Part-01

UDVASH Academic and Admission care

Class 12 Academic Program-2023 (Online)

Science (English version)

* **Physics, Chemistry, H.Math and Biology**. These **4 Subjects** will be taught according to the **short syllabus** of **class Twelve**.
* **Live interactive Class** will be held **5 days (Sunday-Thursday)** a week through **Smartboard**.
* Total **Class - 80**, Total **Lectures - 160**, (**Double lecture classes will be held every day**).
* Total number of exams - **Daily Live Exam - 80, Daily Practice Exam -80, Chapter Wise Live Exam - 22.**
* **Multi-color pdf class notes** of each online class will be provided.
* **Video replay** of each online class will be stored on the **students' ID** till the board exam.
* Round the clock **Q & A** service will be provided by an **expert teacher** panel.
* Chapter wise **Parallel text** of each subject will be provided.
* Daily MCQ **Live & Practice Exam (Online)** on previous day's class.
* **Chapter-wise Live CQ & Pre-Admission MCQ Exam (Online+In branch)** at the end of each chapter (**Friday & Saturday**).
* Central Assessment of **Creative Answer** Papers.
* Analysis report of each exam and results on **Auto SMS.**
* **Course Fee 12,000/- (Tk. Twelve thousand only).**
* Admission can be possible by coming directly to the branch **or** through **online payment.**
* **HSC 2nd year short syllabus will be completed in 4 months.**
* **Website - www.udvash.com**
* **Helpline - 09666775566**

Online Live Class Schedule	English Version: 3.00pm (Sun to Thursday)	Online Live exam Schedule	From 09:00am to 11:55pm

Online Class & Exam Routine (Short-Syllabus)

