angle Theorem
3. Problem2-Central Angle Theorem
4. Theorem related to Angles in a Same Segment
5. Theorem on Angle in a Semi-Circle
6. Theorem Related to angles in inscribed Quadrilateral
7. Angle in a Segment of a Circle-Misc-Exercise-12-Question 1 Part 1-6
8. Angle in a Segment of a Circle-Misc-Exercise-12-Question 1 Part 7 to

Chapter # 13

Practical Geometry-Circles (08 Videos)

13.1 Construction of a Circle

1. How to Locate the Centre of a Given Circle
2. Problem-How to Locate the Centre of a Given Circle
3. Drawing a Circle Through Three Non-Collinear Points
4. Problem-Drawing a Circle Through Three Non-Collinear Points
5. Complete the circle using part of circumference without finding the
6. Problem2-Drawing a Circle Through Three Non-Collinear Points
7. Complete the circle using part of circumference by finding the center

13.2 Circles Attached to Polygons

1. Circumscribe a Circle About a Given Triangle
2. Problem-Constructing Circumcircle of Triangle
3. Inscribe a Circle in a Given Triangle
4. Problem-Inscribe a Circle in Given Triangle
5. Escribe a Circle to a Given Triangle
6. Circumscribe a Square About a Given Circle
7. Inscribe a Square in a Given Circle
8. Circumscribe a Regular Hexagon About Circle
9. Inscribe a Regular Hexagon in a Given Circle

13.3 Tangent to the Circle

1. Drawing Tangent Amid The Arc without Centre
2. Drawing Tangent Through Arcs End Point without Centre
3. Tangent from a Point Outside a Circle
4. Transverse Common Tangents to Circles2
5. Direct Common Tangents of Circles with Same Radii
6. Direct Common Tangents to Circles
7. Transverse Common Tangents to Circles1

8. [Tangent to Two Unequal Touching Circles](#)
9. [Tangent to Two Unequal Intersecting Circles](#)
10. [Circle Touches Both the Arms of an Angle](#)
11. [Circle Through 2 or 3 Convergent Lines](#)
12. [Practical Geometry Circles-Misc-Exercise-13-Question 1 Part 1 to 9](#)
13. [Practical Geometry Circles-Miscs-Exercise-13-Question 1 Part 10 to 18](#)
14. [Practical Geometry Circles-Miscellaneous-Exercise-13-Question 2](#)
15. [Practical Geometry Circles-Misc-Exercise-13-Question 3 Part 1 to 13](#)
16. [Practical Geometry Circles-Misc-Exercise-13-Question 3 Part 14 to 25](#)

Class-10 (Computer Science)

(Total Videos # 86)

Chapter # 01

Introduction to Programming (33 Videos)

1.1 Introduction

1. Introduction to problem solving
2. What is Computer Programming
3. Programming Languages : An Overview
4. Language Translators : An Overview
5. Understanding of Integrated Development Environment : IDE
6. How to Create Environment before Writing a Computer Program
7. Compiler and interpreter

1.2 Problem Solving Method

1. Problem solving method
2. Meaning of 'program syntax'
3. Types of Error: Syntax error
4. Reserved words in C
5. Types of Error: Runtime error
6. A simple C Program
7. Types of Error: Logical error
8. Comments and terminator statements
9. Program Documentation: Importance and Types

1.3 Algorithm

1. What is an Algorithm
2. Character set in C
3. How to write an Algorithm
4. What are Constants
5. Algorithm examples
6. More On Constants
7. Computer Program to illustrate Constants
8. The Concept of Variable
9. Rules for naming variable
10. Declaration and initialization of variable
11. Datatypes in C

1.4 Flowchart

1. What is a Flow chart
2. Basic Componets to design a Flow Chart
3. Advantages of Flow chart
4. Development of Flow charts
5. Flow Chart Examples
6. Flow Chart Examples_2

Chapter # 02

User Interface (21 Videos)

2.1 Input/output (I/O) functions

1. Output functions
2. Format Specifier
3. printf function in C
4. scanf function in C
5. Character input in C
6. Difference between getch() and getche() function
7. Statements terminators
8. Escape sequence in C
9. More on Escape sequence

2.2 Operators

1. What are Operators
2. Operators in C
3. Assignment Operators
4. Arithmetic Operators
5. Relational operators
6. Difference between assignment operator and 'equal to' operator
7. Logical Operators: NOT
8. Logical Operators: AND
9. Logical Operators: OR
10. Unary, Binary and Ternary operators
11. Precedence of Operator from Top to bottom
12. Post fix and Prefix Notation

Chapter # 03

Conditional Logic (13 Videos)

3.1 Control Statements

1. What is Control Structure
2. Unconditional transfer of control
3. Why a Control Structure is important in Programming

3.2 Selection Statements

1. Simple IF statement in C
2. Introduction to if-else structure
3. if-else example problems
4. if - else if statement
5. Nested if statement
6. Problem solving using nested if statement
7. Comparison of nested if and sequence of ifs
8. Conditional operator alternative to if-else
9. Comparison between if, case and conditional operators
10. Problem solving 1

Chapter # 04

Conditional Logic (32 Videos)

4.1 Data Structures

1. What is Repetition Structure
2. Why we need a Repetition Structure in Programming
3. Problem Statement: Why we need Arrays
4. What are Arrays
5. Terminologies used in Arrays
6. Examples on Arrays
7. Defining an Array
8. How to declare an Array in a Program
9. Accessing array index with examples
10. Initialization of Array
11. Fill array index with examples
12. Static Method

4.2 Loop Structure

1. Types of Loop
2. GOTO statement
3. Structure of While Loop and its Working
4. Programs on While Loop
5. Example problems of while loop
6. Continue statement

7. Problem solving using while loop
8. Why there is a need of Do.. While Loop
9. Structure of Do.. While loop
10. Program on Do.. While Loop
11. Difference between while and Do while
12. Why we need For Loop
13. Structure of For Loop and Working
14. Programs on For Loop
15. Problem solving using for loop
16. Requirement of loops within loop
17. Nested Loop with example
18. Complex problem solving using nested loops
19. Difference between For Loop, Do While and While loop
20. Combining Loop types

Chapter # 05

Functions (20 Videos)

5.1 Functions

1. What is Function
2. Why there is a need of Function in Programming
3. Difference between structured and unstructured programming
4. Built in functions
5. User defined functions
6. Advantages of using functions
7. Signature of function
8. Parts of Functions
9. Scope of variable: Local variable
10. Scope of variable: Global variable
11. Scope of variable: Static variable
12. Formal and Actual parameters
13. Function without argument
14. Local and Global functions
15. Inline functions
16. Passing argument as variable
17. Passing argument as constant
18. Passing argument as reference
19. Default arguments
20. Return statement

Class-10 (General Science)

(Total Videos # 299)

Chapter # 01

Introduction and Role of Science (21 Videos)

1.1 Brief History of Achievements of Science

1. Introduction to Science and Measurement
2. History of Chemistry, Chemistry and Society

1.2 Concept of Science in Islam

1. Contribution to Science By Muslim Scientists
2. Contribution to Science By Pakistani Scientists

1.3 Contribution of Muslims and Pakistani S

1. Muslim Scientists (Kidney)
2. Muslim Scientists (Eye)
3. Contribution to Science By Muslim Scientists
4. Contribution to Science By Pakistani Scientists

1.4 What is Science?

1. Introduction to Science and Measurement
2. Introduction to Biology
3. Introduction to Physics
4. Chemistry
5. More Branches of Science
6. Branches of Biology

1.5 Role of Science and Technology and its

1. Importance of Physics in our Daily Life

1.6 Impact of Science and Technology

1. Gene Therapy
2. Protection and Conservation of Environment
3. Genetic Engineering
4. Scope and Importance of Biotechnology

1.7 Limitations of Science

1. Limitation of Science

Chapter # 02

Our Life and Chemistry (35 Videos)

2.1 The Basic Building Elements

1. Subatomic and Atomic and Molecular Level
2. Basic Elements of Life

2.2 Carbon

1. Occurrence of Carbon
2. Allotropy and Allotropic Forms of Carbon
3. Diamond
4. Graphite
5. Uses of Diamond and Graphite
6. Amorphous Forms of Carbon, Coal
7. Different Compounds of Carbon
8. Photosynthesis
9. Respiration

2.3 Water is Essential For Life

1. Water For Life
2. Water as Universal Solvent
3. Physical Properties of Water
4. Anomalous Behaviour of Water
5. More on Anomalous Behaviour of Water

2.4 Composition of Air

1. Composition of Atmosphere
2. Occurrence of Nitrogen
3. The Nitrogen Cycle
4. Physical and Chemical Properties of Fertilizers
5. Importance of Air

2.5 Importance and Functions of elements fo

1. Importance of Elements In Our Life
2. Importance of Elements In Our Life
3. More on Importance of Elements in Our Life (continued)
4. Uses of Calcium and Magnesium
5. Uses of Sodium
6. Uses of Chlorine
7. Uses of Sulphur
8. Uses of Iron and Steel
9. Cast Iron
10. Wrought Iron
11. Steel

