HSC 1st Year
Academic Program Progressive Batch
[Online/Combo]
(Two subject class per day)

Class & Exam Routine [Part-02]

Date & Day	Live Class: 1 2:30 pm	Live Class: 2 6:30 pm	Live Exam	Online: From 8:00am to 11:55pm / Offline: From 9:00am to 5:00pm
02 November 2025 (Sunday)	**C-17** Chemistry: Chapter-2	**HM-07** H.Math: Chapter-1		Daily Live Exam **P-20** MCQ (10×1=10); 10 min. / Daily Live Exam **HM-23** MCQ (10×1=10); 10 min.
03 November 2025 (Monday)	**Z-05** Zoology: Chapter-1	**C-18** Chemistry: Chapter-2		Daily Live Exam **C-17** MCQ (10×1=10); 10 min. / Daily Live Exam **HM-07** MCQ (10×1=10); 10 min.
04 November 2025 (Tuesday)	**Z-06** Zoology: Chapter-1	**P-14** Physics: Chapter-2		Daily Live Exam **Z-05** MCQ (10×1=10); 10 min. / Daily Live Exam **C-18** MCQ (10×1=10); 10 min.
05 November 2025 (Wednesday)	**C-01** Chemistry: Chapter-1	**HM-24** H.Math: Chapter-3		Daily Live Exam **Z-06** MCQ (10×1=10); 10 min. / Daily Live Exam **P-14** MCQ (10×1=10); 10 min.
06 November 2025 (Thursday)	**P-01** Physics: Chapter-1	**HM-25** H.Math: Chapter-3		Daily Live Exam **C-01** MCQ (10×1=10); 10 min. / Daily Live Exam **HM-24** MCQ (10×1=10); 10 min.
07 November 2025 (Friday) **Chapter-Wise Exam-04**	**Chemistry Problem Solving Class-01** / **Physics Chapter-03 (CQ 2×10=20); Time: 50min & (Pre-Admission MCQ 10×1=10); Time: 10min.**			
08 November 2025 (Saturday) **Chapter-Wise Exam-05**	**Zoology Chapter-01 (CQ 2×10=20); Time: 50min & (Pre-Admission MCQ 10×1=10); Time: 10min.**			
09 November 2025 (Sunday)	**C-19** Chemistry: Chapter-2	**HM-08** H.Math: Chapter-1		Daily Live Exam **P-01** MCQ (10×1=10); 10 min. / Daily Live Exam **HM-25** MCQ (10×1=10); 10 min.
10 November 2025 (Monday)	**B-09** Botany: Chapter-2	**C-20** Chemistry: Chapter-2		Daily Live Exam **C-19** MCQ (10×1=10); 10 min. / Daily Live Exam **HM-08** MCQ (10×1=10); 10 min.
11 November 2025 (Tuesday)	**B-10** Botany: Chapter-2	**P-02** Physics: Chapter-1		Daily Live Exam **B-09** MCQ (10×1=10); 10 min. / Daily Live Exam **C-20** MCQ (10×1=10); 10 min.
12 November 20 (Wednesday)	**C-02** Chemistry: Chapter-1	**HM-26** H.Math: Chapter-3		Daily Live Exam **B-10** MCQ (10×1=10); 10 min. / Daily Live Exam **P-02** MCQ (10×1=10); 10 min.
13 November 2025 (Thursday)	**P-21** Physics: Chapter-4	**HM-45** H.Math: Chapter-7		Daily Live Exam **C-02** MCQ (10×1=10); 10 min. / Daily Live Exam **HM-26** MCQ (10×1=10); 10 min.
14 November 2025 (Friday) **Chapter-Wise Exam-06**	**Biology Solving Class-01** / **Physics Chapter-02 (CQ 2×10=20); Time: 50min & (Pre-Admission MCQ 10×1=10); Time: 10min.**			
