Class : 12 (Science)
ENGLISH (CORE) (CODE NO.: 301)

PERIODIC TEST – I

Language: 1. Reading comprehension through unseen passage(factual case-based passage&discursive/literary passage)

Writing skills: 1. Notice writing; 2. Letter to the editor (giving suggestions/opinions on issues of public interest).

Literature: *flamingo:* 1. The Last Lesson; 2. Lost Spring; 3.Deep Water; 4. My Mother at Sixty-Six (Poem); 5. Keeping Quiet (Poem)

Vistas: 1. The Third Level; 2.The Tiger King.

HALF-YEARLY EXAMINATION

Language: Writing Skill: 1. Article Writing; 2. Job Application with Bio-Data/Resume; 3. Report Writing (For A Newspaper Or A Magazine); 4. Formal Or Informal Invitations

Literature: *Flamingo:* 1.The Rattrap; 2. Indigo; 3.Poets and Pancakes; 4. A Thing of Beauty (Poem); 5.A Roadside Stand (Poem)

Vistas: 1. Journey to the End of the Earth; 2. The Enemy; 3. On the Face of It.

****SYLLABUS OF PERIODIC TEST – I IS INCLUDED****

PERIODIC TEST – II

Language: Replies to the invitations (Formal or Informal)

Literature: *Flamingo:* 1. The Interview; 2. Going Places; 3.Aunt Jennifer's Tigers (Poem);

Vistas: 1. Memories of Childhood.

****SYLLABUS OF PERIODIC TEST – I AND HALF-YEARLY EXAMINATION WILL BE INCLUDED****

PRE–BOARD EXAMINATION:

Entire Syllabus of Class – XII

INTERNAL ASSESSMENT (20 MARKS):

1. Assessment of listening and speaking skills will be conducted as per the guidelines issued by CBSE.

2. Project work + viva (as per the directions given by the board).

PHYSICS (CODENO.: 042)

PERIODIC TEST I:

- Electric Charges and Fields Chapter
- Electrostatic Potential and Capacitance
- Current Electricity

HALF-YEARLY EXAMINATION:

- Moving Charges and Magnetism
- Ray Optics and Optical Instruments
- Wave Optics
- Electromagnetic Induction
- Alternating Current

- **Periodic test-I syllabus will be included**

PERIODIC TEST II:

- Magnetism and Matter
- Electromagnetic Waves
- Dual Nature of Radiation and Matter
- Atoms
- Nuclei

PRE-BOARDEXAMINATION:

- Semiconductor Electronics: Materials, Devices and Simple Circuits
- Periodic test-I+ Half-yearly Examination +Periodic test-II

PRACTICALS

Any 8 Experiments at least 4 from Section A and 4 from Section B; Any 5 Activities covering both the Sections and 1 investigatory projectis to be conducted as directed by the internal teacher.

SECTION-A

List of Experiments

1. To determine resistivity of two / three wires by plotting a graph for potential difference versus current.
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.

4. To determine resistance of a galvanometer by half-deflection method and to find its figure of merit.
5. To convert the given galvanometer (of known resistance and figure of merit) into a voltmeter of desired range and to verify the same.

OR

To convert the given galvanometer (of known resistance and figure of merit) into an ammeter of desired range and to verify the same.

Activities

1. To measure the resistance and impedance of an inductor with or without iron core.
2. To measure resistance, voltage (AC/DC), current (AC) and check the continuity of a given circuit using multimeter.
3. To assemble a household circuit comprising three bulbs, three (on/off) switches, a fuse and a power source.
4. To assemble the components of a given electrical circuit.
5. To study the variation in potential drop with the length of a wire for a steady current.
6. To draw the diagram of a given open circuit comprising at least a battery, resistor/rheostat, key, ammeter and voltmeter. Mark the components that are not connected in proper order and correct the circuit and also the circuit diagram.

SECTION-B

List of Experiments.

1. To find the value of v for different values of u in case of a concave mirror and to findthe 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 determine refractive index of a glass slab using a travelling microscope.
7. To find the refractive index of a liquid using convex lens and plane mirror.
8. To find the refractive index of a liquid using a concave mirror and a plane mirror.
9. To draw the I-V characteristic curve for a p-n junction diode in forward and reverse bias.