15.09.23 (Friday) Orientation and Demonstration Class (Time and link to be informed in SMS)		
Date & Day	**Live Class**	**Live Exam**
17.09.23 (Sunday)	**Live Class (HM-07+08)** H.Math: Chapter - 04	Basic Introductory Exam **MCQ** (10×1=10); 10 min.
18.09.23 (Monday)	**Live Class (B-21+22)** Biology: Chapter - 08	Daily Live Exam (HM-07+08) **MCQ** (10×1=10); 10 min.
19.09.23 (Tuesday)	**Live Class (P-01+02)** Physics: Chapter - 01	Daily Live Exam (B-21+22) **MCQ** (10×1=10); 10 min.
20.09.23 (Wednessday)	**Live Class (C-01+02)** Chemistry: Chapter - 01	Daily Live Exam (P-01+02) **MCQ** (10×1=10); 10 min.
22.09.23 (Friday)	**Live Class (C-03+04) Chemistry: Chapter - 01**	**Daily Live Exam (C-01+02) MCQ (10×1=10); 10 min.**
24.09.23 (Sunday)	**Live Class (HM-09+10)** H.Math: Chapter - 04	Daily Live Exam (C-03+04) **MCQ** (10×1=10); 10 min.
25.09.23 (Monday)	**Live Class (B-23+24)** Biology: Chapter - 08	Daily Live Exam (HM-09+10) **MCQ** (10×1=10); 10 min.
26.09.23 (Tuesday)	**Live Class (C-05+06)** Chemistry: Chapter - 01	Daily Live Exam (B-23+24) **MCQ** (10×1=10); 10 min.
27.09.23 (Wednessday)	**Live Class (C-07+08)** Chemistry: Chapter - 01	Daily Live Exam (C-05+06) **MCQ** (10×1=10); 10 min.
28.09.23 (Thursday)	**Live Class (C-09+10)** Chemistry: Chapter - 01	Daily Live Exam (C-07+08) **MCQ** (10×1=10); 10 min.
29.09.23 (Friday)	**Live Class (P-03+04) Physics: Chapter - 01**	**Daily Live Exam (C-09+10) MCQ (10×1=10); 10 min.**
30.09.23 (Saturday)	**Chapter-wise Exam [Botany Chapter-08] (CQ 2×10=20); Time: 50min & (Pre-Admission MCQ 10×1=10); Time: 20min.**	
01.10.23 (Sunday)	**Live Class (HM-11+12)** H.Math: Chapter - 04	Daily Live Exam (P-03+04) **MCQ** (10×1=10); 10 min.
02.10.23 (Monday)	**Live Class (Z-27+28)** Zoology: Chapter - 07	Daily Live Exam (HM-11+12) **MCQ** (10×1=10); 10 min.
03.10.23 (Tuesday)	**Live Class (P-05+06)** Physics: Chapter - 01	Daily Live Exam (Z-27+28) **MCQ** (10×1=10); 10 min.
04.10.23 (Wednessday)	**Live Class (C-11+12)** Chemistry: Chapter - 02	Daily Live Exam (P-05+06) **MCQ** (10×1=10); 10 min.
05.10.23 (Thursday)	**Live Class (C-13+14)** Chemistry: Chapter - 02	Daily Live Exam (C-11+12) **MCQ** (10×1=10); 10 min.
06.10.23 (Friday)	**Chapter-wise Exam [Physics Chapter-01] (CQ 2×10=20); Time: 50min & (Pre-Admission MCQ 10×1=10); Time: 20min.**	
07.10.23 (Saturday)	**Chapter-wise Exam [Chemistry Chapter-01] (CQ 2×10=20); Time: 50min & (Pre-Admission MCQ 10×1=10); Time: 20min.**	
08.10.23 (Sunday)	**Live Class (HM-13+14)** H.Math: Chapter - 04	Daily Live Exam (C-13+14) **MCQ** (10×1=10); 10 min.
09.10.23 (Monday)	**Live Class (Z-29+30)** Zoology: Chapter - 07	Daily Live Exam (HM-13+14) **MCQ** (10×1=10); 10 min.
10.10.23 (Tuesday)	**Live Class (P-07+08)** Physics: Chapter - 02	Daily Live Exam (Z-29+30) **MCQ** (10×1=10); 10 min.
11.10.23 (Wednessday)	**Live Class (C-15+16)** Chemistry: Chapter - 02	Daily Live Exam (P-07+08) **MCQ** (10×1=10); 10 min.
12.10.23 (Thursday)	**Live Class (C-17+18)** Chemistry: Chapter - 02	Daily Live Exam (C-15+16) **MCQ** (10×1=10); 10 min.
13.10.23 (Friday)	**Chapter-wise Exam [H.Math Chapter-04] (CQ 2×10=20); Time: 50min & (Pre-Admission MCQ 10×1=10); Time: 20min.**	
15.10.23 (Sunday)	**Live Class (HM-01+02)** H.Math: Chapter - 03	Daily Live Exam (C-17+18) **MCQ** (10×1=10); 10 min.
16.10.23 (Monday)	**Live Class (Z-31+32)** Zoology: Chapter - 07	Daily Live Exam (HM-01+02) **MCQ** (10×1=10); 10 min.
17.10.23 (Tuesday)	**Live Class (P-09+10)** Physics: Chapter - 02	Daily Live Exam (Z-31+32) **MCQ** (10×1=10); 10 min.
18.10.23 (Wednessday)	**Live Class (C-19+20)** Chemistry: Chapter - 02	Daily Live Exam (P-09+10) **MCQ** (10×1=10); 10 min.
19.10.23 (Thursday)	**Live Class (C-21+22)** Chemistry: Chapter - 02	Daily Live Exam (C-19+20) **MCQ** (10×1=10); 10 min.
20.10.23 (Friday)	**Chapter-wise Exam [Zoology Chapter-07] (CQ 2×10=20); Time: 50min & (Pre-Admission MCQ 10×1=10); Time: 20min.**	
Online classes and exams will be closed from 21.10.23 (Saturday) to 24.10.23 (Tuesday) on the occasion of Sharadiya Durga Puja.		

