ST. MARK'S SCHOOL
CLASS XI – SYLLABUS (2019-20)

ENGLISH

MID TERM EXAMINATION

Reading Skills – Long reading comprehension and Note making.
Hornbill –The Portrait of a Lady; We're not Afraid to Die…If We Can All Be Together; Discovering Tut – The Saga Continues; Landscape of the soul.
Poems –A Photograph; The voice of the Rain; The Laburnum Top.
Snapshots–The Summer of the Beautiful White Horse; The Address; Ranga's Marriage; Albert Einstein at School.
Grammar – Editing, Omission, Rearranging of words or phrases into meaningful sentences.
Writing Skills–Notice, Poster, Business Letters (for making enquiries, registering complaints, asking for and giving information, placing orders and sending replies), Article, Report Writing.

FINAL EXAMINATION

Reading Skills – Long reading comprehension and Note making.
Hornbill – The Ailing Planet: The Green Movement's Role; The Browning Version;The Adventure; Silk Road.
Poems – Childhood; Father to Son
Snapshots – Mother's Day; Birth; TheGhat of the only World; The Tale of Melon City
Grammar – Editing, Omission and Rearranging of words and phrases into meaningful sentences.
Writing Skills – Advertisements, Application for a job with a bio-data, Letters to the Editor, Speech, Debate, Narrative**(+ Entire Syllabus of Mid Term Examination)**

PHYSICS

MID TERM EXAMINATION

Unit I - Physical world and measurement; **UnitII -**Kinematics; **Unit III -**Laws of motion; **UnitIV -**Work, energy and power; **UnitV -**Motion of system of particles and rigid body

FINAL EXAMINATION

UnitVII -Properties of Bulk Matter; **UnitVIII -**Thermodynamics; **UnitIX -**Behaviour of perfect gas and Kinetic theory; **UnitVI –** Gravitation;**UnitX –** Oscillations and waves**(+ Entire Syllabus of Mid Term Examination)**

CHEMISTRY

MID TERM EXAMINATION

I – Some Basic Concepts of Chemistry; **II –** Structure of Atom; **III –** Classification of elements; **IV –**Chemical Bonding and Molecular Structure; **V –** p- Block Element; **VI –** Thermodynamics; **VII –** s-Block Elements

FINAL EXAMINATION

I – Some Basic Concepts of Chemistry; **II –** Structure of Atom; **III –** Classification of elements; **IV –**Chemical Bonding and Molecular Structure; **V –** States of Matter; **VI –** Thermodynamics; **VII –** Equilibrium; **VIII –** Redox Reaction; **IX –** Hydrogen;**X –** The s – Block elements; **XI –** The p – Block elements; **XII –** Organic Chemistry – some Basic Principles and Techniques; **XIII –** Hydrocarbon; **XIV –** Environmental Chemistry

BIOLOGY

MID TERM EXAMINATION

Unit 1 – Diversity of Living Organisms; **Unit 2 –** Structural Organization in Plants and Animals;
Unit 3 – Cell: Structure and Function (Ch. 8 and Ch. 10)

FINAL EXAMINATION

Unit 4 – Plant Physiology;**Unit 5 –** Human Physiology; **Ch. 9 –** Biomolecules
(+ Entire Syllabus of Mid Term Examination)

MATHEMATICS

MID TERM EXAMINATION

I – Sets; **II –**Trigonometry functions; **III –**Mathematical Induction; **IV –**Complex Numbers and Quadratic Equation; **V –** Linear In-equations; **VI –**Straight Lines; **VII –** Conic sections.