Activities

1. To identify a diode, an LED, a resistor and a capacitor from a mixed collection of such items.
2. Use of multimeter to see the unidirectional flow of current in case of a diode and an LED and check whether a given electronic component (e.g., diode) is in working order.
3. To study effect of intensity of light (by varying distance of the source) on an LDR.
4. To observe refraction and lateral deviation of a beam of light incident obliquely on a glass slab.

5. To observe diffraction of light due to a thin slit.
6. To study the nature and size of the image formed by a (i) convex lens, or (ii) concave mirror, on a screen by using a candle and a screen (for different distances of the candle from the lens/mirror).
7. To obtain a lens combination with the specified focal length by using two lenses from the given set of lenses.

Suggested Investigatory Projects

1. To study various factors on which the internal resistance/EMF of a cell depends.
2. To study the variations in current flowing in a circuit containing an LDR because of a variation in
(a) The power of the incandescent lamp, used to 'illuminate' the LDR (keeping all the lamps at a fixed distance).
(b) The distance of an incandescent lamp (of fixed power) used to 'illuminate' the LDR.
3. To find the refractive indices of (a) water (b) oil (transparent) using a plane mirror, an equiconvex lens (made from a glass of known refractive index) and an adjustable object needle.
4. To investigate the relation between the ratio of (i) output and input voltage and (ii) number of turns in the secondary coil and primary coil of a self-designed transformer.
5. To investigate the dependence of the angle of deviation on the angle of incidence using a hollow prism filled one by one, with different transparent fluids.
7. To study the factor on which the self-inductance of a coil depends by observing the effect of this coil, when put in series with a resistor/(bulb) in a circuit fed up by an A.C. source of adjustable frequency.
8. To study the earth's magnetic field using a compass needle -bar magnet by plotting magnetic field lines and tangent galvanometer.

CHEMISTRY (CODENO.: 043)

PERIODIC TEST I

- **Unit VI:** Haloalkanes and Haloarenes.
- **Unit IV:** d and f Block Elements: General introduction, electronic configuration, occurrence and characteristics of transition metals, general trends in properties of the first-row transition metals –metallic character, ionization enthalpy, oxidation states, ionic radii, colour, catalytic property, magnetic properties, interstitial compounds, alloy formation, preparation and properties of $K_2Cr_2O_7$ and $KMnO_4$.
- **Unit I:** Solution: Types of solutions, expression of concentration of solutions of solids in liquids, solubility of gases in liquids, solid solutions, Raoult's law **(before colligative properties)**

HALF-YEARLY EXAMINATION

- **Unit I:** Solution (Full chapter)
- **Unit IV:** d and f Block Elements (Full chapter)
- **Unit II:** Electrochemistry
- **Unit VII:** Alcohols, phenols and ethers
- **Unit V:** Coordination compounds: - Introduction, ligands, coordination number, colour, magnetic properties and shapes, IUPAC nomenclature of mononuclear coordination compounds. Bonding, Werner's theory, VBT.
- **Unit VI:** Haloalkanes and Haloarenes.

PERIODIC TEST II

- **Unit III:** Chemical Kinetics
- **Unit VIII:** Aldehydes, Ketones and Carboxylic Acids
- **Unit IX:** Biomolecules
- **Unit V:** Coordination compounds (Full chapter)

PRE-BOARD EXAMINATION

- **Unit X**: Amines
- Periodic Test-I+ Half-Yearly+ Periodic Test-II
  (Entire syllabus of class XII will be included in Pre-Board Examination)

PRACTICAL:

List of experiments:

1. **Volumetric Analysis:** Determination of concentration/ molarity and strength of $KMnO_4$ solution by titrating it against a standard solution of: i) Oxalic acid, or ii) Ferrous Ammonium Sulphate (Mohr salt)
   (Students will be required to prepare standard solutions by weighing themselves)
2. **Qualitative Analysis(Salt Analysis)**
   Determination of one anion and one cation in a given salt.
   Cations- Pb^{2+}, Cu^{2+}, , Al^{3+}, $Fe^{3+,}$ Mn^{2+}, Ni^{2+}, Zn^{2+}, Co^{2+}, Ca^{2+}, $Sr^{2+,}$ Ba^{2+}, Mg^{2+}, NH_4^+
   Anions – CO_3^{2--} , S^{2-}, NO_2^-, SO_3^{2-}, SO_4^{2-}, NO_3^-, Cl^- , Br^-, I^-, PO_4^{3-}, , CH_3COO^-
   (Note: Insoluble salts excluded)
3. **Content Based Experiment:** (Any one of the following)

