উদ্ভাস-উন্মেষ Online Care

Class-07 Academic Program-2025

Course Details

SI no.	Subject	Lecture Number	Exam Number
01	Mathematics	68	• Daily Exam 126
02	Science	58	• Chapter wise Exam 24
Total number of classes		126	• Subject Final Exam 2

Mathematics

Chapter	Lecture	Topics
Chapter-1 (Rational and Irrational Numbers)	M-01	Squares and square roots, Integer, Properties of square numbers , Symbol of a square root
	M-02	Determining square root by prime factorization, Exercise – 1.1 (1)
	M-03	Determining square root by division method, Exercise – 1.1 (2)
	M-04	Some important points on square and square root, Problems of square and square root, Exercise – 1.1 (3-6)
	M-05	Finding square root of decimal fraction, Rules for finding a square root, Determination of square root in approximation value, Exercise – 1.2 (11,12)
	M-06	Perfect square fraction, square root of a fraction, Exercise – 1.2 (13,14)
	M-07	Rational and irrational numbers, Expression of rational and irrational numbers in a number line
	M-08	Exercise – 1.2 (15-24)
Chapter-2 (Proportion, Profit and Loss)	M-09	Ratio of multiple expressions and successive ratios, Proportion, Exercise – 2.1 (1-4)
	M-10	Proportional division, Exercise– 2.1 (5-16)
	M-11	Profit-Loss, Exercise – 2.2 (1-7)
	M-12	Profit-Loss related problems, Exercise – 2.2 (8-15)
	M-13	Problems related to speed, Exercise – 2.3 (11-18)
	M-14	Problems related to speed, Exercise – 2.3 (19-26)
Chapter-3 (Measurement)	M-15	Measurement of Length, Units of measurement of length, Relation between Metric and British system, Exercise – 3 (8-9)
	M-16	Measurement of Area, Relation between Metric and British system in measuring Area, Exercise – 3 (10-14)
	M-17	Measurement of weights, Metric units of measurement of weight, Exercise – 3 (15-19)
	M-18	Measuring Volume of Liquids, Metric units of measurement of volume, Exercise – 3 (20-27)
Chapter-4 (Multiplication and Division of Algebraic Expressions)	M-19	Multiplication of Algebraic Expressions (Laws), Multiplication of expressions with signs
	M-20	Monomial Multiplied by Monomial, Polynomial Multiplied by Monomial, Exercise – 4.1 (1-12)
	M-21	Polynomial Multiplied by Polynomial, Exercise – 4.1 (13-24)
	M-22	Exercise – 4.1 (25-28)
	M-23	Division of Algebraic Expressions, Division of a Monomial by a Monomial, Exercise – 4.2 (1-6)
	M-24	Division of a Polynomial by a Monomial, Exercise – 4.2 (7-13)

Chapter	Lecture	Topics
	M-25	Division of a Polynomial by a Polynomial, Exercise – 4.2 (14-24)
	M-26	Division of Algebraic Expressions related problems, Exercise – 4.2 (25-35)
	M-27	Use of Brackets, Exercise – 4.3 (15-29)
	M-28	Exercise – 4.3 (30-34)
Chapter-5 (Algebraic Formulae and Applications)	M-29	Algebraic Formulae, Formula-1, The geometric explanation of the formula, Corollary-1
	M-30	Formula-2, Corollary-2, Exercise – 5.1 (1-24)
	M-31	Corollary-3, Corollary-4, Corollary-5, Corollary-6
	M-32	Exercise – 5.1 (25-34)
	M-33	Formula-3, Exercise – 5.2 (1-7)
	M-34	Formula-4, Exercise – 5.2 (8-12)
	M-35	Factors of algebraic expressions, Resolving into factors with the help of distribution law of multiplication, Exercise – 5.3 (1-3)
	M-36	Resolving into factors with the help of algebraic formulae, Exercise – 5.3 (4-20)
	M-37	Dividend, Divisor, Factor and Multiple, Highest Common Factor (H.C.F), Exercise – 5.4 (17-26)
	M-38	Least Common Multiple (L.C.M), Exercise – 5.4 (27-39)

