

ST. RAPHAEL CO- ED SCHOOL JATKHEDI, BHOPAL



SYLLABUS

2025 – 26

CLASS – XII (PCM/PCB)

Name: _____

Class: _____ Sec: _____

ENGLISH			
MONTH	TOPICS	ACTIVITY	EXAM SYLLABUS
APRIL	FLAMINGO: L1- The Last Lesson P1- My Mother at Sixty Six VISTAS: i. The Third Level WRITING SKILL: Notice Writing & Poster		
JUNE	FLAMINGO: L2- Lost Spring P2- Keeping Quiet VISTAS: ii. The Tiger King WRITING SKILL: Formal/ Informal Invitation	Prepare a formal and an informal invitation	
JULY	FLAMINGO: L3- Deep Water P3- The Thing of Beauty L4- The Rattrap VISTAS: iii. Journey to the End.. iv. The Enemy WRITING SKILL: Letter to the Editor	Project on Life and Times of any two Poets and their Works	PT-I 1. The Last Lesson 2. Lost Spring 3. My Mother at .. 4. The Third Leve W.S.- Poster and Notice
AUGUST	FLAMINGO: L5- Indigo VISTAS: v. On the Face of It		PT-II 1. Deep Water 2. Keeping Quiet 3. The Thing of Beauty

	WRITING SKILL: Job Application		4. The Tiger King W.S.- Invitation and Letter to the Editor
SEPTEMBER	FLAMINGO: P4- A Roadside Stand L6- Poets and Pancakes	ASL	MID-TERM PT-I + PTII+ 1. The Rattrap 2. Journey to the.. 3. The Enemy W.S.- Notice, Poster, Invitations, Letter to the Editor and Replies
OCTOBER	FLAMINGO: L7- The Interview VISTAS: vi. Memories of Childhood: Part 1 WRITING SKILL: Article Writing	Art Integrated Project + Interview Based Research	
NOVEMBER	FLAMINGO: L8- Going Places P5- Aunt Jennifer's Tiger VISTAS: vii. Memories of Childhood: Part 2	ASL	
DECEMBER	Revision		PB-I Full Syllabus
JANUARY	Revision		PB-II Full Syllabus
FEBRUARY			FINAL EXAMS

PHYSICS			
Months	Chapter	Practical/Activity	Exam Syllabus
APRIL	Chapter–1: Electric Charges and Fields Chapter–2: Electrostatic Potential and Capacitance	1. To determine resistivity of two / three wires by plotting a graph for potential difference versus current. ACTIVITIES 1. To measure resistance, voltage (AC/DC), current (AC) and check continuity of a given circuit using multimeter.	
APRIL	Chapter–3: Current Electricity Chapter–4: Moving Charges and Magnetism	2. To find resistance of a given wire / standard resistor using metre bridge 3.To verify the laws of combination (series) of resistances using a metre bridge. OR To verify the laws of combination (parallel) of resistances using a metre bridge. ACTIVITIES 2 To assemble a household circuit comprising three bulbs, three (on/off) switches, a fuse and a power source	
JUNE	Chapter–5: Magnetism and Matter Chapter-6 Electromagnetic Induction	3. To determine resistance of a galvanometer by half-deflection method and to find its figure of merit ACTIVITIES 3. To assemble the components of a given electrical circuit.	
JULY	Chapter–7: Alternating Current	ACTIVITIES 4. To identify a diode, an LED, a resistor and a capacitor from a mixed collection of such items	PT-I (5th july to 11 th july) Ch-1,2,3

