

# HSC 1st Year Academic Program Prime Batch

## [Online/Combo]

### Class & Exam Routine [Part-04]

Date & Day	Live Class: 1	Live Class: 2	Live Exam	Online: From 8:00am to 11:55pm
	2:30 pm	6:30 pm		Offline: From 9:00am to 5:00pm
28 December 2025 (Sunday)	<b>C-56</b> Chemistry: Chapter-5	<b>HM-28</b> H.Math: Chapter-4	Daily Live Exam <b>P-35</b> MCQ (10×1=10); 10 min. Daily Live Exam <b>B-26</b> MCQ (10×1=10); 10 min.	
29 December 2025 (Monday)	<b>HM-73</b> H.Math: Chapter-9	<b>P-37</b> Physics: Chapter-6	Daily Live Exam <b>C-56</b> MCQ (10×1=10); 10 min. Daily Live Exam <b>HM-28</b> MCQ (10×1=10); 10 min.	
30 December 2025 (Tuesday)	<b>Z-12</b> Zoology: Chapter-2	<b>P-38</b> Physics: Chapter-6	Daily Live Exam <b>HM-73</b> MCQ (10×1=10); 10 min. Daily Live Exam <b>P-37</b> MCQ (10×1=10); 10 min.	
<b>31 December 2025 (Wednesday)</b>	<b>Online classes and exams will be closed on the occasion of the national general holiday.</b>			
01 January 2026 (Thursday)	<b>P-36</b> Physics: Chapter-5	<b>HM-74</b> H.Math: Chapter-9	Daily Live Exam <b>Z-12</b> MCQ (10×1=10); 10 min. Daily Live Exam <b>P-38</b> MCQ (10×1=10); 10 min.	
<b>02 January 2026 (Friday)</b> <b>Chapter Wise Exam-21</b>	<b>Biology Problem Solving Class-03</b> <b>H.Math 1st Paper Chapter-09 [Part-01 Lecture HM-63 to 70]; (CQ 2×10=20); Time: 50min &amp; (Pre-Admission MCQ 10×1=10); Time: 10min.</b>			
<b>03 January 2026 (Saturday)</b> <b>Chapter Wise Exam-22</b>	<b>Chemistry 1st Paper Chapter-04 [Part-02 Lecture C-45 to 52]; (CQ 2×10=20); Time: 50min &amp; (Pre-Admission MCQ 10×1=10); Time: 10min.</b>			
04 January 2026 (Sunday)	<b>B-27</b> Botany: Chapter-5	<b>HM-29</b> H.Math: Chapter-4	Daily Live Exam <b>P-61</b> MCQ (10×1=10); 10 min. Daily Live Exam <b>HM-74</b> MCQ (10×1=10); 10 min.	
05 January 2026 (Monday)	<b>HM-75</b> H.Math: Chapter-9	<b>P-39</b> Physics: Chapter-6	Daily Live Exam <b>B-27</b> MCQ (10×1=10); 10 min. Daily Live Exam <b>HM-39</b> MCQ (10×1=10); 10 min.	
06 January 2026 (Tuesday)	<b>Z-13</b> Zoology: Chapter-5	<b>P-40</b> Physics: Chapter-6	Daily Live Exam <b>HM-75</b> MCQ (10×1=10); 10 min. Daily Live Exam <b>P-39</b> MCQ (10×1=10); 10 min.	
07 January 2026 (Wednesday)	<b>HM-30</b> H.Math: Chapter-4	<b>P-61</b> Physics: Chapter-10	Daily Live Exam <b>Z-13</b> MCQ (10×1=10); 10 min. Daily Live Exam <b>P-40</b> MCQ (10×1=10); 10 min.	
08 January 2026 (Thursday)	<b>P-62</b> Physics: Chapter-10	<b>HM-76</b> H.Math: Chapter-9	Daily Live Exam <b>HM-30</b> MCQ (10×1=10); 10 min. Daily Live Exam <b>P-62</b> MCQ (10×1=10); 10 min.	
<b>10 January 2026 (Saturday)</b> <b>Chapter Wise Exam-23</b>	<b>Chemistry Problem Solving Class-04</b> <b>Chemistry 1st Paper Chapter-05 (CQ 2×10=20); Time: 50min &amp; (Pre-Admission MCQ 10×1=10); Time: 10min.</b>			
