

St. Xavier's School, Doranda
Syllabus for Final Term Exam (2020-21)

Class - IX

ENGLISH

ENGLISH LANGUAGE

1. ESSAY- Descriptive, Argumentative, Narrative, Story writing from given outline
2. LETTER WRITING Formal , Informal
3. COMPREHENSION questions with precis
4. GRAMMAR Preposition, Transformation, Synthesis, verb and its correct form

ENGLISH LITERATURE

DRAMA

MERCHANT OF VENICE ACT 1, ACT 2 ACT 3(scene I)

PROSE

1. Old Man at the Bridge
2. A Horse and Two Goats
3. Hearts And Hands
4. A Face in the Dark
5. An Angel in Disguise

POETRY

1. The Cold Within
2. The Bangle Sellers
3. After Blenheim
4. Television
5. Daffodils

HISTORY

1. Harrapan Civilization
2. Vedic Period
3. Jainism Buddhism
4. Mauryan Empire
5. Sangam Age
6. Age of Guptas
7. Contemporary World- Renaissance, Reformation, Industrial Revolution

(CIVICS)

1. Our Constitution
2. Election
3. Local Self Government

Hindi

1) भाषा A Section (40 Marks)

1) सरस हिंदी व्याकरण :-

- I. प्रस्तावना
- II. चित्र - लेखन
- III. पत्र क - औपचारिक ख- अनौपचारिक
- IV. भाव ग्रहण
- V. व्यावहारिक व्याकरण

2) साहित्य B Section (40 Marks)

गद्य

1. बात अठन्नी की
2. महायज्ञ का पुरस्कार
3. नेताजी का चश्मा
4. बड़े घर की बेटी
5. भेड़ें और भेड़िए

पद्य

1. साखी
2. स्वर्ग बना सकते हैं
3. वे जन्मभूमि मेरी
4. सूर के पद
5. विनय के पद
6. चलना हमारा काम है

MATHEMATICS

Unit test:

- 1) Area and perimeter of plane figure including circle .
- 2) Cube and cuboid
- 3) Rectilinear figure

Final term:

Mathematics syllabus as per the ICSE reduce syllabus.

PHYSICS

Unit test:

- 1) Pressure in fluids and atmospheric pressure
- 2) Upthrust in fluids - Part A only

Final term:

Physics syllabus as per ICSE reduce syllabus.

Geography

FINAL TERM SYLLABUS:

Unit 1

Ch.2: Geographic Grid - Latitude and Longitudes.

Concept of latitudes: Main latitudes, their location with degrees, parallels of latitude and their uses, Concept of longitude - Prime meridian, time(local standard and time zones), Greenwich Mean Time and International Date Line. Eastern and Western hemisphere.

Ch.3: Rotation and Revolution

Rotation - direction, speed and its effects (occurrence of day and night, the sun rising in the east and setting in the west, Coriolis effect)

Revolution of the Earth and its inclined axis- effects: the variation in the length of day and night and seasonal changes with equinoxes and solstices.

Unit 2

Ch.4: Earth's structure

Core, mantle, crust- meaning, extent and their composition.

Ch.6: Rocks

Difference between rocks and minerals, types of rocks: igneous, sedimentary, metamorphic - their characteristics and formation;

Ch.7: Volcanoes

Meaning, types – active, dormant, extinct. Effects - Constructive and destructive. Important volcanic zones of the world.

Ch.8 : Earthquakes

Meaning, causes and measurements.
Effects: Destructive and constructive.
Earthquake zones of the world.

Ch 9: Weathering and Denudation

Meaning, types and effects of weathering.
Physical weathering: block, granular, exfoliation;
Chemical weathering: oxidation, carbonation, hydration and solution;
Biological weathering: caused by humans, plants and animals.

Unit 3

Ch.10: Hydrosphere

Meaning of hydrosphere.
Tides – formation and pattern.
Ocean currents- their circulation pattern and effects. (specifically of Gulf Stream, North Atlantic Drift, Labrador Current, Kuro Shio and Oya Shio.)

