

St Xavier's School, Doranda, Ranchi

SYLLABUS FOR CLASS X (2024-2025)

ENGLISH

Grammar Topics (Both the terms)

1. Essay in 300 – 350 words (Descriptive, Narrative, Argumentative, Story Writing with theme/opening line/ closing line)
2. Informal/ Formal Letter writing
3. Notice and Email Writing
4. Unseen passage (Question & Answer/ Synonym/ Antonym/ Précis writing)
5. Grammar – Prepositions, Synthesis, Transformation of sentences, Correct form of word

PROJECT (20 MARKS)–

Literature topics

Month

- | | |
|-----------------------------------|-------|
| 1. Haunted Houses (Poem) | March |
| 2. Act 3 Sc i (Julius Caesar) | April |
| 3. Act 3 Sc ii (Julius Caesar) | April |
| 4. With the Photographer (prose) | April |
| 5. The Glove and the Lions (poem) | May |
| 6. The Elevator (prose) | May |
| 7. Act 3 Sc iii (Julius Caesar) | June |
| 8. When Great Trees Fall (poem) | June |

First Selection Test – July

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| 1. Act 4 Sc i, ii, iii (Julius Caesar) | July |
| 2. A Considerable Speck (poem) | August |
| 3. The Girl who can (prose) | August |
| 4. The Pedestrian (prose) | August |
| 5. The Power of Music (poem) | October |
| 6. The Last Lesson (prose) | October |
| 7. Act 5 Sc i, ii (Julius Caesar) | November |
| 8. Act 5 Sc iii, iv (Julius Caesar) | November |

Second Selection Test – December

PROJECT (20 MARKS)

English Literature –(i) Elaborate on the “Fickle minded Romans” as depicted in Shakespeare’s play Julius Caesar (Act I Sc I and Act 3 Sc ii & iii)

(ii) Dramatic Flaws in Brutus’ character.

English Language – Direct – Indirect Speech Rules

HINDI

First Selection

Section A (40 Marks)

भाषा – व्याकरण पल्लव तथा व्यावहारिक व्याकरण की विस्तृत जानकारी हेतु व्याकरण की अन्य पुस्तकों से ज्ञान प्राप्त करना

1. प्रस्तावना
2. कहानी लेखन
3. चित्र लेखन
4. पत्र लेखन- क- औपचारिक , ख- अनौपचारिक
5. भाव ग्रहण (अपठित गद्यांश)
6. व्यावहारिक व्याकरण

Section -B (40 Marks)

साहित्य – गद्य

1. बात अठन्नी की
2. काकी
3. संदेह
4. महायज्ञ का पुरस्कार
5. भेड और भेड़िए

पद्य –

1. साखी
2. गिरिधर की कुंडलियाँ
3. भिक्षुक
4. स्वर्ग बना सकते हैं
5. विनय के पद

UNIT TEST- बात अठन्नी की

साखी

व्यावहारिक व्याकरण

परियोजना कार्य –विद्यार्थी जीवन की चुनौतियाँ, समस्याएं और समाधान

Second Selection-

Section-A (40 Marks)

1. प्रस्तावना
2. कहानी लेखन
3. चित्र लेखन
4. पत्र लेखन- क- औपचारिक , ख- अनौपचारिक
5. भाव ग्रहण (अपठित गद्यांश)
6. व्यावहारिक व्याकरण

Section -B (40 Marks)

साहित्य- गद्य

संदेह

दो कलाकार

भीड़ में खोया आदमी

पद्य-

स्वर्ग बना सकते हैं

मातृ मंदिर की ओर

चलना हमारा काम है

NOTE- गद्य और पद्य के शेष पाठ भी संलग्न ।

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CLASS X

There will be **one** paper of **two** hours duration carrying 80 marks and an Internal Assessment of 20 marks.

The paper will be divided into **two** parts, Part I and Part II.

Part I (30 marks) will contain multiple choice questions, short answer questions set from the entire syllabus.

Candidates will be required to answer **all** questions.

Part II (50 marks) will consist of Section A and Section B. Candidates will be required to answer **two** out of **three** questions from Section A and **three** out of **five** questions from Section B. The sections will correspond to the sections indicated in the syllabus.

