

**ST. MARK'S SCHOOL**  
**CLASS XII - SYLLABUS (2019-20)**

**ENGLISH**

**MID TERM EXAMINATION**

**Reader (Flamingo)** – The Last Lesson; Lost Spring; Deep Water; The Rat Trap; Indigo; Poets and Pancakes

**Poems** – My Mother at Sixty-Six; An Elementary School Classroom in a Slum; Keeping Quiet; A Thing of Beauty

**Supplementary Reader (Vistas)** – The Third Level; The Tiger King; Journey to the End of the Earth; The Enemy; Should Wizard Hit Mommy

**Reading section** – Comprehension Passage, Note Making

**Writing Skills** – Notice, Poster, Advertisement, Article, Report, Debate, Speech, Formal Letters (Complaint, Order, Enquiry), Letter to Editor

**ASL** – 20marks

**PRE-BOARDS**

**Reader (Flamingo)** – The Interview; Going Places.

**Poems** – A Road side stand; Aunt Jennifer's Tigers

**Supplementary Reader (Vistas)** – On the Face of It; Evans Tries an O'Level; Memories of Childhood

**Reading section** – Comprehension Passage, Note Making.

**Writing Skills** – Formal and Informal Invitations and their replies, Formal Letter (Job Application)

**ASL** – 20marks

**(+ Entire Syllabus of Mid Term Examination)**

**PHYSICS**

**MID TERM EXAMINATION**

**Unit I** - Electrostatics; **Unit II** - Current Electricity; **Unit III** - Magnetic effects of current and Magnetism;

**Unit IV** - Electromagnetic Induction and Alternating current; **Unit V** - Electromagnetic Waves;

**Unit IX** - Electronic Devices

**PRE-BOARDS**

**Unit VI** - Optics; **Unit VII** - Dual Nature of Radiation and Matter; **Unit VIII** - Atoms and Nuclei

**(+ Entire Syllabus of Mid Term Examination)**

**CHEMISTRY**

**MID TERM EXAMINATION**

**I** – Solutions; **II** – Electrochemistry; **III** – Chemical Kinetics; **IV** – The p-block Elements; **V** – The d and f block elements; **VI** – Haloalkanes and Haloarenes; **VII** – Alcohols, phenols and ethers; **VIII** – Aldehydes, ketones and carboxylic acids; **IX** – Amines; **X**- Surface chemistry

**PRE-BOARDS**

**X** – Surface Chemistry; **XI** – General Principles and Processes of Isolation of Elements; **XII** – Coordination Compounds; **XIII** – Bio Molecules; **XIV** – Polymers; **XV** – Chemistry in Everyday Life.

**(+ Entire Syllabus of Mid Term Examination)**

**BIOLOGY**

**MID TERM EXAMINATION**

**Unit VI – Reproduction** – **Ch.1** – Reproduction in Organisms; **Ch.2** – Sexual Reproduction in Organisms;

**Ch.3** – Human Reproduction; **Ch.4** – Reproductive Health;

**Unit VII – Genetics and Evolution** – **Ch.5** – Principles of Inheritance and Variation; **Ch.6** – Molecular Basis of Inheritance; **Ch.7** – Evolution;

**Unit VIII – Biology and Human Welfare – Ch.8 – Human Health and Diseases; Ch.10 – Microbes in Human Welfare.**

### **PRE-BOARDS**

**Unit VIII – Biology and Human Welfare – Ch.9 – Strategies for Enhancement in Food Production; Unit IX – Biotechnology and its Applications – Ch.11 – Biotechnology - Principles and Processes; Ch.12 – Biotechnology and its Application; Unit X – Ecology and Environment – Ch.13 – Organisms and Populations; Ch.14 – Ecosystem; Ch.15 – Biodiversity and its conservation; Ch.16 – Environmental Issues (+ Entire Syllabus of Mid Term Examination)**

### **MATHEMATICS**

#### **MID TERM EXAMINATION**

**I – Relation and Functions; II – Inverse Trigonometry; III – Matrices and Determinants; IV – Continuity and Differentiability; V – Application of Derivatives; VI – Integration.**