12. Introduction to Alloys
13. Brass
14. Bronze

Chapter # 03

Biochemistry and Biotechnology (19 Videos)

3.1 Metabolism

1. Metabolism
2. Digestion in Human
3. Carbohydrates
4. Lipids
5. Proteins

3.2 Enzymes

1. Enzymes

3.3 Blood and its Functions

1. Human Blood
2. ABO-Blood Group
3. Rh Blood Group System

3.4 DNA as Hereditary

1. Watson and Crick Model of DNA
2. Gene, Chromosome, Chromatin

3.5 Genetic Engineering

1. Genetic Engineering Genetic Modifications
2. Significance of Genetic Engineering In Agriculture And Livestock

3.6 The Role of Biotechnology in Betterment of Crops

1. Role of Biotechnology In Agriculture, Food Production And Preservation
2. Application of Transgenic Plants

3.7 Antibiotics and Vaccines

1. Antibiotics
2. Immunization and Vaccination

3.8 Recycling of waste and Scarce Materials

1. Recycling of Waste

Chapter # 04

Human Health (20 Videos)

4.1 Food and its major components

1. Need for Food
2. Water For Life
3. Carbohydrates
4. Lipids
5. Proteins
6. Vitamins
7. Vitamin C and D
8. Water Soluble Vitamins
9. Minerals

4.2 Food and Energy

1. Food and Energy

4.3 Balance Diet

1. A Balance Diet

4.4 Coordination and Integration in human b

1. Types of Coordination
2. Peripheral Nervous System
3. Endocrine Glands
4. More On Endocrine Glands

4.5 Different Stages of Human life

1. Infancy

4.6 Exercise and Health

1. Healthy Living and Physical Fitness
2. Importance of Regular Exercise

4.7 First Aid

1. First Aid and Its Importance
2. Artificial Respiration

Chapter # 05

Diseases-Causes and Prevention (Bio Upda (33 Videos)

5.1 Diseases and their Causes

1. Disease
2. Viral Diseases
3. Small Pox, Mumps, Influenza
4. Poliomyelitis
5. Some Diseases Common Diseases Caused by Viruses (Influenza, Common Co
6. Measles
7. Symptoms and Treatment of AIDS

8. Hepatitis A, B, C
9. Bacterial Diseases in Humans
10. Tuberculosis
11. Whooping Cough And Diphtheria
12. Bacillary Dysentery and Tetanus
13. Cholera, Typhoid
14. Some Common Diseases Caused by Fungal Pathogens
15. Ringworm And Ascariasis
16. Study of Malaria
17. More on Study of Malaria
18. Diseases Caused by Pathogenic Worms (Round Worms)
19. Diseases Caused by Pathogenic Worms (Thread Worm & Flat Worms)

5.2 Agents Spreading The Germs

1. Agents Spreading The Germs

5.3 Protection From Germs and Diseases

1. Control of Bacteria
2. Pasteurization , Refrigeration
3. Immunity, Immunology, Immune System
4. Immunization and Vaccination
5. Antibiotics

5.4 Effects of Smoke and Smoking

1. Bad Effects of Smoking

5.5 Mental illness

1. Psychosis
2. Paralysis and Neurosis

5.6 Drugs and Their Effects

1. Drug, Pharmaceutical Drug, Addictive Drugs
2. Drug Addiction and Drug Tolerance
3. Narcotics Drugs
4. Sedatives, Narcotics, Hallucinogens, Marijuana (Hashish)
5. Nicotine, Alcohol

Chapter # 06

Environment and Natural Resources (41 Videos)

6.1 Earth's Atmosphere

1. Introduction to Atmosphere
2. Composition of Atmosphere
3. Layers of Atmosphere

4. Troposphere
5. Stratosphere
6. Mesosphere
7. Thermosphere
8. Depletion of Ozone
9. Effect of Ozone Depletion
10. Green House Effect
11. Effect of Global Warming
12. Energy Radiation And Absorption In Atmosphere
13. Earth's Weather and Climate
14. Weather
15. More on Weather
16. Land Pollution
17. How to Control Pollution?
18. Control and Prevention Measures of Pollution
19. Harmful Effects of Air Pollutants
20. Problems Caused by Pollutants in Humans

6.2 Environmental Pollution

1. Pollutants
2. More on Pollutants
3. Sources of Air Pollutants
4. Water pollutants, Oxygen-Demanding Wastes(Industrial Effluents)
5. Agricultural Water Pollutants
6. Water Pollutants - Synthetic Organic Compounds
7. Nutrient and Thermal Water Pollution
8. Effects of Water Pollution

6.3 Minerals and Fossil Fuels

1. Fossil Fuels
2. Coal
3. Petroleum
4. Natural Gas
5. Minerals
6. Conservation of Natural And Mineral Resources

6.4 Agriculture and Crops of Pakistan

1. Agriculture, Forestry
2. Agricultural Products

6.5 Dairy and Poultry Farming

1. Agricultural Products
2. Fish Farming, Fuel

6.6 Wildlife and National Parks

1. Wildlife And National Parks
2. Endangered Species

6.7 Effects of Rising Population in Pakistan

1. Overpopulation, Urbanization

Chapter # 07

Energy (31 Videos)

7.1 Work and Energy

1. Work
2. Introduction to Energy

7.2 Different Forms of Energy

1. Forms of Energy
2. Kinetic Energy
3. Potential Energy
4. Chemical Energy
5. Heat Energy
6. Light Energy
7. Electrical Energy
8. Sound Energy
9. Nuclear and Gravitational Energy

7.3 Interconversion of Energy

1. Interconversion of Energy

7.4 Demand of Energy

1. Energy Demands And Method of Acquiring Energy\

7.5 Production of Electrical Energy

1. Hydroelectric Power
2. Thermal Power
3. Nuclear Power Plant
4. Energy From Sun
5. Solar Cells
6. Wind Energy
7. Energy from Tides
8. Geothermal Energy
9. Energy from Biomass

7.6 Measurement of Energy

1. Electrical Power
2. Kilowatt Hour
3. Electricity Meter And Measuring Natural Gas

7.7 Energy and Environment

1. Energy and Environment
 2. Nutrient and Thermal Water Pollution
- 7.8 Degradation of Environment**
1. Control and Prevention Measures of Pollution
- 7.9 Nuclear Fuel Hazards**
1. Radiation Hazards
- 7.10 Conservation of Energy**
1. Conservation of Energy
 2. More On Conservation of Energy

Chapter # 08

Current Electricity (30 Videos)

- 8.1 Electric Current**
1. Introduction to Electricity and Magnetism
- 8.2 Conventional Current**
1. Conventional Current
- 8.3 Potential Difference**
1. Potential Difference
- 8.4 Ohm's Law**
1. Relationship Between Voltage And Resistance (Ohm's Law)
- 8.5 Resistance**
1. Resistance
- 8.6 Components of a Circuit**
1. Circuit Diagrams
 2. Plugs and sockets
 3. Resistor
 4. Capacitor and Capacitance
 5. Types of Capacitors
 6. Uses of Capacitors
 7. Transformer
- 8.7 Direct and Alternating Current**
1. Direct Current
 2. Alternating Current
- 8.8 Uses of D.C and A.C**
1. Uses of A.C And D.C
- 8.9 Domestic Electric Supply**

1. House Wiring
2. Safety Devices To Avoid Electrical Hazards
3. More on Safety Devices To Avoid Electrical Hazards
4. Earth Leakage Circuit Breaker

8.10 Measurement of Electricity Supply

1. Paying the Price of Electricity

8.11 Dangers of Electricity and Precautionary Measures

1. Hazards of Static Electricity
2. Double Insulation
3. Why is Electricity Dangerous?
4. Safety Measures

8.12 Measuring Instruments

5. Electric Symbols
6. Galvanometer
7. Measuring Current
8. Potential Difference
9. AVO meter - Multimeter

8.13 Analogue and Digital Meters

1. Analogue And Digital Meters

Chapter # 09

Basic Electronics (27 Videos)

9.1 Semi-conductors

1. Introduction to Semi-Conductor
2. Doping
3. N-Type Semi-conductor
4. P-Type Semi-conductor
5. Forward Biased p-n Junction
6. Reverse Biased p-n Junction

9.2 Use of Semi-conductor Diode

1. Semi-Conductor Diode as a Rectifier
2. Light Emitting Diode
3. Photo Diode

9.3 Radio Waves

1. Transmission of Radio waves Through Space
2. Introduction to Radio
3. Television
4. Cable Television And Satellite Television

5. Analogue Computer And Digital Computer

9.4 Computer

1. Introduction to Computer
2. More on Introduction to Computer
3. Information Storage Devices
4. More on Information Storage Devices
5. Application of Computer

9.5 Analogue / Digital Converters

1. Analogue And Digital Converters

9.6

1. Introduction to Information and Communication Technology
2. Telephone
3. Introduction to Cell Phone
4. Introduction to Fax Machine
5. Telex Machine
6. Communication Systems
7. Advantages of Electronic Mail

Chapter # 10

Science and Technology (27 Videos)