AUGUST	Chapter-8: Electromagnetic Waves Chapter-9: Ray Optics and Optical Instruments	5. To find the value of v for different values of u in case of a concave mirror and to find the focal length. 6. To find the focal length of a convex lens by plotting graphs between u and v or between $1/u$ and $1/v$	PT – 2 (2nd Aug to 8 th Aug) Ch-4,5,
SEPTEMBER	REVISION Chapter-10: Wave Optics	7.To determine angle of minimum deviation for a given prism by plotting a graph between angle of incidence and angle of deviation	MIDTERM (15th Sept to 26 th Sept) Ch-1,2,3,4,5,6,7
OCTOBER	Chapter-11: Dual Nature of Radiation and Matter Chapter-12: Atoms	8.To find the refractive index of a liquid using convex lens and plane mirror. 9.To draw the I-V characteristic curve for a p-n junction diode in forward and reverse bias. ACTIVITIES 5.To observe refraction and lateral deviation of a beam of light incident obliquely on a glass slab.	
NOVEMBER	Chapter-13: Nuclei Chapter-14: Semiconductor Electronics: Materials, Devices and Simple Circuit	ACTIVITIES 6.To observe diffraction of light due to a thin slit.	
DECEMBER	REVISION FOR PRE-BOARD		PRE- BOARD (4th Dec to 15 th Dec) FULL SYLLABUS
JANUARY	REVISION FOR FINAL EXAM		PRE-BOARD (5th Jan to 14th jan) FULL SYLLABUS

CHEMISTRY			
MONTH	TOPICS	ACTIVITY/PRACTICAL	EXAM SYLLABUS
APRIL	CH 1: Solution CH 6: Haloalkanes and haloarenes	QUANTITATIVE ANALYSIS (TITRATION) (a) KMnO_4 v/s FAS	
JUNE	CH 7: Alcohol, Phenol & ether	QUANTITATIVE ANALYSIS (TITRATION) (b) KMnO_4 v/s Oxalic acid	
JULY	CH 2: Electrochemistry CH 3: Chemical kinetics	Characteristic tests of carbohydrates, fats and proteins in pure samples & their detection in given foodstuffs. Chromatography- To separate the coloured components of mixture of blue and red ink and calculate the R_f value.	PT 1: CH 1 AND 6
AUGUST	CH 4: d- and f- Block elements CH 5: Coordination Chemistry	Tests for the functional groups present in organic compounds: Unsaturation, alcoholic, phenolic, aldehydic, ketonic, & carboxylic groups.	PT 2: CH 2 AND 7
SEPTEMBER	CH 8: Aldehydes, Ketones & Carboxylic Acids FOR MID TERM *REVISION	Qualitative analysis Determination of one anion and one cation in a given salt	MID TERM: CH 1,2,3,4,5 And 6
OCTOBER	CH 8: Aldehydes, Ketones & Carboxylic Acids (CONT.) CH 9: Amines	Qualitative analysis Determination of one anion and one cation in a given salt	
NOVEMBER	CH 10: Biomolecules	Determination of one anion and one cation in a given salt	
DECEMBER	Revision		PRE BOARD 1

			FULL SYLLABUS
JANUARY	Revision		PRE BOARD 2 FULL SYLLABUS
FEBRUARY	Revision		FINAL EXAM

MATHS

Months	Chapter	Practical/Activity	Exam Syllabus
APRIL	2. Inverse Trigonometry 5. Continuity and differentiability 6. Applications of Derivatives 7. Integrals	*To draw the graph of $\sin^{-1}x$, using the graph of $\sin x$ and demonstrate the concept of mirror reflection (about the line $y = x$). *To explore the principal value of the function $\sin^{-1}x$ using a unit circle. *To find analytically the limit of a function $f(x)$ at $x = c$ and also to check the continuity of the function at that point. *To understand the concepts of absolute maximum and minimum values of a function in a given closed interval through its graph. *To understand the concepts of decreasing and increasing functions.	

		*To understand the concepts of local maxima, local minima and point of inflection.	
JUNE	8. Application of Integrals 9. Differential Equations	<p>*To verify that the relation R in the set L of all lines in a plane, defined by $R = \{(l, m) : l \perp m\}$ is symmetric but neither reflexive nor transitive.</p> <p>*To verify that the relation R in the set L of all lines in a plane, defined by $R = \{(l, m) : l \parallel m\}$ is an equivalence relation.</p> <p>*To demonstrate a function which is not one-one but is onto.</p> <p>*To demonstrate a function which is one-one but not onto.</p>	
JULY	1. Relation and functions 3. Matrices		PT-I CH-5,6,7,8
AUGUST	4. Determinants 12. Linear Programming		PT-2 CH- 1,2,3,4
SEPTEMBER	13. Probability		MIDTERM CH-1,2,3,4,5,6,7,8, 9,12
OCTOBER	10. Vectors	*To measure the shortest distance between two skew lines and verify it analytically.	
NOVEMBER	11. Three Dimensional Geometry		
DECEMBER	REVISION FOR PRE-BOARD		PRE- BOARD FULL SYLLABUS