11 January 2026 (Sunday)	<b>Z-14</b> Zoology: Chapter-2	<b>HM-31</b> H.Math: Chapter-4	Daily Live Exam <b>P-63</b> MCQ (10×1=10); 10 min. Daily Live Exam <b>HM-76</b> MCQ (10×1=10); 10 min.	
12 January 2026 (Monday)	<b>HM-77</b> H.Math: Chapter-10	<b>P-63</b> Physics: Chapter-10	Daily Live Exam <b>Z-14</b> MCQ (10×1=10); 10 min. Daily Live Exam <b>HM-32</b> MCQ (10×1=10); 10 min.	
13 January 2026 (Tuesday)	<b>B-28</b> Botany: Chapter-2	<b>P-41</b> Physics: Chapter-6	Daily Live Exam <b>HM-77</b> MCQ (10×1=10); 10 min. Daily Live Exam <b>P-64</b> MCQ (10×1=10); 10 min.	
14 January 2026 (Wednesday)	<b>HM-32</b> H.Math: Chapter-4	<b>P-64</b> Physics: Chapter-10	Daily Live Exam <b>B-28</b> MCQ (10×1=10); 10 min. Daily Live Exam <b>P-41</b> MCQ (10×1=10); 10 min.	
15 January 2026 (Thursday)	<b>P-42</b> Physics: Chapter-6	<b>HM-78</b> H.Math: Chapter-10	Daily Live Exam <b>HM-32</b> MCQ (10×1=10); 10 min. Daily Live Exam <b>P-65</b> MCQ (10×1=10); 10 min.	
<b>16 January 2026 (Friday)</b> <b>Chapter Wise Exam-24</b>	<b>H.Math Problem Solving Class-04</b> <b>Physics 1st Paper Chapter-05 (CQ 2×10=20); Time: 50min &amp; (Pre-Admission MCQ 10×1=10); Time: 10min.</b>			
<b>17 January 2026 (Saturday)</b> <b>Chapter Wise Exam-25</b>	<b>H.Math 1st Paper Chapter-09 [Part-02 Lecture HM-71 to 76]; (CQ 2×10=20); Time: 50min &amp; (Pre-Admission MCQ 10×1=10); Time: 10min.</b>			
18 January 2026 (Sunday)	<b>B-19</b> Botany: Chapter-4	<b>HM-33</b> H.Math: Chapter-4	Daily Live Exam <b>P-42</b> MCQ (10×1=10); 10 min. Daily Live Exam <b>HM-78</b> MCQ (10×1=10); 10 min.	
19 January 2026 (Monday)	<b>HM-79</b> H.Math: Chapter-10	<b>P-65</b> Physics: Chapter-10	Daily Live Exam <b>B-19</b> MCQ (10×1=10); 10 min. Daily Live Exam <b>HM-34</b> MCQ (10×1=10); 10 min.	
20 January 2026 (Tuesday)	<b>B-20</b> Botany: Chapter-4	<b>P-43</b> Physics: Chapter-7	Daily Live Exam <b>HM-79</b> MCQ (10×1=10); 10 min. Daily Live Exam <b>P-43</b> MCQ (10×1=10); 10 min.	
21 January 2026 (Wednesday)	<b>HM-34</b> H.Math: Chapter-4	<b>P-66</b> Physics: Chapter-10	Daily Live Exam <b>B-20</b> MCQ (10×1=10); 10 min. Daily Live Exam <b>P-43</b> MCQ (10×1=10); 10 min.	
22 January 2026 (Thursday)	<b>P-44</b> Physics: Chapter-7	<b>HM-80</b> H.Math: Chapter-10	Daily Live Exam <b>HM-34</b> MCQ (10×1=10); 10 min. Daily Live Exam <b>P-66</b> MCQ (10×1=10); 10 min.	
<b>23 January 2026 (Friday)</b> <b>Chapter Wise Exam-26</b>	<b>Physics Problem Solving Class-04</b> <b>Botany Chapter-05 (CQ 2×10=20); Time: 50min &amp; (Pre-Admission MCQ 10×1=10); Time: 10min.</b>			
<b>24 January 2026 (Saturday)</b> <b>Chapter Wise Exam-27</b>	<b>Zoology Chapter-02 (CQ 2×10=20); Time: 50min &amp; (Pre-Admission MCQ 10×1=10); Time: 10min.</b>			
25 January 2026 (Sunday)	<b>B-21</b> Botany: Chapter-4	<b>HM-35</b> H.Math: Chapter-5	Daily Live Exam <b>P-44</b> MCQ (10×1=10); 10 min. Daily Live Exam <b>HM-80</b> MCQ (10×1=10); 10 min.	

