**RISHI AUROBINDO MEMORIAL ACADEMY**

134 P. K. GUHA ROAD, KOLKATA 700028

**SYLLABUS OF SESSION 2024 - 2025**

**CLASS XI**

| **SUBJECT** | **ASSESSMENT I** | **MID TERM** | **ASSESSMENT II** | **FINAL TERM** |
| --- | --- | --- | --- | --- |
| **ENG I**  **(LANGUAGE)** | 1. Composition- Narrative, Reflective and Expository 2. Directed writing- Book review and Film review 3. Proposal writing 4. Functional grammar- Verbs, conditional sentences, Sentence structure , Degrees of comparison, Reported speech, voices, Time Adverbial, Sentence clause structure, Prepositional phrases 5. Unseen Comprehension | **1.**Composition- Argumentative Descriptive and Story writing. ( All composition of Assessment I)  2.Directed writing- Article Writing and review of cultural program  3.Proposal writing  4.Functional grammar- Verbs, conditional sentences, Sentence structure , Degrees of comparison, Reported speech, voices, Time Adverbial, Sentence clause structure, Prepositional phrases  5.Unseen Comprehension  **Project- listening and Speaking skill** | 1.Composition- All  2.Directed writing- Speech writing and report writing  3.Proposal writing  4.Functional grammar- Verbs, conditional sentences, Sentence structure , Degrees of comparison, Reported speech, voices, Time Adverbial, Sentence clause structure, Prepositional phrases  5.Unseen Comprehension | **1.**Composition- All  2.Directed writing- Personal Profile and Statement of purpose  3.Proposal writing  4.Functional grammar- Verbs, conditional sentences, Sentence structure , Degrees of comparison, Reported speech, voices, Time Adverbial, Sentence clause structure, Prepositional phrases  5.Unseen Comprehension  **Project- listening and speaking skills** |
| **ENG II**  **(LITERATURE)** | 1. A living god- Lafcadio Hearn 2. Abhisara- the tryst- Tagore 3. Why I like the hospital- Tony Hoagland 4. Macbeth Act I | 1. Advice to Youth- Mark Twain 2. Sonnet 116- Shakespeare 3. Revision of Assessment I   Project- Critical analysis of Abhisara by Tagore. | 1. The paper Menagerie- Ken Liu 2. Thank you Ma’am- Langston Hughes 3. Death of a Naturalist- Seamus Heaney 4. Macbeth Act II | 1. The great automatic grammatizator- Roald Dahl 2. Strange meeting- Wilfred Owen 3. Revision of rest of the syllabus   **Project- Relationship between Macbeth and Lady Macbeth.** |
| **BENGALI** | 1) (প্রবন্ধওগদ্যসংকলন)-ঠাকুরদা (রবীন্দ্রনাথঠাকুর)  2) (কবিতাসংকলন)- ওরাকাজকরে (রবীন্দ্রনাথঠাকুর)  3) কোনি- প্রথমওদ্বিতীয়অধ্যায়  4) ব্যাকরণ - ধ্বন্যাত্মকশব্দ, বাক্যপরিবর্তন, বাচ্যপরিবর্তন | **Full syllabus of Assessment- I**  **1) প্রবন্ধওগদ্যসংকলন-**  **জোড়াসাঁকোরধারে (অবনীন্দ্রনাথঠাকুর)**  **2) তাসেরঘর (তারাশঙ্করবন্দ্যোপাধ্যায়)**  **3) (কবিতাসংকলন)- পুব-পশ্চিম (অচিন্ত্যকুমারসেনগুপ্ত)**  **4) বনলতাসেন (জীবনানন্দদাশ)**  **5) কোনি- তৃতীয়ওচতুর্থঅধ্যায়**  **6) ব্যাকরণ- উক্তিপরিবর্তন, বানানসংশোধন, এককথায়প্রকাশ, বাগধারাওপ্রবাদপ্রবচন, বোধপরীক্ষণ ,প্রবন্ধরচনা**  **প্রকল্প - রবীন্দ্রনাথঠাকুরের ‘ওরাকাজকরেকবিতায়’ ‘শ্রমজীবীমানুষরাইযেসমাজেরধারকওবাহক’- তাকবিতাঅবলম্বনেআলোচনাকরো।** | 1) (প্রবন্ধওগদ্যসংকলন)  অনাচার (আশাপূর্ণাদেবী)  2) কবিতাসংকলন-বর্ণপরিচয় –(তরুণস্যান্যাল)  3) কোনি- পঞ্চমওষষ্ঠঅধ্যায়  4) ব্যাকরণ -বাক্যসংশোধন, পদান্তর, সমোচ্চারিতভিন্নার্থকশব্দ | **Assessment I AND Assessment II FULL SYLLABUS**  **1) (প্রবন্ধওগদ্যসংকলন) রেকর্ড ( নারায়ণগঙ্গোপাধ্যায়)**  **2) (কবিতাসংকলন)- সালেমনেরমা (সুভাষমুখোপাধ্যায়)**  **3) কোনি- সপ্তমঅধ্যায়**  **4) ব্যাকরণ- বিপরীতশব্দ, একইশব্দেরভিন্নঅর্থেপ্রয়োগ,বোধপরীক্ষণ, প্রবন্ধরচনা।**  **প্রকল্প – আপাতদৃষ্টিতেসমাজেরচোখেযাঘোরঅনাচার, মানবিকতারদিকথেকেতাঅতিবড়আচার।—সেদিকথেকেবিচারকরে ‘অনাচার’গল্পঅবলম্বনেসুভাষকাকিমারচরিত্রটিবিশ্লেষণকরো।** |