10.1 Role of Science and Technology

1. Importance of Physics in our Daily Life

10.2 Lasers

1. Laser
2. Uses of Laser in Medicine and Industry

10.3 Fibre optics

1. Optical Fiber

10.4 Satellites and Radars

1. Communication Via Satellite
2. Introduction to RADAR

10.5 Radioactivity

1. Radioactivity
2. Nature and Properties of Radiations
3. Isotopes and Isobars
4. Radio Isotopes
5. Uses of Isotopes
6. Protection from Radiation

10.6 X-rays

1. Production of X-Rays
2. Properties of X-Rays
3. Uses of X-Ray

10.7 Ultrasound

1. Ultrasounds and its Applications

10.8 E.C.G (Electrocardiogram)

1. Electrocardiography(ECG)

10.9 E.E.G. (Electroencephalography)

1. Electroencephalography(EEG)

10.10 MRI (Magnetic Resonance Imaging)

1. Magnetic resonance imaging(MRI)

10.11 C.T. Scan (Computerized Tomograph Scan)

1. CAT - Scanner

10.12 Angiography

1. Treatment of Cardiovascular Diseases
2. Angiography

10.13 Important Industries of Pakistan

1. Important Industries of Pakistan, Cement Industry
2. Preparation of Sugar From Sugarcane, Sugar Industry
3. Steel Industry And Synthetic Fibre Industry
4. Cotton Textile Industry
5. Pharmaceutical Industry And Leather Industry

Chapter # 11

Science and Technology (15 Videos)

11.1 Importance of Space Programme

1. Key Milestones In Space Technology
2. Launching of A Satellite Into Space
3. Space Exploration
4. More On Space Exploration
5. Rocket
6. Satellites
7. Communication Via Satellite
8. Space Shuttle
9. Communication Satellite
10. Uses of Satellites

11.2 Space Programme of Pakistan

1. Pakistan's Space Program
2. Divisions of SUPARCO

11.3 Nuclear Power Programme of Pakistan

1. Nuclear Power Programme of Pakistan
2. More On Nuclear Power Programme of Pakistan
3. Nuclear Reactors

Class-10 (Physics)

(Total Videos # 287)

Chapter # 01

Simple Harmonic Motion and Waves (33 Videos)

1.1 Simple Harmonic Motion (SHM)

1. Introduction to Simple Harmonic Motion
2. Problem 1-Working of Simple Harmonic Motion
3. Problem 1-Mass Attached to Spring
4. Working of Simple Harmonic Motion
5. Basic terms in SHM
6. Problem 1-Basic Terms in SHM
7. Energies Interconversion in spring-mass system
8. Problem-Energies Interconversion in Spring-Mass System
9. Ball and Bowl as SHM
10. Problem-Ball and Bowl as SHM
11. Introduction to simple Pendulum
12. Problem-Introduction to Simple Pendulum
13. Working of simple pendulum
14. Problem-Working of Simple Pendulum

1.2 Damped Oscillations

1. Damped Oscillations

1.3 Wave Motion

1. Introductoin to Wave Motion
2. Characteristics of Wave
3. Problem 2-Characteristics of Wave
4. Mechanical and Electromagnetic Waves

5. Problem 1-Mechanical and Electromagnetic waves

1.4 Types of Mechanical Waves

1. Introduction to Transverse and longitudinal waves
2. Problem 1-Introduction to Transverse and Longitudinal waves
3. Waves as Carriers of Energy
4. Problem-Waves as Carriers of Energy
5. Derivation of Wave Equation
6. Problem 1-Derivation of Wave Equation

1.5 Ripple Tank

1. Introducing Ripple Tank
2. Reflection in Water by Ripple Tank
3. Problem 1-Introduction to Reflection
4. Refraction in Water by Ripple Tank
5. Problem 1-Introduction to Refraction
6. Diffraction in Water by Ripple Tank
7. Diffraction in Water by Ripple Tank

Chapter # 02

Sound (33 Videos)

2.1 Sound Waves

1. How Sound is Produced and Travel
2. More on How Sound is Produced and Travel
3. Problem 1-More on How Sound is Produced and Travel

2.2 Characteristics of Sound

1. Loudness of Sound
2. Quality of Sound
3. Pitch of Sound
4. Problem 1- Pitch of Sound
5. Sound Intensity and Sound Level
6. More on Sound Intensity and Sound Level
7. Problem 1- Sound Intensity and Sound Level
8. How Amplitude is Related With Loudness1
9. How Frequency is Related with Pitch1

2.3 Reflection (ECHO) of Sound

1. Reflection of Sound (Echoes)
2. Problem1-Reflection of Sound (Echoes)
3. Problem2-Reflection of Sound (Echoes)
4. Problem 1-Measuring Speed of Sound by Echo Method

2.4 Speed of Sound

1. Measuring Speed of Sound
2. More on Measuring Speed of Sound
3. Measuring speed of Sound by Echoe Method
4. Problem 1-Measuring The Speed of Sound
5. Problem 2-Measuring The Speed of Sound

2.5 Noise Pollution

1. Noise Pollution

2.6 Importance of Acoustics

1. Acoustics
2. More on Acoustics
3. Uses of Echoes
4. Acoustics Protection

2.7 Audible Frequency Range

1. Acoustics Protection
2. Problem 1-Audibility
3. Problem 1-Audible Frequency Range
4. Problem 2-Audible Frequency Range

2.8 Ultrasound

1. Ultrasounds and its Applications
2. Problem 1-Ultrasound and Its Applications
3. Problem 2-Ultrasound and its Applications

Chapter # 03

Geometrical Optics (68 Videos)

3.1 Reflection of Light

1. Reflection of Light
2. Laws of Reflection
3. Regular and Irregular Reflection of Light
4. Problem 1-Reflection of light by spherical mirrors

3.2 Spherical Mirrors

1. Concave and Convex Mirror
2. Problem 1-Concave Mirrors
3. Problem 2-Convex Mirrors
4. Mirror Terminologies
5. Problem-Mirror Terminologies
6. Images Formed by Plane Mirror
7. Problem 1-Images Formed by Plane Mirror

3.3 Image Location by Spherical Mirror Form

1. Images by Spherical Mirrors
2. Problem 1-Images by Spherical Mirrors
3. Problem 1-Uses of Spherical Mirrors
4. Spherical Mirror Formula
5. More on Spherical Mirror Formula
6. Problem 1-Spherical Mirror Formula
7. Problem 1-Convex Mirror Formula
8. Sign Convention Linear Magnification
9. Problem 1-Sign Convention & Linear Magnification

3.4 Refraction of Light

1. Refraction of Light
2. Laws of Refraction
3. Problem 1-Laws of Refraction
4. Refraction of Light in Water
5. Speed of Light in Medium
6. Problem 1-Speed of Light in Medium
7. Introducing Refractive Index
8. Problem 1-Introducing Refractive Index
9. Apparent and Real Depth
10. Problem 1-Apparent and Real Depth

3.5 Total Internal Reflection

1. Total Internal ReflectionC
2. Problem 1-Total Internal Reflection

3.6 Applications of Total Internal Reflection

1. Totally Reflecting Prism
2. Optical Fiber

3.7 Refraction Through Prism

1. Refraction of Light Through Prism
2. Relationship b/w Refractive Index and Critical Angle
3. Problem 1-Relationship b/w Refractive Index and Critical Angle

3.8 Lenses

1. Types of Lenses
2. Ray Diagrams
3. Lenses
4. Image Formation by Using a Convex Lens
5. Problem 1-Image Formed by Convex Lens
6. Image Formation by Using a Concave Lens
7. Problem 1-Image Formed by Concave Lens
8. Power of a Lens
9. Problem 1-Power of a Lens

3.9 Image Formation By Lenses

1. Image Formation by Using a Convex Lens
2. Problem 1-Image Formed by Convex Lens
3. Image Formation by Using a Concave Lens
4. Problem 1-Image Formed by Concave Lens
5. Image Formation in Convex Lenses

3.10 Image Location by Lens Equation

1. Image Location by Lens Formula
2. Problem 1-Image Location by Lens Formula
3. Linear Magnification of Lenses
4. Problem 1-Linear Magnification of Lenses
5. Sign Conventions for Lenses

3.11 Applications of Lenses

1. Image Formation in Camera
2. Slide Projector
3. Photograph Enlarger
4. Totally Reflecting Prism
5. Optical Fiber

3.12 Simple Microscope

1. Simple Microscope
2. More on Simple Microscope
3. Resolving Power and Resolving Limit

3.13 Compound Microscope

1. Introduction to Compound Microscope
2. More on Compound Microscope

3.14 Telescope

1. Astronomical Telescope

3.15 The Human Eye

1. Image Formation in Human Eye

3.16 Defects of Vision

1. Short-sightedness and its Correction
2. Long-sightedness and its Correction

Chapter # 04

Electrostatics (29 Videos)

