## HSC 1st Year Academic Program Pioneer Batch [Online/Combo]

## Class & Exam Routine Part-04

|  | Live Class: 1  | 1 Live Class: 2                        |                   | Online: From 8:00am to 11:55pm   |
|--|--|--|-------------------|--|
| Date & Day   | 2:30 pm  | 6:30pm                                 | Live Exam         | Offline: From 9:00am to 5:00pm   |
| 13 November 2025 (Thursday)                        | <b>C-48</b> Chemistry: Chapter-04  | <b>P-62</b> Physics: Chapter-10        | Daily Live Ex     | kam <b>HM-61</b> MCQ (10×1=10); 10 min.  |
| 15 November 2025 (Thursday)                        | C-48 Chemistry, Chapter-04   | P-02 Physics. Chapter-10               | Daily Live Ex     | xam <b>Z-09</b> MCQ (10×1=10); 10 min.   |
| 14 November 2025 (Friday)<br>Chapter-wise Exam-23  | Physics Chapter-06 (CQ 2×10=20); Time: 50min & (Pre-Admission MCQ 10×1=10); Time: 10min. |  |                   |  |
| 16 November 2025 (Sunday)                          | C-49 Chemistry: Chapter-04   | <b>P-63</b> Physics: Chapter-10        | ,                 | kam <b>C-48</b> MCQ (10×1=10); 10 min.   |
|  | , '  | . Co :yo.co. copccc                    | <u> </u>          | xam <b>P-62</b> MCQ (10×1=10); 10 min.   |
| 17 November 2025 (Monday)                          | <b>Z-21</b> Zoology: Chapter-04  | HM-62 H.Math: Chapter-08               | ,                 | xam <b>C-49</b> MCQ (10×1=10); 10 min.   |
| 40 November 2025 (Turnday)                         | H.Math Problem Solving Class-0   | 4                                      | Daily Live Ex     | kam <b>P-63</b> MCQ (10×1=10); 10 min.   |
| 18 November 2025 (Tuesday)                         | H.Macii Problem 301Ving Class-0  | / <del>-</del>                         | Daily Live Ex     | xam <b>Z-21</b> MCQ (10×1=10); 10 min.   |
| 19 November 2025 (Wednesday)                       | <b>Z-10</b> Zoology: Chapter-02  | HM-63 H.Math: Chapter-08               | •                 | kam <b>HM-62</b> MCQ (10×1=10); 10 min.  |
|  |  |  |                   | kam <b>Z-10</b> MCQ (10×1=10); 10 min.   |
| 20 November 2025 (Thursday)                        | <b>C-50</b> Chemistry: Chapter-04  | P-64 Physics: Chapter-10               | ,                 | kam <b>HM-63</b> MCQ (10×1=10); 10 min.  |
| 21 November 2025 (Friday)                          |  |  |                   | •  |
| Chapter-wise Exam-24                               | H.Math Chapter-8 (CQ 2×10=20);   | Time: 50min & (Pre-Admission MCQ 1     | 0×1=10); Time: 10 | Omin.  |
| 22 Neverther 2025 (Constant)                       | C F4 Charristan Charles 04   | B CF Dhusias Chashas 10                | Daily Live Ex     | kam <b>C-50</b> MCQ (10×1=10); 10 min.   |
| 23 November 2025 (Sunday)                          | C-51 Chemistry: Chapter-04   | P-65 Physics: Chapter-10               | Daily Live Ex     | kam <b>P-64</b> MCQ (10×1=10); 10 min.   |
| 24 November 2025 (Monday)                          | <b>Z-22</b> Zoology: Chapter-04  | HM-64 H.Math: Chapter-08               | Daily Live Ex     | kam <b>C-51</b> MCQ (10×1=10); 10 min.   |
| 24 November 2023 (Monday)                          | <b>2-22</b> 20010gy. Chapter-04  | Hin-04 H.Math. Chapter-00              | Daily Live Ex     | kam <b>P-65</b> MCQ (10×1=10); 10 min.   |
| 25 November 2025 (Tuesday)                         | Biology Problem Solving Class-C  | 04                                     |                   |  |
| 26 November 2025 (Wednesday)                       | <b>Z-11</b> Zoology: Chapter-02  | HM-65 H.Math: Chapter-09               | Daily Live Ex     | xam <b>Z-22</b> MCQ (10×1=10); 10 min.   |