#### **PRE-BOARDS**

**I – Relation and Functions; II – Inverse Trigonometry; III – Matrices and Determinants; IV – Continuity and Differentiability; V – Application of Derivatives; VI – Integration; VII – Application of Integration; VIII – Differential Equations; IX – Vectors; X – Three Dimensional Geometry; XI – Linear Programming Problem; XII – Probability.**

### **ACCOUNTANCY**

#### **MID TERM EXAMINATION**

**I TERM – PART A – Unit 2 – Accounting for Partnership Firms**

**PART B – Unit 4 – Analysis of Financial Statements (Financial Statements of a company, Financial Statement Analysis, Tools of Analysis, Accounting Ratios); Unit 5 – Cash Flow Statement**

#### **PROJECT WORK**

**II TERM – PART A – Unit 1 – Financial Statements of Not for Profit Organisations; Unit 3 – Accounting for Companies (Accounting for Share Capital and Debentures)**

#### **Project Work**

#### **PRE-BOARDS**

**Entire syllabus including complete Project Work.**

### **ECONOMICS**

#### **MID TERM EXAMINATION**

**Macroeconomics – I – National Income and Related Aggregates; II – Money and Banking; III – Determination of Income and Employment; IV – Government Budget and the Economy; V – Balance of Payments; Project Work.**

**Indian Economic Development – Development Experience (1947-90) and Economics Reforms since 1991.**

#### **PRE-BOARDS**

**Indian Economic Development – Current Challenges facing Indian Economy – Poverty; Rural Development; Human Capital Formation; Employment; Infrastructure; Sustainable Economic Development.**

**Development Experience of India – A comparison with Neighbours.**

**(+ Entire Syllabus of Mid Term Examination)**

### **BUSINESS STUDIES**

#### **MID TERM EXAMINATION**

**I – Nature and significance of Management; II – Principles of Management; III – Business Environment;**

**IV – Planning; V – Organising; VI – Staffing; VII – Controlling; VIII – Marketing Management; Project Work.**

### **PRE-BOARDS**

**I – Directing; II – Financial Management; III – Financial Markets; IV – Consumer Protection; Project Work.**

**(+ Entire Syllabus of Mid Term Examination)**

## **INFORMATICS PRACTICES**

### **MID TERM EXAMINATION**

**Revision of Python Class XI**

#### **4.1. Unit 1 – Data Handling (DH-2)**

##### **4.1.1. Python Pandas**

•Advanced operation on Data Frames – pivoting, sorting and aggregation; •Descriptive statistics – min, max, mode, mean, count, sum, median, quartile, variance; •Create a histogram and quantiles; •Function application – pipe, apply, aggregation (group by), transform and apply map; •Re-indexing and altering labels.

##### **4.1.2. Numpy**

•1D array, 2D array; •Arrays – slices, joins and subsets; •Arithmetic operations on 2D arrays; •Covariance, correlation and linear regression.

##### **4.1.3. Plotting with Pyplot**

•Plot bar graphs, histograms, frequency polygons, box plots and scatter plots.

**Interface Python with an SQL database** – SQL commands – aggregation functions, having, group by, order by.

### **PRE-BOARDS**

#### **4.2. Unit 2 – Basic Software Engineering (BSE)**

•Introduction to software engineering; •Software Processes – waterfall model, evolutionary model and component based model; •Delivery models – incremental delivery, spiral delivery; •Process activities – specification, design/implementation, validation, evolution; •Agile methods – pair programming and Scrum; •Business use-case diagrams; •Practical aspects – Version control system (GIT) and do case studies of software systems and build use-case diagrams.

#### **4.4. Unit 4 – Society, Law and Ethics (SLE-2)**

•Intellectual property rights, plagiarism, digital rights management and licensing (Creative Commons, GPL and Apache), open source, open data, privacy; •Privacy laws, fraud; cybercrime – phishing, illegal downloads, child pornography, scams; cyber forensics, IT Act, 2000; •Technology and society – understanding of societal issues and cultural changes included by technology; •E-waste management – proper disposal of used electronic gadgets; •Identity theft, unique ids and biometrics; •Gender and disability issues while teaching issues while teaching and using computers; •Role of new media in society – online campaigns, crowdsourcing, smart mobs; •Issues with the internet – Internet as an echo chamber, net neutrality, internet addiction; •Case studies – Arab Spring, WikiLeaks, Bit coin.