4.1 Production of Electric Charges

1. Introduction to Electrostatics
2. Some Electrostatic Experiments
3. An Explanation of Charging by Friction

- 4. Problem-Measurement of Electric Charge
- 4.2 Electrostatic Induction**
 - 1. Electrostatic Induction
- 4.3 Electroscope**
 - 1. Introduction to Electroscope
 - 2. Applications of Elelctroscope
 - 3. Conductors and Insulators
- 4.4 Coulomb's Law**
 - 1. Coulombs Law
 - 2. More on Coulombs Law
 - 3. Problem 1-Coulombs Law
 - 4. Problem 2-Coulombs Law
- 4.5 Electric Field and Electric Field Inten**
 - 1. Electric Field and Electric Field Intensity
 - 2. Problem-Electric Field and Electric Field Intensity
 - 3. Introduction to Electric Field Lines
- 4.6 Electrostatic Potential**
 - 1. Electrostatic Potential
 - 2. Problem 1-Electrostatic Potential
 - 3. Problem 2-Electrostatic Potential
 - 4. Problem 3-Electrostatic Potential
- 4.7 Capacitors and Capacitance**
 - 1. Capacitor and Capacitance
 - 2. Problem 1-Capacitor and Capacitance
 - 3. Capacitors in Parallel Combination
 - 4. Problem 1-Capacitors in Parallel Combination
 - 5. Capacitors in Series Combination
 - 6. Problem 1-Capacitors in Series Combination
- 4.8 Different Types of Capacitors**
 - 1. Types of Capacitors
 - 2. Uses of Capacitors
- 4.9 Applications of Electrostatics**
 - 1. Application of Electrostatics
- 4.10 Some Hazards of Static Electricity**
 - 1. Hazards of Static Electricity

Chapter # 05

Current Electricity (52 Videos)

5.1 Electric Current

1. Introduction to Electricity and Magnetism
2. More on Introduction to Electric Current
3. Problem-Introduction to Electric Current
4. Conventional Current
5. Measurement of Current
6. Problem 1-Measurement of Current
7. Problem 2-Measurement of Current

5.2 Potential Difference

1. Potential Difference
2. Problem-Potential Difference

5.3 Electromotive Force (e.m.f)

1. Electromotive Force
2. Measurement of Potential Difference
3. Problem 1-Measurement of Potential Difference
4. Problem- Potential Divider
5. The Measurement of e.m.f
6. Problem-Electromotive Force
7. Problem- Measurement of e.m.f

5.4 OHM'S Law

1. Ohms Law
2. Problem-Determining the Resistance of a Load
3. Problem- Resistor

5.5 Characteristics of Ohmic and Non Ohmic

1. Characteristics of Ohmic and Non Ohmic Conductors
2. Problem-Characteristics of Ohmic and Non Ohmic Conductors

5.6 Factors Affecting Resistance

1. Specific Resistance
2. Problem 1-Specific Resistance
3. Problem 2-Specific Resistance
4. Problem 1-Effect of Temperature Upon Resistance
5. Problem 2-Effect of Temperature Upon Resistance

5.7 Conductors

1. Conductors and Insulators

5.8 Insulators

1. Conductors and Insulators

5.9 Combination of Resistors

1. Series combination of Resistors
2. Problem 1-Series Combination of Resistors
3. Problem 2-Series Combination of Resistors
4. Problem-Current in Series Circuit

5. Parallel Combination to Resistors
6. More on Parallel Combination to Resistors
7. Problem 1-Parallel combination to Resistors
8. Problem 2-Parallel combination to Resistors
9. Problem 3-Parallel combination to Resistors
10. Problem 4-Parallel combination to Resistors

5.10 Electrical Energy and Joule's Law

1. Electrical Energy and Joules law
2. Problem 1-Electrical Energy and Joules law
3. Problem 2-Electrical Energy and Joules law

5.11 Electric Power

1. Electric Power
2. Problem 1-Electric Power
3. Problem 2-Electric Power
4. Kilowatt Hour

5.12 Direct Current and Alternating Current

1. Direct Current
2. Alternating Current
3. House Wiring

5.13 Hazards of Electricity

1. Insulation Damage and Damp Conditions

5.14 Safe Use of Electricity in Homes

1. Introduction to Fuse
2. Introduction to Circuit Breaker
3. Introduction to Earth Wire

Chapter # 06

Electromagnetism (21 Videos)

6.1 Magnetic Effects of a Steady Current

1. Introduction to Electromagnetism
2. Magnetic Effects of Steady Current
3. Magnetic Field of a Solenoid

6.2 Force on a Current-Carrying Conductor P

1. Force on a Current Carrying Conductor Place in a Magnetic Field
2. Problem1-Force on a Current Carrying Conductor Place in a Magnetic Fi
3. Problem2-Force on a Current Carrying Conductor Place in a Magnetic Fi
4. Flemings Left Hand Rule

6.3 Turning Effect on a Current-Carrying Co

1. Turning Effects on a Current Carrying Coil in a Magnetic Field
- 6.4 D.C Motor**
 1. DC Motor
- 6.5 Electromagnetic Induction**
 1. Generating Electricity
 2. Measuring Electromagnetic Induction
 3. Factors Affecting Induced EMF
- 6.6 Direction of Induced e.m.f. -Lenz's Law**
 1. Lenz's Law
- 6.7 A.C. Generator**
 1. AC Generator
- 6.8 Mutual Induction**
 1. Mutual Induction
- 6.9 Transformer**
 1. Transformer
 2. More on Transformer
 3. Problem1-Transformer
 4. Problem2-Transformer
- 6.10 High Voltage Transmission**
 1. High Voltage Transmission
 2. Applications of Electromagnet

Chapter # 07

Basic Electronics (13 Videos)

- 7.1 Thermionic Emission**
 1. Introduction to Electronics
 2. Thermionic Emission
- 7.2 Investigating the Properties of Electro**
 1. Properties of Electrons
- 7.3 Cathode-Ray Oscilloscope (C.R.O)**
 1. Cathode Ray Oscilloscope
 2. Problem- Using the C.R.O
- 7.4 Analogue and Digital Electronics**
 1. Analogue and Digital Electronics
- 7.5 Basic Operations of Digital Electronics**
 1. Basic Operations of Digital Electronics

- 7.6 AND Operation**
 - 1. [AND Operation](#)
- 7.7 OR Operation**
 - 1. [OR Operation](#)
- 7.8 NOT Operation**
 - 1. [NOT Operation](#)
- 7.9 NAND Gate**
 - 1. [NAND Operation](#)
- 7.10 NOR Gate**
 - 1. [NOR Gate](#)
- 7.11 Uses Of Logic Gates**
 - 1. [Uses of Logic Gates](#)

Chapter # 08

Information and Communication Technology (18 Videos)

- 8.1 Information and Communication Technology**
 - 1. [Introduction to Information and Communication Technology](#)
- 8.2 Components of Computer Based Informatio**
 - 1. [Components of Computer Based Information System](#)
- 8.3 Flow of Information**
 - 1. [Flow of Information](#)
- 8.4 Transmission of Electric Signal Through**
 - 1. [Transmission of Electrical Signal Through Wires](#)
- 8.5 Transmissions of Radiowaves Through Spa**
 - 1. [Transmission of Radio waves Through Space](#)
 - 2. [Introduction to Radio](#)
 - 3. [Introduction to Fax Machine](#)
 - 4. [Introduction to Cell Phone](#)
 - 5. [Photo Phone](#)
- 8.6 Transmission of Light Signals Through Optical Fibers**
 - 1. [Transmission of Light Signals Through Optical Fibers](#)
- 8.7 Information Storage Devices**
 - 1. [Information Storage Devices](#)
 - 2. [More on Information Storage Devices](#)
- 8.8 Applications of Computer**

1. Application of Computer

8.9 Internet

1. Application of Computer
2. Advantages of Electronic Mail

8.10 Risk of ICT to Society and the Environment

1. Risk of ICT to Society and the Environment

Chapter # 09

Atomic and Nuclear Physics (20 Videos)

9.1 Atom and Atomic Nucleus

1. Introduction to Atom
2. Atom and Atomic Nucleus
3. Problem-Atom and Atomic Nucleus

9.2 Natural Radioactivity

1. Natural Radioactivity

9.3 Background Radiations

1. Background Radiations

9.4 Nuclear Transmutations

1. Nuclear Transmutations
2. Nature and Properties of Radiations

9.5 Half-Life and its Measurement

1. Half Life and its Measurements
2. Problem 1-Half Life and its Measurements
3. Problem 2-Half Life and its Measurements
4. Problem 3-Half Life and its Measurements
5. Problem-Einsteins Mass Energy Equation

9.6 Radioisotopes and Their Uses

1. Radio Isotopes
2. Uses of Radio Isotopes

9.7 Fission Reaction

1. Nuclear Fission
2. More on Nuclear Fission
3. Problem-Fission Reaction
4. Problem-Comparison between Fission and Fusion Reaction

9.8 Nuclear Fusion

1. Fusion Reaction

9.9 Hazards of Radiations and Safety Measures

1. [Radiation Hazards](#)

Class-10 (Chemistry)

(Total Videos # 214)

Chapter # 01

Chemical Equilibrium (16 Videos)

