



MILITARY COLLEGE SUI

BALUCHISTAN

SYLLABUS - ENTRANCE EXAM XI CLASS



MILITARY COLLEGE SUI BALOCHISTAN

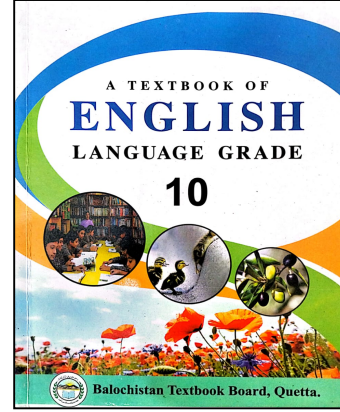
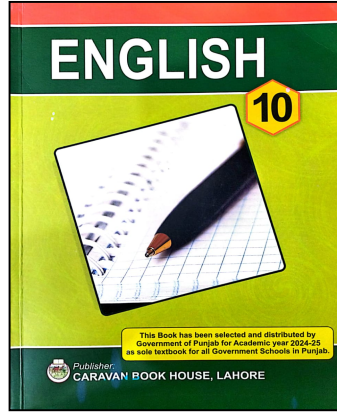
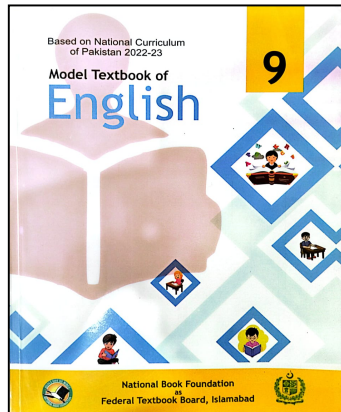
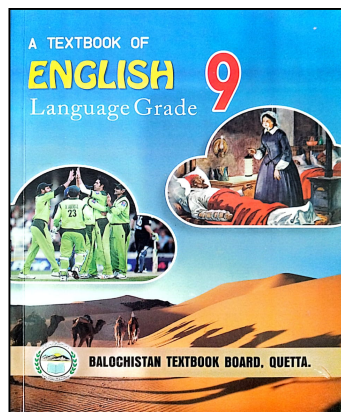
SYLLABUS - ENTRANCE EXAM XI YEAR CLASS

1. **English Syllabus.** Following contents comprise the syllabus:

Title of Chapter	Grammar
Hazrat Muhammad-Rasool-Ullah Khatam-Un-Nabiyeen	Essay Writing
A World Without Books	Direct and Indirect Narration
Science and Technology	Urdu to English Translation
Unity, Faith and Discipline	Tenses
Great Expectations	Active and Passive Voice
Daffodils	Correction of Verbs
Modern World and Age of Digital Globalization	Vocabulary
Patriotism	Sentence Making
Peace	Application Writing
Try Again	

2. **Recommended Books**

- a. English 9-10 (Balochistan Textbook Board, Quetta)
- b. English 9-10 (Caravan Book House, Lahore)
- c. English 9-10 (National Book Foundation as Federal Textbook Board, Islamabad)

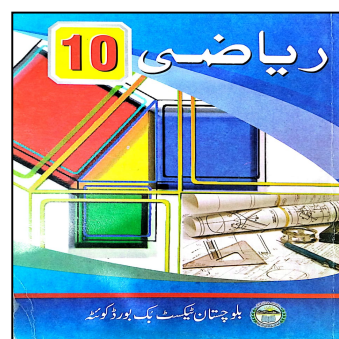
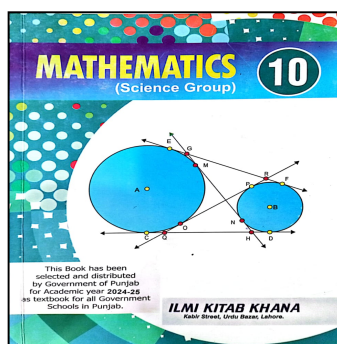
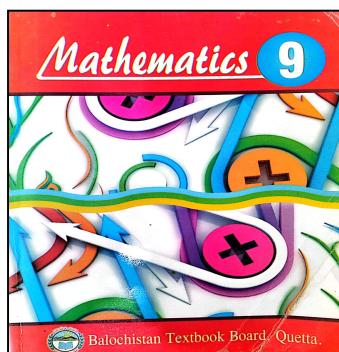


3. **Mathematics Syllabus.** Following contents comprise the syllabus:

IX CLASS	
Chapter Number	Title of Chapter
1	Quadratic Equations
2	Theory of Quadratic Equations
3	Variations
5	Sets and Functions
6	Basic Statistics
7	Introduction to Trigonometry
8	Projection of a Side of a Triangle
9	Chords of a Circle
10	Tangent to a Circle
X CLASS	
Chapter Number	Title of Chapter
1	Matrices and Determinants
5	Factorization
10	Congruents Triangles

4. **Recommended Books**

- Math 9-10 (Balochistan Textbook Board, Quetta)
- Math 9-10 (Punjab Textbook Board, Lahore)