#### **4.3. Unit 3 – Data Management (DM-2)**

•Write a minimal Django based web application that parses a GET and POST request and write the fields to a file – flat file and CSV file.

**(+ Entire Syllabus of Mid Term Examination)**

## **COMPUTER SCIENCE**

### **MID TERM EXAMINATION**

**I – Revision tour of C++; II – Object Oriented Programming; III – Function Overloading; IV – Classes and Objects; V – Constructors and Destructors; VI – Inheritance; VII – Data file Handling; VIII – Arrays; IX –**

Boolean Algebra; **X** - Networking - Network devices; Lan Design; Communication protocols; Wireless/Mobile Computing; Internetworking Terms and Concepts Network Security; Viruses; E-commerce.

### **PRE-BOARDS**

**I** - Database concepts; **II** - Structured Query Language; **III** - Networking; **IV** - Data structures.  
(+ **Entire Syllabus of Mid Term Examination**)

## **POLITICAL SCIENCE**

### **MID TERM EXAMINATION**

**Book I** - **I** - Cold War Era; **II** - The End of Bipolarity; **III** - US Hegemony in World Politics; **IV** - Alternative Centres of Power; **V** - Contemporary South-Asia; **VI** - International Organisations; **VII** - Security in the contemporary world; **VIII** - Environment and Natural Resources; **IX** - Globalisation;  
**Project Work - 20 marks.**

**Book II** - **I** - Challenges of Nation Building; **II** - Era of one Party Dominance; **III** - Politics of planned Development; **IV** - India's External Relations.

### **PRE-BOARDS**

**Book II** - **I** - Challenges to and Restoration of Congress System; **II** - The crisis of Democratic order; **III** - Rise of popular movements; **IV** - Regional Aspirations; **V** - Recent Developments in Indian Politics  
(+ **Entire Syllabus of Mid Term Examination**)

## **SOCIOLOGY**

### **MID TERM EXAMINATION**

**BOOK A (INDIAN SOCIETY)** - **Ch.2** - Demographic structure and Indian Society; **Ch.3** - Social Institutions (Continuity and Change); **Ch.4** - Market as a social institution; **Ch.5** - Pattern of social inequality and exclusion; **Ch.6** - Challenges of Cultural Diversity.

### **PRE-BOARDS**

**BOOK B (CHANGE AND DEVELOPMENT IN INDIAN SOCIETY)** - **Ch.8** - Structural change; **Ch.9** - Cultural change; **Ch.10** - The story of Democracy; **Ch.11** - Change and development in Rural Society; **Ch.12** - Change and development in Industrial Society; **Ch.13** - Globalization and Social Change; **Ch.14** - Mass Media and Communications; **Ch.15** - Social Movements; **Project Work** - File + Research Design Paper + Viva;

(+ **Entire Syllabus of Mid Term Examination**)

## **PHYSICAL EDUCATION**

### **MID TERM EXAMINATION**

**Unit 1** - Planning in Sports; **Unit 2** - Sports and Nutrition; **Unit 3** - Yoga and Lifestyle; **Unit 4** - Physical Education and Sports for CWSN (Children with special needs - Divyang); **Unit 5** - Children and Women in Sports; **Unit 6** - Test and measurement in Sports.

### **PRE-BOARDS**

**Unit 7** - Physiology and Injuries in Sports; **Unit 8** - Biomechanics and Sports; **Unit 9** - Psychology and Sports; **Unit 10** - Training in Sports; (+ **Entire Syllabus of Mid Term Examination**)

## **PSYCHOLOGY**

**I TERM - UNIT I** - Intelligence and other psychological position, **Unit 2** - Self & Personality, **Unit 3** - Human strengths & meeting life challenges, **Unit 4** - Psychological Disorders, **Unit 5** - Therapeutic Approaches & Counselling **Practicals** : 3 Psychological Tests + Case Profile.

**MID TERM EXAMINATION - Term I Syllabus ;**

**II TERM – Unit 6**-Social Cognition & attitude, **Unit 7** – Social Influence and group processes, **Unit 8** – Environmental & Social Concerns, **Unit 9** – Developing Psychological Skills & their application;  
**Practicals** :2 Psychological Tests + Case Profile, **PRE BOARD – FULL SYLLABUS**