1.1 Reversible Reaction and Dynamic Equilib

1. Irreversible Chemical Reactions
2. Reversible Chemical Reactions
3. Static Chemical Equilibrium
4. Dynamic Chemical Equilibrium
5. Conditions and Recognition of Chemical Equilibrium

1.2 Law of Mass Action

1. Concept of Law of mass action
2. Derivation of Law of Mass Action
3. More on derivation of law of mass action
4. Application of Law of Mass Action

1.3 Equilibrium Constant and its Units

1. Equilibrium Constant K_c and its Units
2. Calculating the Equilibrium Constant for Reversible Reaction

1.4 Importance of Equilibrium Constant

1. Importance of K_c
2. Difference between values of K_c and Q_c
3. Applications of Equilibrium Constants; Direction of Reaction
4. Extent of Reaction
5. Calculate the Equilibrium Concentration

Chapter # 02

Acids, Bases and Salts (51 Videos)

2.1 Concepts of Acids and Bases

1. Introduction to Acids and Bases
2. Physical Properties of Acids
3. Physical Properties of Bases
4. Arrhenius Concept of Acids

5. Arrhenius Concept of Bases
6. Limitations of Arrhenius Concept
7. Bronstead-Lowry Concept of Acids
8. Bronstead-Lowry Concept of Bases
9. Conjugate Acids
10. Conjugate Bases
11. Amphoteric Compounds
12. Identifying Bronsted Acids and Bases from the Reactions
13. Limitations of Bronsted-Lowry Concept
14. Lewis Concept of Acids
15. Lewis Concept of Bases
16. Identifying Lewis Acids and Bases from the Reactions
17. Chemical Properties of Acids
18. Reaction of Acids with Carbonates and Bicarbonates
19. Reaction of Bases with Acids
20. Reaction of Acids with Sulphites and Bisulphites
21. Reaction of Acids with Sulphides
22. Uses of Acids
23. Precipitation of Hydroxide
24. Chemical Properties of Bases
25. Uses of Bases
26. Identifying Weak or Strong Acids or Bases

2.2 pH Scale

1. Dissociation of Water
2. The Ion Product of Water
3. Importance of pH
4. pH, pOH and pK_w
5. Uses of pH
6. Indicators
7. Measuring of pH by Universal Indicator
8. Measuring of pH by pH Meter
9. Calculating pH
10. Calculating pOH

2.3 Salts

1. Salts
2. Properties of Salt
3. Preparation of Soluble salt
4. More on Soluble Salt
5. Preparation of Insoluble salt
6. Types of Salts, Normal or Neutral Salts
7. Acidic Salts
8. Basic Salts
9. Double Salts
10. Mixed Salts

11. Complex Salts
12. Uses of Salts
13. Reaction of Bases with Acids
14. Neutralization Reaction
15. More on Neutralisation

Chapter # 03

Organic Chemistry (40 Videos)

3.1 Organic Compounds

1. Concept of Organic Chemistry
2. Vital Force Theory
3. Molecular Formula of Organic Compound
4. Structural Formula
5. Condensed Formula
6. Electronic or Dot and Cross Formula
7. Classification of Organic Compound
8. Types of Acyclic Compounds
9. Types of Cyclic Compounds
10. Catenation
11. Isomerism
12. Strength of Covalent Bond of Carbon
13. Multiple Bonding
14. General Characteristic of Organic Compounds
15. More on General Characteristic of Organic Compounds

3.2 Sources of Organic Compounds

1. Sources of Organic Compounds
2. Coal and Its Types
3. Petroleum
4. Natural Gas
5. Synthesis in Laboratory

3.3 Uses of Organic Compounds

1. Uses of Organic Compounds

3.4 Alkanes and Alkyl Radicals

1. Alkane and Alkyl Radicals
2. Homologous Series
3. Formation of Alkyl Radicals

3.5 Functional Groups

1. Functional Groups, Alcoholic Group
2. Ether Linkage

3. Aldehydic Group
4. Ketonic Group
5. Carboxylic Group
6. Ester Linkage
7. Functional Group Containing Carbon, Hydrogen and Nitrogen
8. Halo Group
9. Double and Triple Bond

3.6 Tests of Functional Groups

1. Confirmation Test for Unsaturation
2. Confirmation Test for Alcoholic Group
3. Confirmation Test for Carboxylic Group
4. Detection of Aldehydic Group
5. Test for Ketonic Group
6. Test for Amino Group
7. Test for Ester

Chapter # 04

Hydrocarbons (30 Videos)

4.1 Alkanes

1. Introduction to Hydrocarbons
2. Alkanes
3. Sources of Alkanes
4. Preparation of Alkane
5. More on Preparation of Alkane
6. Physical properties of Alkanes
7. Halogenations of Alkanes
8. Combustion of Alkanes
9. Uses of Methane and Ethane

4.2 Alkenes

1. Alkenes
2. Sources of Alkene
3. Preparation of Alkene
4. More on Preparation of Alkene
5. Physical properties of Alkenes
6. Hydrogenation of Alkenes
7. Halogenations of Alkenes
8. Hydrohalogenation of Alkenes
9. Oxidation of Alkenes
10. Uses of Alkene

4.3 Alkynes

1. Alkynes
2. Preparation of Alkynes
3. More Preparation of Alkynes
4. Physical properties of Alkynes
5. Addition Reaction of Halogens
6. Oxidation of Alkynes
7. Uses of Acetylene
8. Identifying Organic Compounds
9. Convert Propyne to Propane
10. Convert Ethanol to Ethyl Bromide
11. Organic Reactions Completion

Chapter # 05

Biochemistry (22 Videos)

5.1 Carbohydrates

1. Introduction to Biochemistry
2. Carbohydrates
3. Classification of Carbohydrates, Monosaccharides
4. Oligosaccharides
5. Polysaccharides
6. Sources of Carbohydrates
7. Uses of Carbohydrates

5.2 Protein

1. Protein
2. Amino acids as Building Block of Protein
3. Sources of Protein
4. Uses of Protein

5.3 Lipids

1. Lipids
2. Fatty Acids
3. Sources of Lipids
4. Uses of Lipids

5.4 Nucleic Acids

1. Nucleic Acids
2. Deoxyribonucleic Acid
3. Ribonucleic Acids

5.5 Vitamins

1. Vitamins
2. Fat Soluble Vitamins

3. Water Soluble Vitamins
4. Importance of Vitamins

Chapter # 06

Environmental Chemistry I: The Atmosphere (19 Videos)

6.1 Composition of the Atmosphere

1. Introduction to Atmosphere
2. Composition of Atmosphere

6.2 Layers of the Atmosphere

1. Layers of Atmosphere
2. Troposphere
3. Stratosphere

6.3 Pollutants

1. Pollutants
2. More on Pollutants
3. Sources of Air Pollutants
4. Types of Pollutants, Oxides
5. Green House Effect
6. Global Warming
7. Effect of Global Warming
8. Sulphur Dioxide and Nitrogen Dioxide as Air Pollutants
9. Pollutants of Nitro Compound

6.4 Acidic Rain and its Effects

1. Acid Rain
2. Mechanism of Acid Rain
3. Effect of Acid Rain

6.5 Ozone Depletion and its Effects

1. Depletion of Ozone
2. Effect of Ozone Depletion

Chapter # 07

Environmental Chemistry II: Water (21 Videos)

7.1 Properties of Water

1. Water For Life

2. Sources of Water
3. Physical Properties of Water
- 7.2 Water as Solvent**
 1. Water as Universal Solvent
- 7.3 Soft and Hard Water**
 1. Soft, Hard and Heavy Water
 2. Causes of Hardness
 3. Temporary Hardness
 4. Permanent Hardness
 5. Removal of Temporary Hardness By Heating
 6. Removal of Temporary Hardness By Clarks Method
 7. Removal of Permanent Hardness by Washing Soda
 8. Removal of Permanent Hardness by Using Zeolite
 9. Disadvantages of Hard Water
- 7.4 Water Pollution**
 1. Water Pollution
 2. Water pollutants, Oxygen-Demanding Wastes(Industrial Effluents)
 3. Disease-causing Wastes (Domestic Effluents)
 4. Agricultural Water Pollutants
 5. Effects of Water Pollution
- 7.5 Waterborne Infectious Diseases**
 1. Water borne Infectious Diseases
 2. More on Water borne Infectious Diseases
 3. Prevention of Water Borne Diseases

Chapter # 08

Chemical Industries (15 Videos)

- 8.1 Basic Metallurgical Operations**
 1. Introduction to Chemical Industries
 2. Metallurgical Operations
 3. Mining of Minerals
 4. Concentration of Ore
 5. Roasting
 6. Smelting
 7. Bassemerization Or Reduction
 8. Refining
- 8.2 Manufacture of Sodium Carbonate by Solv**
 1. Solvay Process of sodium carbonate
 2. Advantages of Solvay process

8.3 Manufacture of Urea

1. Manufacture of Urea
2. Importance of Urea

8.4 Petroleum Industry

1. Petroleum
2. Fractional Distillation of Petroleum
3. Uses of Petroleum Fractions

Class-10 (Biology)

