

MODEL ACADEMY

The Prestigious School of MIER
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SYLLABUS

Session 2023 - 24

Class - XII

Model Institute of Education & Research

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English Core (301)

Books Prescribed: Flamingo English Reader - NCERT
 Vistas: Supplementary Reader - NCERT

Month	No. of Working Days	Name of Topic/Chapter
March	15	Prose: The Last Lesson The Third Level Poem: My Mother at 66
April	22	Prose: Lost Spring Poem: Keeping Quiet Writing Skills: Notice Writing
May	25	Prose: Deep Water The Tiger King Writing Skills: Invitation & Reply
PERIODIC TEST – I		
July	22	Prose: The Rat trap Journey to the End of the Earth, The Enemy Poem: A thing of Beauty
August	23	Prose: Indigo Writing Skills: Letter to Editor, Job Application Prose: Poets & Pancakes On the face of it
September	12	Poem: A Roadside Stand Writing Skills : Report and Article Writing
HALF YEARLY EXAM		
October	19	Prose: The Interview Poem : Aunt Jennifer’s Tigers
November	20	Going Places Memories of Childhood
PERIODIC TEST - II		
December	12	1 st Pre-Board
January	-	2 nd Pre-Board
February	-	Revision & Practicals
March	-	Examination
Reading Skills = 20 marks, Writing Skills = 20 marks, Literature=40 marks, ASL = 10 marks & Project = 10		

Physics (042)

Books Prescribed: Physics class XII Part – I and Part – II - NCERT
Laboratory Manual of Physics - NCERT

Month	No. of Working Days	Name of Topic/Chapter
<u>March</u>	15	Chapter – 1 : Electric charges and fields.
<u>April</u>	22	Chapter – 2 : Electrostatic Potential and Capacitance Chapter – 3 : Current Electricity
<u>May</u>	25	Chapter – 3 : Current Electricity Chapter – 4: Moving charges and Magnetism. Chapter – 5: Magnetism and Matter.
PERIODIC TEST - I		
<u>July</u>	22	Chapter – 6: Electromagnetic Induction Chapter – 7: Alternating Currents
<u>August</u>	23	Chapter – 9: Ray Optics and Optical Instruments Chapter – 10: Wave Optics
<u>September</u>	12	Chapter – 8: Electromagnetic Waves Chapter – 11: Dual Nature of Radiation and Matter
TERM-I EXAMINATION		
<u>October</u>	19	Chapter – 14: Semi-Conductor : Material Device and Simple Circuit
November	20	Chapter - 12 : Atoms Chapter – 13 : Nuclui + Revision
December	12	Revision & Pre-Board-I
January		Pre-Board-2 & Practical Exam
CH -1, 2 & 3 = 16 Marks, CH -4, 5, 6 & 7 = 17 Marks, CH – 8, 9, 10 = 18 Marks, CH – 11, 12 & 13 = 12 Marks & CH = 14 = 7 Marks (Total = 70 Marks)		

Chemistry (043)

Books Prescribed: Chemistry Part – I & Part – II Class XII NCERT
Chemistry Lab Manual XII - NCERT

Month	No. of Working Days	Split up Syllabus
<u>March</u>	15	Chapter 6 - Haloalkanes and Haloarenes Chapter 7 - Alcohols, Phenols and Ethers (Half Unit)
<u>April</u>	22	Chapter 7 – Ethers (Half Unit) Chapter 8 – Aldehydes, Ketones, Carboxylic Acids
<u>May</u>	25	Chapter 9 – Amines Chapter 10 – Biomolecules
PERIODIC TEST – I		
<u>July</u>	22	Chapter 2 - Electrochemistry

		Chapter 1 – Solutions
<u>August</u>	23	Chapter 3 – Chemical Kinetics Chapter 5 – Co-ordination Compounds
<u>September</u>	12	Revision + T-1 Exams
TERM-I EXAMINATION		
<u>October</u>	19	Chapter 4 : d & f – block elements
<u>November</u>	20	Revision
<u>December</u>	12	Revision & Pre-Board-I
<u>January</u>		Pre-Board-2 & Practicals Examination
Chapter No. 1, 3, 4, 5 & 10 = 7 marks each, Chapter No. 6, 7 & 9 = 6 marks each, Chapter No. 2 = 9 marks & Chapter No. 8 = 8 marks.		