SECTION A: CIVICS

1. The Union Legislature

Meaning of the federal setup in India.

(i) Lok Sabha - term, composition, qualifications for membership. Parliamentary procedures: a brief idea of sessions, quorum, question hour, adjournment and no-confidence motion. Speaker – election and functions.

(ii) Rajya Sabha – composition, qualifications for membership, election, term, Presiding Officer.

Powers and functions of Union Parliament – (legislative, financial, judicial, electoral, amendment of the Constitution, control over executive). Exclusive powers of the two Houses.

2. The Union Executive (MARCH)

(a) The President:

Qualifications for election, composition of Electoral College, reason for indirect election, term of office, procedure for impeachment.

Powers (executive, legislative, financial, judicial, discretionary and emergency)

(b) The Vice-President:

Qualifications for election, term of office and powers.

(c) **Prime Minister and Council of Ministers:** Appointment, formation of Council of Ministers, tenure, functions - policy making, administrative, legislative, financial, emergency. Position and powers of the Prime Minister. Collective and individual responsibility of the members of the Cabinet. Distinction between the Council of Ministers and the Cabinet.

3. The Judiciary (APRIL - MAY)

(a) The Supreme Court:

Composition, qualifications of judges, appointment, independence of judiciary from the control of executive and legislature; Jurisdiction and functions: Original, Appellate, Advisory, Revisory, Judicial Review and Court of Record. Enforcement of Fundamental Rights and Writs.

(b) The High Courts:

Composition, qualifications of judges, appointment; Jurisdiction and functions: Original, Appellate, Revisory, Judicial Review and Court of Record. Enforcement of Fundamental Rights and Writs.

(c) Subordinate Courts:

Distinction between Court of the District Judge and Sessions Court.

Lok Adalats: meaning and advantages.

SECTION B: HISTORY

1. The Indian National Movement (1857 - 1917) (JUNE- JULY)

(a) The First War of Independence, 1857

Only the causes (political, socio-religious, economic and military) and consequences will be tested. [The events, however, need to be mentioned in order to maintain continuity and for a more comprehensive understanding.]

(b) Factors leading to the growth of Nationalism

– economic exploitation, repressive colonial policies, socio-religious reform movements (brief mention of contribution of Raja Rammohan Roy and Jyotiba Phule) and role of the Press.

Foundation of the Indian National Congress - the Indian National Association (Surendranath Banerjee) and the East India Association (Dadabhai Naoroji) as precursors. Immediate objectives of the Indian National Congress - the first two sessions and their Presidents should be mentioned.

(c) First Phase of the Indian National Movement (1885-1907) - objectives and methods of struggle of the Early Nationalists. Any two contributions of Dadabhai Naoroji, Surendranath Banerjee and Gopal Krishna Gokhale.

Second Phase of the Indian National Movement (1905-1916) - Brief mention of the causes of the Partition of Bengal and its perspective by the Nationalists. Brief mention of Surat Split of 1907; objectives and methods of struggle of the Radicals. Any two contributions of Bal Gangadhar Tilak, Bipin Chandra Pal and Lala Lajpat Rai. The Muslim League; Factors leading to the formation of the Muslim League and its objectives. Brief mention of the significance of the Lucknow Pact - 1916.

2. Mass Phase of the National Movement (1915- 1947) (AUGUST)

(a) Mahatma Gandhi - Non-Cooperation Movement : causes (Khilafat Movement, Rowlatt Act, Jallianwala Bagh Tragedy), programme and suspension – Chauri Chaura incident and impact of the Movement; the Civil Disobedience Movement: causes (reaction to the Simon Commission, Declaration of Poorna Swaraj at the Lahore Session of 1929), Dandi March, programme and impact of the Movement, Gandhi-Irwin Pact and the Second Round Table Conference; the Quit India Movement: causes (failure of the Cripps Mission, Japanese threat), Quit India Resolution and the significance of the Movement.

(SEPTEMBER)

(b) Forward Bloc (*objectives*) and INA (*objectives and contribution of Subhas Chandra Bose*).

(OCTOBER)

(c) Independence and Partition of India – Cabinet Mission Plan (clauses only); Mountbatten Plan (clauses and its acceptance); and the Indian Independence Act of 1947 (clauses only).