JANUARY	REVISION FOR FINAL EXAM		PRE-BOARD FULL SYLLABUS
FEBRUARY			

BIOLOGY			
MONTH	TOPICS	ACTIVITY / PRACTICAL	EXAM SYLLABUS
APRIL	LESSON 1 SEXUAL REPRODUCTION IN FLOWERING PLANTS LESSON 2 HUMAN REPRODUCTION LESSON 3 REPRODUCTIVE HEALTH	1. PREPARE A SLIDE TO STUDY POLLEN GERMINATION 2. SLIDES OF T.S TESTIS & OVARY, T.S BLASTULA	
JUNE	LESSON 4 PRINCIPLES OF INHERITANCE AND VARIATION	STUDY OF PLANT POPULATION AND DENSITY EMASCULATION,BAGGING &TAGGING TECHNIQUE	
JULY	LESSON 5 MOLECULAR BASIS OF INHERITANCE LESSON 6 EVOLUTION	5. ISOLATION OF DNA FROM PLANT MATERIAL	PT I LS- 2,3
AUGUST	LESSON 7 HUMAN HEALTH AND DISEASES LESSON 8 MICROBES IN HUMAN WELFARE LESSON 9 BIOTECHNOLOGY: PRINCIPLES AND PROCESSES	6. STUDY OF VARIOUS SPECIMENS OF PLANT AND ANIMALS THAT CAUSE DISEASES IN HUMAN	PT 2 LS – 4,5
SEPTEMBER	REVISION & MID-TERM EXAM		MID-TERM LS. 1-10

OCTOBER	LESSON 10 BIOTECHNOLOGY AND ITS APPLICATION LESSON 11 ORGANISMS AND POPULATIONS	7.STUDY OF HOMOLOGOUS AND ANALOGOUS ORGANS IN PLANTS & ANIMALS.	
NOVEMBER	LESSON 12 – ECOLOGY LESSON 13 BIODIVERSITY AND CONSERVATION		
DECEMBER	REVISION & PRE-BOARD I		LS. 2 - 15
JANUARY	REVISION & PRE-BOARD II		LS 2-15

COMPUTER SCIENCE			
Months	Chapter	Practical/Activity	Exam Syllabus
APRIL	Ch-1.Revision of Python €programming-I Ch-2. Revision of Python programming -II Ch-3. Revision of Python programming -III	Practicals on the basis of All the condition used in Python.	
JUNE	Ch-4. Functions Ch-5.Recursion	Practicals on the basis of functions used in programming.	
JULY	Ch-10.Computer Network Ch-6. Data structures-Stacks & Queues.	Practicals on the basis of Data structures.	PT-I CH-1 & 2
AUGUST	Ch-7.File Handling-(Text Files, Binary Files and CSV Files)		PT-2 CH-4 & 10
SEPTEMBER	Ch-8.Python Libraries Ch-12. DBMS & working with MYSQL	Practical on the topic of Python Libraries.	MIDTERM CH-1 to 4 & 6,7,10.
OCTOBER	Ch-13. Simple queries in SQL	Practical of MYSQL(Database)	
NOVEMBER	Ch-14. Interface of Python with MYSQL	Connectivity between Python & MYSQL(database)	
DECEMBER	Ch-11. Network Protocol (Revision for Final examination)	Revision for Final Examination	PRE BOARD 1 FULL SYLLABUS
JANUARY	REVISION FOR FINAL EXAM		PRE BOARD 2 FULL SYLLABUS
FEBRUARY			