Biology (044)

Books Prescribed: Biology, Class-XII (NCERT)

Month	No. of Working Days	Name of Topic/Chapter
<u>March</u>	15	Unit - VI Chapter - 2 Sexual Reproduction in Flowering Plants Chapter - 3 Human Reproduction
<u>April</u>	22	Chapter - 3 Human Reproduction Chapter - 4 Reproductive Health Unit - VII Chapter - 5 Principles of Inheritance and Variation
<u>May</u>	25	Unit - VII (Genetics & Evolution) Chapter – 6 Molecular Basis of Inheritance Chapter – 7 Evolution
PERIODIC TEST -1		
<u>July</u>	22	Unit – VIII (Biology and Human Welfare) Chapter- 8 Human Health and Diseases Chapter- 10 Microbes in Human Welfare
<u>August</u>	23	Unit – IX (Biotechnology) Chapter – 11 Biotechnology : Principles & Processes Chapter – 12 Biotechnology & its Applications
<u>September</u>	12	Unit – X (Ecology & Environment) Chapter – 13 Organism & Populations
TERM-I EXAMINATION		
<u>October</u>	19	Chapter – 14 Ecosystem Chapter – 15 Biodiversity & Conversation
<u>November</u>	20	Revision
<u>December</u>	12	Revision & Pre-Board-I
<u>January</u>	-	Per-Board –II & Practical Examination
Unit-VI=16 Marks, Unit-VII =20 Marks, Unit-VIII= 12 Marks, Unit-IX = 12 Marks, Unit-X = 10 Marks		

Math (041)

Books Prescribed: Maths Text Book Part –I (NCERT)
 Maths Text Book Part – II (NCERT)
 Maths Exemplar Problem (NCERT)
 Maths Lab Manual (NCERT)

Month	No. of Working Days	Name of Topic/Chapter
<u>March</u>	15	Chapter – 3 (Matrices) Chapter – 4 (Determinants)
<u>April</u>	22	Chapter – 10 (Vector Algebra) Chapter – 11 (3-Dimensional Geometry)
<u>May</u>	25	Chapter – 12 (Linear Programming) Chapter -1 Relation and Functions
PERIODIC TEST - 1		
<u>July</u>	22	Chapter – 7 (Integrals)
<u>August</u>	23	Chapter – 8 (Application of Integrals) Chapter – 5 (Continuity and differentiability) Chapter – 6 (Application of Derivatives)
<u>September</u>	12	Chapter – 2 (Inverse Trigonometric Function)
TERM-I EXAMINATION		
<u>October</u>	19	Chapter – 13 (Probability) Chapter – 9 Differential Equations
November	20	Chapter – 9 Differential Equations (Continue) + Revision
December	12	1 st Pre-Board & Revision
January	-	2 nd Pre-Board & Practical
Linear Programming = 05, Relation & Function = 8 Marks, Algebra = 10 Marks, Vector & Calculus = 35 Marks, 3 Dimensional Geometry = 14 Marks & Probability = 8 Marks		

Economics (030)

Books Prescribed: Introductory Microeconomic Class XII NCERT
 Macroeconomics Class XII NCERT
 Supplementary reading Material in Economics XII NCERT
 Statistics for Economics – NCERT
 Indian Economic Development – NCERT