15 November 2025 (Saturday) **Chapter-Wise e Exam-07**	**H.Math Chapter-01 (CQ 2×10=20); Time: 50min & (Pre-Admission MCQ 10×1=10); Time: 10min.**			
16 November 2025 (Sunday)	**C-21** Chemistry: Chapter-2	**HM-41** H.Math: Chapter-6		Daily Live Exam **P-21** MCQ (10×1=10); 10 min. / Daily Live Exam **HM-45** MCQ (10×1=10); 10 min.
17 November 2025 (Monday)	**B-11** Botany: Chapter-2	**C-22** Chemistry: Chapter-2		Daily Live Exam **C-21** MCQ (10×1=10); 10 min. / Daily Live Exam **HM-41** MCQ (10×1=10); 10 min.
18 November 2025 (Tuesday)	**B-12** Botany: Chapter-2	**P-22** Physics: Chapter-4		Daily Live Exam **B-11** MCQ (10×1=10); 10 min. / Daily Live Exam **C-22** MCQ (10×1=10); 10 min.
19 November 2025 ((Wednesday))	**C-03** Chemistry: Chapter-1	**HM-46** H.Math: Chapter-7		Daily Live Exam **B-12** MCQ (10×1=10); 10 min. / Daily Live Exam **P-22** MCQ (10×1=10); 10 min.
20 November 2025 (Thursday)	**P-23** Physics: Chapter-4	**HM-47** H.Math: Chapter-7		Daily Live Exam **C-03** MCQ (10×1=10); 10 min. / Daily Live Exam **HM-46** MCQ (10×1=10); 10 min.
21 November 2025 (Friday) **Chapter-Wise e Exam-08**	**H.Math Problem Solving Class-02** / **Physics Chapter-01 (CQ 2×10=20); Time: 50min & (Pre-Admission MCQ 10×1=10); Time: 10min.**			
22 November 2025 (Saturday) **Chapter-Wise Exam-09**	**H.Math 1st Paper Chapter-03 [Part-02 Lecture HM-19 to 26]; (CQ 2×10=20); Time: 50min & (Pre-Admission MCQ 10×1=10); Time: 10min.**			
23 November 2025 (Sunday)	**C-23** Chemistry: Chapter-3	**HM-42** H.Math: Chapter-6		Daily Live Exam **P-23** MCQ (10×1=10); 10 min. / Daily Live Exam **HM-47** MCQ (10×1=10); 10 min.
24 November 2025 (Monday)	**Z-15** Zoology: Chapter-3	**C-24** Chemistry: Chapter-3		Daily Live Exam **C-23** MCQ (10×1=10); 10 min. / Daily Live Exam **HM-42** MCQ (10×1=10); 10 min.
25 November 2025 (Tuesday)	**Z-16** Zoology: Chapter-3	**P-24** Physics: Chapter-4		Daily Live Exam **Z-15** MCQ (10×1=10); 10 min. / Daily Live Exam **C-24** MCQ (10×1=10); 10 min.
26 November 2025 (Wednesday)	**C-04** Chemistry: Chapter-1	**HM-48** H.Math: Chapter-7		Daily Live Exam **Z-16** MCQ (10×1=10); 10 min. / Daily Live Exam **P-24** MCQ (10×1=10); 10 min.
27 November 2025 (Thursday)	**P-25** Physics: Chapter-4	**HM-49** H.Math: Chapter-7		Daily Live Exam **C-04** MCQ (10×1=10); 10 min. / Daily Live Exam **HM-48** MCQ (10×1=10); 10 min.
28 November 2025 (Friday)	**Guideline Seminar-02** / **Physics Problem Solving Class-02**			