25.10.23 (Wednessday)	**Live Class (C-23+24)** Chemistry: Chapter - 02	Daily Live Exam (C-21+22) **MCQ** (10×1=10); 10 min.
26.10.23 (Thursday)	**Live Class (C-25+26)** Chemistry: Chapter - 02	Daily Live Exam (C-23+24) **MCQ** (10×1=10); 10 min.
29.10.23 (Sunday)	**Live Class (HM-03+04)** H.Math: Chapter - 03	Daily Live Exam (C-25+26) **MCQ** (10×1=10); 10 min.
30.10.23 (Monday)	**Live Class (B-25+26)** Biology: Chapter - 09	Daily Live Exam (HM-03+04) **MCQ** (10×1=10); 10 min.
31.10.23 (Tuesday)	**Live Class (P-11+12)** Physics: Chapter - 02	Daily Live Exam (B-25+26) **MCQ** (10×1=10); 10 min.
01.11.23 (Wednessday)	**Live Class (C-27+28)** Chemistry: Chapter - 02	Daily Live Exam (P-11+12) **MCQ** (10×1=10); 10 min.
02.11.23 (Thursday)	**Live Class (C-29+30)** Chemistry: Chapter - 02	Daily Live Exam (C-27+28) **MCQ** (10×1=10); 10 min.
05.11.23 (Sunday)	**Live Class (HM-05+06)** H.Math: Chapter - 03	Daily Live Exam (C-29+30) **MCQ** (10×1=10); 10 min.
06.11.23 (Monday)	**Live Class (B-27+28)** Biology: Chapter - 09	Daily Live Exam (HM-05+06) **MCQ** (10×1=10); 10 min.
07.11.23 (Tuesday)	**Live Class (P-13+14)** Physics: Chapter - 02	Daily Live Exam (B-27+28) **MCQ** (10×1=10); 10 min.
08.11.23 (Wednessday)	**Live Class (C-31+32)** Chemistry: Chapter - 02	Daily Live Exam (P-13+14) **MCQ** (10×1=10); 10 min.
09.11.23 (Thursday)	**Live Class (C-33+34)** Chemistry: Chapter - 02	Daily Live Exam (C-31+32) **MCQ** (10×1=10); 10 min.
10.11.23 (Friday)	**Chapter-wise Exam [H.Math Chapter-03] (CQ 2×10=20); Time: 50min & (Pre-Admission MCQ 10×1=10); Time: 20min.**	
11.11.23 (Saturday)	**Chapter-wise Exam [Physics Chapter-02] (CQ 2×10=20); Time: 50min & (Pre-Admission MCQ 10×1=10); Time: 20min.**	
12.11.23 (Sunday)	**Live Class (HM-25+26)** H.Math: Chapter - 07	Daily Live Exam (C-33+34) **MCQ** (10×1=10); 10 min.
13.11.23 (Monday)	**Live Class (B-29+30)** Biology: Chapter - 09	Daily Live Exam (HM-25+26) **MCQ** (10×1=10); 10 min.
14.11.23 (Tuesday)	**Live Class (P-15+16)** Physics: Chapter - 03	Daily Live Exam (B-29+30) **MCQ** (10×1=10); 10 min.
15.11.23 (Wednessday)	**Live Class (HM-27+28)** H.Math: Chapter - 07	Daily Live Exam (P-15+16) **MCQ** (10×1=10); 10 min.
16.11.23 (Thursday)	**Live Class (P-17+18)** Physics: Chapter – 03	Daily Live Exam (HM-27+28) **MCQ** (10×1=10); 10 min.
18.11.23 (Saturday)	**Chapter-wise Exam [Chemistry Chapter-02] (CQ 2×10=20); Time: 50min & (Pre-Admission MCQ 10×1=10); Time: 20min.**	
19.11.23 (Sunday)	**Live Class (P-19+20)** Physics: Chapter - 03	Daily Live Exam (P-17+18) **MCQ** (10×1=10); 10 min.
20.11.23 (Monday)	**Live Class (B-31+32)** Biology: Chapter - 09	Daily Live Exam (P-19+20) **MCQ** (10×1=10); 10 min.
21.11.23 (Tuesday)	**Live Class (HM-29+30)** H.Math: Chapter - 07	Daily Live Exam (B-31+32) **MCQ** (10×1=10); 10 min.
22.11.23 (Wednessday)	**Live Class (HM-31+32)** H.Math: Chapter - 07	Daily Live Exam (HM-29+30) **MCQ** (10×1=10); 10 min.
23.11.23 (Thursday)	---	Daily Live Exam (HM-31+32) **MCQ** (10×1=10); 10 min.
24.11.23 (Friday)	**Chapter-wise Exam [Biology Chapter-09] (CQ 2×10=20); Time: 50min & (Pre-Admission MCQ 10×1=10); Time: 20min.**	
25.11.23 (Saturday)	**Chapter-wise Exam [Physics Chapter-03] (CQ 2×10=20); Time: 50min & (Pre-Admission MCQ 10×1=10); Time: 20min.**	
Next Class & Exam Routine (Part-02) will be published…		