3. The Contemporary World

(a) The First World War

Causes (Nationalism and Imperialism, Armament Race, division of Europe and Sarajevo crisis) and Results (Treaty of Versailles, territorial rearrangements, formation of the League of Nations)

(b) Rise of Dictatorships

Causes for the rise of Fascism in Italy and the rise of Nazism in Germany. A comparative study of Mussolini's Fascist and Hitler's Nazi ideologies.

(c) The Second World War

Causes (Dissatisfaction with the Treaty of Versailles, Rise of Fascism and Nazism, Policy of Appeasement, Japanese invasion of China, Failure of League of Nations and Hitler's invasion of Poland). Brief mention of the attack on Pearl Harbour and bombing of Hiroshima and Nagasaki. Consequences (Defeat of Axis Powers, Formation of the United Nations and Cold War).

(d) United Nations

(i) The objectives of the U.N.

The composition and functions of the General Assembly, the Security Council, and the International Court of Justice.

(ii) Major agencies of the United Nations: UNICEF, WHO and UNESCO - function only.

(e) Non-Aligned Movement

Brief meaning; objectives; Panchsheel; role of Jawaharlal Nehru; Names of the architects of NAM.

NOVEMBER- Revision

INTERNAL ASSESSMENT (project)

State High Court

'Special reference to Jharkhand High Court and Lok Adalat'

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GEOGRAPHY

MARCH + APRIL

1. Map Study: Interpretation of Topographical Maps

MAY + JUNE

2. The Climate of India – Distribution of Temperature, rainfall, winds in summer and winter and Factors affecting the climate of the area.
Monsoon and its mechanism.
Seasons – Summer, Monsoon, Retreating and Winter.
3. Soils of India
Types of soil – Alluvial, Black, Red and Laterite
Distribution, Composition and Characteristics such as colour, texture, minerals and crops associated.
Soil Erosion- causes, prevention and conservation.
4. Natural Vegetation of India
Importance of Forests
Types of vegetation – tropical evergreen, tropical deciduous, tropical desert, littoral and mountain.
Distribution and correlation with their environment
Forest conservation.

JULY

5. Water Resources
Sources – Surface and ground water
Need for conservation and conservation practices – Rain water harvesting and its importance.
Irrigation- importance and methods.

AUGUST +SEPTEMBER

6. Minerals and Energy Resources
Iron ore, manganese, copper, bauxite – Uses and their distribution
Conventional Sources: Coal, Petroleum, Natural gas (distribution, advantages and disadvantages)
Hydel power: Bhakra Nangal and Hirakud Dam.
Non- Conventional Sources: Solar, wind, tidal, geo-thermal, nuclear and bio- gas (generation and advantages).
7. Mineral based industries
Iron and Steel (TISCO, Bhilai, Rourkela, Vishakhapatnam), Petro Chemical and Electronics.

OCTOBER + NOVEMBER

8. Agriculture in India
Indian Agriculture- Importance, problems and reforms.
Types of farming in India – subsistence and commercial: shifting, intensive, extensive, plantation and mixed.
Agricultural seasons – rabi, kharif, zayad
Climatic conditions, soil requirements, methods of cultivation, processing and distribution of:
Rice, wheat, millets and pulses
Sugarcane, oilseeds (groundnut, mustard, soyabean)
Cotton, jute, tea and coffee
9. Agro based industries
Importance and classification
Sugar, Textile (Cotton and Silk)

DECEMBER

10. Transport

Importance and Modes – roadways, railways, airways and waterways – Advantages and Disadvantages

11. Waste Management

Impact of waste accumulation – spoilage of landscape, pollution, health hazards, effect on terrestrial, aquatic (fresh and marine) life.

Need for waste management

Methods of safe disposal- segregation, dumping and composting.

Need and methods of reducing, reusing and recycling waste.