Unit 4

Ch. 13: Atmospheric Pressure and Winds

Meaning and factors that affect atmospheric pressure.
Major pressure belts of the world.
Factors affecting direction and velocity of wind - pressure gradient, Coriolis Effect.
Permanent winds - Trades, Westerlies and Polar Easterlies.
Periodic winds - Land and sea breezes, monsoons.
Local winds - Loo, Chinook, Foehn and Mistral.
Variable winds - Cyclones and Anticyclones

Unit 5

Ch.15 : Pollution

Types – air, water (fresh and marine), soil, radiation and noise.
Sources

Effects – on the environment and human health.

Preventive Measures – car pools, promotion of public transport, no smoking zone, restricted use of fossil fuels, saving energy and encouragement of organic farming.

Unit 6

Ch. 16: Natural Regions of the world

Location, area, climate, natural vegetation and human adaptation.

Equatorial region, , Tropical Deserts, Tropical Monsoon.

Map work for Final term:

The oceans, Seas, Gulfs and Straits

Rivers

Mountains

Plateaus

Major Natural Regions of the world: Equatorial region, Tropical Deserts, Tropical Monsoon.

BIOLOGY

1. Cell
2. Tissues
3. The Flower
4. Pollination and fertilization
5. Structure and Germination of seeds
6. Respiration in plants
7. Economic importance of bacteria and fungi
8. Nutrition
9. Digestive system
10. Skeleton system
11. Skin
12. Respiratory system

CHEMISTRY

There will be one paper of two hours duration of 80 marks and Internal Assessment of practical work carrying 20 marks. The paper will be divided into two sections, Section I (40 marks) and Section II (40 marks). Section I (compulsory) will contain short answer questions on the entire syllabus. Section II will contain six questions. Candidates will be required to answer any four of these six questions. Note: All chemical reactions should be studied with reference to the reactants, products, conditions, observations and the (balanced) equations.

1. The Language of Chemistry

(i) Symbol of an element; valency; formulae of radicals and formulae of compounds. Balancing of simple chemical equations.

- Symbol – definition; symbols of the elements used often.
- Valency - definition; hydrogen combination and number of valence electrons of the metals and non- metals; mono, di, tri and tetra valent elements.
- Radicals – definition; formulae and valencies.
- Compounds – name and formulae.
- Chemical equation – definition and examples of chemical equations with one reactant and two or three products, two reactants and one product, two reactants and two products and two reactants and three or four products; balancing of equations. (by hit and trial method).

(ii) Relative Atomic Masses (atomic weights) and Relative Molecular Masses (molecular weights): either - standard H atom or 1/12th of carbon 12 atom.

- Definitions
- Calculation of Relative Molecular Mass and percentage composition of a compound.

2. Chemical changes and reactions

(i) Types of chemical changes.

- Direct combination

- Decomposition
- Displacement;
- Double decomposition

(The above to be taught with suitable chemical equations as examples).

(ii) Energy changes in a chemical change.

Exothermic and endothermic reactions with examples – evolution/absorption of heat, light and electricity.

3. Water

(i) Water as a universal solvent.

- Solutions as 'mixtures' of solids in water; saturated solutions.

- Qualitative effect of temperature on solubility (e.g. solutions of calcium sulphate, potassium nitrate and sodium chloride in water).

(ii) Hydrated and anhydrous substances.

(a) Hydrated substances:

Water of Crystallisation – meaning and examples.

(b) Anhydrous substances:

Meaning and examples only

(c) Properties:

- Efflorescence
- Deliquescence
- Hygroscopy

(Definition and examples of each of the above).

(iii) Drying and Dehydrating Agents Meaning and examples only.

4. Atomic Structure and Chemical bonding

(i) Structure of an Atom, mass number and atomic number, Isotopes and Octet Rule.

- Definition of an atom
- Constituents of an atom – nucleus (protons, neutrons) with associated electrons; mass number, atomic number.
- Electron distribution in the orbits - $2n^2$ rule, Octet rule. Reason for chemical activity of an atom.
- Definition and examples of isotope (hydrogen, carbon, chlorine).

(ii) Electrovalent and covalent bonding, structures of various compounds – orbit structure (a) Electrovalent Bond

- Definition
- Atomic orbit structure for the formation of Electrovalent compounds (e.g. NaCl, $MgCl_2$, CaO);

(b) Covalent Bond

- Definition
 - Atomic orbit structure for the formation of Covalent molecules on the basis of duplet and octet of electrons (examples: hydrogen, chlorine, oxygen, nitrogen, hydrogen chloride, water, ammonia, carbon tetrachloride, methane.)
5. The Periodic Table Dobereiner's Triads, Newland's law of Octaves, Mendeleev's contributions; Modern Periodic Law, the Modern Periodic Table.