Month	No. of Working Days	Name of Topic/Chapter
March	15	Marco Economics Chapter – 1 Money and Banking
<u>April</u>	22	Chapter – 2 Indian Economy on the eve of Independence (Development experience 1947-90) and Economic reforms since 1991)
<u>May</u>	25	Chapter – 3 Determination of Income and Employment. Chapter – 4 Employment
PERIODICT TEST – I		
<u>July</u>	22	Chapter– 5 Government Budget and the Economy Chapter – 6 Balance of Payments
<u>August</u>	23	Chapter - 7 Foreign Exchange Rate Chapter - 8 Sustainable Economic Development
<u>September</u>	12	Revision & (Term-I Exam)
TERM-I EXAMINATION		
<u>October</u>	19	Chapter – 9 Development Experience of India Chapter – 10 National income (First Half)
<u>November</u>	20	Chapter – 10 National Income (Second Half) + Revision
<u>December</u>	12	Revision & Pre-Board-I
<u>January</u>	-	Pre-Board-II & Practical Exam
Chapter – 1 = 10 Marks, Chapter – 2 = 6 Marks, Chapter – 3 = 12 Marks, Chapter - 4 & 5 = 6 Marks each, Chapter – 6 = 6 Marks, Chapter - 7 = 8 Marks & Chapter – 9 = 12 Marks & Chapter – 10 = 20 Marks.		

Business Studies (054)

Books Prescribed: Foundation of Business NCERT
 Finance & Trade NCERT

Month	No. of Working Days	Name of Topic/Chapter
<u>March</u>	15	<u>Part – A</u> (Principles and Function of Management Unit – 1: Nature of Management Unit – 2: Principles of Management
<u>April</u>	22	Unit – 3: Business Environment Unit – 4: Planning
<u>May</u>	25	Unit – 5: Organising Unit – 6: Staffing

PERIODIC TEST-I		
<u>July</u>	22	Unit – 7 Directing Unit – 8: Controlling
<u>August</u>	23	Unit – 11: Marketing Management.
<u>September</u>	12	Unit – 12: Consumer Protection
TERM-I EXAMINATION		
<u>October</u>	19	Unit – 9 Financial Management
<u>November</u>	20	Unit – 10 Financial Market
<u>December</u>	12	Revision & 1 st Pre-Board
<u>January</u>	-	2 nd Pre-Board & Practicals
Unit I-III = 16 marks, Unit IV-V = 14 marks, Unit VI-VIII = 20 marks, Unit IX-X = 15 marks, Unit XI-XII = 15 marks		

ACCOUNTANCY (055)

Books Prescribed: Accountancy Part - I (NCERT)

Accountancy Part - II (NCERT)

Month	No. of Working Days	Name of Topic/Chapter
<u>March</u>	15	Accounting for Partnership Firm
<u>April</u>	22	Chapter – 1: Accounting for Partnership Firms Chapter – 2: Goodwill
<u>May</u>	25	Chapter – 3: Change in Profit sharing ratio. Chapter – 4 : Admission of Partner
<u>July</u>	22	Chapter – 4: Admission of Partner Chapter – 5 : Retirement of Partner
Periodic Test - I		
<u>August</u>	23	Chapter – 5: Retirement & Death of a Partner Chapter – 6: Dissolution of Partnership
<u>September</u>	12	Chapter – 7: Share Capital
TERM-I EXAMINATION		
<u>October</u>	19	Chapter – 7: Share Capital Chapter – 8: Debentures
<u>November</u>	20	Chapter – 9: Cash Flow Statement Chapter – 10: Ratio Analysis
<u>December</u>	18	Revision & 1 st Pre-Board
<u>January</u>	-	2 nd Pre-Board & Practical Examination
Unit – 1 = 36 marks, Unit – 2 = 24 marks, Unit – 3 = 12 marks & Unit – 4 = 8 marks		

Political Science (028)

Books Prescribed:

Contemporary World Politics Class XII NCERT
Politics in India Since independence Class XII NCERT