12. Map Work:

Location and Relief features of India

Climate

Soil

Distribution of Minerals,

Cities and Population

PROJECT TOPIC: AGRICULTURE IN INDIA

MATHS

First unit test

Linear Inequation
Remainder & Factor theorem
Quadratic Equation
Word problem of Q.E

1st Selection Test

Chapters

Months

1) Linear Inequation	March
2) Remainder & Factor theorem	March
3) Quadratic Equation	April
4) Word problem of Q.E	April E
5) Ratio & Proportion	April
6) Matrices	April
7) A.P	May
8) G.P	May
9) Probability	May
10) Trigonometric Identities	June
11) Height & Distance	June
12) Reflection	June

Second Unit Test

Section and mid-point formula
Equation of a line
Mensuration
Histogram & Ogives

SECOND SELECTION TEST

13) Selection and mid-point formula	July
14) Equation of a line	July
15) Mensuration	August
16) Histogram & Ogives	August
17) Measure of central tendency	August
18) G.S.T	August
19) Banking	September
20) Shares & Dividend	September
21) Similarity	September
22) Loci	September
23) Circle	October
24) Tangent & intersecting chords	October
25) Construction	October
Revision	November
Practice Test	November

- **All the chapters of the first term is included in the second selection.**

PHYSICS

FIRST UNIT TEST

1. FORCE
2. WORK, ENERGY & POWER

FIRST SELECTION TEST:

MONTH

1. Force	March
2. Work, Energy & Power	April
3. Machines	APRIL
4. Refraction of light at plane surfaces	May
5. Refraction through a lens	June
6. Spectrum	July

SECOND UNIT TEST: -

- Ch-8. Current Electricity
Ch- 9. Household circuit

SECOND SELECTION TEST :

MONTH

Ch-8. Current Electricity	August
Ch- 9. Household circuit	August
Ch-11. Calorimetry	September
Ch-10. Electro-magnetism	September
Ch-7. Sound	October
Ch- 12. Radioactivity	November

SYLLABUS FOR PHYSICS PRACTICAL

FIRST SELECTION TEST:-

EXPERIMENT NO. 1 :

To trace the course of different rays of light through a rectangular glass slab at different angles of incidence, measure the angles of incidence, refraction and emergence and measure the lateral displacement.

EXPERIMENT NO. 2 :

To trace the course of a ray of light through a prism and to show that $i + e = A + \delta$ and $A = r_1 + r_2$.

SECOND SELECTION TEST:

EXPERIMENT NO. 3 :

To trace the course of a ray of light incident normally ($i=0$) on one face of different prisms with angle of prism $A = 60^\circ$, 45° , 90° and to measure the angle of deviation, δ in each case.

EXPERIMENT NO. 4 :

To determine the focal length of a convex lens using u-v method and the formula, $\frac{1}{f} = \frac{1}{v} + \frac{1}{u}$.

EXPERIMENT NO. 5:

To determine the focal length of a convex lens by the distant object method.

EXPERIMENT NO. 6 :

To verify Ohm's law and hence to find the value of unknown resistance.

CHEMISTRY

FIRST SELECTION SYLLABUS:

1. Periodic Table, periodic properties and variations of properties
2. Chemical Bonding
3. Acids, bases and salts
4. Analytical chemistry
5. Mole concept and stoichiometry

SECOND SELECTION SYLLABUS

Whole syllabus of class 10

MONTHLY BREAKUP OF SYLLABUS

March: Periodic table, periodic properties and variations of properties

Chemical bonding

April: Acids, bases and salts

Analytical chemistry

May: Mole concept and stoichiometry

June: Mole concept and stoichiometry continued....

July: Electrolysis

August: Metallurgy

September: Hydrogen chloride

Ammonia

October: Nitric acid and Sulphuric acid

November: Organic chemistry

December: Revision

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BIOLOGY

1ST SELECTION	2ND SELECTION
1. CELL-THE STRUCTURAL AND FUNCTIONAL UNIT OF LIFE	1. CELL
2. STRUCTURE OF CHROMOSOMES, CELL CYCLE AND CELL DIVISION	2. STRUCTURE OF CHROMOSOME, CELL CYCLE AND CELL DIVISION
3. GENETICS – SOME BASIC FUNDAMENTALS	3. GENETICS
4 .ABSORPTION BY ROOTS	4. ABSORPTION BY PLANTS
5. TRANSPIRATION	5. TRANSPIRATION
	6. PHOTOSYNTHESIS
	7. CHEMICAL COORDINATION BY PLANTS
	8. THE CIRCULATORY SYSTEM
	9. THE EXCRETORY SYSTEM
	10. NERVOUS SYSTEM
	11. SENSE ORGANS
	12. THE ENDOCRINE SYSTEM
	13. THE REPRODUCTIVE SYSTEM
	14. POPULATION- THE INCREASING NUMBERS AND RISING PROBLEMS
	15. HUMAN EVOLUTION
	16. POLLUTION