| 2011010111001 2020 (1100110000),                   | <b>2</b> 11 200.0 <b>3</b> ). 0.10pto. 02  | the commence of                        |                   | kam <b>HM-64</b> MCQ (10×1=10); 10 min.  |
| 27 November 2025 (Thursday)                        | <b>C-52</b> Chemistry: Chapter-04  | <b>P-66</b> Physics: Chapter-10        | •                 | kam <b>Z-11</b> MCQ (10×1=10); 10 min.   |
| , ,,   | , '  |  |                   | xam <b>HM-65</b> MCQ (10×1=10); 10 min.  |
| 30 November 2025 (Sunday)                          | <b>C-53</b> Chemistry: Chapter-05  | P-43 Physics: Chapter-07               | ,                 | xam <b>C-52</b> MCQ (10×1=10); 10 min.   |
|  |  | HM-66 H.Math: Chapter-09               |                   | kam <b>P-66</b> MCQ (10×1=10); 10 min.<br>kam <b>C-53</b> MCQ (10×1=10); 10 min. |
| 01 December 2025 (Monday)                          | <b>Z-23</b> Zoology: Chapter-04  |  | •                 | kam <b>P-43</b> MCQ (10×1=10); 10 min.   |
| 02 December 2025 (Tuesday)                         | Physics Problem Solving Class-05   |  |                   |  |
| Oz December 2025 (Tuesday)                         | Thysics Troolem solving closs (  | <br>                                   | Daily Live Ex     | vam <b>Z-23</b> MCQ (10×1=10); 10 min.   |
| 03 December 2025(Wednesday)                        | <b>Z-12</b> Zoology: Chapter-02  | HM-67 H.Math: Chapter-09               | •                 | kam <b>HM-66</b> MCQ (10×1=10); 10 min   |
|  |  |  | <u> </u>          | kam <b>Z-12</b> MCQ (10×1=10); 10 min.   |
| 04 December 2025 (Thursday)                        | C-54 Chemistry: Chapter-05   | P-44 Physics: Chapter-07               | ,                 | kam <b>HM-67</b> MCQ (10×1=10); 10 min.  |
| 05 December 2025 (Friday)                          | Chemistry 1st Paper Chapter-04   | [Part-02 Lecture C-45 to 52]; (CQ 2×10 | 0=20); Time: 50n  | nin & (Pre-Admission MCQ 10×1=10); Time:   |
| Chapter-wise Exam-25                               | 10min  |  |                   |  |
| 06 December 202 (Saturday)<br>Chapter-wise Exam-26 | Physics Chapter-10 (CQ 2×10=20   | ); Time: 50min & (Pre-Admission MCQ    | 10×1=10); Time:   | 10min.   |
|  |  |  | Daily Live Ex     | kam <b>C-54</b> MCQ (10×1=10); 10 min.   |
| 07 December 2025 (Sunday)                          | C-55 Chemistry: Chapter-05   | P-45 Physics: Chapter-07               | Daily Live Ex     | kam <b>P-44</b> MCQ (10×1=10); 10 min.   |
|  |  |  | Daily Live Ex     | kam <b>C-55</b> MCQ (10×1=10); 10 min.   |
| 08 December 2025 (Monday)                          | <b>Z-24</b> Zoology: Chapter-04 HM-68 H.Math: Chapter-09                                 |  | Daily Live Ex     | kam <b>P-45</b> MCQ (10×1=10); 10 min.   |
| 09 December 2025 (Tuesday) Guideline Seminar-05    |  |  |                   |  |
| 10 Docombos 2025 (Madasada: )                      | 7-13 Zoologu Chapter 03  | HM-60 H Mathy Chapter 00               | Daily Live Ex     | kam <b>Z-24</b> MCQ (10×1=10); 10 min.   |
| 10 December 2025 (Wednesday)                       | <b>Z-13</b> Zoology: Chapter-02  | 2 <b>HM-69</b> H.Math: Chapter-09      | Daily Live Ex     | kam <b>HM-68</b> MCQ (10×1=10); 10 min   |
| 11 December 2025 (Thursday)                        | <b>C-56</b> Chemistry: Chapter-05  | <b>P-46</b> Physics: Chapter-07        | ,                 | xam <b>Z-13</b> MCQ (10×1=10); 10 min.   |
| 300011101 2023 (11101 300y)                        | 2 30 Chemistry, Chapter-03   | . 40 mysics. enopter-07                | Daily Live Ex     | kam <b>HM-69</b> MCQ (10×1=10); 10 min.  |

