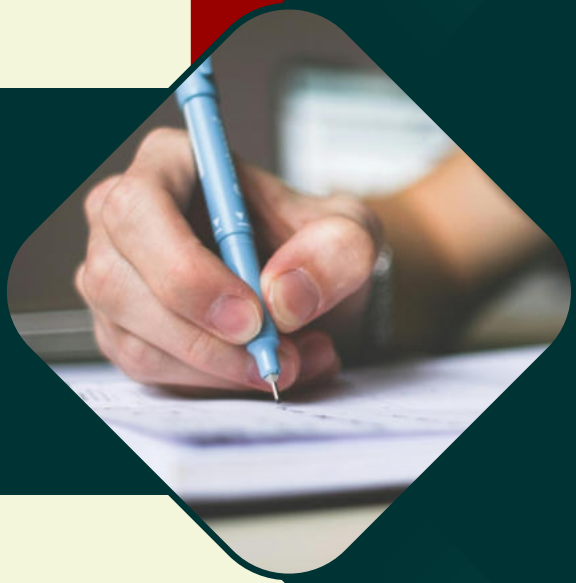
कलाम ACADEMY

स्कूल व्याख्याता

द्वितीय प्रश्न-पत्र

रसायन विज्ञान

टास्क आधारित
TEST SERIES



16 टेस्ट

- MINOR TEST 10
- MAJOR TEST 02
- FINAL TEST 04

Offline Online

सीकर सेन्टर : नवलगढ रोड़, सीकर (राज.) Sikar Center 72400-12121

जयपुर सेन्टर : रिद्धि-सिद्धि चौराहा, गोपालपुरा बाईपास, जयपुर Jaipur Center 99828-44044

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ऑफलाइन परीक्षा केन्द्र

अजमेर	बीकानेर	जोधपुर (East)	जैतारण	कोटपूतली	फलोदी	सुजानगढ़
अलवर	बूंदी	जोधपुर (West)	जायल	कुचामन	राजसमंद	सूरतगढ़
बांसवाड़ा	चित्तौड़गढ़	धौलपुर	झुंझुनूं	नागौर	सागवाड़ा	तारानगर
बाड़मेर	चूरू	डूंगरपुर	झालावाड़	नीमकाथाना	सवाई माधोपुर	टोंक
भरतपुर	दौसा	गंगापुर सिटी	झोटवाड़ा (जयपुर)	नौहर	सीकर	उदयपुर
भीलवाड़ा	डेगाना	हनुमानगढ़	करौली	पाली	सिरोही	
ब्यावर	डीडवाना	जयपुर	कोटा	प्रतापगढ़	श्रीगंगानगर	

टेस्ट सीरीज की प्रमुख विशेषताएँ

- ऑफलाइन अभ्यर्थियों के लिए पाठ्य सामग्री का वितरण किया जायेगा।
- ऑनलाइन टेस्ट हेतु पाठ्य सामग्री केवल Read Only Mode में उपलब्ध होगी।
- प्रश्न-पत्र का माध्यम हिन्दी व अंग्रेजी दोनों होगा।
- प्रथम प्रश्न-पत्र के लिए टास्क बुकलेट उपलब्ध करवायी जाएगी जिसका माध्यम केवल हिन्दी होगा।
- द्वितीय प्रश्न-पत्र के लिए PYQ और ICT टास्क बुकलेट उपलब्ध करवायी जाएगी।

OFFLINE MODE

	प्रथम प्रश्न-पत्र	द्वितीय प्रश्न-पत्र	प्रथम व द्वितीय प्रश्न-पत्र
With Booklet	2900/- + GST	1800/- + GST PYQ & ICT Booklet	4500/- + GST
Without Booklet	1700/- + GST	1800/- + GST PYQ & ICT Booklet	3400/- + GST

ONLINE MODE

	प्रथम प्रश्न-पत्र	द्वितीय प्रश्न-पत्र
With Booklet (Read Only Mode)	800/- + GST	800/- + GST PYQ & ICT Booklet (Read Only Mode)

- ऑनलाइन टेस्ट सीरीज में बुकलेट एप पर रीड ऑनली मोड में ही उपलब्ध रहेगी।

रजिस्ट्रेशन के लिए QR कोड स्कैन करें या हमारी वेबसाइट पर क्लिक करें-
www.kalam.academy

TEST	DATE	REMARK
Minor Test-01	01.02.2026	
Minor Test-02	08.02.2026	
Minor Test-03	15.02.2026	
Minor Test-04	22.02.2026	
Minor Test-05	01.03.2026	
Major Test-01	08.03.2026	
Minor Test-06	15.03.2026	
Minor Test-07	22.03.2026	
Minor Test-08	29.03.2026	
Minor Test-09	05.04.2026	
Minor Test-10	12.04.2026	
Major Test-02	19.04.2026	
Final Test-01	26.04.2026	
Pre. 1st Grade	03.05.2026	
Final Test-02	10.05.2026	
Final Test-03	17.05.2026	