- Separation of pigments from extracts of leaves and flowers/ Separation of coloured components present in the mixture of red and blue ink by paper chromatography and determination of R_f values.
- Tests for the functional groups present in organic compounds:
  Unsaturation, alcoholic, phenolic, aldehydic, ketonic, carboxylic and amino (Primary) groups.
- Characteristic tests of carbohydrates, fats and proteins in pure samples and their detection in given foodstuffs.
- Effect of concentration and temperature on the rate of reaction between Sodium Thiosulphate and Hydrochloric acid
- Preparation of one lyophilic and one lyophobic sol
  a. Lyophilic sol-starch, egg albumin and gum (Any one)
  b. Lyophobic sol - Aluminium hydroxide, ferric hydroxide, arsenous sulphide. (Any one)

PROJECT:

Scientific investigations involving laboratory testing and collecting information from other sources **Afew suggested Projects.**

- Study of the presence of oxalate ions in guava fruit at different stages of ripening.
- Study of the effect of Potassium Bisulphate as food preservative under various conditions (temperature,concentration, time, etc.)
- Study of digestion of starch by salivary amylase and effect of pH and temperature on it.
- Comparative study of the rate of fermentation of following materials: wheat flour, gram flour, rice, potato, orange juice, carrot juice, etc.
- Study of common food adulterants in fat, oil, butter, sugar, turmeric power, chilli powder and pepper.
- To study the setting of mixtures of cement with lime, sand of different qualities, rice husks, fly- ash, etc. with respect to volume and strength.
- To study the setting of mixtures of cement with lime, sand and fly-ash with respect to volume and strength.

Any other investigatory project, which involves about 10 periods of work, can be chosen with theapproval of the teacher.

Note:

Board Practical examination will be conducted as per CBSE guidelines.

BIOLOGY (CODENO.: 044)

PERIODICTEST–I

1. Sexual Reproduction in Flowering Plants
2. Human Reproduction
3. Reproductive Health
4. Principles of Inheritance and Variation

HALF–YEARLY EXAMINATION

1. Molecular Basis of Inheritance

2. Evolution
3. Human Health and Diseases
4. Microbesin Health Welfare
5. Syllabus of PeriodicTest−I

PERIODICTEST –II

1. Biotechnology–Principles and Processes
2. Biotechnology and its Application
3. Organism and Population

PRE−BOARD EXAMINATION

1. Ecosystem
2. Biodiversity and its Conservation
3. Entire syllabus of Class XII will be included (PeriodicTest-I + Half-Yearly Examination + Periodic Test-II)

PRACTICALS

PeriodicTest-I andHalfYearly	**PeriodicTest-II**
MajorExperiments –5	
MinorExperiments –2	MinorExperiments−3
SlidePreparation–1	SlidePreparation−4
Spottings−1,2,3,4,5,and6	Spottings−7,8,9,10,11,and12

MATHEMATICS -XII (CODENO.: 041)

EXAM	CHAPTER'S NAME
PERIODIC TEST-I	**MATRIX, DETERMINANTS, CONTINUITY & DIFFERENTIABILITY, INDEFINITE INTEGRALS.**
HALF-YEARLY EXAMINATION	**INVERSE TRIGONOMETRY, APPLICATION OF DERIVATIVES, DEFINITE INTEGRALS, DIFFERENTIAL EQUATIONS, L.P.P + PERIODIC TEST-I**
PERIODIC TEST-II	**RELATION & FUNCTIONS, VECTORS, 3-D GEOMETRY, PROBABILITY, APPLICATION OF INTEGRALS.**
PRE-BOARD & BOARD	**PERIODIC TEST-I + HALF YEARLY + PERIODIC TEST-II (ENTIRE SYLLABUS OF CLASS XII)**

COMPUTER SCIENCE (CODE NO.: 083)