| **HINDI** | गद्य:-   1. पुत्र प्रेम 2. गौरी   पद्य:-   1. साखी 2. बाल लीला   सारा आकाश:-  (१-५) | गद्य:-   1. शरणागत   पद्य :-   1. एक फूल की चाह   Full syllabus of revisional assessment.  परियोजना:-  ‘सुभद्रा कुमारी चौहान के साहित्य ने राष्ट्रीय चेतना जगाने का काम किया।’ इस कथन की पुष्टि कीजिए।  ० निबंध  ० पत्र लेखन  ०अपठित गद्यांश  ० व्याकरण | गद्य:-   1. सती 2. आउटसाइडर   पद्य:-   1. आ धरती कितना देती है 2. नदी के द्वीप   सारा आकाश (६-१०) | Full syllabus of revisional assessment-2  परियोजना:-  कबीरदास के सामाजिक और धार्मिक दृष्टिकोण की प्रासंगिकता पर प्रकाश डाले । |
| **PSYCHOLOGY** | 1. Ch 1, The subject psychology 2. Ch 2, Methods of psychology | 1. **Ch 3, Attention and Perception** 2. **Ch 4, Emotion and Motivation** 3. **Ch 2, Methods of Psychology** 4. **Practical - On motivation ( Achievement motivation scale)** | 1. Ch 5, Learning 2. Ch 7, Thinking problem solving and creativity | 1. **Ch 1 to 5** 2. **Ch 6, Remembering and forgetting** 3. **Ch 7, Thinking problem solving and creativity** 4. **Practical - On Memory** |
| **PHYSICAL EDUCATION** | **SECTION-A**  1.Concept of Physical Education.  2.individual Aspects & Group Dynamics | **SECTION-A**  Assessment-1  &  1. Effects of Physical Exercise & Training on Human Body Systems  2. Nutrition, Weight Control & Exercise  **SECOND-B**  Cricket,Hockey, Basketball, Badminton, tennis, swimming, Athletics  **Project: Cricket & Badminton** | **SECTION-A**  1. Physical Fitness and Wellness.  2. Games and Sports- A Global Perspective  **SECTION-B**  Volleyball, Football | **Full Syllabus**  **Project: Football & Volleyball** |
| **HISTORY**  **AND**  **CIVICS** | 1. Growth of Nationalism.  2.Emergence of the colonial Economy  3. Economic, Social and Cultural impact of British Rule.  4. First World War. | 1. Urbanisation, Growth of working class and worker’s movements.  2. Peace settlement after the World War I.  3. The Great Depression. | 1. Protest Movement against Colonial Rule.  2. Gandhian Nationalism.  3. Rise of Communism : Russia  4. Rise of Fascism: Italy. | 1. Rise of Nazism : Germany.  2. Rise of Militarism : Japan.  PROJECT:  Social and religious reforms of India in Nineteenth century. |
| **GEOGRAPHY** | 1. Age and Origin of the Earth 2. Interior of the Earth 3. Rocks 4. Endogenous processes and associated landforms 5. Drifting of continent and plate tectonics 6. Isotasy 7. Volcanoes and Earthquakes 8. Exogenous processes and associated landforms   **Map work:**   1. Mountains 2. Plateaus | 1. Soils 2. Fluvial process and associated landform 3. Aeolian process and associated landforms 4. Glacial and associated landforms 5. Work of ground water and associated landforms 6. Marine and associated land 7. Coral Reefs 8. Composition and Structure of the atmosphere 9. Atmospheric Pressure and Wind   **Map work:**   1. Mountains 2. Plateaus 3. Water Bodies 4. Rivers   **PROJECT:**  **Choose any island area of the world or India and:**  (a) trace the map of the area and show physical features, towns and port cities.  (b) prepare a project report using photographs and pictures from brochures and magazines to show:  - its origin and formation.  - soil types, vegetation.  - human occupations. | 1. The Biosphere 2. Biodiversity 3. Biodiversity for sustenance   of mankind   1. India as a mega diversity nation 2. Loss of Biodiversity 3. Strategies for conservation of Biodiversity 4. World climate types 5. Climate change 6. Natural Hazards   **Map work:**   1. Mountains 2. Plateaus 3. Water Bodies 4. Rivers 5. Ocean currents 6. Island | 1. Submarine relief and deposits 2. Marine deposits 3. Ocean water 4. Ocean Water movements   **Map work:**   1. Climatic region   **PRACTICAL:**   1. **SURVEY, STATISTICAL** 2. **DIAGRAMS AND** 3. **MAP PROJECTION.** |