| 44.0  | <b>C-01</b> Chemistry: Chapter-01   |  | Daily Live Exam <b>C-56</b> MCQ (10×1=10); 10 min.  |  |
|---|---|--|---|--|
| 14 December 2025 (Sunday)                                   |   | P-47 Physics: Chapter-07   | Daily Live Exam <b>P-46</b> MCQ (10×1=10); 10 min.  |  |
| 15 Danasch as 2025 (Manday)                                 | <b>7.35</b> 7.5   5.5   6.5 |  | Daily Live Exam <b>C-01</b> MCQ (10×1=10); 10 min.  |  |
| 15 December 2025 (Monday)                                   | <b>Z-25</b> Zoology: Chapter-04   | HM-70 H.Math: Chapter-09   | Daily Live Exam <b>P-47</b> MCQ (10×1=10); 10 min.  |  |
| Onl   | Online class and exam will be closed on December 16, (Tuesday) on the occasion of Victory Day.  |  |   |  |
| 47.0  |   | HM-71 H.Math: Chapter-09   | Daily Live Exam <b>Z-25</b> MCQ (10×1=10); 10 min.  |  |
| 17 December 2025 (Wednesday)                                | <b>Z-14</b> Zoology: Chapter-02   |  | Daily Live Exam <b>HM-70</b> MCQ (10×1=10); 10 min  |  |
| 10 December 2025 (Thursday)                                 | C 03 Chamistry Chapter 01   | <b>P-48</b> Physics: Chapter-07  | Daily Live Exam <b>Z-14</b> MCQ (10×1=10); 10 min.  |  |
| 18 December 2025 (Thursday)                                 | C-02 Chemistry: Chapter-01  | P-48 Physics: Chapter-07   | Daily Live Exam <b>HM-71</b> MCQ (10×1=10); 10 min. |  |
| 19 December 2025 (Friday)                                   | H.Math 1st Paper Chapter-09 [Pa   | art-01 Lecture HM-63 to 70]; (CQ 2×10=   | 20); Time: 50min &                                  |  |
| Chapter-wise Exam-27  | (Pre-Admission MCQ 10×1=10); T  | (Pre-Admission MCQ 10×1=10); Time: 10min.  |   |  |
| 20 December 2025 (Saturday)                                 | Chemistry Chapter-05 (CQ 2×10=20); Time: 50min & (Pre-Admission MCQ 10×1=10); Time: 10min.  |  |   |  |
| Chapter-wise Exam-28  | Chemistry chapter-05 (CQ 2×10-  | Chemistry Chapter-05 (CQ 2×10=20); Time: 50min & (Pre-Admission MCQ 10×1=10); Time: 10min. |   |  |
| 21 Danashar 2025 (Suaday)                                   | C 03 Chamistan Chastes 01   | D 40 Physics Chapter 00  | Daily Live Exam <b>C-02</b> MCQ (10×1=10); 10 min.  |  |
| 21 December 2025 (Sunday)                                   | C-03 Chemistry: Chapter-01  | C-03 Chemistry: Chapter-01 P-49 Physics: Chapter-08  | Daily Live Exam <b>P-48</b> MCQ (10×1=10); 10 min.  |  |
| 22 December 2025 (Mondow)                                   | Total and Sharks Od   | Daily Live Exam <b>C-03</b> MCQ (10×1=10); 10 min.   |   |  |
| 22 December 2025 (Monday)                                   | <b>Z-26</b> Zoology: Chapter-04 HM-72 H.Math: Chapter-09  |  | Daily Live Exam <b>P-49</b> MCQ (10×1=10); 10 min.  |  |
| 23 December 2025 (Tuesday)                                  | 23 December 2025 (Tuesday) H.Math Problem Solving Class-05  |  |   |  |
| 24 December 2025 (Medeceday)                                | B 20 Balance Charles OC   | IIM 72 IIMobby Chapter 00  | Daily Live Exam <b>Z-26</b> MCQ (10×1=10); 10 min.  |  |
| 24 December 2025 (Wednesday)                                | <b>B-29</b> Botany: Chapter-06  | HM-73 H.Math: Chapter-09   | Daily Live Exam <b>HM-72</b> MCQ (10×1=10); 10 min  |  |
| On  | line class and exam will be clo   | sed on December 25 (Thursday) o  | n the occasion of Christmas.                        |  |
| 26 December 2025 (Friday)                                   | Zaalaay Chashar 02 (CO 2v10-2)  | O). Time: Fomic 5 (Dec Admission MCO   | 110v1=10\v Time 10min                               |  |
| Chapter-wise Exam-29  | Zoology Chapter-02 (CQ 2×10=20); Time: 50min & (Pre-Admission MCQ 10×1=10); Time: 10min  pter-wise Exam-29  |  |   |  |
| 27 December 2025 (Saturday)                                 | 27 December 2025 (Saturday)   |  |   |  |
| Chapter-wise Exam-30  | Physics Chapter-07 (CQ 2×10=20); Time: 50min & (Pre-Admission MCQ 10×1=10); Time: 10min   |  |   |  |
|   |   |  | Daily Live Exam <b>B-29</b> MCQ (10×1=10); 10 min.  |  |
| 28 December 2025 (Thursday)                                 | C-04 Chemistry: Chapter-01  | P-50 Physics: Chapter-8  | Daily Live Exam <b>HM-73</b> MCQ (10×1=10); 10 min. |  |
| The next class and exam routine (Part-05) will be published |   |  |   |  |