नोटः- विशेष परिस्थिति में परीक्षा के दिन एवं दिनांक में परिवर्तन किया जा सकता है।

Schedule & Syllabus

Test & Date	Syllabus
MINOR TEST 01 **01.02.2026**	**Atomic Structure:** ✻ Fundamental particles, Modern concept of atomic structure, Quantum numbers, Aufbau principle, Pauli's exclusion principle, Hund's rule. Electronic configuration of elements, Classification of elements and periodicity in properties, s, p, d and f -Block elements. **Solutions:** ✻ Types of solutions, Solubility and concentrations, vapour pressure of liquid solutions, Ideal and non-ideal solutions, Colligative properties and calculations of molar mass, Abnormal molecular mass, Vant Hoff factor. **Bio-molecules:** ✻ Carbohydrates, proteins, enzymes, vitamins and nucleic acids. **Pedagogy and Teaching Learning Material** ✻ Communication skills and use of various verbal and non verbal classroom communication strategies.
MINOR TEST 02 **08.02.2026**	**Transition Elements:** ✻ Transition elements, Electronic configuration, Oxidation states, Absorption spectra including charge transfer spectra and magnetic properties, compounds of transition elements, Co-ordination compounds (Werner's theory). Nomenclature (IUPAC), Isomerism, colour and stability of coordination compounds. **Lanthanides and Actinides:** ✻ Electronic configuration, Ionic sizes, Oxidation states, Chemical reactivity and general characteristics. **Surface Chemistry:** ✻ Physical and Chemical adsorption, catalysis, Colloids and Emulsions. **Chemical Dynamics:** ✻ Rate of reaction, factors affecting rate of reactions. Zero, first, pseudo first and second order reactions. Half life period, methods for determination of the order of reactions, Collision and Transition state theories and their comparison, Arrhenius equation and concept of activation energy. **Pedagogy and Teaching Learning Material** ✻ Teaching models- advance organizer and inquiry training (information processing) Group Investigation (Social Interaction) Non-Directive model (Personal development).

Schedule & Syllabus

Test & Date	Syllabus
MINOR TEST 03 **15.02.2026**	**p- Block Elements:** ✻ General introduction, Electronic configuration, Occurrence, Oxidation states, compounds of p-block elements, trends in physical and chemical properties. **Thermodynamics: (UG)** ✻ Thermodynamic terms, Laws of thermodynamics, Zeroth, first and second law and their applications, Concept of work and heat, Spontaneity, Gibb's energy change and equilibrium. **Thermodynamics: (PG)** ✻ Third Law of Thermodynamics and Joule-Thompson's experiment, Maxwell's relation and their applications, Gibbs-Duhem equitation, Fugacity and Activity concept. **Pedagogy and Teaching Learning Material** ✻ Preparation and use of teaching-learning material during teaching.
MINOR TEST 04 **22.02.2026**	**Electrochemistry:** ✻ Conductance, equivalent and molar conductivity, their variation with dilution for weak and strong electrolytes, types of electrodes, SHE, Electrochemical and Galvanic cells, Theory of strong electrolytes. Debye-Huckel theory of activity coefficient, Nernst equation, Ionic equilibria. Fuel cells, concentration cells, Corrosion. **Polymers and Drugs:** ✻ Polymers, types and mechanism of polymerization, Natural and synthetic polymers. Drugs (antacids, anti-histamines, analgesics, antipyretics, antibiotics and antifertility). **Electrochemistry:** ✻ Measurement of EMF, Kohlrausch's Law and its applications, Membrane equilibria, calculation of Δ H, Δ G, Δ S and equilibrium constant from EMF data. **Pedagogy and Teaching Learning Material** ✻ Cooperative learning. **Use of Computers and Information Technology in Teaching Learning** ✻ E-learning and Virtual Classroom.

Schedule & Syllabus

Test & Date	Syllabus
MINOR TEST 05 **01.03.2026**	**Alkanes, Alkenes, Alkynes:** ✻ Methods of preparations and chemical reactions of alkanes, alkenes, alkynes. **Chemical Bonding:** ✻ Theories of chemical bonding, VB and MO theories of Diatomic molecules, VSEPR theory, Hydrogen bonding, Quantum mechanics, Schrodinger's wave equation for one electron system. **Aromaticity and Arenes:** ✻ Aromaticity, nomenclature and isomerism of aromatic hydrocarbons, Benzene, Alkyl-arenes, Structure of benzene, physical and chemical properties of benzene, Electrophilic substitution reactions, orientation of functional groups. **Kinetics and Catalysis:** ✻ Kinetics of photo-chemical and polymerization reactions, Acid-Base and Enzyme catalysis, ionic reactions, kinetic salt effect, complex reactions. **Use of Computers and Information Technology in Teaching Learning** ✻ Concept of ICT and Digital learning . ✻ Technology integration in teaching-learning and assessment. **Major Test-01 (08.03.2026)** **Minor-01 + Minor-02 + Minor-03 + Minor-04 + Minor-05**
MINOR TEST 06 **15.03.2026**	**Co-ordination Complexes:** ✻ Details of Crystal field theory for weak and strong field complexes. Comparison of VB and CFT theories. Factors affecting 10 Dq. Thermodynamic aspects of Crystal fields, Jahn-Teller effect, importance and applications of coordination compounds. **Pericyclic Reactions:** ✻ Electrocyclic, Cyclo-addition and Sigmatropic rearrangement, Photo-organic chemistry of alkenes and carbonyl compounds. **Environmental Pollution:** ✻ Air, Water, Soil and heavy metal pollution, photochemical smog, acid rain, Ozone depletion, Green house effect, Global warming and Green chemistry principles. **Pedagogy and Teaching Learning Material** ✻ Communication skills and use of various verbal and non verbal classroom communication strategies. (Revision)