| **POLITICAL SCIENCE** | 1.Introduction to Political Science.  2.Fundamental Concepts  3. The Origin of the State  4. Political Ideologies. | 5.International Relations.  6.End of Cold War  7.Disintegration of the  Soviet Union.  Rest of the chapters of Revisional Assessment I  PROJECT:-Fundamental Concepts | 1. Sovereignty  2. Law  3. Liberty  4. Equality | **5**.Justice  6.Unipolar World  7.Regional Cooperation  8.NonAlignment and  The Non- Aligned movement  Rest of the chapters from Revisional Assessment II  **PROJECT : NAM** |
| **MATHEMATICS** | **SECTION - A**   1. Sets 2. Relations and Functions 3. Trigonometry 4. Complex Numbers 5. Quadratic Equations 6. Linear Inequalities | **SECTION - A**   1. Sets 2. Relations and Functions 3. Trigonometry 4. Complex Numbers 5. Quadratic Equations 6. Linear Inequalities 7. Binomial Theorem 8. Permutation and Combination 9. Sequences and Series   **SECTION - B**   1. Conic Sections   **SECTION - C**   1. Statistics   **PROJECT**:USING VENN DIAGRAM VERIFY THE DISTRIBUTION LAW FOR 3 GIVEN NON -EMPTY SETS A, B AND C. | **SECTION - A**   1. Straight Lines 2. Circles 3. Limitsand   Derivatives   1. Statistics 2. Probability   **SECTION - B**   1. Introduction to   Three-Dimensional  Geometry  **SECTION - C**   1. Correlation Analysis | **SECTION - A**   1. Sets 2. Relations and Functions 3. Trigonometry 4. Complex Numbers 5. Quadratic Equations 6. Linear Inequalities 7. Binomial Theorem 8. Permutation and   Combination   1. Sequences and Series 2. Straight Lines 3. Circles 4. Limits and Derivatives 5. Statistics 6. Probability   **SECTION - B**   1. Conic Sections 2. Introduction to Three-   Dimensional Geometry   1. Mathematical Reasoning   **SECTION - C**   1. Statistics 2. Correlation Analysis 3. Index Number and Moving   Averages  **PROJECT**: CALCULATE MOVING AVERAGES WITH THE GIVEN EVEN PERIODICITY. PLOT THEM AS WELL AS THE ORIGINAL DATA ON THE SAME GRAPH  **OR**  EXPLAIN THE STATISTICAL SIGNIFICANCE OF PERCENTILE AND DRAW INFERENCES OF PERCENTILE FOR A GIVEN DATA. |
| **BIOLOGY** | 1.Unit1.Diversity of Living Organisms  2. Unit2. Structural Organisation  in Animals and Plants  i. Morphology of Flowering Plants  ii. Anatomy of Flowering Plants  iii. Structural Organisation in Animals | Assessment I+ iii. Structural  Organisation in Animals  2.Unit3.Cell:StructureandFunction  i. Cell- The Unit of Life  ii. Bio molecules  iii. Cell Cycle and Division Cell  **PROJECT TOPIC:** DIABETES/ENDOCRINE  DISORDERS/AIDS/HUMAN GENOME PROJECT | 1. Unit 4: Plant physiology | MIDTERM+ Assessment II+  1.Unit5. Human Physiology  • **Lab manual** |
| **PHYSICS** | 1.Physical world and measurement  2. Kinematics  3. Laws of Motion  4. Work, energy and  **Practical**  1. To measure the diameter of a spherical body using Vernier calipers. Calculate its volume with appropriate significant figures. Also measure its volume using a graduated cylinder and compare the two.  2. Find the diameter of a wire using a micrometer screw gauge and determine percentage error in cross sectional area. | Whole Syllabus of Assessment I+  5. System of particles and rotational motion  6. Gravitation  **Practical**  3. Determine radius of curvature of a spherical surface like watch glass by a spherometer.  