26 January 2026 (Monday)	<b>HM-81</b> H.Math: Chapter-10	<b>P-45</b> Physics: Chapter-7	Daily Live Exam <b>B-21</b> MCQ (10×1=10); 10 min. Daily Live Exam <b>HM-36</b> MCQ (10×1=10); 10 min.
27 January 2026 (Tuesday)	<b>B-22</b> Botany: Chapter-4	<b>P-46</b> Physics: Chapter-7	Daily Live Exam <b>HM-81</b> MCQ (10×1=10); 10 min. Daily Live Exam <b>P-45</b> MCQ (10×1=10); 10 min.
28 January 2026 (Wednesday)	<b>HM-36</b> H.Math: Chapter-5	<b>P-49</b> Physics: Chapter-8	Daily Live Exam <b>B-22</b> MCQ (10×1=10); 10 min. Daily Live Exam <b>P-46</b> MCQ (10×1=10); 10 min.
29 January 2026 (Thursday)	<b>P-50</b> Physics: Chapter-8	<b>HM-82</b> H.Math: Chapter-10	Daily Live Exam <b>HM-36</b> MCQ (10×1=10); 10 min. Daily Live Exam <b>P-49</b> MCQ (10×1=10); 10 min.
<b>30 January 2026 (Friday)</b> <b>Chapter Wise Exam-28</b>	<b>Guideline Seminar-04</b> <b>Physics 1st Paper Chapter-6 (CQ 2×10=20); Time: 50min &amp; (Pre-Admission MCQ 10×1=10); Time: 10min.</b>		
<b>31 January 2026 (Saturday)</b> <b>Chapter Wise Exam-29</b>	<b>Biology Problem Solving Class-04</b> <b>H.Math 1st Paper Chapter-04 (CQ 2×10=20); Time: 50min &amp; (Pre-Admission MCQ 10×1=10); Time: 10min.</b>		
01 February 2026 (Sunday)	<b>B-23</b> Botany: Chapter-4	<b>HM-37</b> H.Math: Chapter-5	Daily Live Exam <b>P-50</b> MCQ (10×1=10); 10 min. Daily Live Exam <b>HM-82</b> MCQ (10×1=10); 10 min.
02 February 2026 (Monday)	<b>HM-83</b> H.Math: Chapter-10	<b>P-47</b> Physics: Chapter-7	Daily Live Exam <b>B-23</b> MCQ (10×1=10); 10 min. Daily Live Exam <b>HM-37</b> MCQ (10×1=10); 10 min.
03 February 2026 (Tuesday)	<b>B-24</b> Botany: Chapter-4	<b>P-48</b> Physics: Chapter-7	Daily Live Exam <b>HM-83</b> MCQ (10×1=10); 10 min. Daily Live Exam <b>P-47</b> MCQ (10×1=10); 10 min.
04 February 2026 (Wednesday)	<b>HM-38</b> H.Math: Chapter-5	<b>P-51</b> Physics: Chapter-8	Daily Live Exam <b>B-24</b> MCQ (10×1=10); 10 min. Daily Live Exam <b>P-48</b> MCQ (10×1=10); 10 min.
05 February 2026 (Thursday)	<b>P-52</b> Physics: Chapter-8	<b>HM-84</b> H.Math: Chapter-10	Daily Live Exam <b>HM-38</b> MCQ (10×1=10); 10 min. Daily Live Exam <b>P-51</b> MCQ (10×1=10); 10 min.
<b>06 February 2026 (Friday)</b> <b>Chapter Wise Exam-30</b>	<b>H.Math Problem Solving Class-05</b> <b>Physics 1st Paper Chapter-10 (CQ 2×10=20); Time: 50min &amp; (Pre-Admission MCQ 10×1=10); Time: 10min.</b>		
<b>07 February 2026 (Saturday)</b> <b>Chapter Wise Exam-31</b>	<b>H.Math 1st Paper Chapter-10 [Part-01 Lecture HM-77 to 82]; (CQ 2×10=20); Time: 50min &amp; (Pre-Admission MCQ 10×1=10); Time: 10min.</b>		
08 February 2026 (Sunday)	<b>P-55</b> Physics: Chapter-9	<b>HM-39</b> H.Math: Chapter-5	Daily Live Exam <b>P-52</b> MCQ (10×1=10); 10 min. Daily Live Exam <b>HM-84</b> MCQ (10×1=10); 10 min.
09 February 2026 (Monday)	<b>HM-85</b> H.Math: Chapter-10	<b>Z-19</b> Zoology: Chapter-4	Daily Live Exam <b>P-55</b> MCQ (10×1=10); 10 min. Daily Live Exam <b>HM-39</b> MCQ (10×1=10); 10 min.
<b>All classes and exams will be closed on the occasion of the National Assembly elections (February 10 to February 14).</b>			
15 February 2026 (Sunday)	<b>P-56</b> Physics: Chapter-9	<b>HM-40</b> H.Math: Chapter-5	Daily Live Exam <b>HM-85</b> MCQ (10×1=10); 10 min. Daily Live Exam <b>Z-19</b> MCQ (10×1=10); 10 min.
16 February 2026 (Monday)	<b>HM-86</b> H.Math: Chapter-10	<b>Z-20</b> Zoology: Chapter-4	Daily Live Exam <b>P-56</b> MCQ (10×1=10); 10 min. Daily Live Exam <b>HM-40</b> MCQ (10×1=10); 10 min.
17 February 2026 (Tuesday)	<b>P-57</b> Physics: Chapter-9	<b>Z-21</b> Zoology: Chapter-4	Daily Live Exam <b>HM-86</b> MCQ (10×1=10); 10 min. Daily Live Exam <b>Z-20</b> MCQ (10×1=10); 10 min.
<b>The next class and exam routine (Part-05) will be published...</b>			
<b>***The routine can change or be modified in case of special necessities***</b>			