29 November 2025 (Saturday) Chapter-Wise Exam-10	Chemistry 1st Paper Chapter-02 [Part-02 Lecture C-13 to 22]; (CQ 2×10=20); Time: 50min & (Pre-Admission MCQ 10×1=10); Time: 10min.		
30 November 2025 (Sunday)	**C-25** Chemistry: Chapter-3	**HM-43** H.Math: Chapter-6	Daily Live Exam **P-25** MCQ (10×1=10); 10 min. Daily Live Exam **HM -49** MCQ (10×1=10); 10 min.
01 December 2025 (Monday)	**Z-17** Zoology: Chapter-3	**C-26** Chemistry: Chapter-3	Daily Live Exam **C-25** MCQ (10×1=10); 10 min. Daily Live Exam **HM -43** MCQ (10×1=10); 10 min.
02 December 2025 (Tuesday)	**Z-18** Zoology: Chapter-3	**P-26** Physics: Chapter-4	Daily Live Exam **Z-17** MCQ (10×1=10); 10 min. Daily Live Exam **C -26** MCQ (10×1=10); 10 min.
03 December 2025(Wednesday)	**C-27** Chemistry: Chapter-3	**HM-50** H.Math: Chapter-7	Daily Live Exam **Z-18** MCQ (10×1=10); 10 min. Daily Live Exam **P -26** MCQ (10×1=10); 10 min.
04 December 2025 (Thursday)	**P-27** Physics: Chapter-4	**HM-51** H.Math: Chapter-7	Daily Live Exam **C-27** MCQ (10×1=10); 10 min. Daily Live Exam **HM -50** MCQ (10×1=10); 10 min.
05 December 2025 (Friday) Chapter- Wise Exam-11	**Chemistry Problem Solving Class-02**		
	Botany Chapter-02 (CQ 2×10=20); Time: 50min & (Pre-Admission MCQ 10×1=10); Time: 10min.		
06 December 2025 (Saturday) Chapter- Wise e Exam-12	**Chemistry Chapter-01 (CQ 2×10=20); Time: 50min & (Pre-Admission MCQ 10×1=10); Time: 10min.**		
07 December 2025 (Sunday)	**C-28** Chemistry: Chapter-3	**HM-44** H.Math: Chapter-6	Daily Live Exam **P-27** MCQ (10×1=10); 10 min. Daily Live Exam **HM -51** MCQ (10×1=10); 10 min.
08 December 2025 (Monday)	**B-13** Botany: Chapter-3	**C-29** Chemistry: Chapter-3	Daily Live Exam **C-28** MCQ (10×1=10); 10 min. Daily Live Exam **HM -44** MCQ (10×1=10); 10 min.
09 December 2025 (Tuesday)	**B-14** Botany: Chapter-3	**P-28** Physics: Chapter-4	Daily Live Exam **B-13** MCQ (10×1=10); 10 min. Daily Live Exam **C -29** MCQ (10×1=10); 10 min.
10 December 2025 (Wednesday)	**C-30** Chemistry: Chapter-3	**HM-52** H.Math: Chapter-7	Daily Live Exam **B-14** MCQ (10×1=10); 10 min. Daily Live Exam **P -28** MCQ (10×1=10); 10 min.
11 December 2025 (Thursday)	**P-29** Physics: Chapter-4	**HM-53** H.Math: Chapter-7	Daily Live Exam **C-30** MCQ (10×1=10); 10 min. Daily Live Exam **HM -52** MCQ (10×1=10); 10 min.
12 December 2025 (Friday) Chapter- Wise Exam-13	**Biology Problem Solving Class-02**		
	Zoology Chapter-03 (CQ 2×10=20); Time: 50min & (Pre-Admission MCQ 10×1=10); Time: 10min.		
13 December 2025 (Saturday) Chapter- Wise Exam-14	**H.Math Chapter-06 (CQ 2×10=20); Time: 50min & (Pre-Admission MCQ 10×1=10); Time: 10min.**		