(Total Videos # 153)

Chapter # 01

Gaseous Exchange (09 Videos)

1.1 Gaseous Exchange In Plants

1. Cellular Respiration, Gaseous Exchange and Breathing
2. Gaseous Exchange in Plants

1.2 Gaseous Exchange In Humans

1. The Air Passageway
2. The Lungs
3. The Mechanism of Breathing

1.3 Respiratory Disorders

1. Bronchitis, Emphysema
2. Pneumonia, Asthma
3. Lung Cancer
4. Bad Effects of Smoking

Chapter # 02

Homeostasis (12 Videos)

2.1 Homeostasis In Plants

1. Osmoregulation, Thermoregulation and Excretion
2. Removal of Extra Carbon dioxide and Oxygen, Extra Water
3. Removal of Other Metabolic Wastes

4. Hydrophytes and Halophytes
 5. Xerophytes and Mesophytes
- 2.2 Homeostasis in Humans**
1. Organs Involved in Homeostasis (Skin and Lungs)
- 2.3 Urinary System of Humans**
1. Structure of Kidney
 2. Functions of Kidney
 3. Kidney as Osmoregulatory Organ
- 2.4 Disorders of Kidney**
1. Kidney Stones
 2. Kidney (Renal) Failure
 3. Kidney Transplant

Chapter # 03

Coordination and Control (34 Videos)

- 3.1 Types of Coordination**
1. Stimuli, Receptors, Effectors, Response
 2. Coordinated Action, Stimuli, Receptors
 3. Coordinators, Effectors and Response
- 3.2 Human Nervous System**
1. Nerve Cell or Neuron
 2. Neuron Types
 3. Nerve Types
 4. Components of Nervous System, Brain
 5. The Divisions of Brain, Forebrain
 6. More on Forebrain
 7. Midbrain and Hindbrain
 8. Spinal Cord
 9. Peripheral Nervous System
 10. More on Peripheral Nervous System (PNS)
 11. Reflex Action
- 3.3 Receptors In Humans**
1. Eye
 2. More on Eye
 3. Process of Image Formation
 4. Astigmatism
 5. Defects of the Eye
 6. Muslim Scientists (Eye)
 7. Ear, External Ear

8. Middle Ear, Inner Ear
9. The Process of Hearing, Ear Maintain The Balance of Body

3.4 Endocrine System

1. Important Endocrine Glands
2. Pituitary Gland
3. Pituitary Gland
4. Pituitary's Median lobe and posterior lobe
5. Thyroid Gland
6. Parathyroid Glands
7. Adrenal Glands
8. Pancreas
9. Gonads
10. Feedback Mechanism

3.5 Disorders of Nervous System

1. Paralysis and Epilepsy

Chapter # 04

Support and Movement (11 Videos)

4.1 Human Skeleton

1. Skeleton, Endoskeleton, Exoskeleton, Hydroskeleton
2. Role of Skeletal System
3. Bones
4. Cartilages
5. Human Skeleton, Axial Skeleton
6. Appendicular Skeleton

4.2 Types of Joints

1. Types of Joints
2. Roles of Tendons and Ligaments

4.3 Muscles and Movements

1. Muscles and Movements

4.4 Disorders of Skeletal System

1. Osteoporosis
2. Arthritis and its Types

Chapter # 05

Reproduction (26 Videos)

5.1 Reproduction

1. Reproduction, Asexual and Sexual reproduction

5.2 Methods of Asexual Reproduction

1. Binary Fission
2. Multiple Fission
3. Fragmentation, Budding
4. Spore Formation
5. Parthenogenesis, Vegetative Propagation
6. Natural Vegetative Propagation
7. More on Natural Vegetative Propagation
8. Artificial Vegetative Propagation
9. Advantages and Disadvantages of Vegetative Propagation of Plants
10. Tissue Culturing and Cloning

5.3 Sexual Reproduction in Plants

1. Alternation of Generations
2. Sexual Reproduction in Flowering Plants
3. More Sexual Reproduction in Flowering Plants
4. Life Cycle of Flowering Plant
5. Pollination
6. Adaptations in Insect-Pollinated and Wind-Pollinated Flowers
7. Development and Structure of Seed
8. Germination of Seed
9. Conditions Necessary for Seed Germination

5.4 Sexual Reproduction In Animals

1. Gametogenesis
2. Mating and Fertilization
3. Fertilization and Development in Rabbit
4. Male Reproductive System, (Rabbit)
5. Female Reproductive System, (Rabbit)
6. AIDS, A Sexually Transmitted Disease

Chapter # 06

Inheritance (18 Videos)

6.1 Introduction to Genetics

1. Genes, Alleles, Locus, Phenotype, Genotype

6.2 Chromosomes and Genes

1. Gene, Chromosome, Chromatin
2. Watson-Crick Model of DNA
3. How Does the DNA of Chromosome work?

4. Replication of DNA
5. Transcription
6. Translation
7. Genotype and Its Types

6.3 Mendel's Law of Inheritance

1. Mendel's Law of Segregation
2. Mendel's Law of Independent Assortment
3. Punnet Square, Test Cross

6.4 Co-Dominance and Incomplete Dominance

1. Co-Dominance
2. Incomplete Dominance

6.5 Variations And Evolution

1. Sources of Variations
2. Discontinuous and Continuous Variations
3. Variations lead to Evolution
4. Theory of Natural Selection
5. Artificial Selection

Chapter # 07

Man And His Environment (23 Videos)

7.1 Levels of Ecological Organization

1. Ecology, Community, Population, Ecosystems , Biosphere
2. Components of Ecosystem

7.2 Flow of Materials And Energy In Ecosyst

3. The Flow of Energy in Food Chain of An Ecosystem
4. Flow of Materials
5. Ecological Pyramids
6. Ecological Pyramids Biomass
7. Ecological Pyramids Number
8. Carbon Cycle
9. Nitrogen Cycle, Formation of Nitrates
10. Assimilation and Denitrification

7.3 Interactions In Ecosystems

11. Competition
12. Predation , Parasitism and Its Significance
13. Symbiosis
14. More on Symbiosis

7.4 Ecosystem Balance And Human Impact

15. Global Warming
16. Acid Rain
17. Deforestation, Soil Erosion
18. Overpopulation, Urbanization

7.5 Pollution; Consequences and Control

19. Air Pollution
20. Water Pollution
21. Land Pollution

7.6 Conservation Of Nature

22. Recycling of Waste
23. Basic Information about Dengue Fever

Chapter # 08

Pharmacology (10 Videos)

8.1 Medicinal Drugs

1. Drug, Pharmaceutical Drug, Addictive Drugs
2. Synthetic Drugs, Drugs from Plants and Fungi
3. Drugs from Animals, Minerals and Bacteria
4. Principle Usage of important Medicinal Drugs

8.2 Addictive Drugs

5. Principle Usage of important Medicinal Drugs
6. Nicotine, Alcohol
7. Drug Addiction and Associated Problems

8.3 Antibiotics and Vaccines

8. Antibiotics, Bactericidal and Bacteriostatic antibiotics
9. Antibiotic Resistance
10. Vaccines, The Mode of Action of Vaccines

Class-10 (General math)

(Total Videos # 391)

Chapter # 01

Algebraic Formulas and Applications (53 Videos)

1.1 Algebraic Expressions

1. Introducing Variable and Constant
2. Problem-Introducing Variable & Constant
3. Introducing Coefficient & Exponent
4. Problem-Introducing Coefficient & Exponent
5. Introducing Algebraic Expression
6. Notation in Algebra
7. Rational and Irrational Expressions
8. Problem-Rational and Irrational Expressions
9. Proper & Improper Rational Expressions
10. Reduce Rational Expressions to its Lowest Form
11. Problem-Reducing Rational Expressions
12. Sum of Rational Expressions
13. Problem-Sum of Rational Expressions
14. Difference of Rational Expressions
15. Product of Rational Expressions
16. Division of Rational Expressions
17. Value of an Algebraic Expression
18. Problem1-Value of an Algebraic Expression
19. Problem2-Value of an Algebraic Expression

1.2 Formulae

20. Formulae
21. Construction of Formulae
22. Twice the sum of square of two terms
23. Problem-Twice the sum of square of two terms
24. Four times product of two terms
25. Problem-Four times product of two terms
26. Square of sum of three terms
27. Problem1-Square of sum of three terms
28. Problem2-Square of sum of three terms
29. Cube of sum of two terms
30. Problem1-Cube of sum of two terms
31. Problem2-Cube of sum of two terms

32. Cube of difference of two terms
33. Problem-Cube of difference of two terms
34. Sum and differences of cube
35. Problem-Sum and differences of cube
36. Problem Solving with Algebra
37. Harder Expansions

1.3 Surds and their Applications

38. Introduction to Surds
39. Problem-Introduction to Surds
40. Properties of rational exponents
41. Problem-Properties of rational exponents
42. Order of a Surd
43. Order of a Surd
44. Addition and subtraction of surds
45. Problem1-Addition and subtraction of surds
46. Problem2-Addition and subtraction of surds
47. Multiplication and Division of Surds
48. Problem1-Multiplication and Division of Surds
49. Problem2-Multiplication and Division of Surds
50. Rationalizing denominator and its types