PSYCHOLOGY

MONTH	TOPICS	ACTIVITY / PRACTICAL	EXAM SYLLABUS
APRIL	CHAPTER 1- VARIATIONS IN PSYCHOLOGICAL ATTRIBUTES	MAKE A COLLAGE ON EMOTIONAL INTELLIGENCE OR MULTIPLE INTELLIGENCE. GROUP DISCUSSIONS ON DIFFERENT PERSONALITY TRAITS	
JUNE	CHAPTER 2- SELF AND PERSONALITY PRACTICAL 1	UNDERSTANDING THE SELF ACTIVITY: IN THIS STUDENT WILL COMPLETE 10 SENTENCES STARTING WITH "I AM ____ ." WITH THIS ACTIVITY CONNECTING THE CONCEPT OF SELF, PERSONAL AND SOCIAL IDENTITY, COGNITIVE AND BEHAVIORAL ASPECT OF SELF. ANALYZE DIFFERENT PERSONALITY PROFILES OF PUBLIC.	
JULY	CHAPTER 3- MEETING LIFE CHALLENGES PRACTICAL 2	ROLE PLAY : CREATE SCENARIOS WHERE STUDENTS FACE COMMON CHALLENGES LIKE EXAM STRESS.	PT 1 CH-1
AUGUST	CHAPTER 4 - PSYCHOLOGICAL DISORDERS PRACTICAL 3	GROUP DISCUSSION ON DIFFERENT PSYCHOLOGICAL DISORDER. EXPRESS SYMPTOMS OF ANY ONE DISORDER OF YOUR CHOICE THROUGH A DRAWING USING COLOR OR SOME KIND OF ART.	PT 2 CH-2
SEPTEMBER	CHAPTER 5- THERAPEUTIC APPROACHES	EXPRESS DIFFERENT SETTING OF THERAPIES THROUGH DRAWING ITS PHYSICAL ENVIRONMENT, POSITION OF	MID TERM CH- 1,2,3,4

		COUNSELLOR AND CLIENT AND CAPTIONING IN A STATEMENT WHAT SETS THEM APART.	
OCTOBER	CHAPTER 6- ATTITUDE AND SOCIAL COGNITION PRACTICAL 4	MAKE A LIST OF THE VARIOUS ASPECTS THAT YOU THINK, FEEL AND ACT TOWARDS YOUR BEST FRIEND. IDENTIFY THE COGNITIVE, AFFECTIVE AND BEHAVIOURAL COMPONENTS OF ATTITUDES. OBSERVATION ON ATTITUDES TOWARDS SOCIAL ISSUES.	
NOVEMBER	CHAPTER 7- SOCIAL INFLUENCE AND GROUP PROCESSES PRACTICAL 5	DISCUSS REAL LIFE EXAMPLES OF SOCIAL INFLUENCE. DRAW/PAINT AN IMAGE BASED ON FIGURE AND GROUND CONCEPT.	
DECEMBER	REVISION & PRE- BOARD	SAMPLE PAPER, CASE STUDIES, PREVIOUS YEAR PAPER PRACTICE	PRE-BOARD I FULL SYLLABUS
JANUARY	REVISION & PRE- BOARD	BOARD PRACTICAL PROJECT EXAMINATION	PRE-BOARD II FULL SYLLABUS

PHYSICAL EDUCATION

MONTH	NAME OF THE CHAPTER	TOPICS	ACTIVITY/ PRACTICAL	EXAM SYLLABUS
APRIL	CH 1- Planning in Sports	1. Management of Sporting Events <ul style="list-style-type: none"> ● Meaning & objective of management ● Various committees & its responsibilities ● Tournaments – Knock out, League or round Robin 	Organizing inter-house competition.	

		Procedure to draw the fixtures – Knock Out (Staircase & Cyclic)		
JUNE	CH 2 -Sports and nutrition	2. Children & women for sports <ul style="list-style-type: none"> ● Concept & Advantages of Correct Posture ● Causes of Bad Posture ● Common Postural Deformities- Knock Knee, Flat Foot, Round Shoulder, Lordosis , Kyphosis, Bow Leg and scoliosis. ● Special Consideration (Menarche, Amenorrhea, Eating Disorders) ● Psychological and Sociological Aspect of women athlete 3. Yoga as Preventive measure for Lifestyle Disease <ul style="list-style-type: none"> ● Asanas as preventive measures ● Obesity: Procedure, Benefits contraindication for vaajrasana, Hastasana, Trikonasana, Ardh Matsyendrasana ● Asthma: Procedure, Benefits & Contraindication for Sukhasana, Chakrasana, gaumukhasana, Parvatasana, Bhujanasana, Pasmitonasana, Matsyasana ● Hypertension: Tarasana, vajrasana, Pawanmuktasana, Ardhchakrasana, Bhujangasana, Sharsasana 	Demonstration of correct posture of movements	
JULY	CH 3- Yoga as Preventive measure for Lifestyle Disease		Performing different asanas for concentration of mind.	PT 1: CH 1
AUGUST	CH 4 - Physical Education & Sports Differently- Abled	4.Physical Education & Sports Differently-Abled <ul style="list-style-type: none"> ● Concept of Disability & Disorder ● Types of Disability, Its Causes & Nature (Cognitive Disability, 	Knowledge about equipment required for CWSN	PT 2: CH 2,3