14 December 2025 (Sunday)	**C-31** Chemistry: Chapter-3	**HM-57** H.Math: Chapter-8	Daily Live Exam **P-29** CQ (10×1=10); 10 min. Daily Live Exam **HM -53** MCQ (10×1=10); 10 min.
15 December 2025 (Monday)	**B-15** Botany: Chapter-3	**C-32** Chemistry: Chapter-3	Daily Live Exam **C-31** MCQ (10×1=10); 10 min. Daily Live Exam **HM -57** MCQ (10×1=10); 10 min.
Online class and exam will be closed, December 16, on the occasion of Victory Day.			
17 December 2025 (Wednesday)	**P-30** Physics: Chapter-4	**HM-54** H.Math: Chapter-7	Daily Live Exam **B-15** MCQ (10×1=10); 10 min. Daily Live Exam **C -32** MCQ (10×1=10); 10 min.
18 December 2025 (Thursday)	**P-31** Physics: Chapter-5	**HM-55** H.Math: Chapter-7	Daily Live Exam **P-30** MCQ (10×1=10); 10 min. Daily Live Exam **HM -54** MCQ (10×1=10); 10 min.
19 December 2025 (Friday) Chapter-wise Exam-15	**H.Math Problem Solving Class-03**		
	Chemistry 1st Paper Chapter-03 [Part-01 Lecture C-23 to 30]; (CQ 2×10=20); Time: 50min & (Pre-Admission MCQ 10×1=10); Time: 10min.		
21 December 2025 (Sunday)	**C-33** Chemistry: Chapter-3	**HM-58** H.Math: Chapter-8	Daily Live Exam **P-31** MCQ (10×1=10); 10 min. Daily Live Exam **HM -55** MCQ (10×1=10); 10 min.
22 December 2025 (Monday)	**B-16** Botany: Chapter-3	**C-34** Chemistry: Chapter-3	Daily Live Exam **C-33** MCQ (10×1=10); 10 min. Daily Live Exam **HM -58** MCQ (10×1=10); 10 min.
23 December 2025 (Tuesday)	**B-17** Botany: Chapter-3	**C-35** Chemistry: Chapter-3	Daily Live Exam **B-16** MCQ (10×1=10); 10 min. Daily Live Exam **C -34** MCQ (10×1=10); 10 min.
24 December 2025 (Wednesday	**C-36** Chemistry: Chapter-3	**HM-56** H.Math: Chapter-7	Daily Live Exam **B-17** MCQ (10×1=10); 10 min. Daily Live Exam **P -35** MCQ (10×1=10); 10 min.
Online class and exam will be closed on December 25 (Thursday) on the occasion of Christmas.			
26 December 2025 (Friday) Chapter-Wise Exam-16	**Physics Problem Solving Class-03**		
	Physics Chapter-04 (CQ 2×10=20); Time: 50min & (Pre-Admission MCQ 10×1=10); Time: 10min.		
27 December 2025 (Saturday) Chapter- Wise Exam-17	**Chemistry 1st Paper Chapter-03 [Part-02 Lecture C-31 to 36]; (CQ 2×10=20); Time: 50min & (Pre-Admission MCQ 10×1=10); Time: 10min.**		
28 December 2025 (Sunday)	**C-37** Chemistry: Chapter-4	**HM-59** H.Math: Chapter-8	Daily Live Exam **C-36** MCQ (10×1=10); 10 min. Daily Live Exam **HM -56** MCQ (10×1=10); 10 min.
The next class and exam routine (Part-03) will be published...			
The routine can change or be modified in case of special necessities			