4. Inclined plane: To find the downward force acting along the inclined plane on a roller due to gravitational pull of earth and to study its relationship with angle of inclination by plotting graph between force and sin θ.  5. To find the acceleration due to gravity by measuring the variation in time period (T) with effective length (L) of a simple pendulum; plot graphs of T νs √L and T2 νs L. Determine effective length of the seconds pendulum from T2 vs L graph. | 7. Mechanical properties of Solid  8. Mechanical properties of Fluid  9. Heat and Thermodynamics  **Practical**  6. To find the force constant of a spring and to study variation in time period of oscillation mass m of a body suspended by the spring. To find acceleration due to gravity by plotting a graph of T against √m.  7. To study the fall in temperature of a body (like hot water) with time. Find the slope of the curve at four different temperatures of the hot body and hence, deduce Newton's law of cooling. | 10. Behaviour of Perfect Gases and Kinetic Theory of Gases  11. Oscillations and Waves + Full Syllabus |
| **CHEMISTRY** | 1. Some basic concepts of chemistry.  2. Structure of atom  3.Classification of elements andperiodicity in properties  **Practical: Lab manual**  1. Basic laboratory techniques  2. Acid – Base titration | 1. Chemical bonding and Molecular Structure.  2.Organic chemistry: Some basicprinciples and techniques  (+ASSESSMENTI)  PROJECT  (ANYONE)  1. Natural Polymers(any five)-  structure, characteristics, uses.  Synthetic polymers(any five)–  Method of preparation, structure, characteristics  and uses.  2.Insecticides, pesticides and chemical fertilizers  **Practical: Lab manual**  1.Acid – Base titration  2. Salt analysis | 1. Redox reaction  2. Chemical Thermodynamic  3. Hydrocarbons  **Practical: Lab manual**  1.Redox titration  2. Salt analysis | 1.Equilibrium  Full syllabus  **Practical: Lab manual**  1.Acid – Base titration  2. Redox titration  3. Salt analsis |
| COMPUTER SCIENCE | 1. Numbers(Days 2)  2. Encoding  (a) Binary encoding for integers and real numbers using a finite number of bits(signmagnitude, 2’s complement, mantissaexponent notation).(Days 3)  (b) Characters and their encodings (e.g. ASCII, ISCII, Unicode).(Days 3)  3. Propositional logic, Hardware implementation, Arithmetic operations.  (a) Propositional logic, well-formed formulae, truth values and interpretation of well formed formulae, truth tables.(Days 4)  (b) Logic and hardware, basic gates(AND, NOT, OR) and their universality, other gates (NAND, NOR, XOR, XNOR), half adder, full adder.(Days 4)  Practical:(i) Creating an expert system for Road-traffic,(ii)Creating an expert system for medical diagnosis,(iii)Creating a security system for age-appropriate access,(iv) Simulate Adders using Arduino Controllers,(Days 13) | Syllabus of Assessment 1(Days 6)  4. Introduction to object oriented programming using Java.(Days 4)  5. Objects:  (a) Objects as data(attributes) +behaviour (method or mrthodes); object as an instance of a class.(Days 2)  (b) Analysis of some real-world programming examples in terms of object and classes.(Days 3)  (c) Basic concept of a virtual machine; java virtual machine(JVM); compilation and execution of java programs.(Days 3)  (d)Compile time and run time errors; basic concept of an exception, the Exception class, try-catch, throw, throws and finally.(Days 4)  6.Primitive values, Wrapper classes, Types and casting.(Days 2)  7.Variables, Expressions.(Days 3)  8. Statements, Scope( Days 3)  9. Methods and Constructors(Days 3)  10. Arrays, Strings( Days 2)  Practical:(i) Simulate a converter of Binary to Decimal(ii) Program for Tickit reservation.(Days 4) | 11 . Basic input/output data file handling (Binary and Text)   1. Basic input/output using Scanner and Printer classes. 2. Data file handling.   12. Recursion  Concept of recursion, simple recursive methods (e.g. factorial, GCD, binary search, conversion of representations of numbers between different basses)  13. Implementation of algorithms to solve problems.  14. Packages  15. Trends in computing and ethical issues.  a) Artificial intelligence, Internet of things Virtual reality and Augmented Reality  b) Cyber security, Privacy, netiquette, spam, phishing.  c) Intellectual property, Software copyright and patents and free software foundation.  Practical: 1. Console application for encrypt and decrypt message   1. Console application for bank 2. Console application to develop text editor | Syllabus of assessment 1, Mid term and assessment 2 |
