HSC 2nd Year Academic Program
Progressive Batch [Online/Combo]

Archive classes Syllabus (English Version)

S. L	Subject	Chapter (Short Syllabus)	Lecture
1	Physics 2nd Paper	1, 2, 3, 7, 8, 9, 10	40
2	Chemistry 2nd Paper	1, 2, 3, 4	48
3	H.Math 2nd Paper	3, 4, 6, 7, 8, 9	52
4	Biology 1st Paper	8, 9, 11	16
5	Biology 2nd Paper	7, 11	12
		Total: 22	**Total: 168**

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
Chapter-7 Physical Optics	P-21	Primary concepts of light, Newton's particle theory, Electromagnetic wave, Pointing vector, Electromagnetic spectrum, Wave and wavefront, Huygen's wave theory
	P-22	Explanation of reflection and refraction with Huygen's theorem, Superposition of Wave, Coherent source.
	P-23	Interference, Young's double slit experiment, Central maximum, Position of light and dark points.
	P-24	Constructive interference, Destructive interference, Fringe distance, Fringe width.

	P-25	Diffraction, Fraunhofer diffraction, Grating diffraction.
	P-26	Polarization of light, Malus' Law, Intensity of light in polarization, Polarization in double refraction
Chapter-8 Introduction of Modern Physics (**Partial**)	P-27	Concept of modern physics, Intertial and non-inertial reference frame, Relation between various inertial reference frame, Michelson-Morley's experiment.
	P-28	Special theory of relativity, Galiliam transformation, Lorentz transformation.
	P-29	Time dialation, Length contraction, Relativity of mass, Relation of mass-energy, Momentum of light.
	P-30	Fundamental force, Travelling in space, Black-body radiation, Atomic mass unit.
	P-31	Photo-electric effect, Limitations of electromagnetci theory of light, Theory of Photon and photoelectric effect, Stopping potential
	P-32	X-ray, Producing X-ray, Properties and types of x-ray.
Chapter-9 Atomic Model & Nuclear Physics	P-33	Structure of Atom, Thomson's atomic model. Rutherford's alpha-particle experiment, Solar model, Bohr's atomic model, atomic radius and energy, Structure of nucleus, Quantities of nucleus.
	P-34	Radioactivity, Radioactive ray, Alpha, Beta and gamma radiation, Rules of radioactive transformation, Radioactive decay, Equation of decay, Transformation law, Half-life and average-life, Mass defect and binding energy, nuclear reaction, Fission, fusion and nuclear reactor.
Chapter-10 Semi-Conductor & Electronics	P-35	Energy band, Conductor, Semi-conductor and insulator with respect to band theory, Effect of temperature on semi-conductor, Pure and impure semi-conductor, P-type and n-type semi-conductor, p-n junction diode.
	P-36	Biasing in p-n junction, Forward and reverse bias, Ideal diode model, Model of constant voltage drop, use of diode as a rectifier.
	P-37	Structure of transistor, Basic combinations of transistors, Mechanism of p-n-p transistor.
	P-38	Properties of a transistor, Use of transistor as an amplifier, Use of transistor as a switch, Applying Kirchhoff's law in a transistor.
	P-39	Numeric system, Introduction to various numeric system, Transformation of various numeric system, Binary addition, subtraction, multiplication and division.
	P-40	Operations of Boolean algebra, Logic-gate, types of logic gates, Universal gate, Logic-circuit from Boolean equations.