Month	No. of Working Days	Name of Topic/Chapter
<u>March</u>	15	1. The End of Bipolarity
<u>April</u>	22	2. New Centres of Power 3. Contemporary South Asia
<u>May</u>	25	4. United Nations and its Organization
PERIODIC TEST - I		
<u>July</u>	22	5. Security in Contemporary World 6. Environment and Natural Resources 7. Globalization
<u>August</u>	23	8. Challenges of Nation-Building 9. Planned Development
<u>September</u>	12	10. India's Foreign Policy
TERM-I EXAMINATION		
<u>October</u>	19	11. Parties and Party System in India 12. Democratic Resurgence. 13. Regional Aspirations
November	20	14. Indian Politics: Recent Trends and Development + Revision.
December	12	Revision & Pre-Board-I
January		Pre-Board-2 & Practical Exam.
Unit 1 & 2 = 12 marks, Unit 3, 4 & 5 = 12 marks, Unit 6 & 7 = 8 marks, Unit 8 & 9 = 08 marks, Unit 10, 11 & 12 = 12 marks, Unit 13 = 06 marks, Unit 14 & 15 = 10 marks, Unit – 16, 17 & 18 = 12 marks.		

Sociology (039)

Books Prescribed: Indian Society Class XII NCERT

Social Change & Development in Indian Class XII NCERT

Month	No. of Working Days	Name of Topic/Chapter
<u>March</u>	15	Unit – 1: Introducing Indian society (Non-evaluated) Unit – 2: Demographic Structure and Indian Society (1 st Half)
<u>April</u>	22	Unit – 2: Demographic Structure and Indian Society (Second Half) Unit – 3: Social Institutions: Continuity and Change (1 st Half)
<u>May</u>	25	Unit – 3: Social Institutions: Continuity and Change (Second Half)
PERIODIC TEST - I		
<u>July</u>	22	Unit – 5: Pattern of Social Inequality and Exclusion + Unit – 6: Project Work & Challenges of Social Inequality & Exclusion (1st Half)
<u>August</u>	23	Unit – 6: Challenges of Cultural Diversity (IInd Half) Unit – 8: Structural Change Unit – 9: Cultural Change
<u>September</u>	12	Revision + Term-I Exam
TERM-I EXAMINATION		
<u>October</u>	19	Unit – 11: Change & Development in Industrial Society. Unit – 12: Change & Development in Rural Society.
<u>November</u>	20	Unit – 15: Social Movements + REVISION
<u>December</u>	12	Revision & Pre-Board- I
<u>January</u>		Pre-Board - II & Practical Exam
Unit - 2, 3, 5, 6, 11, 12, 15 = 10 marks each & Unit – 8 & 9 = 5 marks each.		

Psychology (037)

Books Prescribed: Psychology Class XII NCERT

Month	No. of Working Days	Name of Topic/Chapter
<u>March</u>	15	Unit – I: Variations in Psychological Attributes (Half Chapter)
<u>April</u>	22	Unit – I: Variations in Psychological Attributes (Second Half) Unit – II: Self and Personality (Half Chapter)
<u>May</u>	25	Unit – II: Self and Personality (Second Half) Unit – III: Meeting Life Challenges (Half Chapter)
<u>July</u>	22	Unit – III: Meeting Life Challenges (Remaining half) Unit – IV: Psychological Disorders (Half)
PERIODIC TEST - I		
<u>August</u>	23	Unit – IV: Psychological Disorders (Remaining Half) Unit – V: Therapeutic Approaches (Half Chapter)

<u>September</u>	12	Unit – V: Therapeutic Approaches (Remaining Half) Unit – VI: Attitude and Social Cognition (Half Chapter)
TERM-I EXAMINATION		
<u>October</u>	19	Unit – VI: Attitude and Social Cognition (Remaining Half)
<u>November</u>	20	Unit – VII: Social Influence and Group Processes.
<u>December</u>	12	Revision & 1st Pre-Board
<u>January</u>	-	Revision & 2nd Pre-Board
Unit I = 13 marks, Unit II = 13 marks, Unit III = 9 marks, Unit IV = 12 marks, Unit V = 9 marks, Unit VI = 8 marks, Unit VII = 6 marks.		

