



**INDIAN SCHOOL AL WADI AL KABIR - SYLLABUS BREAK UP FOR OCTOBER 2019-20
CLASS XII - SCIENCE**

SUBJECT	WEEK 1	WEEK 2	WEEK 3	WEEK 4	WEEK 5
ENGLISH	Lit: C.C. A Roadside Stand (Poem) Lang: Informal Invitations & Replies Notice writing	Lit: S.R. On the Face of It (Play) Lang: Note – Making and Summary, Advertisements, Report Writing	Lit: S.R. Evans tries an O Level Lang: Reading Comprehension 1, Posters, Notices	Lit: C.C. Going Places Lang: Article Writing 1, Note- Making & Summary Lit: S.R. Memories of Childhood Lang : Speech Writing	
PHYSICS	<u>Semiconductors</u> Energy bands in solids (Qualitative ideas only) conductor, insulator and semiconductor;	semiconductor diode - I-V characteristics in forward and reverse bias, diode as a rectifier I-Characteristics of LED, photodiode, solar cell, and	Junction transistor, transistor action, characteristics of a transistor, transistor as an amplifier (common emitter configuration	Logic gates (OR, AND, NOT, NAND and NOR). Elements of a communication system (block diagram only); bandwidth of signals (speech, TV and digital data); bandwidth of transmission medium	<u>COMMUNICATION</u> Communication System Propagation of electromagnetic waves in the atmosphere,

		Zener diode; Zener diode as a voltage regulator.			
PHYSICS (PRACTICALS)	<u>CYCLE-4</u> [10] SEMICONDUCTOR DIODE [11] TRAVELLING MICROSCOPE [12] LIQUID LENS				
CHEMISTRY	Preparation and properties of $K_2Cr_2O_7$ and $KMnO_4$. Lanthanoids - Electronic configuration, oxidation states chemical reactivity and lanthanoid contraction and its consequences. Actinoids - Electronic configuration, oxidation states and comparison with lanthanoids	<u>CHAPTER 2 SOLUTIONS</u> Types of solutions, expression of concentration of solutions of solids in liquids, solubility of gases in liquids, solid solutions, colligative properties - relative lowering of vapour pressure, Raoult's law, elevation of boiling point, depression of freezing point, osmotic pressure, determination of	<u>CHAPTER 3 ELECTROCHEMISTRY</u> Redox reactions, conductance in electrolytic solutions, specific and molar conductivity, variations of conductivity with concentration, Kohlrausch's Law, electrolysis and law of electrolysis (elementary idea), dry cell-electrolytic cells and Galvanic cells, lead accumulator, EMF of a cell, standard electrode potential, Nernst equation and its	<u>CHAPTER 4 CHEMICAL KINETICS</u> Rate of a reaction (Average and instantaneous), factors affecting rate of reaction: concentration, temperature, catalyst; order and molecularity of a reaction, rate law and specific rate constant, integrated rate equations and half-life (only for zero and first order reactions),	Concept of collision theory (elementary idea, no mathematical treatment). Activation energy, Arrhenius equation. <u>CHAPTER 6 General Principles and Processes of Isolation of Elements</u> Occurrence and principles of extraction of aluminium, copper, zinc and iron

		molecular masses using colligative Properties, abnormal molecular mass, Van't Hoff factor.	application to chemical cells, Relation between Gibbs energy change and EMF of a cell, fuel cells, corrosion.		
CHEMISTRY (PRACTICALS)	EXPT: 9, 10, 11 & 12: SALT NO. 1,2,3 & 4				
MATHEMATICS	Vector Algebra	Vector Algebra + 3 - D	3 - D	3 - D	Probability
MATHEMATICS (PRACTICALS)	Vector Algebra - Act 20 (Vector product) Week-2 Three Dimensional Geometry - Act 22 (3D – Distance formula) Week - 4				
BIOLOGY	Biotechnology - principles	Biotechnology - application	Biology in human welfare – Human health and diseases	Biology in human welfare – Human health and diseases	Biology in human welfare – strategies in enhancing in food production
BIOLOGY (PRACTICALS)	<ul style="list-style-type: none"> • Disease causing organisms • DNA extraction 				