- Online Class and Exam Procedure:
- To participate in classes and exams, visit <u>udvash.com</u> and click on the "<u>Join Now</u>" 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 5:0

## HSC 1st YeaAcademic Program Pioneer Batch (Class & Exam Syllabus-04)

 $*** \mbox{The routine can change or be modified in case of special necessities} ***$ 

| Physics 1 st Paper Reference Book: 비기리에에 T는XT |         |  |  |
|---|---------|--|--|
| Chapter                                       | Lecture | Lecture-based discussion   |  |
|   | 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,              |  |
| Chapter-10                                    | P-04    | principle of equipment of energy   |  |
| Ideal gas and                                 |         | Water vapor and atmospheric pressure, gases and vapors, evaporation, condensation, saturated and unsaturated vapor pressure,             |  |
| kinetics of                                   | P-65    | relationship between vapor pressure and volume at constant temperature, relationships among different parameters of water vapor,         |  |
| gases   |         | dew point and relative humidity. Common mathematical problem   |  |
|   |         | Humidity measuring instruments and humidity determination, description of wet and dry bulb hygrometer, working principle of wet          |  |
|   | P-66    | and dry bulb hygrometer, CQ & Admission Standard Mathematical Problems on Relative Humidity and Dew Point, some phenomena                |  |
|   |         | related to hygrometry.   |  |
| Chapter-7                                     |         | Intermolecular forces, intermolecular forces in solids, intermolecular forces in liquids, intermolecular forces in gases, bonding,       |  |
| Structural                                    | P-43    | intermolecular forces and elasticity of materials, intermolecular attraction and repulsion forces, potential energy, analysis of graphs, |  |
| Properties of                                 |         | analysis of potential energy graphs, summary of graphs, quantities related to elasticity.  |  |

| Matter    | 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   |
|           | P-46 | Reynolds number.   |
|           | P-47 | Stokes' law, terminal velocity, surface tension, factors affecting surface tension of liquids.   |
|           | P-48 | Surface energy, capillarity, and mathematical problems.  |
|           |      | Periodic motion, spatial periodicity, temporal periodicity, characteristics of periodic motion, oscillatory motion, simple harmonic      |
| Chapter-8 | P-49 | motion, ideal spring, spring constant, motion of a mass attached to an ideal spring, conditions for simple harmonic motion,              |
| Periodic  |      | differential equation of simple harmonic motion, parame <mark>te</mark> rs of simple harmonic motion.                                    |
| 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.                                   |