Online Class and Exam Procedure:

- To participate in classes and exams, visit **udvash.com** and click on the "**Join Now**" menu. **Log in** using your admitted registration number.
- **Daily Live** Classes will be held as per the schedule, with **two separate subject classes per day** at the mentioned date and time.
- **Daily Live Exams** will be available as per the schedule from **8:00am to 11:55pm**, where students can take the exam once per with two **separate Subject**. However, for additional practice, students can take the Practice Exam multiple times with the same syllabus.
- To watch recorded videos and PDFs of daily classes, use the "**Past Classes/Course & Content**" option.
- To access **Archive Classes & One Shot CQ-MCQ Classes**, use the **"Course & Content" option.**

- The **Q&A** option is available **24/7** to resolve subject-related queries after the class.
- All students enrolled in the Combo Batch can take chapter-based exams both online and at any nearby branch (from 9:00am to 5:00pm).
- To get updates quickly, join our Facebook group **(HSC & Admission উল্লাস-উন্মেষ).**

HSC 1st Year Academic Program Progressive Batch (Class & Exam Syllabus-01)

Physics 1st paper Reference Book: প্রাণলাল TEXT		
Chapter	**Leccture**	**Lecture-based discussion**
Chapter-2 Vector	P-14	Scalar and vector fields, gradient, divergence, curl.
Chapter-1 Physical World and Measurement	P-01	Scope of physics, Physics and other branches of science, Evolution of physics, Concepts, formulas, principles, postulates, hypotheses and theories in Physics, Measurement, Units, dimensions, dimensional equations, principle of symmetry, conversion of physical quantities from one unitary system to another, limitations of dimensional equations, errors, mechanical errors, observational errors, random or scattered errors, repetitive errors, Least Count errors, calculation of errors, determination of accurate values of measured quantities, significant figures.
	P-02	Error calculation (proof, percentage, relative), mathematical problems related to errors, Some measuring instruments, Vernier scale, Slide calipers, Screw-gauge, Spherometer, Weighing machine, Mathematical problems
Chapter-4 Newtonian Mechanics	P-21	Basic concepts of force, Newtonian mechanics, Newton's first law of motion, inertia of motion and rest, definition and characteristics of force, different types of forces, fundamental forces, gravitational force, electromagnetic force, strong nuclear force, weak nuclear force, Force balance
	P-22	Momentum, Newton's second law of motion, equilibrium of forces. CQ & Admission Standard Problems
	P-23	Impulsive force and impulsive of force, Newton's third law of motion, system of forces, external and internal forces, types of forces, gravitational force, normal force, weight of an object, tension.
	P-24	Friction, angle of friction, limiting angle.
	P-25	Conservation of momentum, vector representation of conservation of momentum, collision, formulas for one-dimensional elastic collision.
	P-26	Center of mass, impulse and impact force, applicability and applications of Newton's laws, standing on the ground, walking, pulling a horse cart, towing a boat, space missions and rocket motion, interrelation of Newton's laws of motion.
	P-27	Uniform circular motion, centripetal force, centrifugal force, banking of curved roads for vehicles (bicycles, trains, motor vehicles).
	P-28	Rotational inertia: moment of inertia, radius of gyration, perpendicular axis theorem, parallel axis theorem.
	P-29	CQ & Admission Standard Problems to moment of inertia, torque, quantities for torque, vector representation of torque, torque and angular acceleration
	P-30	Angular momentum, equivalent methods for calculating angular momentum, angular momentum of a rotating object in circular motion, relationship between torque (τ) and angular momentum ($\vec{L}$), Newton's laws for rotational motion, applications of Newton's laws in rotational motion, mathematical problems.
Chapter-5 Work, Energy and Power	P-31	Work, positive, negative, and zero work, constant and variable force, work done by a constant force.
	P-32	Work done by a variable force, spring force, work done in rotational motion, displacement of the center of mass and mathematical problems.

Chemistry 1st Reference Book:		
Chapter	**Lecture**	**Lecture-based discussion**
Chapter-1 Safe Use of Laboratory	C-01	Safe use of Laboratory- Aprons, masks, safety glasses, gloves, lab rules/golden rules, Solvent measuring device and its uses- Chemical analysis, test tubes, beakers, burettes, pipettes, volumetric flasks, conical flasks, wash bottles, measuring cylinders, techniques for cleaning glassware, Concentration- Molarity, Molality, Dilution, Standard Substances (Primary & Secondary) + Math
	C-02	Titration- Method, Indicator, End Point & Equivalent Point, Formulation of Titration Equations + Math.
	C-03	Solute measuring instruments - chemical instruments, Paul-Bunge balances, method of weighing in balances, digital balances, Heating Techniques with Laboratory Apparatus- Bunsen Burner & Flame, Heating Techniques in Round Bottom Flasks, Conical flask heating technique, Water bath heating technique, Porcelain bowl heating technique, Test tube heating technique, Beaker heating technique. Storage, Use, Precautions and Disposal of Chemicals- Storage of Chemicals, Waste Management, Use and Precautions of Chemicals.
	C-04	Effects of Chemicals on Environment and Moderate Use - Environmental Pollution by Airborne Substances, Environmental Pollution by Laboratory Solid and Liquid Substances, Effects of chemicals on Environment and Health, moderate use of chemicals, analytical methods (macro, semi-micro, micro), laboratory safety equipment and rules of use - fume hood, blanket, laboratory kit, eyecup, sink, use of fire extinguisher, first aid box, first aid and Use of first aids.
Chapter-2 Qualitative Chemistry Introduction	C-17	Principle of Solubility Product, Application of the principle of Solubility Product Common ion and its effect to change solubility
	C-18	Application of common ion, effect of pH on solubility, Related Math.
	C-19	Qualitative Analysis (Ion identification)- Flame test, wet test (+ve and –ve ion identification), detecting presence of Carbon in organic compounds, detection of Hydrogen in organic compounds, Detection of N, S, X (F, Cl, Br, I) in organic compounds.
	C-20	Applications of Qualitative Chemistry (Physical Analysis)- crystallization, distillation and partial distillation, steam distillation, sublimation, low pressure distillation.
	C-21	Nernst's distribution formula, solvent extraction.
	C-22	chromatography, column chromatography, thin layer chromatography, paper chromatography, importance of qualitative analysis.
Chapter-3 Periodic	C-23	History, idea and significance of periodic table, Classification of elements based on e^- configuration, Block elements (s, p, d, f) characteristics.
	C-24	Chemical properties of block elements (Chemical properties of **s** block elements).
	C-25	Chemical properties of block elements, Chemical properties of p block elements, (Group-13, 14, 15).
	C-26	Chemical properties of block elements, Chemical properties of p block elements, (Group-16, 17, 18).
	C-27	Chemical properties of block elements (Chemical properties of d block elements, Chemical properties of **f** block elements).
	C-28	Transitional Element, properties of transitional element.