#### Online Class and Exam Procedure:

- To participate in classes and exams, visit [udvash.com](http://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 উদ্ভাস-উন্মেষ](#)).

#### HSC 1st Year Academic Program Prime Batch (Class & Exam Syllabus-04)

পদার্থবিজ্ঞান ১ম পত্র Reference Book: <b>স্বাভাবিক TEXT</b>		
অধ্যায়	লেখক	লেখকের ভিত্তিক আলোচ্য বিষয়সমূহ
<b>Chapter-5</b> Work, Energy and Power	P-36	Power, efficiency, mathematical problems, and problems related to work done, wells and cisterns.
<b>Chapter-6</b> Gravitation and Gravity	P-37	Falling objects, Kepler's laws of planetary motion, gravitation, vector representation of gravitational force, inertial mass and gravitational mass, gravity and gravitational acceleration.
	P-38	Determination of g: relationship between gravitational constant and gravitational acceleration, variations in gravitational acceleration, changes in g due to the shape of the Earth, variation of g with altitude, variation of g with depth from the Earth's surface, variation of g due to Earth's rotation.
	P-39	Center of gravity, gravitational field, gravitational field intensity.
	P-40	Gravitational potential, relationship between gravitational field intensity and gravitational potential, gravitational potential energy

	P-41	Escape velocity, applications of the law of gravitation, application of the law of gravitation in hollow spheres, application of the law of gravitation in solid spheres.
	P-42	Relationship between Newton's law of gravitation and Kepler's laws, applications of the law of gravitation: satellite motion, quantities related to, geostationary satellites, polar satellites, applications of the law of gravitation: weightlessness in space, applications of the law of gravitation: exploration of natural resources and material research.
<b>Chapter-7</b> Structural Properties of Matter	P-43	Intermolecular forces, intermolecular forces in solids, intermolecular forces in liquids, intermolecular forces in gases, bonding, intermolecular forces and elasticity of materials, intermolecular attraction and repulsion forces, potential energy, analysis of graphs, analysis of potential energy graphs, summary of graphs, quantities related to elasticity.
	P-44	Elasticity-based classification of materials, deformation, stress, types of deformation, types of stress, Hooke's law, elastic constants and general mathematical problems, relationships among different elastic constants.
	P-45	CQ & Admission Standard mathematical problems related to elastic constants, elastic potential energy, Poisson's ratio.
	P-46	Laminar and turbulent flow, viscosity, friction and viscosity, effects of pressure and temperature on viscosity, terminal velocity and Reynolds number.
	P-47	Stokes' law, terminal velocity, surface tension, factors affecting surface tension of liquids.
	P-48	Surface energy, capillarity, and mathematical problems.
<b>Chapter-8</b> Periodic Motion	P-49	Periodic motion, spatial periodicity, temporal periodicity, characteristics of periodic motion, oscillatory motion, simple harmonic motion, ideal spring, spring constant, motion of a mass attached to an ideal spring, conditions for simple harmonic motion, differential equation of simple harmonic motion, parameters of simple harmonic motion.
	P-50	Relation between simple harmonic motion and circular motion, displacement in simple harmonic motion, solution of the differential equation of simple harmonic motion, relation between velocity and acceleration, mathematical problems.
	P-51	CQ & Admission Standard mathematical problems related to displacement, velocity, and acceleration in simple harmonic motion, graphs of simple harmonic motion.
	P-52	Energy associated with simple harmonic motion, potential energy stored in spring, energy variation with time, graph of energy vs. displacement.
<b>Chapter-9</b> Wave	P-55	Waves, mechanical waves, origin of different mechanical waves, transverse waves, longitudinal waves, electromagnetic waves, waves and energy, different wave parameters and equations, medium transition.
	P-56	Progressive waves, equation of progressive waves, phase difference and path difference in progressive waves.
<b>Chapter-10</b> Ideal gas and kinetics of gases	P-61	Gases, pressure of gases, volume of gases, temperature of gases, number of gases, gas laws, relationship between pressure and volume, relationship between volume and temperature, Boyle's law or pressure law.
	P-62	Ideal gases, properties of ideal gases, real gases, fundamental assumptions of the kinetic theory of gases.
	P-63	Kinetic molecular theory of gases, applications of kinetic theory, Different types of velocities of gas molecules, mean free path,
	P-64	Degrees of freedom, Monatomic gases, diatomic gases, polyatomic gases, linear polyatomic gases, nonlinear polyatomic gases, principle of equipartition of energy
	P-65	Water vapor and atmospheric pressure, gases and vapors, evaporation, condensation, saturated and unsaturated vapor pressure, relationship between vapor pressure and volume at constant temperature, relationships among different parameters of water vapor, dew point and relative humidity. Common mathematical problem
	P-66	Humidity measuring instruments and humidity determination, description of wet and dry bulb hygrometer, working principle of wet and dry bulb hygrometer, CQ & Admission Standard Mathematical Problems on Relative Humidity and Dew Point, some phenomena related to hygrometry.

**রসায়ন ১ম পত্র Reference Book: সান্টালাল TEXT**

অধ্যায়	লেখক	লেখক ডিভিশন আলোচ্য বিষয়সমূহ
<b>Chapter-5</b> Vocational Chemistry	C-56	Mixture- (Colloid, Colloid filtration, Suspension, Preparation of Butter from Milk), Toiletries & Perfumeries- Rose water preparations, hair oil preparations, telecom powder preparations, vanishing cream preparations, cold cream preparations, lipstick preparations, after shave preparations, henna extract), Cleaners and detergents- (glass cleaner, toilet cleaner).