| Chemistry 1 st Paper Reference Book: 기리에에 T는XT |         |   |  |  |  |
|--|---------|---|--|--|--|
| Chapter  | Lecture | Lecture-based discussion  |  |  |  |
| Chaobas 4                                      | C-48    | Dissociation constant of acid-base, Degree o <mark>f dissociat</mark> ion, Acid-Base strength.  |  |  |  |
| Chapter-4 Chemical                             | C-49    | P <sub>H</sub> & P <sub>OH</sub>  |  |  |  |
| Changes  | C-50    | Buffer solution   |  |  |  |
| Changes  | C-51    | Thermochemistry- Law of conse <mark>rvation</mark> of ma <mark>ss and e</mark> nergy, Thermochemical equation, Heat of reaction.                                      |  |  |  |
|  | C-52    | Bond energy, Lavoisier and Hes <mark>s's law, de</mark> termini <mark>ng heat</mark> of reaction using Lavoisier and Hess's law.                                      |  |  |  |
|  | C-53    | Food Safety- (Chemistry in enhancing food production, Importance of various elements as fertilizers, Role of chemistry in food  |  |  |  |
|  | C-33    | preservation, Drying method o <mark>f foodstuff, Co</mark> oling meth <mark>od of f</mark> oodstuff).   |  |  |  |
| Chapter-5                                      | C-54    | Food Preservatives- (Natural Food Preservatives, Artificial Food Preservatives, Anti-Microbial Agents, Antioxidants, Vinegar).  |  |  |  |
| Vocational                                     | C-55    | Food Fractionation- (Stages of Fractionation Fruit Fractionation, Vegetable Fractionation, Fish Fractionation).   |  |  |  |
| Chemistry                                      |         | Mixture- (Colloid, Colloid filtration, Suspension, Preparation of Butter from Milk), Toiletries & Perfumeries- Rose water preparations,                               |  |  |  |
|  | C-56    | hair oil preparations, telecom powder preparations, vanishing cream preparations, cold cream preparations, lipstick preparations, after                               |  |  |  |
|  |         | shave preparations, hen <mark>na extract), Cle</mark> aners and detergents- (glass cleaner, toilet cleaner).  |  |  |  |
|  | 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, beake <mark>rs, burettes, pipettes</mark> , volum <mark>etric flas</mark> ks, conical flasks, wash bottles, measuring cylinders, techniques for |  |  |  |
|  |         | cleaning glassware, Concentration- Molarity, Molality, D <mark>ilution</mark> , Standard Substances (Primary & Secondary) + Math                                      |  |  |  |
|  | C-02    | Titration- Method, Indicator, End Point & Equivalent Point, Formulation of Titration Equations + Math.  |  |  |  |
| Chapter-1                                      |         | Solute measuring instruments - chemical instr <mark>um</mark> ents, Pa <mark>ul-</mark> Bunge balances, method of weighing in balances, digital balances, Heating     |  |  |  |
| Safe Use of                                    | C-03    | Techniques with Laboratory Apparatus-Bunsen Burner & Flame, Heating Techniques in Round Bottom Flasks, Conical flask heating  |  |  |  |
| Laboratory                                     |         | 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.   |  |  |  |