	<p>.</p> <p>CH 5 - Children & women sports</p>	<p>Intellectual Disability, Physical Disability)</p> <ul style="list-style-type: none"> • Types of Disorder, Its Causes & Nature (ADHD, SPD, ASD, ODD, OCD) • Disability Etiquettes <p>5. Sports and nutrition</p> <ul style="list-style-type: none"> • Balanced diet & nutrition: macro & micro nutrients • Nutritive & nonnutritive components of diet <p>6. Test & Measurements in Sports</p> <ul style="list-style-type: none"> • Motor Fitness Test – AAPHER • Measurements of Cardio Vascular Fitness – Harward Step Test/ Rock sport Test • Measurements of Flexibility – Sit & Reach Test • Rikli & Jones Senior Citizen • Test: - <ul style="list-style-type: none"> ➤ Chair & Stand Test for lower body strength ➤ Arm Curl Test for upper body strength ➤ Chair Sit & Reach Test for lower body flexibility ➤ Eight Foot Up & Go Test for Agility <p>Six Minute Walk Test for Aerobic Endurance</p>	<p>Preparation of balanced diet</p>	
SEPTEMBER	<p>CH 6: Test & Measurements in Sports</p>		<p>Conducting of physical fitness test</p>	<p>MID TERM: CH 1, 2, 3,4 & 5</p>
OCTOBER	<p>CH 7: Physiology & Sports</p> <p>CH 8:</p>	<p>7. Physiology & injuries in Sports</p> <ul style="list-style-type: none"> • Gender differences in physical & physiological parameters • Physiological Factor Determining Component of Physical FitnessEffect of 	<p>Explaining about the first aid given to sports injuries</p>	

	Biomechanics and Sports	<p>Exercise on Cardio- Vascular System</p> <ul style="list-style-type: none"> ● Effect of Exercise on Respiratory System ● Effect of Exercise on Circulatory System ● Physiological Changes Due to Ageing ● Classification of sports injuries ● Causes of sports injuries ● Prevention of sports injuries ● Meaning and principal of first aid ● Management of soft tissue injuries ● Management of hard tissue injuries. <p>8. Biomechanics and Sports</p> <ul style="list-style-type: none"> ● . Newton's Law of Motion & its application in sports ● Types of Levers and their application in Sports. ● Equilibrium – Dynamic & Static and Centre of Gravity and its application in sports ● Friction & Sports <p>Projectile in Sports</p>	<p>Explaining the topics through different physical activities Defining different body types for personality development</p> <p>Explanation of different types of training methods</p>	
NOVEMBER	CH 9 Psychology and Sports	<p>9. Psychology and Sports</p> <ul style="list-style-type: none"> ● Personality; its definition & types (Jung Classification & Big Five Theory) ● Motivation, its type & techniques. ● Exercise Adherence: Reasons, Benefits & Strategies for Enhancing it ● Meaning, Concept & Types of Aggressions in Sports ● Psychological Attributes in 	<p>Defining different body types for personality development</p> <p>Explanation of</p>	

	CH 10 Training In Sports	<p>Sports – Self-Esteem, Mental Imagery, Self- Talk, Goal Setting</p> <p>10. Training In Sports</p> <ul style="list-style-type: none"> ● Concept of Talent Identification and Talent Development in Sports ● Introduction to Sports Training Cycle – Micro, Meso, Macro Cycle. ● Types & Methods to Develop – Strength, Endurance, and Speed. ● Types & Methods to Develop – Flexibility and Coordinative Ability, Circuit Training - Introduction & its importance 	different types of training methods	
DECEMBER	Revision	PRACTICAL		PRE BOARD
JANUARY	Revision			PRE BOARD
FEBRUARY	Revision			