(Groups and periods)

- General idea of Dobereiner's triads, Newland's law of Octaves, Mendeleev's periodic law.
- Discovery of Atomic Number and its use as a basis for Modern Periodic law.
- Modern Periodic Table (Groups 1 to 18 and periods 1 to 7).
- Special reference to Alkali metals (Group 1), Alkaline Earth metals (Group 2) Halogens (Group 17) and Zero Group (Group 18).

6. Study of the First Element –Hydrogen Position of the non-metal (Hydrogen) in the periodic table and general group characteristics with reference to valency electrons, burning, ion formation applied to the above-mentioned element.

(i) Hydrogen from: water, dilute acids and alkalis.

(a) Hydrogen from water:

- The action of cold water on sodium potassium and calcium.

- The action of hot water on magnesium.
- The action of steam on aluminium, zinc, and iron; (reversibility of reaction between iron and steam).
- The action of steam on non-metal (carbon).

Students can be shown the action of sodium and calcium on water in the laboratory. They must be asked to make observations and write equations for the above reactions. Application of activity series for the above-mentioned reactions. (b) Displacement of hydrogen from dilute acids. The action of dilute sulphuric acid or hydrochloric acid on metals: Mg, Al, Zn and Fe. (To understand reasons for not using other metals and dilute nitric acid.)

(c) Displacement of hydrogen from alkalis.

The action of Alkalis ((NaOH, KOH)

on Al, Zn and Pb – unique nature of these elements.

(ii) The preparation and collection of hydrogen by a standard laboratory method other than electrolysis. In the laboratory preparation, the reason for using zinc, the impurities in the gas, their removal and the precautions in the collection of the gas must be mentioned. (iii) Industrial manufacture of hydrogen by Bosch process.

- Main reactions and conditions.
- Separation of CO₂ and CO from hydrogen.

(iv) Oxidation and reduction reactions.

Differences in terms of addition and removal of oxygen / hydrogen.³

7. Study of Gas Laws

(i) The behaviour of gases under changes of temperature and pressure; explanation in terms of molecular motion (particles, atoms, molecules); Boyle's Law and Charles' Law; absolute zero; gas equation; simple relevant calculations.

- The behaviour of gases under changes of temperature and pressure; explanation in terms of molecular motion (particles, atoms, molecules).
- Boyle's Law: statement, mathematical form, simple calculations.
- Charles' Law: statement, mathematical form, simple calculations.
- Absolute zero Kelvin scale of temperature.
- Gas equation $P_1 V_1 / T_1 = P_2 V_2 / T_2$; simple relevant calculations based on gas equation.

(ii) Relationship between Kelvin scale and Celsius Scale of temperature; Standard temperature and pressure. Conversion of temperature from Celsius Scale to Kelvin scale and vice versa. Standard temperature and pressure. (Simple calculations).

INTERNAL ASSESSMENT OF PRACTICAL WORK

Candidates will be asked to observe the effect of reagents and/or of heat on substances supplied to them. The exercises will be simple and may include the recognition and identification of certain gases listed below. Gases: Hydrogen, Oxygen, Carbon dioxide, Chlorine, Hydrogen chloride, Sulphur dioxide, Hydrogen sulphide, Ammonia, Water vapour, Nitrogen dioxide.

Candidates are expected to have completed the following minimum practical work.

Simple experiments on:

1. Action of heat on the following compounds:

- (a) copper carbonate, zinc carbonate
- (b) washing soda, copper sulphate crystals
- (c) zinc nitrate, copper nitrate, lead nitrate
- (d) ammonium chloride, iodine, ammonium dichromate

Make observations, identify the products and make deductions where possible.

2. Action of dilute sulphuric acid on the following substances. (warm if necessary)

- (a) a metal
- (b) a carbonate
- (c) a sulphide
- (d) a sulphite

Make observations, identify the gas evolved and make deductions.

3. Apply the flame test to identify the metal in the unknown substance.

- (a) a sodium salt
- (b) a potassium salt
- (c) a calcium compound