**উচ্চতর গণিত ১ম পত্র Reference Book: সান্টালাল TEXT**

অধ্যায়	লেখক	লেখক ডিভিশন আলোচ্য বিষয়সমূহ
<b>Chapter-4</b> Circle	HM-28	Exercise - 4.1; Position of a point with respect to a circle.
	HM-29	Exercise - 4.1; Determining the equation of a circle from two points on the diameter, determining the point on the diameter of a circle, determining the equation of a circle if the center and any point on the circumference are given.
	HM-30	Exercise - 4.1; Equation of a circle passing through the intersection of a straight line/circle and another circle, Equation of a circle passing through three fixed points, Equation of a circle centered on a fixed straight line.
	HM-31	Exercise - 4.1; Regarding the circumference and the incircle, Exercise - 4.2; Equation of tangent and perpendicular to a circle at a fixed point.
	HM-32	Exercise - 4.2; Problems related to tangent drawn from a point outside the circle, Determining the length of a chord of a circle.
	HM-33	Exercise - 4.2; Mutual position of two circles, fundamental axis and common chord.
	HM-34	Exercise - 4.2; Determining the number of common tangents of two circles and their equations, Polar equation of a circle, Parametric equation of a circle.
<b>Chapter-5</b> Permutations and Combinations	HM-35	Exercise - 5.1; Addition and multiplication rules of counting, permutation, use of Factorial and $n!P_r$ formula.
	HM-36	Exercise - 5.1; permutation of objects that are not all different, total arrangement of all $n$ different letters (things), permutation of such cases where repetitions can occur, in such cases permutation, How many letters (or objects) can be put together or not, How many specific letters (or objects) can never be put together, the position of a letter (or object) is fixed.
	HM-37	Exercise - 5.1; Regarding rearrangement, certain letters (or objects) will not change the order Change in relative position of certain letters (or objects), permutation of certain letters from words with different letters, formation of numbers of certain digits, formation of odd numbers, formation of even numbers, numbers smaller and greater than a certain number.
	HM-38	Exercise - 5.1; Cycle permutation, Exercise - 5.2; Combination, difference between permutation and combination, complementary combination, problems related to the use of $n!C_r$ formula, selection related.

	HM-39	Exercise – 5.1; Conditional combination-including or excluding a certain number of objects, Exercise – 5.2; Word Formation through combination.
	HM-40	Exercise – 5.2; Formation of groups or committees, determination of generative number, formation of straight lines, triangles, polygons, diagonals and planes from points, Determination of intersection point, division into groups or groups, problems related to division into groups or groups, divisibility.