| **ENVIRONMENTAL SCIENCE** | Ch-1 Modes of existence  Ch-2 Ecology | Ch-1, 2+  Ch-3 Pollution  Ch-4 Legal Regimes for Sustainable development  **PROJECT: AIR POLLUTION** | Ch-5 Technology and Environment  Ch-6 Design and planning for Environmental Conservation | Full Syllabus |
| **ECONOMICS** | * 1. Definition of economics   2. Basic concepts of economics   3. Basic problems of an economy   4. Statistics theory | * 1. Types of economies   2. Solution to the basic problems of an economy   3. Economic growth and development   4. Parameters of development   5. Measures of central tendency   6. Including syllabus of assessment 1   **PROJECT : SAARC AND IT’S IMPACT ON INDIAN ECONOMY** | * 1. Economic planning   2. Poverty   3. Measures of dispersion   4. Unemployment   5. Liberalisation | * 1. Agriculture   2. Human capital formation   3. Correlation   4. Index number   5. Whole syllabus   **PROJECT : COMPARING THE STATUS OF WOMEN OF YOUR STATE WITH THAT AT THE NATIONAL LEVEL FOR THE LAST 10 YEARS.** |
| **COMMERCE** | * 1. Nature and purpose of business   2. Forms of business organization upto partnership | * 1. Forms of business organization (remaining)   2. Social responsibility of business and business ethics.   3. E-business and outsourcing   4. Including Assessment 1 syllabus   **PROJECT : DEVELOPING A BUSINESS PLAN FOR STARTING A NEW PARTNERSHIP FIRM** | * 1. Stock exchange   2. Insurance | * 1. Inland trade   2. Foreign trade   3. Whole syllabus   **PROJECT : INSURANCE POLICIES** |
| **ACCOUNTS** | * 1. Introduction to Accounts   2. Journal, ledger(with and without GST)   3. Trial balance   4. Capital and Revenue expenditure | * 1. Subsidiary book   ( purchase day book, sales day book, return inward book, return outward book excluding GST)   * 1. Cash book (Single column, triple column and petty cash book without GST)   2. Ledger posting from subsidiary books   3. Including Assessment 1 syllabus   **PROJECT : PREPARATION OF JOURNAL, LEDGER AND TRIAL BALANCE WITHOUT GST FROM 15 TRANSACTIONS OF A SOLE PROPRIETOR STARTING A NEW BUSINESS** | * 1. Depreciation   2. Bills of exchange   3. Rectification of errors | * 1. Final accounts   2. NPO   3. Including whole syllabus   **PROJECT: PREPARATION OF FINAL ACCOUNTS WITH TEN ADJUSTMENTS FROM THE TRIAL BALANCE OF PROJECT 1.** |
| **BST** | * 1. Business environment   2. Entrepreneurship | * 1. Manager and managerial roles   2. Business risk   3. Including Assessment 1 syllabus   **PROJECT : STUDY AND COMPARE SWOT ANALYSIS OF TWO LEADING PUBLIC SECTOR COMPANIES FROM DIFFERENT INDUSTRIES.** | 1. Authority, responsibility and accountability 2. Change management | 1. Automation at work places 2. Productivity enhancement tools and facilities 3. Whole syllabus   **PROJECT : PRODUCTIVITY TOOLS IN RETAIL STORES, BANKS AND AIRPORT** |
| **FRENCH** | Mon Passeport (Level 0) –  Mid Term  Unité 3 :- Je m'appelle…  \*Les Dialogues (The Dialogues)  \*Épelezvotreprénom (Spell your prename(first name))  \*Pour prendrecongé (To take leave)  \*Pour adresser (To address) | **Unité 4 :- Bonjour**  **\*Pour Saluer**  **\*Les dialogues**  **\*Formel/Informel**  **\*Comment ça va? (How are you?)** | Final Term  Unité 5 :- Je Compte  \*Les nombres 0 à 20  \*Les animaux (The animals) | LesComptines(NurseryRhymes) |