

CHEMISTRY — CLASS 9

Paper Pairing Scheme & Exam Strategy 2026

AJK (Mirpur) Board | Federal Board (FBISE) | Total Marks: 60

PAPER PATTERN — TOTAL MARKS: 60

Section	Type	Total Qs	Attempt	Marks Each	Total Marks
Section A	MCQs (Objective)	12	12 (All)	1	12
Section B	Short Questions	20	10	3	30
Section C	Long Questions	6	3	6	18
				Grand Total	60

FORMATIVE CHAPTERS — THEORY EXAM SCOPE

Board	Theory Chapters	Formative / PBA (Skip for Theory Exam)
AJK (Mirpur)	Chapters 1–16 (full theory exam scope)	Chapters 17 onwards — PBA/Practical only
Federal (FBISE)	Chapters 1–15 (ending with Biochemistry)	Chapters 16 onwards — not required for theory

CHAPTER-WISE SLO DISTRIBUTION (Short · Long · Objective)

■ **AJK (Mirpur) Board**

■ **Federal Board (FBISE)**

■ **Both Boards**

Ch#	Chapter Title	Short Qs (AJK)	Short Qs (Federal)	Long Q?	MCQs	Key Focus
Ch 1	Introduction to Chemistry	1	1	—	1	Basic definitions, lab safety, scientific method
Ch 2	Matter	1	1	YES — Pair 3	1	Solubility, Diamond, Graphite, Buckyballs (HIGH)
Ch 3	Atomic Structure	2	2	—	2	Isotopes (Short Qs focus); 2 MCQs — highest MCQ chapter
Ch 4	Chemical Bonding	AJK: 0 (Long only)	1	YES — Pair 1	1	AJK: Long Q only (no Short Q) Federal: 1 Short + Long Q
Ch 5	Stoichiometry	1	1	—	1	Numerical problems — primary source for numericals

Ch 6	Solutions	1	1	—	1	Types of solutions, concentration, solubility
Ch 7	Physical States of Matter	2	2	—	1	Kinetic theory, gas laws, properties of states
Ch 8	Properties of Gases	2	2	—	—	2 Short Qs — gas laws, Boyle's, Charles's laws
Ch 9	Periodicity I	1	1	YES — Pair 2	—	Periodic trends — Long Q; 1 Short Q
Ch 10	Periodicity II	1	1	YES — Pair 1	1	AJK: Ch 10 = Federal Ch 3 roughly; periodic table groups
Ch 11	Thermodynamics	2	2	—	—	Exo/endothermic reactions, enthalpy, Hess's law
Ch 12	Air	0–2	0–2	—	2	2 MCQs — highest with Ch 3; variable Short Q count
Ch 13	Water	0–2	0–2	—	—	Variable with Ch 12; water purification, hardness
Ch 14	Organic Chemistry	2	2	—	—	2 Short Qs — functional groups, IUPAC naming
Ch 15	Hydrocarbons	1	1	YES — Pair 2	1	Long Q — alkane/alkene/alkyne reactions + 1 Short Q
Ch 16	Bio-Chemistry (AJK only)	1	<i>Formative for Fed.</i>	YES — Pair 3	—	AJK: Long Q + 1 Short Q Federal: Not in theory exam
Total		~20	~20	6 opts	12	

Blue = must-prepare (Long + Short Qs). Yellow = medium priority. Green = AJK-only chapter. Note: Ch 16 is NOT in the Federal theory exam.

LONG QUESTION PAIRINGS (Section C — Attempt 3 of 6)

■ AJK (Mirpur) Board

■ Federal Board (FBISE)

■ Both Boards

Pair	Chapters	Topics to Prepare	Board Note
Pair 1	Ch 4 + Ch 10	Ch 4 (Chemical Bonding): • Ionic, covalent, metallic bonding — formation & properties • Lewis structures, bond polarity Ch 10 (Periodicity II): • Periodic table group properties • Reactivity trends, electron configuration	AJK: Ch 4 has NO Short Q — Long Q only Federal: Ch 10 ≈ AJK Ch 3 in sequence

Pair 2	Ch 9 + Ch 15	Ch 9 (Periodicity I): • Periodic trends: atomic radius, ionisation energy, electronegativity • Group 1 & Group 7 properties Ch 15 (Hydrocarbons): • Alkanes, Alkenes, Alkynes — naming, structures, properties • Addition reactions, combustion, substitution	Both boards — same pairing
Pair 3	Ch 2 + Ch 16	Ch 2 (Matter): • Allotropes of Carbon: Diamond, Graphite, Buckyballs (HIGH priority) • Solubility — factors and rules Ch 16 (Bio-Chemistry) — AJK only: • Carbohydrates, Proteins, Lipids • DNA/RNA basics, enzyme function	AJK: Both Ch 2 + Ch 16 in theory Federal: Ch 16 NOT in theory exam