FINAL EXAMINATION

I – Sequence and Series; **II –**Permutations and Combinations; **III –**Binomial Theorem; **IV –**Introduction to 3-D; **V –** Limits and Derivatives; **VI –**Statistics; **VII –** Probability;**VIII –** Relations and functions; **IX –** Mathematical Reasoning. **(+ Entire Syllabus of Mid Term Examination)**

ACCOUNTANCY

MID TERM EXAMINATION

1. Introduction to Accounting; **2.** Theory Base of Accounting; **3.** Recording of transactions including Accounting Equation (Voucher, Journal, Special Purpose Books including GST calculations, Ledger, Trial Balance, Bank Reconciliation Statement)

FINAL EXAMINATION

1. Depreciation, Provision and Reserves; **2.** Accounting for Bills of Exchange; **3.** Rectification of Errors, Financial Statements of Sole Proprietorship from complete and incomplete records; **4.** Computers in Accounting; **Project Work – 20 marks; (+ Entire Syllabus of Mid Term Examination)**

ECONOMICS

MID TERM EXAMINATION

Statistics for Economics – I – Introduction; **II –** Collection of Data; **III –** Organization of Data; **IV –** Presentation of Data; **V –** Measures of central tendency including quartiles;

Micro Economics – I – Introduction; **II –** Consumer's Behaviour and Demand.

FINAL EXAMINATION

Statistics for Economics – I – Measures of Dispersion; **II –** Correlation **III –** Index Numbers.

Micro Economics – I –Producers Behaviour and Supply; **II –** Forms of market and Price Determination under perfect competition; **Project Work; (+ Entire Syllabus of Mid Term Examination)**

BUSINESS STUDIES

MID TERM EXAMINATION

I – Nature and Purpose of Business; **II –**Forms of Business Organisation; **III –**Public, Private and Global Enterprises; **IV –**Business Services; **V –** Emerging modes of Business.

FINAL EXAMINATION

I – Nature and Purpose of Business; **II –**Forms of Business Organisation; **III –**Public, Private and Global Enterprises; **IV –**Business Services; **V –** Emerging modes of Business;**VI –** Social Responsibilities of Business; **VII –**Sources of Business Finance; **VIII –**Small Business; **IX –**Internal Trade; **X –** International Trade;

Project Work – 20 marks.

INFORMATICS PRACTICES

MID TERM EXAMINATION

Unit 1 – Introduction of Computer System

Basic computer organization: Computer system – I/O Devices, CPU, memory, hard disk, battery, power, transition from a calculator to a computer and further to smart devices. Trouble shooting with parts of computer and basic operations of operating system. Basic concept of Data representation: Binary, ASCII, Unicode.

Unit 4 – Data Management

Relational databases: Concept of a database, relations, attributes and tuples, keys – candidate key, primary key, alternate key, foreign key; Degree and Cardinality of a table. Use SQL – DDL/DML commands to CREATE TABLE, INSERT INTO, UPDATE TABLE, DELETE FROM, ALTER TABLE, MODIFY TABLE, DROP TABLE, keys, and Foreign keys; to view content of table: SELECT-FROM-WHERE-ORDER BY along with BETWEEN, IN, LIKE. (Queries only on single table). Aggregate Functions: MIN, MAX, AVG, COUNT, SUM.

Unit 2 – Introduction Python Programming

Familiarization with the basic of Python programming: a simple "hello world" program, process of writing a program, running it, and print statements; simple data-types: integer, float, string. Introduce the notion of variable, and methods to manipulate it (concept of L-value and R-value even if not taught explicitly). Tokens – keywords, identifiers, Literals, Delimiters. Knowledge of data type and operators: accepting input from the console, assignment statement, expressions, operators (assignment, arithmetic, relational and logical) and their precedence. Conditional statements: if, if-else, if-elif-else; simple programs: e.g.: absolute value, sort 3 numbers, divisibility. Notion of iterative computation and control flow: for (range() , len()), while, flowcharts. Suggested programs: finding average and grade for given marks, amount calculation for given cost-qty-discount, perimeter-wise/area-wise cost calculation, interest calculation, profit-loss, EMI, tax calculation (example from GST/Income Tax).

FINAL EXAMINATION

Unit 2 – Introduction Python Programming (Continued)

List, dictionary: finding the maximum, minimum, mean; linear search on a list of numbers, and counting the frequency of elements in a list using a dictionary. Text handling: compare, concat, and substring operations (without using string module).

*Introduction to Python modules:*Importing math (sqrt, ceil, floor, pow, fabs), random (random, randint, randrange), statistics (mean, median) modules.