<b>Chapter-9</b> Differentiation	HM-73	Exercise – 9.6; Proof with periodic differentiation (residue), Exercise – 9.7; Physical applications.
	HM-74	Exercise – 9.7; Geometric applications.
	HM-75	Exercise – 9.8; Increasing, decreasing, maximum and minimum.
	HM-76	Exercise – 9.8; Mathematical problems of maximum and minimum.
<b>Chapter-10</b> Integration	HM-77	Exercise – 10.1; Basic concept of integration, some properties of integration, Use of the general integral formula
	HM-78	Exercise – 10.1; Integration by simplification, Exercise – 10.2; Substitution method, $\int f(x) \cdot f'(x)dx$ , $\int f(g(x)) \cdot g'(x)dx$ ,
	HM-79	Exercise – 10.2; Of shape $\int \sin Ax \cos Bx dx$ , $\int \sin Ax \sin Bx dx$ , $\int \cos Ax \cos Bx dx$ , $\int \sin^m x \cos^n x dx$ , $\int \frac{dx}{1 \pm \sin ax}$ , $\int \frac{dx}{1 \pm \cos ax}$ , $\int (ax + b)^n dx$ , $\int \sin^n x dx$ , $\int \cos^n x dx$ .
	HM-80	Exercise – 10.3; Ideal integral, of shape $\int \frac{f'(x)}{f(x)} dx = \ln f(x)  + c$ , $\int \frac{f'(x)}{\sqrt{f(x)}} = 2\sqrt{f(x)} + c$ .
	HM-81	Exercise – 10.3; Fractions and irrational shape of quadratic expressions, in case of $\int \frac{ax+b}{cx+d} dx$ , $\int \frac{ax+b}{\sqrt{cx+d}} dx$ , $\int \frac{ax+b}{(cx+d)^n} dx$ shape, $a^2 + x^2$ , $a^2 - x^2$ , $x^2 - a^2$ related, of shape $\int \frac{dx}{a \cos^2 x + b \sin^2 x + c}$ .
	HM-82	Exercise – 10.3; Of shape $\int \frac{a+x}{a-x} dx$ , $\int \frac{\sqrt{ax+b}}{\sqrt{cx+d}} dx$ , $\int \frac{a \cos x + b \sin x}{c \cos x + d \sin x} dx$ , $\int \frac{dx}{a+be^{mx}}$ , $\int \frac{dx}{a+be^{-mx}}$ and $\int \frac{dx}{ae^{mx}+be^{-mx}}$ , $\int \frac{e^{mx}+e^{nx}}{e^{px}+e^{qx}} dx$ where, $m - n = p - q$ , $\int \frac{dx}{g(x) \cdot \sqrt{\phi(x)}}$ ; where $g(x)$ and $\phi(x)$ are polynomial function.
	HM-83	Exercise – 10.4; Integration by parts, use of LIATE, (Determining integration by parts), $\int \sec^n x dx$ ;
	HM-84	Exercise – 10.4; $\int e^{ax} \{a f(x) + f'(x)\} dx$ , Exercise – 10.5; Integration using partial fractions, $\frac{x}{(x-1)(x-2)}$ , $\frac{x}{(x-1)^2(x-2)}$ , $\frac{x}{(x-1)(x^2+1)}$ , $\frac{x^2}{(x-1)(x-2)(x-3)}$ .
	HM-85	Exercise – 10.6; Concept of definite integral, properties of definite integral, Fundamental theorem of calculus, use of fundamental theorem of calculus, substitution method in case of definite integral, problems related to use of substitution method in case of definite integral.
	HM-86	Exercise – 10.6; Special properties of definite integral, area with net sign, definite integration of even and odd functions, integration of functions with absolute value, integration by graph shifting.