Online Classes & Exam Procedure:

* Go to this website **udvash.com** and click on **'Join Now'** menu to give **Live Class & Exam**. **Login** to class **12th academic program** using your admitted registration number to participate in classes and exams.
* The **Daily Live Exam** will run from **09:00 am to 11:55 pm** as per the date mentioned in the routine. A student can participate in the **Live Exam** only once during this period. However, for more practice, students can participate in the **Practice Exam** of the same syllabus multiple times.

Class 12 Academic Program Short Syllabus-2023 (Online)

Physics 2nd Paper (Reference Book: UDVASH Parallel Text)		
Chapter	**Lecture**	**Syllabus**
Chapter-1 Thermodynamics	**P-01**	Principles of measurement of temperature, Thermal Equilibrium, Zero'th law of Thermodynamics, Measurement of Temperature, Method of two points, relation between various scales, Faulty thermometer, One point method.
	P-02	Thermal System, Thermal quantities, Thermal Processes, Heat, Work done and Internal Energy, First law of thermodynamics, Molar Heat capacity, Thermal function of static and path, Isobaric Process, Isochoric Process.
	P-03	Isothermal Process, Adiabatic Process, Concept of Second law of thermodynamics, Thermal Engine.
	P-04	Efficiency of thermal engines, Reversible and Irreversible process, Factors of Irreversible process, Carnot Cycle, Efficiency of Carnot engine.
	P-05	Refrigerator, Efficiency coefficient of refrigerator, Refrigeration cycle of Carnot, Mechanism of refrigerator.
	P-06	Entropy, Entropy in reversible and irreversible process, Change of entropy in various process, Entropy and disorder, Thermal death of the universe.
Chapter-2 Static Electricity	**P-07**	Concept of Charge, Nature of charge, Quantization of charge, Conservation of charge, Surface Charge density, Coulomb's Law, Vector format of Coulomb's Law, Limitations of Coulombs\'s Law.
	P-08	Electric Field on a point for point charge, Law of superposition of electricity intensity, Field line, Uniform electric field, Electric field intensity.
	P-09	Electric Potential, Equations of electric potential, Potential Difference, Relation of potential difference with intensity, Flow of charge.
	P-10	Electric potential and intensity of a charged conductor sphere, Plane density and electric intensity.
	P-11	Torque of a dipole in uniform electric field, Dipole moment, Work done by rotation of dipole, Potential energy of a dipole, Potential and intensity for a dipole.
	P-12	Insulator and dielectric, Capacitor and Capacitance, Spherical and Parallel plate capacitor, Connection of capacitors, energy stored in capacitor, energy stored in a capacitor.
	P-13	Gauss' Theorem, Electric flux, Electric flux in a closed surface, Gauss' law from Coulomb's law.
	P-14	Use of Gauss's theorem, Electric field for charged conductor sphere, Electric field for charged insulator sphere, Electric field for line of charges, Electric field for charged conductor plate, Electric field for charged conductor parallel plates.