Chapter	Lecture	Topics
Chapter-6 (Algebraic Fractions)	M-39	Fractions, Equivalent Fractions, Reduction of fractions, Exercise – 6.1 (1-10)
	M-40	Fractions with common denominators, Rules for expressing the fractions with common denominators, Exercise – 6.1 (11-20)
	M-41	Addition of Algebraic Fractions, Exercise – 6.2 (10-15)
	M-42	Subtraction of Algebraic Fractions, Exercise – 6.2 (16-21)
	M-43	Simplification of Algebraic Fractions, Exercise – 6.2 (22-27)
	M-44	Exercise – 6.2 (28-30)
Chapter-7 (Simple Equations)	M-45	Revision of previous lessons [Commutative law for addition and multiplication, Distributive law for multiplication], Laws of equations [Transposition Law, Cancellation law, Law of cross-multiplication, Law of symmetry]
	M-46	Exercise – 7.1
	M-47	Formation of simple equation and solution, Exercise – 7.2 (1-8)
	M-48	Formation of simple equation and solution, Exercise – 7.2 (9-15)
	M-49	Graphs, Concepts of co-ordinates, Plotting of points, Exercise – 7.3 (11-12)
	M-50	Solution of equations by graphs, Exercise – 7.3 (13-15)
Chapter-8 (Parallel Straight Lines)	M-51	Geometrical argument method, 8.2 Transversals, Pair of parallel straight lines
	M-52	Angles made by bisect of parallel lines with a transversal, Theorem 1, Exercise – 8
Chapter-9 (Triangles)	M-53	Medians of a triangle, Altitudes of a triangle, Exterior and interior angles of a triangle, Sum of three angles of a triangle, **Theorem 1:** The sum of three angles of a triangle is equal to two right angles.
	M-54	Exercise – 9.1
	M-55	Angle and side relations of a triangle, **Theorem 2:** If one side of a triangle is greater than another, the angle opposite to the greater side is greater than the angle opposite to the smaller side, **Theorem 3:** If one angle of any triangle is greater than another, then the side opposite to the greater angle is greater than the side opposite the smaller angle.
	M-56	Sum of two sides of a triangle, **Theorem 4:** The sum of the lengths of any two sides of a triangle is greater than the length of the third side, Exercise – 9.2
	M-57	Construction of Triangles, Construction-1, Construction-2
	M-58	Construction-3, Construction-4
	M-59	Construction-5, Construction-6
	M-60	Exercise – 9.3
Chapter-10	M-61	Congruence, Congruence of triangles, Theorem-1
	M-62	Theorem-2, Exercise – 10.1

(Congruence and Similarity)	M-63	Theorem-3, Theorem-4
	M-64	Theorem-5, Exercise – 10.2
	M-65	Similarity, Similar triangles, Conditions of similarity of triangles
	M-66	Similar quadrilaterals, Exercise – 10.3
Chapter-11 (Information and Data)	M-67	Information and data, Statistical data, Unorganized and organized data, Frequency distribution table drawing, Exercise – 11 (8-16)
	M-68	Frequency histogram, Exercise – 11 (17-20)