EXAMNAME	CHAPTERNAME
PERIODICTEST I	Chap 1: Python Revision Tour - I Chap2:PythonRevisionTour-II Chap3:Workingwithfunctions Chap 4:Using Python Libraries Chap5:FileHandling (**NoPracticalexamwill beconducted)**
HALF-YEARLY EXAMINATION	Chap 1: Python Revision Tour – I Chap2:PythonRevisionTour-II Chap9:Data structures-II(Listdiscussedinclass11andStackonly) Chap 11: Relational Database Chap12:Simplequeries inSQL Chap13: TablecreationandDatamanipulationcommands. ****Theory:70marksPractical:30marks**
PERIODICTESTII	Chap 1: Python Revision Tour – I Chap2:PythonRevisionTour-II Chap10:CommunicationandNetworkConcepts Chap14:GroupingRecord,joinsinSQL (**NoPracticalexamwill beconducted)**
PRE-BOARD EXAMINATION	Chap15:InterfacePythonwithMySQL ****Fullsyllabuswillbeincludedhere** **Board Practical examination will beconductedasperBoardschedule**

PHYSICAL EDUCATION (CODE NO.: 048)

PERIODIC TEST – I

UNIT 01: Management of Sporting Events

UNIT 02: Children and Women in Sports

UNIT 03: Yoga as Preventive Measure for Lifestyle Disease

HALF-YEARLY EXAMINATION

UNIT O4: Physical Education and Sports for CWSN (Children with Special Needs)

UNIT 05: Sports and Nutrition

UNIT 06: Test and Measurement in Sports

UNIT 07: Physiology and Injuries in Sports.

Syllabus of Periodic Test – I is included.

PERIODIC TEST – II

UNIT 08: Biomechanics and Sports

UNIT 09: Psychology and Sports

UNIT 10: Training in Sports

Syllabus of Periodic Test – I and Half Yearly Examination will be included.

PRE – BOARD EXAMINATION

Entire syllabus of Class XII

Note:

Board Practical examination will be conducted as per CBSE guidelines.

FOOD, NUTRITION AND DIETETICS (CODENO.: 834)

PERIODIC TEST I:

1) Therapeutic nutrition
2) Therapeutic diets
3) Nutrition and infection

Employability skills

HALF-YEARLY EXAMINATION:

1) Methods of cooking
2) Fever
3) Diarrhoea
4) Eating disorders
5) Overweight

6) Hypertension
7) Diabetes
8) Jaundice/hepatitis
9) Celiac disease, lactose intolerance, peptic ulcer

Employability skill+ periodic test 1

PERIODIC TEST II:

1) Food hazards
2) Personal hygiene and food hygiene
3) Food adulteration
4) Reading and understanding of food labels
5) HFSS foods and their implications

Employability skill

PRE-BOARD EXAMINATION:

Full syllabus of Class XII (Periodic Test I + Half-Yearly examination+ Periodic test-II)

@Practical examination will be conducted as per schedule.

HOME SCIENCE (CODENO.: 064)

PERIODIC TEST I:

1) Work, livelihood and cancer
2) Clinical Nutrition and Dietetics

HALF YEARLY EXAMINATION:

1) Public Nutrition and Health
2) Food Processing and Technology
3) Food Quality and Food safety
5) Early childhood care and Education
6) Management of Support Services, Institutions and Programmes for Children, Youth and Elderly
7) Design for fabric and Apparel
8) Fashion Design and Merchandising
9) Care and maintenance of fabrics in institutions
+ syllabus of Periodic test I

PERIODIC TEST II:

1) Hospitality management
2) Consumer education and protection
3) Development Communication and Journalism

PRE-BOARD EXAMINATION:

Full syllabus of Class XII (Periodic Test I + Half-Yearly examination+ Periodic test-II)

Practical examination will be conducted as per schedule

Hindustani Music Vocal (code 034)

PERIODIC TEST-I

Brief of the following Nada, Shruti, Swar, Saptak, Thaat, Jati, Laya,Tala

Brief study of the following: Margi- Desi, Raga

Brief History of the following Dhrupad, Khayal and Tarana

Half Yearly -

Brief study of musical elements in Natya Shastra.

Life sketch and contribution of Tansen, VN Bhatkhande and V.D. Palushkar

PERIODIC TEST-II

Description of Prescribed Talas along with Tala Notation with Thah, Dugun and Chaugun.

~Teentala

~Ektala

~Chautala

Knowledge of the Structure of Tanpura.