Unit 3 – Data Handling

Numpy 1D array, 2D array, Arrays: slices, joins and subsets. Arithmetic operations on 2D arrays.

Unit 5 – Society, Law and Ethics

Cyber safety: safely browsing the web, identity protection, confidentiality, social networks, netiquettes, digital footprint, cyber trolls and bullying. Appropriate usage of social networks: spread of rumours, and common social networking sites (Twitter, LinkedIn and Facebook) and specific usage rules. Safely accessing web sites: adware, malware, viruses, Trojans. Safely communicating data: secure connections, eavesdropping and phishing and identity verification.**(+ Entire Syllabus of Mid Term Examination)**

COMPUTER SCIENCE

MID TERM EXAMINATION

Unit 1 – Computer Systems and Organisation

•Basic computer organisation: description of a computer system and mobilesystem, CPU, memory, hard disk, I/O, battery. •Types of software: application, System, utility. •Memory Units: bit, byte, MB, GB, TB, and PB. •Boolean logic: OR, AND, NAND, NOR, XOR, NOT, truth tables, De Morgan's laws. •Information representation: numbers in base 2, 8, 16, binary addition. •Strings: ASCII, UTF8, UTF32, ISCII (Indian script code), Unicode. •Basic concepts of Flowchart. •Concept of Compiler and Interpreter. •Running a program: Notion of an operating system, how an operating systemruns a program, idea of loading, operating system as a resource manager. •Concept of cloud computing, cloud (public/private), introduction to parallelcomputing.

Unit 3 – Data Management

•Relational databases: Concept of a database, relations, attributes and tuples,keys- candidate key, primary key, alternate key, foreign key;Degree andcardinality of a table. •Use SQL – DDL/ DML commands to CREATE TABLE, INSERT INTO, UPDATE TABLE, DELETE FROM, ALTER TABLE,MODIFY TABLE, DROPTABLE, keys, and foreign keys; to view content of a table: SELECT-FROM-WHERE-ORDER BY alongwith BETWEEN, IN, LIKE, (Queries only on singletable). •Aggregate functions – MIN,MAX,AVG,COUNT,SUM. •Basics of NoSQL databases.

Unit 2 – Computational Thinking and Programming

Basics of Computational Thinking: Decomposition, Pattern Recognition/ Data representation, Generalization/ Data Abstraction and algorithm.

Familiarization with the basics of Python programming: a simple "hello world" program, process ofwriting a program (Interactive and Script mode), running it, and print statements; simple data-types: integer, float, string

•Features of Python, Python Character Set, Token and Identifiers, Keywords, Literals, Delimiters, operators. •Comments: (Single line and Multiline/ Continuation statements), Clarity and Simplification of expression. •Introduce the notion of a variable, and methods to manipulate it (concept of L-value and R-value evenif not taught explicitly). •Knowledge of data types and operators: accepting input from the console, assignment statement,expressions, operators and their precedence. •Operators and types: Binary operators-Arithmetic, Relational operators, LogicalOperators, Augmented Assignment operators. •Conditional statements: if, if-else, if-elif-else; simple programs: e.g.: absolute value, sort 3 numbers,and divisibility. •Notion of iterative computation and control flow: for(range(),len()), while,flowcharts, suggested programs: interest calculation and factorials, etc. •Idea of debugging: errors and exceptions; debugging: pdb, break points. •Strings: Traversing, compare, concat, substring. •Introduction to Python modules: Importing math (sqrt, cell, floor, pow, fabs, sin,cos, tan, random (random, randint, randrange), statistics (mean, median,mode) modules.

FINAL EXAMINATION

Unit 2 – Computational Thinking and Programming

•Lists, tuples and dictionary: finding the maximum, minimum, mean; linearsearch on list/tuple ofnumbers, and counting the frequency of elements in a listusing a dictionary. Introduce the notion ofaccessing elements in a collectionusing numbers and names. •Sorting algorithm: bubble and insertion sort; count the number of operations while sorting.