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 N_2 in soil.
	C-07	Greenhouse gas, Source of greenhouse gas, Effect of greenhouse gas, Introduction to CFC and its use, origination of O_3 layer, Damage of 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.
Chapter-3 Stoichiometric Chemistry **(Partial)**	C-35	Chemical Calculation and Concentration- Chemical calculation, Mole and mole number + Math, Molar mass and volume + Math.
	C-36	Determination of molar volume of products from chemical equation + Math, Determination of mass and volume of gaseous components, Limiting reactant.
	C-37	Molar concentration and substance (Primary and secondary), Molarity, Molality, Normality, Percentage (%W/V, %W/w, %V/V), ppm, ppb, ppt, Dilution.
	C-38	Acid-base reaction- Introduction and neutralization reaction, Acid base titration + Math
	C-39	Indicator, Titration, Neutralization point, Titration graph.
	C-40	Oxidation number, Valency and latent valency, Oxidation-reduction (Basic concept), Compatibility, Incompatibility, Auto oxidation-reduction.
	C-41	Balancing of oxidation-reduction.
	C-42	Oxidation-reduction titration (Determination of amount of metal ion and impurity, iodimetry and iodometry)
Chapter-4 Electro-chemistry **(Partial)**	C-43	Electric conductivity and classification, Specific conductance, equivalent conductance and molar conductance of electrolyte.
	C-44	Reactivity series of metal, Electric cell, Classification and technique of electrolyte, Factors having effect on electrolyte.
	C-45	Faraday's law + Math.
	C-46	Electrode and Electrode potential – Elements of electrochemical cell, Oxidation-reduction half-cell reaction, Electrode and classification, Single and double chamber electrochemical cell + usage, Galvanic cell, Standard electrode potential, Salt bridge and its use.
	C-47	Electrode indicator, Math of standard electrode potential, Math of safe container.
	C-48	Electric cell, Cell potential and its effect- Nernst equation + Math, Relation of Gibbs free energy, pH Meter.

H.Math 2nd Paper (Reference Book: UDVASH Parallel Text)		
Chapter	**Lecture**	**Syllabus**
Chapter-3 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 $|z_1 - z_2|$.
	HM-06	Exercise - 3; Geometrical Applications of Complex Numbers, Conditional Proofs and Value Determination.
Chapter-4 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-6 Conics	HM-15	Exercise – 6.1; Introduction and Characteristics of Conics (Sections of Conics, Different Components of Conics, Eccentricity)
	HM-16	Exercise – 6.1; Parabola, Standard Equation of Parabola, Axis shifting, Focal Distance.
	HM-17	Exercise – 6.1; Parametric Equation of Parabola, Polar Equation of Parabola, Determining the Equation of a Parabola from the Definition of Conic, Tangent at the Vertex (Vertex and Epicenter Will Be Given).
	HM-18	Exercise – 6.1; Smallest Distance of Parabola from an External Point, Applying the Equation of Parabola to Real Life Problems.
	HM-19	Exercise – 6.2; Standard Equation of Ellipse, Graphing the Standard Equation of Ellipse and Chart of Various Elements of Standard Equation.
	HM-20	Exercise – 6.2; $SP + S'P = 2a$ (Length of Major Axis), Axis Shifting, Determining the Equation of an Ellipse from the Definition of Conic, Determining the Equation of an Ellipse from One of its Foci, Opposite Directrix & Eccentricity.
	HM-21	Exercise – 6.3; Hyperbola, Standard Equation of Hyperbola, Chart of Various Elements of Standard Equation.