	C-29	Periodic properties- atomic size, Ionization energy, Acidity/Basicity of oxides.
Properties and Bonding in Elements	C-30	Electron affinity, Electronegativity, Melting point/Boiling point.
	C-31	Chemical Bonds- Ionic bond, Metallic bond, Covalent bond, Classification of covalent bond, lewis dot structure.
	C-32	Orbital overlapping. Hybridization, Classification of Hybrid orbitals.
	C-33	Determination of Hybridization state of central atom, Relation between Shapes of covalent compounds and hybrid orbitals, Effect of lone pair electrons on Molecular shapes.
	C-34	Ligand, Coordinate covalent bond.
	C-35	Effect of electronegativity on compounds with chemical bonds- Polarization or deformation of ion, Covalent properties in ionic compounds, Fajan's rule, Effect of polarization on salt.
	C-36	Weak chemical bonds- Vander Waals force, H bond, Importance of H bond, Naming of inorganic compounds.
Chapter-4 Chemical Changes	C-37	Chemical Reaction and Rate of Reaction- Green Chemistry, Reaction Direction:(Irreversible Reaction and Reversible reaction), Rate of reaction.

H.Math 1st Paper Reference Book:		
Chapter	**Lecture**	**Lecture-based discussion**
Chapter-1 Matrix & Determinant	HM-07	Exercise - 1.2; Problems related to proof of identity with determinants, proof without expansion.
	HM-08	Exercise - 1.2; Solving equations with determinants, Solving systems of equations - Cramer's rule, solving systems of equations - Inverse matrix method, Problems related to solving systems of equations, Special formula related to the magnitude of determinants.
Chapter-3 Straight Line	HM-24	Exercise – 3.7; Perpendicular distance of a given straight line from a given point, Position of a point with respect to a straight line
	HM-25	Exercise - 3.7; Bisection of a line segment joining two points, perpendicular distance between two parallel straight lines,
	HM-26	Exercise - 3.7; Equation of the bisector of an angle between two non-parallel straight lines, Determining the equation of the bisector of an angle under different conditions, image related
Chapter-6 Trigonometric Ratios	HM-41	Exercise – 6; Types of trigonometry, Quadrilateral, Two-dimensional angle, Measurement of two-dimensional angle, Radian angle is a constant angle, Relationship between degree and radian, Three-dimensional angle and its measurement, Problems related to mutual conversion of sexagesimal, circular and centigrade systems of angles, Determination of the length of arc of a circle, Determination of the area of a circle.
	HM-42	Exercise – 6; Angle between the hour and minute hands of a clock, Interior angle of a polygon, Similar triangle, Ratio of trigonometric angles, Fundamental theorem, Trigonometric ratio of axial angle, Relationship between ratios of trigonometric angles.
	HM-43	Exercise – 6; Problems related to mutual conversion of trigonometric ratios and determination of value, Problems related to proof, Problems related to trigonometric identities, Circular function and its domain-range.
	HM-44	Exercise – 6; Graphs of trigonometric functions, graph related problems, period of trigonometric functions, various changes in the graph of trigonometric functions, determination of fundamental period.
Chapter-7 Trigonometric Ratios of Associated and Compound Angles	HM-45	Exercise – 7.1; Trigonometric ratio of θ or positive acute angle: (–θ) or negative angle: (90° – θ), i.e. trigonometric ratio of angle θ: Co-function: Trigonometric ratio of angle (90° + θ), (180° – θ), (180° +θ), (270° - θ), (270° + θ), Trigonometric quantities
	HM-46	Exercise – 7.1; problems involving associated angles, Problems related to sum of squares of trigonometric ratios, Multiplication and problems of Tangent or Cotangent ratios, Determination of values and problems using various trigonometric formulas.
	HM-47	Exercise - 7.2; Trigonometric ratio of compound angles, A and B are positive acute angles where A > B, Problems related to trigonometric ratios.
	HM-48	Exercise – 7.2; A $\pm$ B related formulae and problems, problems related to trigonometric expansions, problems related to $\frac{\cos A \pm \sin A}{\cos A \mp \sin A}$ formula, problems related to A + B = constant, Finding the maximum/minimum value of a trigonometric expression.
	HM-49	Exercise – 7.3; Formulae and problems related to $\sin(A + B) \pm \sin (A - B)$ or $\cos(A + B) \pm \cos(A - B)$, Problems related to $TF_1C \pm TF_2D$, problems related to $\sin A + \cos A$.
	HM-50	Exercise – 7.4; Trigonometric ratios of multiple angles, formulae and problems for trigonometric ratios of 2A angles, series related (arithmetic and geometric series) and problems.
	HM-51	Exercise - 7.4; Problems related to periodic square roots, Trigonometric ratios of 3A angles and problems, Trigonometric ratios of specific angles.
	HM-52	Exercise – 7.5; Formulae and problems related to proof, Problems related to determining the values of various trigonometric ratios from the values of cos x + cos y and sinx + siny.
	HM-53	Exercise – 7.6; Problems related to tangent and cotangent, problems related to sine and cosine.
	HM-54	Exercise – 7.7; Sine law of a triangle, law of tangents, problems related to law of tangent.
	HM-55	Exercise – 7.7; Cosine law, related to cosine law of a triangle, perpendicular projection, perpendicular projection related.
	HM-56	Exercise – 7.7; progression related, trigonometric ratios of half angles of a triangle and formulae, Area of a triangle related, relationship between the in-radius and the circumradius: Area related, determining the nature of a triangle based on conditions, others.
Chapter-8 Functions and Graph of Functions	HM-57	Exercise – 8; Sets and their variations, applications, set mapping and Cartesian properties. finitary relations, functions and their identification, clear concept of functions with the help of mapping, domain, range and codomain, role of variables and constants in functions, functions and graphs of functions, Piecewise Function.
	HM-58	Exercise – 8; Problems related to determining the value of functions, One-one function and many-one function, Onto function, Bijective function.
	HM-59	Exercise – 8; Inverse function and inverse relation, discussion on inverse function, domain-range determination method