Science

Chapter	Lecture	Topics
Chapter-1 Lower Organisms	S-01	Microbial World, Virus and Bacteria
	S-02	Algae, Fungi and Amoeba
	S-03	Entamoeba
	S-04	Role of Microbes in Creating Health Hazards, Prevention and Remedy of Health Hazards caused by Microbes
Chapter-2 Cellular Organisation of Plants and Animals	S-05	General Structure of Plant and Animal Cells
	S-06	Cytoplasmic Organelles (Up to Mitochondria)
	S-07	Cytoplasmic Organelles (Golgi Body, Nucleus)
	S-08	Characteristics and Functions of Plant Tissues
	S-09	Characteristics and Functions of Animal Tissues (Up to Functions of Muscles)
	S-10	From Connective Tissues up to Functions of Nerve Tissue
Chapter-3 External Morphology of Plants	S-11	Modifications of Main Root, Modified Adventitious Roots (Up to Tubercular Roots)
	S-12	Modified for Mechanical Support
	S-13	Modified Stems (Up to Sucker)
	S-14	Aerial Modified Stems, Modified Leaves
Chapter-4 Respiration	S-15	What is Respiration, Respiration in Living World
	S-16	Respiration in Animals
	S-17	Respiratory Process
	S-18	Common diseases of Respiratory Tract
Chapter-5 Digestive System and Blood Circulation	S-19	Digestion of Food, Saliva and Enzymes
	S-20	Digestive System (Up to Esophagus)
	S-21	From Stomach to Anus
	S-22	Digestive Glands and Their Functions
	S-23	Common Diseases and Their Remedy
	S-24	Blood Circulatory System (Up to Platelets)
	S-25	Functions of Blood, Blood Vessels
	S-26	Heart, Heart Diseases
Chapter-6 Structure of Matter	S-27	Constituent of Matter, Smallest Particle Theory
	S-28	Atoms and molecules, Atoms and Symbol
	S-29	Molecule and Formula, Particles of Atom
	S-30	Use of Water as Universal Solvent
Chapter-7 The Use of Energy	S-31	Work. Power and Energy, Different forms of Energy
	S-32	Transformation of Energy, Energy Conservation

Chapter	Lecture	Topics
	S-33	Renewable Energy, Non-Renewable Energy
	S-34	The Use and Crisis of Energy, Searching of Alternative Source of Energy, The Effect of Energy in Our Life and Its Cost Effective Use
Chapter-8 About Sound	S-35	Sound and Its Characteristics, Origin of Sound, Circulation of Sound or Propagation of Sound, Propagation of Sound Through Liquid and Velocity of Sound
	S-36	Circulation of Sound Through Solid and Its Velocity of Sound, How Can Animals Hear Sounds, Limit of Audibility and Noise, Sound Making Machines
Chapter-9 Heat And Temperature	S-37	Heat, Temperature
	S-38	Measurement of Temperature, Measuring Scale of Temperature
	S-39	Expansion of Matter Due to Effect of Heat, Humidity and The Effect of Temperature Over Humidity and Atmospheric Pressure
	S-40	Transmission of Heat
Chapter-10 Phenomena of Electricity and Magnet	S-41	Origination of Charge, Existence of Charge, Conductor, Non-conductor and Semi-conductor
	S-42	Producing Current Electricity from Static Electricity, Simple Circuit and Its Use
	S-43	Use of Current Flows, What is Magnet?
	S-44	Magnetic and Non-magnetic Substance, Transforming Magnetic Substance into Magnets
Chapter-11 Change in Surrounding and Various Incidents	S-45	Melting and Boiling, Decaying of Metal
	S-46	Stainless Steel, Combustion
	S-47	Photosynthesis, Water Cycle, Carbon Cycle, Oxygen Cycle
	S-48	The Process of Formation of Rocks
Chapter-12 The Solar System and Our Earth	S-49	The Earth Moves Round the Sun, The Formation of Solar System and Its Introduction
	S-50	Our Habitat the Earth
	S-51	The earth rotates on its own axis and revolves around the sun in its own orbit
	S-52	The Earth Moves Round the Sun- The Earth's Annual Motion
Chapter-13 Environment and Pollution	S-53	Environmental Pollution, Causes of Pollutions of Environmental Elements, Soil Pollution, Pollution of Water
	S-54	Air Pollution, Effect of Pollution, Prevention of Pollution and Conservation of Environment
Chapter-14 Change of Climate	S-55	Atmosphere of the Earth, Water Cycle in Environment, Balance of Carbon and Oxygen in the Environment
	S-56	Weather and Climate
	S-57	Change of Weather, Change of Climate (Before Causes of Global Warming)
	S-58	Change of Climate (Full)