Chapter-3 Current Electricity	**P-15**	Current flow, Direction of current flow, Drifting velocity of electron, Current density, Ohm's Law, Resistance, Conductivity, Effect of temperature on resistance, Conductivity coefficient, Electric cell, Electromotive force of a cell, Internal resistance of a cell.
	P-16	Electric Circuit, Resistance combination, Series combination, Parallel combination, Equivalent resistance, Work done by electricity and electric force, Joule's thermal law.
	P-17	Voltage divider law, Current divider law, Shunt, Relation between shunt current and galvanometer current, Use of shunt on ammeter, Increasing the range of ammeter, Use of Shunt on voltmeter, Increasing the range of voltmeter.
	P-18	kWh, Rating of Electrical Devices, Rating of Voltage, Rating of Watt, Security fuse, Voltage on various points of a circuit, Combination of cells, Series and parallel connection, Mixed connection.
	P-19	Kirchhoff's law: First law, second law, Wheatstone Bridge.
	P-20	Potentiometer, Meter Bridge.

Chemistry 2nd Paper (Reference Book: UDVASH Parallel Text)		
Chapter	**Lecture**	**Syllabus**
Chapter-1 Environmental Chemistry **(Partial)**	**C-01**	**Gas and Gas laws –** Gas, Components of atmosphere, Atmospheric temperature, Effect of pressure and density, Cyclone and tidal bore, Boyle's law, Charle's law, Avogadro's law, Gay-Lussac's law.
	C-02	**Combined Gas law-** Combined law, Ideal gas equation (PV = nRT), Explanation of R.
	C-03	**Diffusion, Effusion and Kinetic theory of Gas-** Dalton's law of partial pressure, Graham's law of diffusion.
	C-04	Diffusion, Effusion, Rate of diffusion and formula, Kinetic theory of gas, Postulates of kinetic theory, Calculation of kinetic energy.
	C-05	**Ideal Gas and Real Gas –** Real gas, Ideal gas, Deviation, Coefficient of compressibility, Amagat's curve, Vander Walls equation.
	C-06	Gas cylinderisation, **Effects of different gas on environment-** Reactions occurred during lightning, Fixation of $\mathbf{N_2}$ in soil.
	C-07	Greenhouse gas, Source of greenhouse gas, Effect of greenhouse gas, Introduction to **CFC** and its use, origination of $\mathbf{O_3}$ layer, Damage of $\mathbf{O_3}$ layer.
	C-08	**Concept related to acid base-** Acid base theory, Arrhenius concept, Bronsted-Lowry concept (Theory, conjugate), Luis theory, Acid rain, Cause of acid rain, Effect of acid rain, Prevention of acid rain.
	C-09	**Effect of Chemistry on Environment**- Source of surface water, Importance of surface water, Criteria of purity of **Surface water**, Hardness, **pH, DO, BOD, COD, TDS.**
	C-10	Water pollution, Reason and cause of water pollution, Natural pollutant, Arsenic pollutant, Effect of water pollution.
Chapter-2 Organic Chemistry **(Partial)**	**C-11**	**Introduction and Classification of Organic Chemistry-** Introduction to organic compounds, Hydrocarbon and organic compounds, Roll of carbon in hydrocarbon, Classification of organic compounds, Homologous series, Functional group.
	C-12	**Nomenclature of Organic Compounds-** (Tribal system, derived system).
	C-13	**Nomenclature of Organic Compounds-** (IUPAC system).
	C-14	**Isomerism-** Introduction, Classification.
	C-15	Structural isomerism, Types of structural isomerism (Chain isomerism, Position isomerism, Functional group isomerism, Metamerism, Tautomerism), Geometric isomerism (cis-trans isomerism, E-Z isomerism, Syn-Anti isomerism)
	C-16	Isomerism (Cyral carbon, Enantiomer, Diastereomer, Racemic mixture)
	C-17	**Technique of Organic Reaction-** Division of bond (uniform and ununiform), Electrophile, Nucleophile, Carbocation, Carbanion.
	C-18	Nucleophile substitution (S_N1 and S_N2), Electrophilic elimination (E1 and E2)
	C-19	**Aliphatic hydrocarbon-** Saturated hydrocarbon (Alkane and everything of alkane)
	C-20	Unsaturated hydrocarbon (Alkene and everything of alkene)
	C-21	Alkyl halide and everything about it.
	C-22	Everything about alcohol and ether.
	C-23	Aldehyde-Ketone and everything about them **(Part-01).**
	C-24	Aldehyde-Ketone and everything about them **(Part-02).**
	C-25	Carboxylic acid and everything about it.
	C-26	Amine and everything about it.
	C-27	**Aromatic Hydrocarbon – Benzene and Its Discussion -6** Source of benzene, Characteristics and speciality of benzene, Aromaticity and Huckle law.
	C-28	Preparation and technique of benzene reaction, Homologous of benzene.
	C-29	**Benzene derivative-** Aryal and everything of it, Phenol and everything of it.
	C-30	Toluene and everything of it, Aromatic Nitro compound and everything of it.
	C-31	Aneline and everything of it, Benzene Diazonium Chloride and everything of it.
	C-32	Aromatic aldehyde-ketone and everything of it.
	C-33	Benzoic acid and everything of it.
	C-34	**Polymer and Plasticity-** Introduction, Classification, Different polymer compounds, Organic polymer.