**উদ্ভিদবিজ্ঞান Reference Book: ম্যাতালাল TEXT**

লেকচার ডিভিক আলোচ্য বিষয়সমূহ

অধ্যায়	লেকচার	
<b>Chapter-5</b> Algae and fungi	B-27	Fungi (Characteristics, Physical structure, Cellular Structure), Reproduction of fungi (Vegetative reproduction, asexual reproduction, sexual reproduction), importance of Fungi (advantages and disadvantages)
	B-28	<i>Agaricus</i> (Habitat, Physical structure), Economic importance of <i>Agaricus</i> , Fungal diseases, Lichen (Habitat, Characteristics, Structure, Classification), Importance of Lichen.
<b>Chapter-4</b> Microorganisms	B-19	virus: contribution of scientists in the discovery of virus, structure of virus, classification of virus, parasitism of virus, emerging virus, subviral entities, $T_2$ bacteriophage, COVID-19 Corona virus
	B-20	Lifecycle of virus, importance of virus, viral diseases at a glance, description of some viral diseases
	B-21	Bacteria: Characteristics of bacteria: distribution and habitat of bacteria: types of bacteria, structure of an ideal bacterium
	B-22	Reproduction of bacteria, importance of bacteria, some bacterial diseases
	B-23	Malaria: Infection of malaria, Prevention and control of Malaria, Lifecycle of malarial parasite in human body
	B-24	Lifecycle of Malarial parasite in mosquito, Alternation of generation of malarial parasite

**প্রাণিবিজ্ঞান Reference Book: ম্যাতালাল TEXT**

লেকচার ডিভিক আলোচ্য বিষয়সমূহ

অধ্যায়	লেকচার	
<b>Chapter-2</b> Animal Identity	Z-12	Sensory organs of grasshopper, Compound eye of grasshopper, Mechanism of vision, process of reproduction, metamorphosis, role of hormone in metamorphosis
	Z-13	Rohu fish, External Structure, Scales, Blood Circulatory system of Rohu Fish, Blood, Heart, Blood Vessels (Arterial system of Rohu fish)
	Z-14	Venous system of grasshopper, Respiratory system, Structure of gills, mechanism of respiration, air bladder, Reproduction and lifecycle of Rohu fish
<b>Chapter-4</b> Human Physiology: Blood and Circulation	Z-19	Blood, Components of blood, Plasma, Blood Corpuscle, Red Blood Corpuscle
	Z-20	White Blood Corpuscle, Types of White Blood Corpuscle, Platelets
	Z-21	Mechanism of blood clotting, Lymph, Lymphatic System, Blood Vessel, Types of blood vessels



**উদ্ভাস**

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