1ST SELECTION TEST PORTION

MARCH 2024

1. CELL-THE STRUCTURAL AND FUNCTIONAL UNIT OF LIFE (Revision) **2. STRUCTURE OF CHROMOSOMES, CELL CYCLE AND CELL DIVISION**

- What are Chromosomes
- Molecular Structure of DNA
- Structure of Chromosomes
- What are Genes
- Need for New Cells
- Cell Cycle
- Cell Division
- Mitosis (Karyokinesis and Cytokinesis)
- Differences in Mitosis in Plant and Animal Cells
- Significance of Mitosis
- Meiosis
- Significance of Meiosis

APRIL - MAY 2024

3 .GENETICS – SOME BASIC FUNDAMENTALS

- Heredity and Variations
- Chromosomes- The Carriers of Heredity
- The two Main Categories of Chromosomes- Autosomes and Sex Chromosomes

- Sex Determination- Son or Daughter
- Chromosomes- Carriers of Genes
- Genes and their Alleles - Dominant and Recessive Alleles
- Genotype and Phenotype
- Sex Linked Inheritance- X linked Inheritance
- Mendel's Experiments on Inheritance
- Mendel's Laws of Inheritance
 - Law of Dominance
 - Law of Segregation
 - Law of Independent Assortment
- Mutation

4 . ABSORPTION BY ROOTS

- Absorption by the Roots
- Need of water and Minerals for Plants
- Characteristics of Roots for Absorbing Water
- Absorption and conduction of Water and Minerals
 - Imbibition, Diffusion, Osmosis and Osmotic Pressure
 - Active Transport
 - Turgidity and Flaccidity
- Uses of Turgidity to Plants
- Root Pressure
- Importance of Root Hair and the Upward Movement of Absorbed Water and Minerals
- Some Experiments on Absorption and Conduction of Water in Plants
- Forces Contributing to Ascent of Sap

5. Transpiration

- Transpiration
- Demonstration of Transpiration
- Measurement of Transpiration
- Kinds of Transpiration Stomatal, Cuticular, Lenticular Transpiration
 - Mechanism of Stomatal Transpiration
 - Factors that Affect Transpiration- External and Internal Factors
- Adaptations in Plants to Reduce Excessive Transpiration
- Significance of Transpiration
- Guttation and Bleeding

1ST SELECTION TEST

- 1. CELL-STRUCTURE AND FUNCTIONAL UNIT OF LIFE**
- 2. STRUCTURE OF CHROMOSOMES, CELL CYCLE AND CELL DIVISION**
- 3. GENETICS – SOME BASIC FUNDAMENTALS**
- 4 .ABSORPTION BY ROOTS**
- 5. TRANSPIRATION**

2ND SELECTION TEST PORTION

JUNE 2024

6. Photosynthesis

- What is Photosynthesis?
- Chlorophyll- The Vital Plant Pigment
- Regulation of Stomatal Opening for Letting in Carbon Dioxide
- Opening and Closing of Stomata
- Potassium ion Concentration Theory
- Sugar Concentration Theory
- Process of Photosynthesis
- Two Main Phases of Photosynthesis - Light Dependent Phase and Light Independent Phase
- Adaptations in Leaf To Perform Photosynthesis
- End Result of the Products of Photosynthesis
- Factors Affecting Photosynthesis- External and Internal Factors
- Experiments on Photosynthesis
- Carbon Cycle

7. Chemical Coordination in Plants

- What are Plant Hormones?
- Auxins, Gibberellins, Cytokinins, Ethylene and Abscisic Acid
- Tropic Movements in Plants
- Phototropism, Geotropism, Hydrotropism, Thigmotropism, Chemotropism