Biology 1st Paper **Reference Book:** मातालाल TEXT		
Chapter	**Lecture**	**Lecture-based discussion**

	B-09	Amitosis, Cell Cycle: Controllers of Cell Cycle, Interphase: G_1 Phase, S Phase, G_2 Phase.
Chapter-2	B-10	M-phase (Prophase, Prometaphase, Metaphase, Anaphase, Telophase) *Uncontrolled Mitosis,* Cell Death
Cell Division	B-11	Importance of Mitosis, Meiosis: Meiosis 1: Prophase-1, Metaphase-1, Anaphase-1, Telophase-1, Interkinesis-1
	B-12	Meiosis-2: Prophase-2, Metaphase-2, Anaphase-2, Telophase-2, Cytokinesis-2, Characteristics of Meiosis, Importance of Meiosis, Crossing Over.
Chapter-3	B-13	Carbohydrate: Characteristics of Carbohydrate, Types of Carbohydrate: Monosaccharide (Triose, Tetrose, Pentose), Disaccharide
	B-14	Monosaccharide (Hexose, Heptose), Disaccharide
Cell	B-15	Oligosaccharide, Polysaccharide, Functions of Carbohydrate
Chemistry	B-16	Amino Acid: Types of Amino Acid, Protein: Types of Protein
	B-17	Lipid: Structure of Lipid, Types of Lipids, Role of lipid in living body

Biology 2nd paper Reference Book: স্যাল্যাল TEXT		
Chapter	Lecture	Lecture-based discussion
Chapter-1	Z-05	Chordata: characteristics of various sub-phylum and classes of chordata, classification of vertebrates (cyclostomata)
Animal Diversity and Classification	Z-06	Classification of vertebrates (Gnathostomata)
Chapter-3	Z-15	Digestion: Types of digestion, Digestive system, Oral Cavity, Digestion of food in mouth, Dental formula, Pharynx, Esophagus
Human	Z-16	Stomach, Digestion of food in stomach, Small Intestine, Digestion of food in small intestine, Large intestine
Physiology: Digestion and	Z-17	Digestive glands: salivary glands, liver, pancreas, gastric glands, intestinal glands, Role of nervous system and hormones in digestion
Absorption	Z-18	Absorption of digested food: components of food and their absorption, fate of absorbed nutrientts, Obesity