| H.Math 1 st Paper Reference Book: 부미리미터 T는XT |         |  |  |  |
|--|---------|--|--|--|
| Chapter                                      | Lecture | Lecture-based discussion   |  |  |
| Chapter-8 Functions and Graph of Functions   | HM-62   | Exercise – 8; Determining the Domain range related, adjoint functions.   |  |  |
|  | HM-63   | Exercise - 9.1; Basic concepts of limits, undefined, infinite, existence of limits,  |  |  |
|  | HM-64   | Exercise - 9.1; Limits, basic theorems of limits, Existence of limits and general limits, factor analysis related, related to multiplying denominator and numerator of $\lim_{x\to a} \frac{x^n-a^n}{x-a}$ by conjugate. |  |  |
| Chapter 0                                    | HM-65   | Exercise - 9.1; Limits at infinite points and infinite limits, some special limits; Infinite limits related. $\lim_{x\to 0} \frac{\sin x}{x}$ ; $\lim_{x\to 0} \frac{\tan x}{x}$   |  |  |
| Chapter-9 Differentiation                    | HM-66   | Exercise - 9.1; $\lim_{x\to 0} (1+x)^{\frac{1}{x}}$ ; $\lim_{x\to \infty} \left(1+\frac{1}{x}\right)^x$ related, Series related; Continuity of functions, Sandwich theorem.  |  |  |
|  | HM-67   | Exercise - 9.2; Differentiability of functions, Differentiation by first principle rule.   |  |  |
|  | HM-68   | Exercise - 92; General formulae of differentiation, Exercise - 93; Derivative of products of functions. Derivative of quotients of functions.  |  |  |
|  | HM-69   | Exercise - 9.4; Differentiation of conjugate functions., La Hospital's Rule (Admission Special).   |  |  |
|  | HM-70   | Exercise - 9.4; Concept of inverse trigonometric functions, Differentiation using logarithms related   |  |  |

|             | HM-71   | Exercise - 9.5; Derivative of undefined functions, Differentiation of parametric equations; Differentiation of functions with respect to               |
|-------------|---------|--|
|             |         | functions, Exercise.   |
|             | HM-72   | Exercise - 9.6; Periodic differentiation, nth derivative, Proof of periodic differentiation (trigonometry related).                                    |
|             | HM-73   | Exercise - 9.6; Proof with periodic differentiation (residue), Exercise - 9.7; Physical applications.  |
|             |         | Biology 2 nd Paper Reference Book: माातालाल T∉XT   |
| Chapter     | Lecture | Lecture-based discussion   |
|             | Z-10    | Digestive system of grasshopper (Alimentary Canal, Digestive Glands), Ingestion and Digestion of food  |
|             | Z-11    | Blood circulatory system of grasshopper, respiratory system, excretory system  |
| Chapter-2   | 7 12    | Sensory organs of grasshopper, Compound eye of grasshopper, Mechanism of vision, process of reproduction, metamorphosis, role of                       |
| Animal      | Z-12    | hormone in metamorphosis   |
| Identity    | Z-13    | Rohu fish, External Structure, Scales, Blood Circulatory sys <mark>tem</mark> 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                |
|             | Z-14    | of Rohu fish   |
|             | Z-21    | Mechanism of blood clotting, Lymph, Lymphatic S <mark>ystem, Blo</mark> od Vessel, Types of blood vessels  |
| Chapter-4   | 7 22    | Heart (Location, Shape and size, Covering, Wall), Structure of cardiac muscle, Chambers of the heart, Valves of the heart, Circulation of              |
| Human       | Z-22    | blood through the heart  |
| Physiology: | Z-23    | Heartbeat-Cardiac Cycle, Myogenic co <mark>nt</mark> rol of heartbeat and transmission of impulse  |
| Blood and   | Z-24    | Blood Pressure and baroreceptor, B <mark>lood</mark> Circu <mark>lation in h</mark> umans (Systemic, Pulmonary, Coronary, Portal)                      |
| Circulation | Z-25    | Cardiac Diseases, Chest Pain or An <mark>gina, H</mark> eart <mark>Attack, He</mark> art Failure   |
|             | Z-26    | Basic idea about treatment of ca <mark>rdiac di</mark> sease, <mark>artifical p</mark> acemaker, Open heart surgery, Coronary Bypass surgery           |

| Biology 1st Paper Reference Book: 피너리에에 T는XT |         |   |  |
|--|---------|---|--|
| Chapter                                      | Lecture | Lecture-based discussion  |  |
| Chapter-6                                    |         |   |  |
| Bryophyta                                    | B-29    | Bryophyta: Introduction to Bryophyta, Characteristics of Bryophyta, <i>Riccia</i> . Characteristics of <i>Riccia</i> , External Structure of <i>Riccia</i> , Internal |  |
| and  | D-29    | structure of <i>Riccia</i> . Repro <mark>ductio</mark> n and <mark>alternation of gen</mark> eration of <i>Riccia</i>   |  |
| Pteridophyta                                 |         |   |  |