1.4 Rationalization

51. Introduction to Rationalization
52. Problem1-Rationalizing denominator
53. Problem2-Rationalizing denominator

Chapter # 02

Factorization (49 Videos)

2.1 Factorization of Expressions

1. Introduction to Factorization
2. Problem-Factorization
3. Linear, Quadratic & Cubic Polynomials
4. K times Sum of Three Terms
5. Problem-K times Sum of Three Terms
6. Factorization of Expressions of the Form $ka+kb+kc$
7. Problem-Factorization of Expressions of the Form $ka+kb+kc$
8. Factorization by Grouping
9. Factorization of Quadratic Expressions
10. Harder Factorising
11. Factoring Trinomial & Tetranomial of Degree One
12. Problem1-Factoring Trinomial-Tetranomial of Degree1

13. Problem2-Factoring Trinomial-Tetranomial of Degree1
14. Factoring Square of Sum Or Difference of Two Terms
15. Problem-Factoring Square of Sum-Difference of 2 Terms
16. Factoring Difference of Square of Two Terms
17. Problem1-Factoring Difference of Square of Two Terms
18. Problem2-Factoring Difference of Square of 2 Terms
19. Problem3-Factoring Difference of Square of 2 Terms
20. Problem4-Factoring Difference of Square of Two Terms
21. Factoring Polynomial of Degree Four
22. Problem1-Factoring Polynomial of Degree Four
23. Problem2-Factoring Polynomial of Degree Four
24. Factoring Quadratic Equation-Leading Coefficient-1
25. Problem-Factoring Quadratic Equation-Coefficient1
26. Factoring Quadratic Polynomial-Non-1 Leading Coefficient
27. Problem1-Factoring Quadratic Polynomial-Non-1 Leading Coefficient
28. Problem2-Factoring Quadratic Polynomial-Non-1 Leading Coefficient
29. Factoring Cube of Sum or Difference of Two Terms
30. Problem-Factoring Cube of Sum or Difference of Two Terms
31. Factoring Sum or Difference of Cube of Two Terms
32. Problem1-Factoring Sum-Difference of Cube of Two Terms
33. Problem2-Factoring Sum-Difference of Cube of Two Terms
34. Factoring Product of Two Quadratic Polynomials
35. Problem-Factoring Product of Two Quadratic Polynomials
36. More on Factoring Product of Quadratic Polynomials
37. Problem1-More on Factoring Product of Quadratic Polynomials
38. Problem2-More on Factoring Product of Quadratic Polynomials

2.2 Remainder Theorem and Factor Theorem

39. Remainder Theorem
40. Problem-Remainder Theorem
41. Problem1-Remainder Theorem
42. Zero of polynomial and concept of factor
43. Problem-Zero of polynomial and concept of factor
44. Factor Theorem
45. Problem2-Factor Theorem

2.3 Factorization a Cubic Polynomial

46. Factoring Cube Polynomial
47. Problem 1: Factoring Cube Polynomial
48. Factorization by using Remainder Theorem
49. Problem 1: Factorization by using Remainder Theorem

Chapter # 03

Algebraic Manipulation (29 Videos)

3.1 Highest Common Factor (H.C.F) and Least

1. Factors and Multiples
2. Highest Common Factor (HCF)
3. H.C.F or G.C.D of Algebraic Expressions
4. Problem1-H.C.F or G.C.D of Algebraic Expressions
5. Problem2-H.C.F or G.C.D of Algebraic Expressions
6. H.C.F of Algebraic Expression by Division
7. Problem-H.C.F of Algebraic Expression by Division
8. Least Common Multiple (LCM)
9. L.C.M of Algebraic Expression by Factorization
10. Problem1-L.C.M of Algebraic Expression by Factorization
11. Problem3-L.C.M of Algebraic Expression by Factorization
12. L.C.M of Algebraic Expression by formula
13. Relation Between H.C.F And L.C.M
14. Problem1-Relation Between H.C.F And L.C.M
15. Problem2-Relation Between H.C.F And L.C.M
16. Applications of H.C.F And L.C.M
17. Problem-Applications of H.C.F And L.C.M

3.2 Basic Operations on the Algebraic Fract

18. Adding and Subtracting Algebraic Expressions
19. Dividing & Multiplying Algebraic Expressions
20. Problem1-Dividing & Multiplying Algebraic Expressions
21. Problem2-Dividing & Multiplying Algebraic Expressions

3.3 Square Root of Algebraic Fraction

22. Square Root of Algebraic Expression-Factorization
23. Problem1-Square Root of Algebraic Expression-Factorization
24. Problem2-Square Root of Algebraic Expression-Factorization
25. Square Root of Algebraic Expression-Division
26. Problem1-Square Root of Algebraic Expression-Division
27. Problem2-Square Root of Algebraic Expression-Division
28. Square Root of Rational Expression
29. Problem-Square Root of Rational Expression

Chapter # 04

Linear Equations and Inequalities (31 Videos)

4.1 Linear Equations

1. Linear Equations in one, two and three variables
2. Problem 1: Linear Equations in one, two and three variables
3. Solving Simple Linear Equations in 1 Variable
4. Problem1-Solution of Linear Equations
5. Problem2-Solution of Linear Equations
6. Solving Radical Equations in 1 Variable
7. Problem1-Solving Radical Equations in 1 Variable
8. Problem2-Solving Radical Equations in 1 Variable

4.2 Equations Involving Absolute Value

9. Introducing absolute value equation
10. Problem-Introducing absolute value equation
11. Solving Absolute Valued Equations
12. Problem-Solving Absolute Valued Equations
13. More on Solving Absolute Valued Equations

4.3 Linear Inequalities

14. Solution of Inequalities
15. Problem-Solution of Inequalities
16. Representing Solution of Inequalities on Number Line
17. Problem 1: Representing Solution of Inequalities on Number Line
18. Trichotomy Property of Inequality
19. Problem1-Trichotomy Property of Inequality
20. Problem2-Trichotomy Property of Inequality
21. Transitive property of Inequality
22. Problem1-Transitive property of Inequality
23. Problem2-Transitive property of Inequality
24. Additive property of inequality
25. Problem-Additive property of inequality
26. Multiplicative Property of Inequality
27. Problem1-Multiplicative Property of Inequality
28. Problem2-Multiplicative Property of Inequality

4.4 Solving Linear Inequalities

29. Equations and Inequalities
30. Introducing Linear Inequality
31. Problem-Introducing Linear Inequality

Chapter # 05

Quadratic Equations (15 Videos)

5.1 Quadratic Equations

1. Quadratic Equations in 1 Variable
2. Problem-Quadratic Equations in 1 Variable

5.2 Solution of a Quadratic Equation

3. Solving Quadratic Equations by Factorization
4. Problem-Solving Quadratic Equations by Factorization
5. Solving Quadratic Equations-Completing Squares
6. Problem1-Solving Quadratic Equations-Completing Squares
7. Problem2-Solving Quadratic Equations-Completing Squares
8. Converting expression of second degree into a perfect square
9. Problem 1: Converting expression of second degree into perfect square

5.3 The Quadratic Formula

10. Derivation of Quadratic Formula by Completing Square
11. Problem-Derivation of Quadratic Formula by Completing Square
12. Solving Quadratic Equation-Quadratic Formula
13. Problem1-Solving Quadratic Equation-Quadratic Formula
14. Problem2-Solving Quadratic Equation-Quadratic Formula
15. Problem-Solving Involving Quadratic Equations

Chapter # 06

Matrices and Determinants (77 Videos)

6.1 Introduction to Matrices

1. Introducing Matrix
2. More on Introducing Matrix
3. Problem-Introducing Matrix
4. Order of Matrix
5. Problem-Order of Matrix
6. Location of elements in Matrix
7. Problem-Location of elements in Matrix
8. Equal Matrices
9. Problem1-Equal Matrices
10. Problem2-Equal Matrices

6.2 Types of Matrices

11. Row-Column Matrix
12. Problem-Row-Column Matrix
13. Square-Rectangular Matrix
14. Problem-Square-Rectangular Matrix
15. Null Matrix or Zero Matrix
16. Problem-Null Matrix or Zero Matrix
17. Negative of Matrix

18. Problem-Negative of Matrix
19. Diagonal Matrix
20. Problem-Diagonal Matrix
21. Scalar Matrix
22. Problem-Scalar Matrix
23. Identity Matrix
24. Problem-Identity Matrix
25. Transpose of Matrix
26. Problem-Transpose of Matrix
27. Symmetric & Skew-Symmetric Matrices
28. Problem1-Symmetric & Skew-Symmetric Matrices
29. Problem2-Symmetric & Skew-Symmetric Matrices

