Usha Martin School, Malda
Session:-2024-25
Class:- XII (B) (PRAGATI)

Subject	Periodic Test-I	Half Yearly Examination	Pre Board I & II
English	***FLAMINGO*** Last Lesson Lost Spring The Rat Trap Aunt Jennifer's Tigers My Mother at Sixty Six ***VISTAS*** The Third Level Tiger King ***WRITING*** Notice Articles	***FLAMINGO*** Last Lesson Lost Spring The Rat Trap Aunt Jennifer's Tigers My Mother at Sixty Six Deep Water Indigo The Interview Keeping Quiet Roadside Stand ***VISTAS*** The Third Level Enemy Journey to the End of the Earth Tiger King ***WRITING*** Notice Articles Formal Informal Invitations and Replies Letters Report	***FLAMINGO*** Last Lesson Lost Spring The Rat Trap Aunt Jennifer's Tigers My Mother at Sixty Six Deep Water Indigo The Interview Keeping Quiet Roadside Stand Poets and Pancakes Going Places A Thing of Beauty ***VISTAS*** The Third Level Enemy Journey to the End of the Earth Tiger King On the Face of It Memories of Childhood ***WRITING*** Notice Articles Formal Informal Invitations and Replies Letters Report

Physics	***BOOK :*** ***1. NCERT PHYSICS (PART I + PART II)*** ***2. NCERT EXEMPLAR*** Chapter–1: Electric Charges and Fields Chapter–2: Electrostatic Potential and Capacitance Chapter–3: Current Electricity	***BOOK :*** ***1. NCERT PHYSICS (PART I + PART II)*** ***2. NCERT EXEMPLAR*** Chapter–1: Electric Charges and Fields Chapter–2: Electrostatic Potential and Capacitance Chapter–3: Current Electricity Chapter–4: Moving Charges and Magnetism Chapter–5: Magnetism and Matter Chapter–6: Electromagnetic Induction Chapter–7: Alternating Current Chapter–8: Electromagnetic Waves ***PRACTICAL SYLLABUS:*** 1. To find the value of v for different values of u in case of a concave mirror and to find the focal length. 2. To find the focal length of a convex mirror, using a convex lens. 3. To find the focal length of a convex lens by plotting graphs between u and v or between 1/u and 1/v. 4. To find the focal length of a concave lens, using a convex lens. 5. To determine angle of minimum deviation for a given prism by plotting a graph between angle of incidence and angle of deviation. 6. To draw the I-V characteristic curve for a p-n junction diode in forward and reverse bias.	***BOOK :*** ***1. NCERT PHYSICS (PART I + PART II)*** ***2. NCERT EXEMPLAR*** Chapter–1: Electric Charges and Fields Chapter–2: Electrostatic Potential and Capacitance Chapter–3: Current Electricity Chapter–4: Moving Charges and Magnetism Chapter–5: Magnetism and Matter Chapter–6: Electromagnetic Induction Chapter–7: Alternating Current Chapter–8: Electromagnetic Waves Chapter–9: Ray Optics and Optical Instruments Chapter–10: Wave Optics Chapter–11: Dual Nature of Radiation and Matter Chapter–12: Atoms Chapter–13: Nuclei Chapter–14: Semiconductor Electronics: Materials, Devices and Simple Circuits.

Chemistry	***BOOK :*** ***1. NCERT CHEMISTRY PART (PART I + PART II)*** ***2. MODERN'S ABC+ CHEMISTRY (PART I + PART 2)*** UNIT : 1 Solutions UNIT : 5 Coordination Compounds UNIT : 6 Haloalkanes and Haloarenes UNIT : 4 The d- and f- block Elements ***PRACTICAL – COMPREHENSIVE CHEMISTRY*** Determination of concentration/ molarity of KMnO4 solution by titrating it against a standard solution of: i) Oxalic acid ii) Ferrous Ammonium Sulphate Determination of one cation and one anion in a given salt	***BOOK : 1. NCERT CHEMISTRY PART (PART I + PART II)*** ***2. MODERN'S ABC+ CHEMISTRY (PART I + PART 2)*** UNIT : 1 Solutions UNIT : 3 Chemical Kinetics UNIT : 4 The d- and f- block Elements UNIT : 5 Coordination Compounds UNIT : 6 Haloalkanes and Haloarenes UNIT : 8 Aldehydes, Ketones and Carboxylic Acids UNIT : 9 Amines UNIT : 10 Biomolecules ***PRACTICAL – COMPREHENSIVE CHEMISTRY*** 1. Determination of concentration/ molarity of KMnO4 solution by titrating it against a standard solution of: i) Oxalic acid ii) Ferrous Ammonium Sulphate 2. Determination of one cation and one anion in a given salt 3. Preparation of double salt of Ferrous Ammonium Sulphate or Potash Alum. Preparation of Potassium Ferric Oxalate. 4. Tests for the functional groups present in organic compounds: Unsaturation, alcoholic, phenolic, aldehydic, ketonic, carboxylic and amino (Primary) groups. 5. Surface Chemistry (a) Preparation of one lyophilic and one lyophobic sol Lyophilic sol - starch, egg albumin and gum Lyophobic sol - aluminium hydroxide, ferric	***BOOK : 1. NCERT CHEMISTRY PART (PART I + PART II)*** ***2. MODERN'S ABC+ CHEMISTRY (PART I + PART 2)*** UNIT : 1 Solutions UNIT : 2 Electrochemistry UNIT : 3 Chemical Kinetics UNIT : 4 The d- and f- block Elements UNIT : 5 Coordination Compounds UNIT : 6 Haloalkanes and Haloarenes UNIT : 7 Alcohols , Phenols and Ethers UNIT : 8 Aldehydes, Ketones and Carboxylic Acids UNIT : 9 Amines UNIT : 10 Biomolecules