*** YEARLY Examination***

Critical study of Prescribed Ragas along with

Recognizing Ragas from phrases of Swaras and elaborating them excluding Raga Jaunpuri

Writing in natation the compositions of

Prescribed Ragas

~Bihag

~Bhimpalasi

~Bhairavi

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ORIENTAL PUBLIC SCHOOL

SYLLABUS – 2024-25
CLASS- XII
HINDI (CORE-302)

आरोह भाग :- 2

Periodic Test I

काव्य भाग :- आत्मपरिचय, एक गीत |
गद्य भाग :- भक्तिन
वितान :- सिल्वर वैडिंग

अभिव्यक्ति और माध्यम :- विभिन्न माध्यमों के लिए लेखन, पत्रकारीय लेखन के विभिन्न रूपों और आलेखन प्रक्रिया, अपठित गद्यांश-पद्यांश |

Half-yearly Examination

काव्य भाग :- पतंग, कविता के बहाने, बात सीधी थी पर, कैमरे में बंद अपाहिज ||
गद्य भाग :- बाजार दर्शन, काले मेघा पानी दे, पहलवान की ढोलक |
वितान :- जूझ

अभिव्यक्ति और माध्यम :- विशेष लेखन-स्वरुप और प्रकार, कैसे करें कहानी का नाट्य रूपांतरण, कैसे बनता है रेडियो नाटक, नए और अप्रत्याशित विषयों पर लेखन, अपठित गद्यांश-पद्यांश |

Periodic Test- II

काव्य भाग :- उषा, बादल राग, कवितावली, लक्ष्मण-मूच्र्छा और राम का विलाप, रुबाइयाँ, छोटा मेरा खेत, बगुले के पंख |
गद्य भाग :- शिरीष के फूल, श्रम विभाजन और जाति-प्रथा, मेरी कल्पना का आदर्श समाज |
वितान :- अतीत में दबे पाँव |

अभिव्यक्ति और माध्यम का सम्पूर्ण पाठ्यक्रम, अपठित गद्यांश-पद्यांश |

PRE-BOARD Examination

सम्पूर्ण पाठ्यक्रम CBSE बोर्ड का पुनः अवलोकन |

Class XII

Bengali Syllabus 2024 - 2025

Subject Code : 105

PERIODIC TEST:- I

গদ্য:- কে বাঁচায় কে বাঁচে

পদ্য :- রূপনারানের কূলে

ব্যাকরণ :- ধ্বনিতত্ব (অপিনিহিতি, অভিশ্রুতি, স্বরসঙ্গতি, স্বরভক্তি)

আমার বাংলা :- গারো পাহাড়ের নীচে,

বোধ পরীক্ষণ

HALF YEARLY -EXAMINATION

গদ্য :- কে বাঁচায় কে বাঁচে,ভারতবর্ষ

পদ্য :- ক্রন্দনরতা জননীর পাশে, আমি দেখি,

ব্যাকরণ :- বাগধারা ও প্রবাদ প্রবচন

আমার বাংলা :- ছাতির বদলে হাতি, মেঘের গায়ে জেলখানা

নির্মিতি :- প্রতিবেদন, বোধ পরীক্ষণ

PERIODIC TEST:- II

গদ্য:- ভাত

পদ্য :- আমি দেখি, পড়তে জানে এমন এক মজুরের প্রশ্ন

নাটক:- নানা রঙের দিন

ব্যাকরণ :- ধ্বনিবিজ্ঞান, শব্দার্থ তত্ব(অর্থের উৎকর্ষ,অপকর্ষ,সংকোচন, প্রসারন)

নির্মিতি:- বিজ্ঞাপন লেখন । বোধ পরীক্ষণ।

PRE -BOARD EXAMINATION -

গদ্য **:- (**সব **)** পদ্য **:-(** সব **)**

আমার বাংলা :- গারো পাহাড়ের নীচে, ছাতির বদলে হাতি, মেঘের গায়ে জেলখানা, পাতাল পুরীর রাজ্য

নাটক:- নানা রঙের দিন

ব্যাকরন :- ধ্বনিবিজ্ঞান, শব্দার্থ তত্ব, বাগধারা।

নির্মিতি:- প্রতিবেদন, বিজ্ঞাপন লিখন , বোধ পরীক্ষণ , প্রকল্প(PROJECT WORK)