Physical Education (048)

Books Prescribed: Physical and Health Education (NCERT)

Month	No. of Working Days	Name of Topic/Chapter
<u>March</u>	15	Unit – I : Management of Sporting Events.
<u>April</u>	22	Unit – III : Yoga as Preventive measures for life style disease.
<u>May</u>	25	Unit – II : Children and Women in Sports Unit – VI : Test and Measurement and Sports
PERIODIC TEST – I		
<u>July</u>	22	Unit – X : Training in Sports Unit – IV : Physical Education and Sports for CWSN
<u>August</u>	23	Unit – VII : Physiology and Injuries in Sports Unit – IX : Psychology and Sports
<u>September</u>	12	Unit – V : Sports and Nutrition
TERM-I EXAMINATION		
<u>October</u>	19	Unit – VIII : Biomechanics and Sports
<u>November</u>	20	Revision
<u>December</u>	12	Revision & Pre-Board-I
<u>January</u>	-	Pre-Board-II & Practical

Computer Science (083)

Books Prescribed: Computer Science NCERT
Computer Science Using Python by Sumita Arora

Month	No. of Working Days	Name of Topic/Chapter
<u>March</u>	15	Unit – 1 : Revision of Python Topics Covered in Class 11 th
<u>April</u>	22	Unit – 1 : Functions, Introduction to files, Text file, Binary file, CSV files.
<u>May</u>	25	Unit-1 : Data Structure Unit – 2 : Computer Networks, Evolution of Networking and Revision of all topics for Periodic-I
PERIODIC TEST - 1		

<u>July</u>	22	Unit – 2 : Data Communication Technologies, Transmission Media, network devices and Network Topologies.
<u>August</u>	23	Unit - 2 : Network Types, Network protocol, Introduction to web services.
<u>September</u>	12	Revision for Term-I
TERM-I EXAMINATION		
<u>October</u>	19	Unit – 3 : Data Management, Database Concept, Relational data model, SQL (Half)
<u>November</u>	20	Unit – 3: SQL, Interface of Python with an SQL database.+ REVISION
<u>December</u>	12	(Revision & Pre-Board-I)
<u>January</u>		Pre-Board-2 & Practical (external)
Unit- I = 40 Marks, Unit – II = 10 Marks, Unit – III = 20 Marks.		

PAINTING (049)

Books Prescribed: NCERT

Month	No. of Working Days	Name of Topic/Chapter
<u>March</u>	15	Unit – I L – 1 Art – An Introduction A brief Introduction to Indian Miniature Schools. L – 2 The Rajasthani School of Miniature Painting a) Origin & Development b) Sub-Schools – Mewar, Bundi, Jodhpur, Bikaner, Kishengarh & Jaipur
<u>April</u>	22	* Main features of the Rajasthani School * Appreciation of the following paintings 1) Maru Ragini 2) Chaugan Players 3) Krishana on Swing 4) Radha (Bani-Thani) 5) Bharat meets Rama at Chitrakuta L -3 The Pahari School of Miniature Paintings. a) Origin & Development b) Sub Schools – Basohli, Guler, Kangra, Chamba & Garhwal
<u>May</u>	25	Main Features of the Pahari Schools Appreciation of the following paintings. a) Krishna with Gopies b) Nand, Yashoda & Krishna with Kinsmen going to Vrindavana Unit – 2 Mughal and Deccan School of Miniature painting a) Origin & Development
PERIODIC TEST-I		

<u>July</u>	22	Main features of Mughal School Appreciation of the following paintings 1) Krishna lifting Mount Goverdhana 2) Falcon on a bird-Rest 3) Kabir and Raidas 4) Marriage Procession of Dara Shikoh Deccan School of Miniature Painting a) Origin & Development
<u>August</u>	23	* Main feature of the Deccan School. c) Appreciation of the following paintings. * Hazrat Nizamuddin Auliyas Amir Khusro * Chand Bibi playing Polo
<u>September</u>	12	Unit-3 * Bengal School of Paint & the Modern Trends in Indian Art. * National Flag of India & the symbolic significance of its forms & colour.
TERM-I EXAMINATION		
<u>October</u>	19	a) Introduction to the Bengal School of Painting b) Origin & development of the Bengal school of painting c) Main features d) Journey's End e) Shiv & Sati f) Radhika g) Meghdoot * Contribution of Indian Artist in National Freedom. a) Modern Trends in Indian Art * Rama Vanquishing the pride of the ocean
<u>November</u>	20	* Mother & Child * Haldi Grinders * Mother Tera Graphic Prints * Children * Devi * Of Walls * Man, Women & Tree e) Sculptures * Triumph of labour * Santhal family * Cries unheard * Ganesha
Unit – I = 10 Marks, Unit – II = 10 Marks, Unit – III = 10 Marks.		