	HM-22	Exercise – 6.3; Axis Shifting, Asymptote.
	HM-23	Exercise – 6.3; Rectangular Hyperbola, Parametric Coordinates of Hyperbola, Determining the Equation of a Hyperbola from the Definition of Conic
	HM-24	Exercise – 6.3; Explanation of a Pair of Straight Lines When e→∞, Discussion and Problems on Tangent of Conic, General Equation of Conic and hence Identification of Conic, Position of Point Relative to Conic.
Chapter-7 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.
Chapter-8 Statics	HM-33	Exercise – 8.1; Elementary Ideas of Mechanics, Principle of Transmissibility of Force, Action and Reaction of a Force, Different Kinds of Forces, Definition of Some Triangle Related Topics in Statics Problem Solving.
	HM-34	Exercise – 8.1; Resultant of Two Forces acting on a Particle, Addition of Forces, Determination of Magnitude and Direction of Resultant of Two Forces Acting at an Angle α to Each Other, Related to Unchanged Direction of Resultant.
	HM-35	Exercise – 8.1; Resultant of 3 or More Forces, Some Special Cases Related to Parallelogram Law, Polygon Formula of Addition of Forces, (m, n) Theorem.
	HM-36	Exercise – 8.1; Resolving a Force at a Certain Direction into Two Perpendicular Components. Projection Theorem, Application of Projection Theorem for Two or More Forces, Determining the Value & Direction of Two Forces Using Perpendicular Components.
	HM-37	Exercise – 8.2; Equilibrium of Coplanar Forces, Law of Triangle of Forces in Equilibrium, Inverse Formula of Law of Triangle of Forces in Equilibrium, Condition of Equilibrium of Coplanar Forces Acting at a point.
	HM-38	Exercise – 8.2; Lami's Theorem, Inverse of Lami's Theorem.
	HM-39	Exercise – 8.2; Problems Related to Lami's Theorem.
	HM-40	Exercise – 8.2; Problems on Inverse Formula of Law of Triangle of Forces in Equilibrium.
	HM-41	Exercise – 8.3; Resultant of Parallel Forces Acting on a Rigid Body, Determining the Magnitude, Direction and Point of Action of Two Similar Parallel Forces.
	HM-42	Exercise – 8.3; Determining the Magnitude, Direction and Point of Action of Two Unequal and unlike Parallel Forces, Mathematical Problems.
Chapter-9 Motion of Particles in a Plane	HM-43	Exercise – 9.1; Displacement, Velocity, Acceleration, Resultant of Velocity More than One, Determining the Value and Direction of the Resultant of Two Velocities Directed Towards the Same Point, Parallelogram Formula of Velocity, Triangle Formula of Velocity.
	HM-44	Exercise – 9.1; Problems on Minimum Distance Between Two Moving Particles, Problems on Crossing River.
	HM-45	Exercise – 9.2; Determining Relative Velocity, Problems on Determining Relative Velocity.
	HM-46	Exercise – 9.3; Uniform Acceleration, Unit of Acceleration, Equations of Motion for a Particle having Uniform Acceleration & Moving along a Straight Line, Distance Traversed in a Particular Second and Average Velocity.
	HM-47	Exercise – 9.3; Graph of the Path of Motion of a Particle, From the Graph Velocity and Acceleration of a Particle.
	HM-48	Exercise – 9.3; Determining Velocity from Distance-Time Graph (In case of Uniform Velocity), Determining Velocity, Acceleration and Covered Distance from Velocity-Time Graph.
	HM-49	Exercise – 9.4; Application of Formulae Relating to Acceleration in Case of Vertical Motion of a Particle, Motion of a Particle Projected in a Vertical Plane, Motion of a Freely Falling Body from h height.
	HM-50	Exercise – 9.4; Greatest Height, Time to reach at the Greatest Height, Time of Flight, Problems Related to Greatest Height, Velocity of Object Falling to the Ground, Proof of Equations of Motion for Freely Falling Bodies, Problems on Determination of Velocity and Displacement of Freely Falling Bodies.
	HM-51	Exercise – 9.5; Motion of a Particle Projected in a Vertical Plane, Projectile, Determining the Position and Velocity of a Particle at a Given Time, Determining the Position and Velocity of a Particle at a Given Height, Relation Between H & R, R & T, T & H.
	HM-52	Exercise – 9.5; Range, Greatest Height, Problems on Position and Velocity, Problems Related to Projectiles Thrown from Height, Problems Related to Two Trajectories.

Biology 1st Paper (Reference Book: UDVASH Parallel Text)		
Chapter	**Lecture**	**Syllabus**
Chapter- 8 Tissue and Tissue system	B-21	Meristem, classification of meristemic tissue, Difference between meristemic 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

	B-25	Absorption of mineral salts, essential nutrients for plants, availability of mineral salts in soil, process of absorption of mineral salts by plants.
Chapter- 9 Plant Physiology	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_4 Plants, 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.
Chapter- 11 Biotechnology	B-33	Tissue Culture, Methods of Plant Tissue Culture, Applications of Plant Tissue Culture
	B-34	Genetic Engineering, Steps in Genetic Engineering.
	B-35	Gene Cloning, Applications of Biotechnology: Applications of Recombinant DNA Technology.
	B-36	Genome Sequencing, Biosafety policies in Application of Biotechnology

Biology 2nd Paper (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.
Chapter-11 Genetics and Evolution	Z-33	Genetics, Mendelian inheritance, explanation of some terms used in genetics, Mendel's first law and second law.
	Z-34	Deviations to the first formula (incomplete dominance, codominance), lethal genes
	Z-35	Deviations to Mendel's second law (complementary genes), epistasis (dominant epistasis, duplicate recessive epistasis), polygenic inheritance.
	Z-36	Sex Determination principles, Sex Linked Disorders, Red-Green Color Blindness, Hemophilia, Muscular Dystrophy.
	Z-37	Problems caused by ABO blood group and Rh factor, evolution, Lamarckism
	Z-38	Darwinism or the theory of natural selection, neo-Darwinism, evidence in favor of evolution.