5. Physics Syllabus:Following contents comprise the syllabus:-

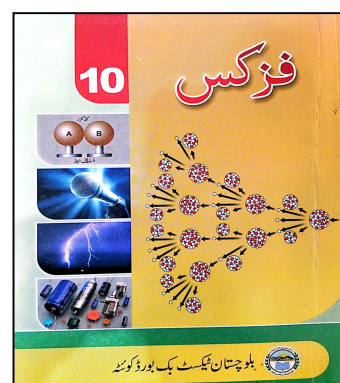
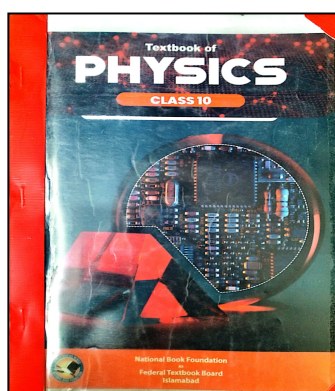
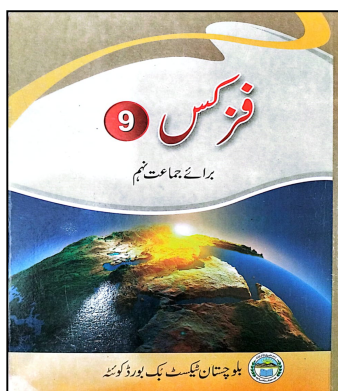
IX Class	
Chapter Name	Topics
Kinematics	Rest & Motion
	Types of Motion
	Scalars & Vectors
	Vector Addition
	Velocity, Speed, Acceleration
	Equations of Motion
Dynamics	Force, Inertia & Momentum
	Newton's Laws of Motion
	Circular Motion,Centripetal& Centrifugal Force
	Friction & its types
Turning Effect of Forces	Torque
	Center of Gravity &Moment Arm
	Conditions of Equilibrium
Gravitation	Newton's Law of Gravitation
Work & Energy	Energy, Potential & Kinetic Energy
	Interconversion of Energy
	Forms of Energy
	Efficiency, Power
Properties of Matter	Types of Matter
	Stress, Strain, Hook's Law
Thermal Properties of Matter	Temperature & Heat
	Thermometer and its scales
Transfer of Heat	Conduction, Convection & Radiation
	Conductivity, Conductors & Insulators

X CLASS	
Chapter Name	Topics
Simple Harmonic Motion	Simple Harmonic Motion(Mass attached to Spring)
	Motion of Simple Pendulum
	Wave Motion, Mechanical and Electromagnetic Wave
	Types of Mechanical Waves
Sound	Characteristics of Sound
	Speed of Sound
	Audible Frequency Range
	Ultrasound and its applications
	Acoustics
Geometrical Optics	Reflection & Refraction of Light
	Laws of Reflection

	Spherical Mirror Formula
	Total Internal Reflection
	Use of Optical Fiber
	Types of Lenses
	Lens Equation
Electrostatics	Electrostatic Induction
	Electroscope
	Coulomb's Law
	Electric Field, Electric Field Intensity
	Electrostatic Potential
	Capacitor & Capacitance
	Series and Parallel Combination of Capacitors
Current Electricity	Electric Current and Conventional Current
	Potential Difference & Electromotive Force
	Ohm's Law
	Resistance, Combination of Resistances
	Alternating and Direct Current
Electromagnetism	Magnetic Field of Current Carrying Coil
	Fleming's Left Hand Rule
	DC Motor & AC Generator
	Mutual Induction
	Transformer
Introductory Electronics	Thermionic Emission
	Electron Gun
	Cathode Rays Oscilloscope
	Digital and Analog Signals
	Logic Gates and its types
Information & Computer Technology	Computer Hardware and Software Devices
	RAM & ROM
Radioactivity	Natural Radioactivity
	Alpha, Beta and Gamma Rays and Decay
	Half Life
	Nuclear Transmutation
	Radio Isotopes and its uses
	Nuclear Fission and Chain Reaction
	Nuclear Fusion

6. Recommended Books

- Phy 9-10 (Balochistan Textbook Board, Quetta)
- Phy 9-10 (Federal Board Islamabad)



7. **Chemistry Syllabus**:Following contents comprise the syllabus:-

IX CLASS	
Chapter Name	Topics
Structure of Atom	Rutherford's Atomic Model
	Bohr's Atomic Theory
	Isotopes
	Electronic Configuration
Solutions	Common Types of Solutions
	Concentration Units
	Solubility
	Comparison of Solution, Suspension and Colloids
Electrochemistry	Oxidation and Reduction
	Oxidation States and Rules for Assigning Oxidation States
	Oxidizing and Reducing Agents
	Electrochemical Cells
	Corrosion and its Prevention
X CLASS	
Chapter Name	Topics
Chemical Equilibrium	Law of Mass Action
	Equilibrium Constant and its Units
	Importance of Equilibrium Constant
Acids, Bases and Salts	Arrhenius Concept of Acids and Bases
	Bronsted-Lowery Concept of Acids and Bases
	Lewis Concept of Acids and Bases
	pH Scale
	Uses of Acids and Bases
Organic Chemistry	General Characteristics of Organic Compounds
	Names of Alkanes
	Sources of Organic Compounds
	Uses of Organic Compounds
	Classification of Organic Compounds
	Functional Groups
Hydrocarbons	Preparation and Properties of Alkanes
	Preparation and Properties of Alkenes
	Preparation and Properties of Alkynes

Biochemistry	Carbohydrates
	Proteins
	Lipids
	Nucleic Acids
	Vitamins
Environmental Chemistry	Layers of Atmosphere
	Global Warming
	Acid Rain and its Effects
	Ozone Depletion and its Effects
	Properties of Water
	Soft and Hard Water
	Water Borne Diseases
Chemical Industries	Solvay Process
	Urea
	Petroleum Industry

8. **Recommended Books for Chemistry.** The question paper will be syllabus oriented, however, following books are recommended for reference and supplementary reading:-

- Textbook of Chemistry (Grade 10) by National Book Foundation as Federal Textbook Board Islamabad
- Chemistry (for Class 10) by Balochistan Text Book Board Quetta
- Textbook of Chemistry (Grade 9) by National Book Foundation as Federal Textbook Board Islamabad
- Chemistry (for Class 9) by Balochistan Text Book Board Quetta