H.Math 2nd Paper (Reference Book: UDVASH Parallel Text)		
Chapter	**Lecture**	**Syllabus**
Chapter-03 Complex Numbers	**HM-01**	**Exercise - 3;** Concept & Significance of **i** Brief Discussion on the Exponents of **i**, Real Axis & Imaginary Axis, Introduction to Complex Numbers.
	HM-02	**Exercise - 3;** Geometric Representation of Complex Numbers in Argand's Diagram, Complex Numbers and Modulus And Argument of Complex Numbers, Polar Form of Complex Numbers.
	HM-03	**Exercise - 3;** Algebraic Calculations of Complex Numbers, Addition and Subtraction of Complex Numbers, Geometric Representation of Multiplication and Division of Complex Numbers, Square Roots and Quadratic Roots of Complex Numbers.
	HM-04	**Exercise - 3;** Cube Roots and Sixth Roots of Complex Numbers.
	HM-05	**Exercise - 3; De Moivre's Theorem,** Mathematical Significance of $\lvert z_1 - z_2 \rvert$.
	HM-06	**Exercise - 3;** Geometrical Applications of Complex Numbers, Conditional Proofs and Value Determination.
Chapter-04 Polynomial & Polynomial Equations	**HM-07**	**Exercise - 4;** Polynomial & Polynomial Equations, Zero Polynomials, Conditions for Polynomials Using Differentiation, Polynomial Equations and Roots of Equations, Identity and Equations, Some Theorems of Polynomials, Solution of Quadratic Equations by Factorization.
	HM-08	**Exercise - 4;** General Solutions of Quadratic Equations, Discriminant, Determining the Nature of Roots of a Quadratic Equation, Problems on Roots of Quadratic Equations & Nature of Roots, Determining the Nature of Roots of a Quadratic Equation Using Graphs.
	HM-09	**Exercise - 4;** Properties of Roots in Terms of Coefficients, Relation Between Roots & Coefficients of a Quadratic Equation.
	HM-10	**Exercise - 4;** Polynomial Equations with Real Coefficients, Polynomial Equations with Rational Coefficients, Formation of Equations from Roots.
	HM-11	**Exercise - 4;** Determining the x-intercept of a Polynomial Function, Maximum and Minimum Values of Quadratic Polynomial Functions, Finding Lines of Symmetry of Quadratic Functions, and Graphing Any Quadratic Function.