JULY 2024

8. The Circulatory System

- Need for transport inside the body
- Fluids in our body
- Properties and Composition of Blood
- Blood transfusions and Blood groups (ABO and Rh systems)
- Structure of the Heart – Chambers, Blood vessels entering and leaving the heart, Valves
- Circulation of blood in the heart
- Heart beat and Heart sounds
- Pacemaker
- The Blood Vessels- Arteries, Veins and Capillaries (structure and function)
- Hepatic Portal System
- The Pulse
- Blood Pressure
- Lymph and Lymphatic System
- The Spleen- Functions of the Spleen

AUGUST - SEPTEMBER 2024

9. The Excretory System

- Substances to be eliminated
- The Excretory Organs
- Internal structure of the kidney
- Structure of a kidney tubule
- Blood supply to the kidney tubules
- Urine formation – Ultra-filtration, Selective Re-absorption, Tubular Secretion
- Properties of urine
- Regulation of Urine output
- Osmo-regulation
- Artificial Kidney

10. Nervous System

- Need of nervous system
- Structure of neuron
- Transmission of nerve impulse
- Synapse
- Types of neurons
- Nerves
- Two major divisions of nervous system
- The brain
- The spinal cord
- Peripheral nervous system
- Reflexes
- Types of reflexes
- Reflex arc

11. Sense Organs

➤ **The Eyes**

- Structure of the Eyeball
- Image formation, Accommodation, light and dark adaptation
- Common defects of the eye
- Myopia, Hyperopia, Astigmatism, Presbyopia, Cataract, Night Blindness, Colour Blindness, Corneal opacities
- Stereoscopic Vision and after images

➤ **The Ear**

- Structure of the ear
- Functions of the Ear – Hearing and Balancing

OCTOBER - NOVEMBER 2024

12. The Endocrine System

- Need for The Regulation of Body Activities
- General Properties of Hormones
- Endocrine Glands

- Adrenal Glands (Conditions due to Hyposecretion and Hypersecretion of the hormones from Adrenal Cortex and Adrenal Medulla)
- Pancreas (Conditions due to Hyposecretion and Hypersecretion of Insulin)
- Thyroid (Conditions due to Hyposecretion and Hypersecretion of the Thyroxin)
- Pituitary Gland (Conditions due to Hyposecretion and Hypersecretion of hormones)
- Control of hormonal secretions/ Feedback mechanism

13. The Reproductive System

- Reproduction in Humans
- Male Reproductive System – Structure and function of each part
- Female Reproductive System – Structure and function of each part
- Role of Hormones in Reproduction
- Menstrual Cycle
- Fertilisation
- Implantation and Pregnancy
- Amnion and Amniotic Fluid
- Placenta and its function
- Parturition
- Twins- Fraternal and Identical

14. Population- The Increasing Numbers and Rising Problems

- Rising Population- A Global Threat
- Population Explosion- A Serious Global Concern
- Factors Responsible For Population Explosion in India
- A few Statistical Terms
- Need for adopting Control Measures
- Population Education and Population Control

15. Human Evolution

- What is Evolution?
- Theories of Evolution
- Lamarck's theory of inheritance of acquired characters
- Vestigial organs
- Darwin's Theory of Natural Selection
- Human Evolution
- Human ancestors
- *Homo sapiens sapiens*

DECEMBER 2024

16. Pollution

- Types of wastes
- Air pollution (causes and control)
- Water pollution (causes and control)
- Soil pollution (causes and control)
- Radiation (causes and control)
- Noise pollution (causes and control)
- Plastic pollution (causes and control)
- Effect of various types of pollution
- Control of pollution
- Swachh Bharat Abhiyan

2ND SELECTION TEST

1. CELL
2. STRUCTURE OF CHROMOSOME, CELL CYCLE AND CELL DIVISION
3. GENETICS
4. ABSORPTION BY PLANTS
5. TRANSPIRATION
6. PHOTOSYNTHESIS
7. CHEMICAL COORDINATION BY PLANTS
8. THE CIRCULATORY SYSTEM
9. THE EXCRETORY SYSTEM
10. NERVOUS SYSTEM
11. SENSE ORGANS
12. THE ENDOCRINE SYSTEM
13. THE REPRODUCTIVE SYSTEM
14. HUMAN EVOLUTION
15. POPULATION- THE INCREASING NUMBERS AND RISING PROBLEMS
16. POLLUTION