Schedule & Syllabus

Test & Date	Syllabus
MINOR TEST 07 **22.03.2026**	**Halo-alkanes:** ✻ Methods of preparations and chemical reactions of haloalkanes. **Halo, Nitro, Amino-Arenes and Diazonium Salts:** ✻ Preparations, Chemical properties of Halo, Nitro, Amino-Arenes and diazonium salts, synthetic applications of diazonium salts. **Chemistry of Lanthanides and Actinides:** ✻ Lanthanide and Actinide contraction and its consequences, Co-ordination behavior of Lanthanides and Actinide complexes. Magnetic and spectroscopic properties, separation of lanthanides. **Molecular Orbital Theory:** ✻ Symmetry elements, operations and point groups, mulliken symbols, GMT and character tables, M.O. Theory of hetronuclear di-atomic and polyatomic molecules (AX2, AX3 and Ax4). **Pedagogy and Teaching Learning Material** ✻ Teaching models- advance organizer and inquiry training (information processing) Group Investigation (Social Interaction) Non-Directive model (Personal development). (Revision)
MINOR TEST 08 **29.03.2026**	**Alcohols, Aldehydes, Ketones, Carboxylic Acids and their derivatives:** ✻ Classification, nomenclature, methods of preparation, physical properties, Chemical reactions of alcohols, aldehydes, ketones, carboxylic acids and their derivatives. **Reactions Intermediates:** ✻ Free radicals, carbocations, carbanions, cabenes, benzyne, nitrene. **Molecular Orbital Theory:** ✻ Symmetry elements, operations and point groups, mulliken symbols, GMT and character tables, M.O. Theory of hetronuclear di-atomic and polyatomic molecules (AX2, AX3 and Ax4). **Pedagogy and Teaching Learning Material** ✻ Preparation and use of teaching-learning material during teaching. (Revision)

Schedule & Syllabus

Test & Date	Syllabus
MINOR TEST 09 **05.04.2026**	**Solid State:** ✻ Classification of solids, Calculation of density of unit cell, Packing in solids, Point defects, electrical and magnetic properties of solids. **Enthalpy and Entropy:** ✻ Enthalpy and its changes at constant pressure and temperature. Enthalpy change for different types of reactions, Entropy as a function of temperature and volume. Hess's Law of constant heat summation, Gibbs and Helmoltz functions. **Substitutions and Elimination Reactions:** ✻ SN^1, SN^2, SN^i, E1 and E2 reactions of haloalkanes, Preparation and Chemical reactions of phenols, ethers and epoxides. **Spectroscopy:** ✻ Elementary idea of IR, UV, NMR, Raman, ESR and mass spectrometry techniques and structure elucidation of organic compounds. **Pedagogy and Teaching Learning Material** ✻ Cooperative learning. (Revision) **Use of Computers and Information Technology in Teaching Learning** ✻ E-learning and Virtual Classroom. (Revision)
MINOR TEST 10 **12.04.2026**	**Stereo chemistry of organic compounds :** ✻ Concept of chirality, optical activity, configuration : Geometrical and Optical isomerism, enantiomerism, distereoisomers, meso compounds, R/S and E/Znomenclature, resolution of enantiomers, inversion, retention and racemisation. Conformations of alkanes (ethane, butane), cyclo-hexane and its derivatives. **Name Reactions:** ✻ Mechanism of Aldol, Cannizzaro, Perkin, Stobbe, Benzoin, Reformatsky, Knovengel, Baeyer–Villiger, Wittig and Mannich reactions. **Aromatic heterocyclic compounds:** ✻ Pyridine, pyrrole, furan, thiophene. **Use of Computers and Information Technology in Teaching Learning** ✻ Concept of ICT and Digital learning . ✻ Technology integration in teaching-learning and assessment.(Revision) **Major Test-02 (19.04.2026)** **Minor-06 + Minor-07 + Minor-08 + Minor-09 + Minor-10**

स्कूल व्याख्याता

टास्क आधारित
TEST SERIES

01 FINAL TEST
26.04.2026

02 FINAL TEST
10.05.2026

03 FINAL TEST
17.05.2026

परीक्षा से पहले एक परीक्षा

Pre.
1st Grade

03.05.2026

कलाम ACADEMY

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