6.3 Addition and Subtraction of Matrices

30. Addition of Matrices
31. Problem-Addition of Matrices
32. Subtraction of Matrices
33. Problem-Subtraction of Matrices
34. Multiplication of Matrix by Real Number
35. Problem-Multiplication of Matrix by Real Number
36. Commutative Law Under Addition for Matrices
37. Problem-Commutative Law Under Addition for Matrices
38. Associative Law under Addition and Multiplication of Matrices
39. Problem-Associative Law Under Addition for Matrices
40. Additive Identity of a Matrix
41. Problem-Additive Identity of a Matrix
42. Additive Inverse of a Matrix
43. Problem-Additive Inverse of a Matrix

6.4 Multiplication of Matrices

44. Multiplication of Matrices
45. More on Multiplication of Matrices
46. Problem1-Multiplication of Matrices
47. Problem2-Multiplication of Matrices
48. Problem3-Multiplication of Matrices
49. Problem4-Multiplication of Matrices
50. Associative Law under Multiplication of Matrices
51. Problem-Associative Law under Multiplication of Matrices
52. Distributive Law of Matrices
53. Problem-Distributivity of Matrices
54. Multiplicative Identity of a Matrix
55. Problem-Multiplicative Identity of a Matrix
56. Commutative Law of Multiplication of Matrices
57. Problem-Commutative Law of Multiplication of Matrices
58. Properties of Transposed Matrices
59. Problem-Properties of Transposed Matrices

60. Transpose of Product of Matrices

6.5 Multiplicative Inverse of a Matrix

61. Determinant of 2-by-2 Matrix
62. Singular and Non-Singular Matrix
63. Problem-Singular and Non-Singular Matrix
64. Matrix Inverse Using Adjoint
65. More on Matrix Inverse Using Adjoint
66. Problem1-Matrix Inverse Using Adjoint
67. Problem2-Matrix Inverse Using Adjoint
68. Problem3-Matrix Inverse Using Adjoint
69. Problem4-Matrix Inverse Using Adjoint
70. Multiplicative Inverse of Non-Singular Matrix
71. Problem-Multiplicative Inverse of Non-Singular Matrix
72. Property for Whole Inverse of Product of Matrices
73. More on Property for Whole Inverse of Product of Matrices

6.6 Solution of Simultaneous Linear Equations

74. Solving Simultaneous Equations-Inversion Method
75. More on Solving Simultaneous Equations-Inversion Method
76. Solving Simultaneous Equations-Cramers Rule
77. Problem2-Solving Simultaneous Equations-Cramers Rule

Chapter # 07

Fundamentals of Geometry (61 Videos)

7.1 Properties of Angles

1. Kinds of an Angle
2. Concept of Adjacent Angles
3. Concept of Complementary Angles
4. Concept of Supplementary Angles
5. Vertically Opposite Angles
6. Finding Unknown Angles Involving Adjacent Angles
7. Finding Unknown Angles Involving complementary Angles
8. Finding Unknown Angles Involving Supplementary Angles
9. Finding Unknown Angles Involving Vertically Opposite Angles
10. Finding Unknown Angle of a Triangle

7.2 Parallel Lines

11. Concept of Parallel Lines
12. Properties of Parallel Lines
13. Problem- Finding Angles Formed by a Transversal

14. Concept of Corresponding Angles
15. Concept of Alternate Interior Angles
16. Concept of Interior Angles

7.3 Congruent and Similar Figures

17. Identification of Congruent and Similar Figures
18. Congruent Figures and Objects
19. Problem-Congruent Figures and Objects
20. Congruency Tests
21. Problem-Congruency Tests
22. Similar Triangles
23. Problem-Similar Triangles

7.4 Congruent Triangles

24. Congruent Triangles
25. Side-Side-Side Postulate
26. Side-Angle-Side Postulate
27. Angle-Side-Angle Postulate
28. Hypotenuse-Side Postulate
29. Application of the Properties for Two Figures

7.5 Quadrilaterals

30. Demonstrate the properties of a parallelogram
31. Kinds of Parallelogram
32. Problem 1: Kinds of Parallelogram
33. Theorem on Parallelogram
34. Problem1-Diagonals of Parallelogram Bisects Each Other
35. Problem2-Diagonals of Parallelogram Bisects Each Other

7.6 Circle

36. Concept of Radius, Chord and Diameter
37. Angle in a Semicircle is a Right Angle
38. Segment of a Circle
39. Introduction to Circle & its Characteristics
40. Point Lying in the Interior and Exterior of a Circle
41. Chord , Diameter & Circumference of a Circle
42. Problem-Chord , Diameter & Circumference of Circle
43. Arc of a Circle
44. Problem-Arc of Circle
45. Segment and Sector of Circle
46. Problem-Segment and Sector of Circle
47. Length of Arc and Area of Sector
48. The Radian
49. Concept of Secant & Tangent Line
50. Problem-Introducing Secant and Tangent Line
51. Concentric Circles and Common Internal and External Tangents to two C
52. Problem 1: Concentric Circles,Common Internal & External Tangents of

53. Introducing Concyclic Points
54. Concept of Inscribed Angle of an Arc
55. Problem 1: Concept of Inscribed Angle of an Arc
56. Concept of Central Angle of Arc
57. Problem-Concept of Central Angle of Arc
58. Theorem on Circle Angle of Minor Arc
59. Problem1-Central Angle Theorem
60. Problem2-Central Angle Theorem
61. Theorem related to Angles in a Same Segment

Chapter # 08

Practical Geometry (27 Videos)

8.1 Construction of a Triangle

1. The Protractor and Angle Measure
2. Geometrical Constructions
3. Use of Compass
4. Introduction to Practical Geometry
5. Construction of Triangle with 1 Angle & 2 Sides
6. Constructing Triangle with 1 Side & 2 Angles
7. Constructing Angler Bisectors of Triangle
8. Constructing Altitudes of Triangle
9. Constructing Perpendicular Bisectors of Triangle
10. Constructing Medians of Triangle

8.2 Construction of Quadrilaterals

11. Construction of a rectangle when two sides are given
12. Problem-Construction of Rectangle

8.3 Construction of Quadrilaterals

13. How to Locate the Centre of a Given Circle
14. Problem-How to Locate the Centre of a Given Circle
15. Drawing a Circle Through Three Non-Collinear Points
16. Problem-Drawing a Circle Through Three Non-Collinear Points
17. Drawing Tangent to Circle from Point on Circumference
18. Tangent from a Point Outside a Circle
19. Two Tangents from a Point Outside Circle
20. Direct Common Tangents of Circles with Same Radii
21. Direct Common Tangents to Circles
22. Direct Common Tangents to circles by Method 2
23. Transverse Common Tangents to Circles1
24. Transverse Common Tangents to Circles2

25. Tangent to Two Unequal Touching Circles
26. Tangent to Two Unequal internally Touching Circles
27. Tangent to Two Unequal Intersecting Circles

Chapter # 09

Areas and Volumes (34 Videos)

9.1 Pythagoras Theorem

1. Pythagoras Theorem
2. Problem1-Pythagoras Theorem
3. Problem2-Pythagoras Theorem
4. Converse of Pythagoras Theorem
5. Problem-Converse of Pythagoras Theorem
6. Problem1-Proof of Pythagoras Theorem
7. Problem2-Proof of Pythagoras Theorem
8. Problem1-Two Special Right Angled Triangles
9. Problem2-Two Special Right Angled Triangles

9.2 Areas

10. Area of a Triangle
11. Word Problem of Area of a Triangle
12. Area of Triangle by Hero's Formula
13. More on Area of a Triangle with Given Sides
14. Area of Equilateral Triangle With Given Sides
15. Problem-Area of Equilateral Triangle With Given Sides
16. Formula for Area of a Square & Rectangle
17. Concept of Altitude of a Geometrical Figures
18. Area of a Parallelogram
19. Word Problem of Area of a Parallelogram
20. Surface Area of Cubes
21. Surface Area of Cuboids
22. Measurement of the Circumference of a Circle
23. Area of a Circular Region
24. Area of a semicircle
25. Area of Concentric Circles

9.3 Volumes

26. Shapes of Three Dimensional Solids
27. Concept of Cube and Cuboid
28. Volume of Cubes
29. Volume of Cuboids
30. Volume of a Cylinder
31. Volume of Cones

32. Volume of Sphere
33. Volume of Hemispheres
34. Real life problems related to volume

Chapter # 10

Introduction to Coordinate Geometry (15 Videos)

10.1 Distance Formula

1. Derivation of Distance formula
2. Problem1-Derivation of Distance formula
3. Problem2-Derivation of Distance formula
4. Use of Distance formula
5. Problem1-Use of Distance formula
6. Problem-Use of Distance formula

10.2 Collinear Points

7. Showing Collinearity of Points-Distance Formula
8. Problem-Showing Collinearity of Points-Distance Formula
9. Verify a Triangle to be Equilateral using Distance Formula
10. Problem-Showing Triangle is Equilateral-Distance Formula
11. Showing Triangle is Isosceles-Distance Formula
12. Showing Triangle is Right Angle-Distance Formula
13. Problem-Showing Triangle is Right Angle-Distance Formula
14. Showing Triangle is Scalene-Distance Formula
15. Problem-Showing Triangle is Scalene-Distance Formula