Unit 4 – Society, Law and Ethics – Cyber safety

•Cyber safety: safely browsing the web, identity protection, confidentiality,social networks, cyber trollsand bullying. •Appropriate usage of social networks: spread of rumours, and common socialnetworking sites (Twitter, LinkedIn and Facebook) and specific usage rules. •Safely accessing web sites: adware, malware, viruses, Trojans. •Safely communicating data: secure connections, eavesdropping, phishing andidentity verification.**(+ Entire Syllabus of Mid Term Examination)**

POLITICAL SCIENCE

MID TERM EXAMINATION

Book I – I – Constitution: Why and How?; **II –**Rights; **III –**Election; **IV –**Legislature; **V –** Executive; **VI –** Judiciary; **VII –** Federalism; **VIII –** Local Government; **IX –** Constitution as a Living Document;**X –** Philosophy of Constitution.

FINAL EXAMINATION

Book II – I – Introduction to Political Theory; **II –**Freedom; **III –** Equality; **IV –**Social Justice; **V –**Rights; **VI –**Citizenship; **VII –** Nationalism; **VIII –** Secularism;**IX –** Peace; **X –** Development; **Project Work –** 20 marks;**(+ Entire Syllabus of Mid Term Examination)**

SOCIOLOGY

MID TERM EXAMINATION

Unit 1 – Society, Sociology and its relationship with other Social Sciences;**Unit 2 –** Basic Concepts and their use in Sociology;**Unit 3 –** Understanding Social Institutions;**Unit 4 –** Culture and Socialization;**Unit 5 –** Doing Sociology: Research Methods.

MID TERM +FINAL EXAMINATION

Unit 6 – Social Structure, Stratification and Social Processes in Society; **Unit 7 –** Social Change and Social Order in Rural and Urban Society; **Unit 8 –** Environment and Society; **Unit 9 –** Introducing Western Sociologists;

Unit 10 – Indian Sociologists.

Practical:

A. Project (undertaken during the Academic Year at school level)

i) Statement of the purpose **ii)** Methodology / Technique **iii)** Conclusion

B. Viva – Based on the project work

C. Research design – Steps of Research (Example – observation, interview, content analysis) to be explained to student and questions accordingly raised. **i)** Overall format **ii)** Research Question/Hypothesis **iii)** Choice of technique **iv)** Detailed procedure for implementation of technique **v)** Limitations of the above technique.

PHYSICAL EDUCATION

MID TERM EXAMINATION

Unit 1 – Changing trends and Career in Physical Education; **Unit 2 –**Olympic Value Education; **Unit 3 –**Physical Fitness, Wellness and Lifestyle; **Unit 4 –**Physical Education and Sports for CWSN (Children with special needs – Divyang); **Unit 5 –** Yoga; **Unit 6 –**Physical Activity and Leadership Training.

FINAL EXAMINATION

Unit 1 – Changing trends and Career in Physical Education; **Unit 2 –**Olympic Value Education; **Unit 3 –**Physical Fitness, Wellness and Lifestyle; **Unit 4 –**Physical Education and Sports for CWSN (Children with special needs – Divyang); **Unit 5 –** Yoga; **Unit 6 –**Physical Activity and Leadership Training; **Unit 7 –** Test, Measurement and Evaluation; **Unit 8 –** Fundamentals of Anatomy, Physiology & Kinesiology in Sports **; Unit 9** – Psychology and Sports **; Unit 10 –** Training and Doping in Sports

PSYCHOLOGY

MID TERM EXAMINATION – Chap. I – What is Psychology? **Chap. II** – Methods of enquiry in psychology. **Chap. III** – The bases of human behavior, **Chap. IV** – Human Development **Practicals** : One Experiment + One Project.

FINAL TERM - Chap.1 – What Psychology ? **Chap. II** – Methods of enquiry in psychology, **Chap. III** – The bases of human behavior**, Chap. IV** – Human Development, **Chap. V**- Sensory; Attentional & Perceptual Processes, **Chap. VI –** Learning, **Chap. VII** – Human Memory, **Chap. VIII** – Thinking, **Chap. IX** – Motivation & Emotion, **Practicals :** Two Experiments + One Project.