		hydroxide, arsenous sulphide. (b) Dialysis of sol-prepared in (a) above. (c) Study of the role of emulsifying agents in stabilizing the emulsion of different oils. 6. Characteristic tests of carbohydrates, fats and proteins in pure samples and their detection in given foodstuffs. 7. Chromatography i) Separation of pigments from extracts of leaves and flowers by paper chromatography and determination of Rf values. ii) Separation of constituents present in an inorganic mixture containing two cations only (constituents having large difference in Rf values to be provided). **8. Investigatory project**	
Biology	***BOOK :*** ***1. NCERT TEXT BIOLOGY*** ***2. MODERN'S ABC*** Chapter-1: Sexual Reproduction in Flowering Plants Chapter-2: Human Reproduction Chapter-3: Reproductive Health Chapter-4: Principles of Inheritance and variation Chapter-7: Human Health and Diseases	***BOOK :*** ***1. NCERT TEXT BIOLOGY*** ***2. MODERN'S ABC*** Chapter-1: Sexual Reproduction in Flowering Plants Chapter-2: Human Reproduction Chapter-3: Reproductive Health Chapter-4: Principles of Inheritance and Variation Chapter-7: Human Health and Diseases	***BOOK :*** ***1. NCERT TEXT BIOLOGY*** ***2. MODERN'S ABC*** Chapter-1: Sexual Reproduction in Flowering Plants Chapter-2: Human Reproduction Chapter-3: Reproductive Health Chapter-4: Principles of Inheritance and Variation Heredity and variation: Chapter-5: Molecular Basis of Inheritance Chapter-6: Evolution

		Chapter-5: Molecular Basis of Inheritance Chapter-6: Evolution Chapter-8: Microbes in Human Welfare Chapter-13: Biodiversity and Conservation ***PRACTICAL*** A. List of Experiments 1. Prepare a temporary mount to observe pollen germination. 2. Study the plant population density by quadrat method. 3. Study the plant population frequency by quadrat method. 5. Isolate DNA from available plant material such as spinach, green pea seeds, papaya, etc. B. Study and observer the following (Spotting): 1. Flowers adapted to pollination by different agencies (wind, insects, birds).	Chapter-7: Human Health and Diseases Chapter-8: Microbes in Human Welfare Chapter-9: Biotechnology - Principles and Processes Chapter-10: Biotechnology and its Applications Chapter-11: Organisms and Populations Population interactions - Chapter-12: Ecosystem Chapter-13: Biodiversity and Conservation ***PRACTICAL*** A. List of Experiments 1. Prepare a temporary mount to observe pollen germination. 2. Study the plant population density by quadrat method. 3. Study the plant population frequency by quadrat method. 4. Prepare a temporary mount of onion root tip to study mitosis. 5. Isolate DNA from available plant material such as spinach, green pea seeds, papaya, etc. B. Study and observer the following (Spotting):

		2. Pollen germination on stigma through a permanent slide or scanning electron micrograph. 3. Identification of stages of gamete development, i.e., T.S. of testis and T.S. of ovary through permanent slides (from grasshopper/mice). 4. Meiosis in onion bud cell or grasshopper testis through permanent slides. 5. T.S. of blastula through permanent slides (Mammalian). 6. Mendelian inheritance using seeds of different colour/sizes of any plant. 9. Common disease causing organisms like *Ascaris, Entamoeba, Plasmodium,* any fungus causing ringworm through permanent slides, models or virtual images or specimens. Comment on symptoms of diseases that they cause.	1. Flowers adapted to pollination by different agencies (wind, insects, birds). 2. Pollen germination on stigma through a permanent slide or scanning electron micrograph. 3. Identification of stages of gamete development, i.e., T.S. of testis and T.S. of ovary through permanent slides (from grasshopper/mice). 4. Meiosis in onion bud cell or grasshopper testis through permanent slides. 5. T.S. of blastula through permanent slides (Mammalian). 6. Mendelian inheritance using seeds of different colour/sizes of any plant. 7. Prepared pedigree charts of any one of the genetic traits such as rolling of tongue, blood groups, ear lobes, widow's peak and colour blindness. 8. Controlled pollination - emasculation, tagging and bagging. 9. Common disease causing organisms like *Ascaris, Entamoeba, Plasmodium,* any fungus causing ringworm through permanent slides, models or virtual images or specimens. Comment on symptoms of diseases that they cause.