INFORMATICS	MySQL – Introduction to Joining two tables – Cartesian Product – Union – Intersection – Equi Join – Non Equi Join	MySQL – displaying data from multiple tables.	MySQL – concept of Database transactions – TCL commands – COMMIT, ROLLBACK, SAVEPOINT – DCL Commands - GRANT AND REVOKE	IT Applications – Front end Interface – Back end Database	
INFORMATICS (PRACTICALS)	DDL: <ul style="list-style-type: none"> • Creating a database • Creating tables with constraint 	<ul style="list-style-type: none"> • Altering the table • Deleting the table 	DML: <ul style="list-style-type: none"> • Inserting records • Updating the content of the table • Deleting the records 	<ul style="list-style-type: none"> • SQL queries from two tables • Queries with aggregate functions 	Revision on java programming for board practical exam Revision of JDBC
COMPUTER SCIENCE	Database concepts – Data model – Relational Algebra	Structure Query Language – SQL commands	Boolean Algebra – Introduction – Laws – Gates	Logic circuits – SOP – POS – Karnaugh map	
COMPUTER SCIENCE (PRACTICAL)	DDL: <ul style="list-style-type: none"> • Creating a database • Creating tables 	DML: <ul style="list-style-type: none"> • Inserting records • Updating the content of the table 	Programs in C++: <ul style="list-style-type: none"> • Data file handling - both text files and binary files 	Programs on one dimension and two dimension arrays	Revision on data files, implementation of static and dynamic stack and queue for board practical exam

	<ul style="list-style-type: none"> with constraint • Altering the table • Deleting the table 	<ul style="list-style-type: none"> • Deleting the records • Joining tables with referential integrity • SQL queries from two tables • Queries with aggregate functions 			
PSYCHOLOGY	<ul style="list-style-type: none"> • PRACTICAL (4) <p>UNIT VII(CONT)</p> <ul style="list-style-type: none"> • Conformity, compliance and obedience 	<ul style="list-style-type: none"> • Cooperation and competition • Social identity • Inter group conflict • Conflict resolution strategies • 	<p>PRACTICAL (5)</p> <p>UNIT VIII PSYCHOLOGY AND LIFE</p> <ul style="list-style-type: none"> • Human environment relationships • Environmental effects on human behaviour • Natural disaster 	<ul style="list-style-type: none"> • Promoting pro environmental behaviour • Psychology and social concerns 	<p>(completion of unit VIII)</p> <p>UNIT IX</p> <ul style="list-style-type: none"> • Developing as an effective psychologist • General skills • Observational skills • Specific skills

PSYCHOLOGY (PRACTICAL)	RAVEN'S STANDARD PROGRESSIVE MATRICES SINHA'S COMPREHENSIVE ANXIETY TEST				
WORK EXPERIENCE	Prepare a balance sheet for 10 transaction in MS Excel	Prepare a payroll for the employees	Prepare the result analysis of students in a class	Prepare a report on the sales performance of the employees and calculate the commission	Exercise on if, countif(), sumif(), Averageif() , sorting etc
GENERAL STUDIES	Project file Topics based on (Human Rights) *Civil & Political rights *Gender Equality *Economic,social and cultural rights.				
PE	Gender differences in physical & physiological parameters. <ul style="list-style-type: none"> • Physiological factor determining component of Physical Fitness • Effect of exercise on Cardio Vascular System • Effect of exercise on Respiratory System • Effect of exercise on Muscular System • Physiological changes due to ageing 				

- Role of physical activity maintaining functional fitness in aged population

Concept, Aims & Scope of Sports Medicine

- Sports injuries: Classification, Causes & Prevention
- First Aid – Aims & Objectives.
- First Aid – Aims & Objectives.
- Introduction to Axes & Planes
- Types of movements (Flexion, Extension, Abduction & Adduction)
- Major Muscles involved in running, jumping & throwing

Newton's Law of Motion & its application in sports

- Projectile & factors affecting Projectile Trajectory
- Friction & Sports.

Group study

Revision

class test

Practical -

specific games - choice of students

fitness test

Aahper test

HOD'S/ COORDINATORS

VICE PRINCIPAL

PRINCIPAL