Informatics Practices (065)

Books Prescribed: NCERT – Text book

Month	No. of Working Days	Name of Topic/Chapter
<u>March</u>	15	- Data Handling using Pandas
<u>April</u>	22	- Data Visualization
<u>May</u>	25	- Importing / Exporting CSV file
PERIODIC TEST - I		
<u>July</u>	22	- Data base query using SQL
<u>August</u>	23	- Data base query using SQL
<u>September</u>	12	- Computer Network
TERM-I EXAMINATION		
<u>October</u>	19	- Societal Impacts
<u>November</u>	20	Revision & Pre-Board – I
<u>December</u>	12	Revision & Pre-Board - II
<u>January</u>	-	Revision & Practical
No. Chapter wise Weightage Data Handling and Data Visualization = 25, DBMS = 25, Computer N/W = 10, Societal Impacts = 10		

Entrepreneurship (066)

Books Prescribed: Entrepreneurship Class XII NCERT

Month	No. of Working Days	Name of Topic/Chapter
<u>April</u>	22	Unit – 1 : Entrepreneur Opportunity
<u>May</u>	25	Unit – 2 : Entrepreneur Planning
PERIODIC TEST - I		
<u>July</u>	22	Unit – 3 : Enterprise Marketing
<u>August</u>	23	Unit – 3 & Unit – 4 : Enterprise Growth Strategies
<u>September</u>	12	Unit – 4 & Unit – 5 : Business Arithmetic
TERM-I EXAMINATION		
<u>October</u>	19	Unit – 5 & Unit -6 : Resource Mobilization
<u>November</u>	20	Unit -6 : Resource Mobilization
<u>December</u>	12	Revision & 1st Pre-Board
<u>January</u>	-	2nd Pre-Board & Practicals
<u>February</u>	22	Revision & Practical
Unit 1 & 2 = 30 marks, Unit 3 & 4 = 20 marks, Unit – V & VI = 20 marks		

Hindustani Music Vocal (034)

Books Prescribed: NCERT

Month	No. of Working Days	Name of Topic/Chapter
<u>March</u>	15	<ul style="list-style-type: none">• Definations – Alankaar, Kan, Meend, Khatka, Murki, Gamak, Tan, Gram & Murchana.
<u>April</u>	22	<ul style="list-style-type: none">• Time Theory of Ragas• Raag Bhairav (Sthai, Antra & Taanas)
<u>May</u>	25	<ul style="list-style-type: none">• Sangeet Ratnakar• Sangeet Parijat• Raag Malkauns
PERIODIC TEST-I		
<u>July</u>	22	<ul style="list-style-type: none">• Life Histories• Faiyaz Khan, Bade Ghulam Ali Khan• Krishan Rao Shanker Pandit• Tarana of Raag Bhairav
<u>August</u>	23	<ul style="list-style-type: none">• Raag Bageshri Aaroh, Avroh, Sthai & Taanas• Tuning of Tanpura• Badakhyaal Raag Bhairav
<u>September</u>	12	<ul style="list-style-type: none">• Rupak Taal, Jhaptaal & Dhamar Taal• Dhamar of Raag Bhairav
TERM-I EXAMINATION		
<u>October</u>	16	Critical Study of Prescribed Ragas including Swaras upto 50
<u>November</u>	22	Revision
<u>December</u>	18	Revision & Pre-Board-I
<u>January</u>	-	Pre-Board – II & Practical
Unit – I , II, III, IV & V = 6 marks each.		