			10. Models specimen showing symbolic association in root modules of leguminous plants, *Cuscuta* on host, lichens. 11. Flash cards models showing examples of homologous and analogous organs.
Mathematics	***NCERT MATHEMATICS*** 1. Integration (First Four Exercise) 2. Matrices 3. Determinants 4. Relations And Functions 5. Inverse Trigonometry Functions	***NCERT MATHEMATICS*** 1. Integration (First Four Exercise) 2. Matrices 3. Determinants 4. Continuity And Differentiability 5.. Application Of Derivatives 6. . Relations And Functions 7. Inverse Trigonometry Function	. ***NCERT MATHEMATICS*** 1. Integration (First Four Exercise) 2. Matrices 3. Determinants 4. Continuity And Differentiability 5.. Application Of Derivatives 6. . Relations And Functions 7. Inverse Trigonometry Function 8. Application Of Integral 9. Differential Equations 9. Vector And 3d 10. LPP 11. Probability
Physical Education	CH: 1. Management of Sports Events. CH: 2. Children & Women in Sports. CH: 3. Yoga as Preventive Measure for Lifestyle Disease. CH: 4. Physical education and sports for CDSN (Children with Special Needs – DIVYANG).	CH: 1. Management of Sports Events. CH: 2. Children & Women in Sports. CH: 3. Yoga as Preventive Measure for Lifestyle Disease. CH: 4. Physical education and sports for CDSN (Children with Special Needs – DIVYANG). CH: 5. Sports and Nutrition. CH: 6. Test Measurement in Sports.	CH: 1. Management of Sports Events. CH: 2. Children & Women in Sports. CH: 3. Yoga as Preventive Measure for Lifestyle Disease. CH: 4. Physical education and sports for CDSN (Children with Special Needs – DIVYANG). CH: 5. Sports and Nutrition.

		CH: 7. Physiology and Injuries in Sports. CH: 8. Biomechanics and Sports. ***PRACTICAL-1*:** Fitness test Administration. (SAI Khelo India Test) ***PRACTICAL-2***: Procedure for Asana, benefits & Contraindication for any two Asana for each Lifestyle disease. ***PRACTICAL-3*:** Any One IOA recognized Sports/ Game Of choice. Labelled Diagram of Field & Equipment. Also mention its Rules, Terminologies & Skills.	CH: 6. Test Measurement in Sports. CH: 7. Physiology and Injuries in Sports. CH: 8. Biomechanics and Sports. CH: 9. Psychology and Sports. CH: 10. Training in Sports.
Painting	The Rajasthani and Pahari Schools of Miniature Painting	The Mughal and Deccan Schools of Miniature Painting	The Rajasthani and Pahari Schools of Miniature Painting The Mughal and Deccan Schools of Miniature Painting The Bengal School of Painting and the Modern Trends in Indian Art
Computer Science	***BOOK:- COMPUTER SCIENCE WITH PYTHON (SUMITA ARORA)*** Ch 1:- Python Revision Tour Ch2:- Python Revision Tour-II Ch3:-Working With Function Ch 5:- File Handling Ch 6:- Exception Handling	***BOOK:- COMPUTER SCIENCE WITH PYTHON (SUMITA ARORA)*** Ch 7:- Data Structures (7.5 Stacks) Ch 10:- Relational Database Ch11:- Simple Queries in SQL Ch12:- Table Creation and Data Manipulation Command Ch13:-Grouping Records, Joins in SQL Ch14:- Interface Python with MySQL ***PRACTICAL*** ● Read a text file line by line and display each word separated by a #. ● Read a text file and display the number of	***BOOK:- COMPUTER SCIENCE WITH PYTHON (SUMITA ARORA)*** Ch 1:- Python Revision Tour Ch2:- Python Revision Tour-II Ch3:-Working With Function Ch 5:- File Handling Ch 6:- Exception Handling Ch 7:- Data Structures (7.5 Stacks) Ch 8:- Computer Networks – I Ch 9:- Computer Networks -II Ch 10:- Relational Database Ch11:- Simple Queries in SQL Ch12:- Table Creation and Data Manipulation Command Ch13:-Grouping Records, Joins in SQL

		vowels/consonants/uppercase/lowercase characters in the file. ● Remove all the lines that contain the character 'a' in a file and write it to another file. ● Create a binary file with name and roll number. Search for a given roll number and display the name, if not found display appropriate message. ● Create a binary file with roll number, name and marks. Input a roll number and update the marks. ● Write a random number generator that generates random numbers between 1 and 6 (simulates a dice). ● Write a Python program to implement a stack using list.	Ch14:- Interface Python with MySQL ***PRACTICAL*** ● Create a CSV file by entering user-id and password, read and search the password for given userid. Database Management ● Create a student table and insert data. Implement the following SQL commands on the student table: o ALTER table to add new attributes / modify data type / drop attribute o UPDATE table to modify data o ORDER By to display data in ascending / descending order o DELETE to remove tuple(s) o GROUP BY and find the min, max, sum, count and average ● Similar exercise may be framed for other cases. ● Integrate SQL with Python by importing suitable module.