MCQ STRATEGY (Section A — 12 Marks)

MCQ Count	Chapters	Action
2 MCQs each	Ch 3 (Atomic Structure), Ch 12 (Air)	Highest MCQ chapters — revise all textbook exercises for both
1 MCQ each	Ch 1, 2, 4, 5, 6, 7, 10, 15	Work through chapter-end exercise questions; definitions and formulas tested
0 MCQs likely	Ch 8, 9, 13, 14, 16	Focus effort on higher-MCQ chapters; these carry minimal objective weight
Key Tip	Self-Assessment Exercises	3–4 short questions come directly from textbook self-assessments — always solve these before moving to the next chapter

CHAPTER-SPECIFIC PREPARATION TIPS

Chapter	Specific Focus Topics	Type
Ch 2 — Matter	Diamond structure and properties; Graphite structure and uses; Buckyballs (C ₆₀) — discovery and significance; Solubility rules and factors	Long Q + Short Q
Ch 3 — Atomic Structure	Isotopes — definition, examples (C-12, C-14, U-235/238), uses; Electronic configuration (shells); Atomic number vs mass number	Short Qs + 2 MCQs
Ch 4 — Chemical Bonding (AJK: Long Q only)	Ionic bonding — formation with electron dot diagrams; Covalent bonding — single/double/triple bonds; Metallic bonding — sea of electrons model; Bond polarity	Long Q (AJK: no SQ)
Ch 5 — Stoichiometry	Mole concept and Avogadro's number; Molar mass calculations; Balancing equations; Limiting reagent problems	Numerical Short Q
Ch 15 — Hydrocarbons	IUPAC naming of alkanes, alkenes, alkynes; Structural formulas up to 5 carbons; Addition reactions of alkenes; Combustion reactions	Long Q + Short Q

Ch 16 — Bio-Chemistry (AJK only)	Carbohydrates: monosaccharides, disaccharides, polysaccharides; Proteins: amino acid structure, peptide bond; Lipids: fats vs oils; DNA/RNA — structure and function	Long Q + Short Q AJK only
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FINAL PREPARATION PRIORITY LIST

Rank	Task	Chapter(s)	What to Prepare
1st	Chemical Bonding — Long Q	Ch 4	Ionic, covalent, metallic bonding with diagrams; bond polarity; AJK: no Short Q — all marks in Long Q
2nd	Hydrocarbons — Long Q + SQ	Ch 15	IUPAC naming, structural formulas, addition/combustion reactions; 1 Short Q + Long Q
3rd	Matter — Long Q (Carbon allotropes)	Ch 2	Diamond, Graphite, Buckyballs — structures and properties; Solubility factors
4th	Atomic Structure — Short Qs + 2 MCQs	Ch 3	Isotopes, electronic configuration, atomic vs mass number; highest MCQ chapter alongside Ch 12
5th	Periodicity — Long Q	Ch 9, Ch 10	Periodic trends (Ch 9 Long Q + Short Q); Group properties and reactivity (Ch 10 Long Q)
6th	Short Q High-yield Chapters	Ch 7, 8, 11, 14	Ch 7 (2 SQs), Ch 8 (2 SQs), Ch 11 (2 SQs), Ch 14 (2 SQs) — prepare definitions, comparisons, equations
7th	Bio-Chemistry — AJK only	Ch 16	Carbohydrates, Proteins, Lipids, DNA/RNA; Long Q + 1 Short Q; Federal students skip entirely
8th	MCQ + Self-Assessment Revision	All Chapters	Every textbook self-assessment exercise (3–4 SQs come from here); all chapter-end MCQs — especially Ch 3 and Ch 12
9th	Stoichiometry Numericals	Ch 5	Mole calculations, molar mass, limiting reagent; primary numerical source — practise worked examples

QUICK REVISION CARD

Section	Best Chapters	AJK Note	Federal Note
Short Qs (B)	Ch 3 (2), Ch 7 (2), Ch 8 (2), Ch 11 (2), Ch 14 (2)	Ch 4 = Long only (no SQ) Ch 16 = 1 SQ	Ch 16 = not in theory
Long Qs (C)	Pair 1: Ch4+10 Pair 2: Ch9+15 Pair 3: Ch2+16	All 3 pairs apply	Pair 3: Ch 16 not in Federal theory

MCQs (A)	Ch 3 & Ch 12 = 2 MCQs each ★; Ch 1,2,4,5,6,7,10,15 = 1 each	Same for both	Same for both
Numericals	Ch 5 (Stoichiometry) — only numerical chapter	Mole concept	Mole concept
Self-Assess.	ALL chapters — 3–4 Short Qs come directly from textbook self-assessments	Do not skip	Do not skip