	HM-12	**Exercise - 4;** Graph and Domain-Range of $y = f(x) = ax^n + b[n$ Even & Odd], Common Roots, Relation Between Roots & Coefficients of a Cubic Equation.
	HM-13	**Exercise - 4;** Relation Between Roots & Coefficients of a Polynomial Equation & Formation of Quadratic Equations, Equations with Symmetric Roots.
	HM-14	**Exercise - 4;** Cubic Polynomial Functions and Their Types, Equations with Roots in Progression, Values of Symmetric Expressions of Roots.
Chapter-07 Inverse Trigonometric Functions & Trigonometric Equations	**HM-25**	**Exercise – 7.1;** Conditions for Existence of Inverse Trigonometric Functions & Graphs (Proofs of Formulae & Examples), Arc Functions.
	HM-26	**Exercise – 7.1;** Principal Value of the Inverse Trigonometric Relations, Domain-Range of the Inverse Trigonometric Functions, Some Important Relations.
	HM-27	**Exercise – 7.1;** Transformation of Inverse Trigonometric Functions, Formulae of Inverse Trigonometric Functions.
	HM-28	**Exercise – 7.1;** Problems on Determining the Values of Inverse Trigonometric Functions, Problems on Solutions & Proofs of Inverse Trigonometric Functions.
	HM-29	**Exercise – 7.2;** General Solutions of Trigonometric Equations, Solution of Trigonometric Equations in a Given Range, Quadratic Problems.
	HM-30	**Exercise – 7.2;** Extraneous Roots, Problems Related to $a\ sin\ \theta + b\ cos\ \theta = c$**.**
	HM-31	**Exercise – 7.2;** Solution Using the Formula of $(x + y)$, Problems Related to **secant/cosecant**.
	HM-32	**Exercise – 7.2;** Solution from the Sum of Trigonometric Equations, Solution from the Product of Trigonometric Equations.

Botany (Reference Book: UDVASH Parallel Text)		
Chapter	**Lecture**	**Syllabus**
Chapter-8 Tissue and Tissue system	**B-21**	Meristem, classification of meristematic tissue, Difference between meristematic tissue and permanent tissue.
	B-22	Epidermal tissue system, stomate, Hydathode.
	B-23	Ground tissue system, vascular tissue system.
	B-24	Structure of root and stem of monocot plants, structure of stem of dicot plants.
Chapter-9 Plant Physiology	**B-25**	Absorption of mineral salts, essential nutrients for plants, availability of mineral salts in soil, process of absorption of mineral salts by plants.
	B-26	Transpiration, Types of Transpiration, factors influencing Transpiration.
	B-27	Structure of stomata, explanation of necessary terms related to Transpiration, mechanism of opening and closing of stomata.
	B-28	Photosynthesis, photosynthetic organs and pigments, light absorption spectrum, photosystem, phases in photosynthesis, light dependent phase, cyclic and acyclic photophosphorylation.
	B-29	Light independent phase, Calvin Cycle, Hatch and Slack Cycle, Comparison between C_3 and C_4Plants, Comparison between Calvin cycle & Hatch and Slack Cycle, Characteristics and Importance of C_4 Plants.
	B-30	Source of oxygen released in photosynthesis process, factors affecting photosynthesis, limiting factor, rate of photosynthesis, importance of photosynthesis process in living world.
	B-31	Respiration, aerobic respiration, steps of aerobic respiration (glycolysis, oxidation of pyruvic acid, Krebs cycle, electron transport and oxidative phosphorylation).
	B-32	Anaerobic Respiration, use of anaerobic respiration in various industries, respiration rate/quotient, factors affecting respiration, importance of respiration.

Zoology (Reference Book: UDVASH Parallel Text)		
Chapter	**Lecture**	**Syllabus**
Chapter-7 Human Physiology: Locomotion and body movement	**Z-27**	Skeletal system (classification, function, elements, classification), bones of the mature human skeleton.
	Z-28	Axial skeleton.
	Z-29	Appendicular skeletor.
	Z-30	Bone, Haversian system, cartilage, types of cartilage.
	Z-31	Musclar tissue, types of muscle, muscles can pull but cannot pushed.
	Z-32	The 'rods and levers' system, bone and muscle coordination in the knee joint, fractures and first aid, joint injuries and first aid.

For any information regarding the online program contact the following numbers

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