

XAVIER SCHOOL GAMHARIA

Syllabus for the Academic session (2018-19)

Class - X

Subject :- English Language

The ICSE English Language Examination aims to assess the pupil's knowledge and practical use of grammar in listening, speaking, reading and writing through internal and external assessment. Students are expected to practise grammar and communicate fluently by speaking and by writing. The syllabus aims:

1. To develop and integrate the use of the four language skills i.e. listening, speaking, reading and writing for the purpose of effective communication.
2. To develop a functional understanding of the grammar, structure and idiom of the language.
3. To develop the capacity to read efficiently and access information effectively.

The examinations include

1. Composition Writing
 - a. Narrative Composition
 - b. Reflective Composition
 - c. Descriptive Composition
 - d. Argumentative Composition
 - e. Picture Composition

Students are assessed on the basis of title, introduction, conclusion, understanding of the topic, matter, language and order.

2. Letter Writing
 - a. Informal Letter
 - b. Formal Letter

Students must be well versed with the format of the letter and style used in both types of letters.
3. Comprehension. Students are expected to read the passage and answer the given questions in their own words.
4. Grammar: Students are expected to be well versed with the components of functional grammar at high school level.

To improve their English, students are advised to speak in English regularly and to read newspapers and a wide variety of books. This will enable them to express themselves and their ideas effectively. There is no fixed portion of grammar and students are expected to practise regularly according to the suggestions given above in order to do well in examinations.

Subject: English Literature

Exam	Lesson	Objectives	Activity	Project
1 st Round	MERCHANT OF VENICE (play)(Act 3 Scene 1,2)	The students will describe the primary conflict each main character faces in the play, identify dramatic devices such as aside, monologues, irony and literary devices like simile, metaphor, and explain the significance of the play.		
	Ch.5 TELEVISION (Poem)	To enable the students to get an idea about sentences and rhythmic lines at their own and use it in the poetic text. Identifying the poetic devices like Personification and Metaphor.		
1 st Term	MERCHANT OF VENICE (play) (Act 3 Scene 3,4,5)	They will decipher each character, actions and their motives. They will learn about the background of the play where prejudices and malice prevailed against the Jews during the medieval ages.	The students will enact various sections of the play, like the casket scene or the money lending scene.	How is the poem “nine gold medals” a song celebrating basic human values in sports. Elaborate. (250-300 words)
	Ch.3 THE COLD WITHIN (Poem)	They will appreciate stylistic devices used in the poem and will identify similes and metaphors and use it in other literary texts. They will also explore the livelihood of people in rural areas		
	Ch.1 CHIEF SEATTLE’S SPEECH (short story)	They will recall the facts, express it and organise ideas. They will use knowledge and experience to think critically and make use of the literary devices		

		used in the poem.		
	Ch.2 OLD MAN AT THE BRIDGE (Short story)	The students will get ideas encountering the unexpected, analyse the cultural context, word origins and enhance their sensitivity and writing style.		
	Ch.4 HEARTS AND HANDS (Short Story)	They will understand the complexity of characters and will identify the events, which will sensitise the students towards the downtrodden.		
2 nd round	MERCHANT OF VENICE (play) (ACT IV SCENE1)	<ul style="list-style-type: none"> • Identifying the main events chronologically • Interpreting, inferring and evaluating the information 		
	Ch. 5 A FACE IN THE DARK (short story)	They will learn to enjoy a literary piece and sensitise the students towards the treatment of animals.		
	Ch.6 AN ANGEL IN DISGUISE (short story)	They will relate to the poetic devices like rhyming couplets, personification and rhetorical devices like apostrophe.		
	Ch.8 THE BLUE BEAD (Short Story)	The students will relate to the life and influence of a man and will recognise the consequences of living or not living in correct gospel principles.		
	Ch.10 ALL SUMMER IN A DAY (Short Story)	They will define vocabulary words and apply it to real life situations. They will work cooperatively to use vocabulary words in meaningful sentences.		

2nd term	MERCHANT OF VENICE (play) (ACT IV SCENE 2, ACT V SCENE 1)	<ul style="list-style-type: none"> • Develop conversational and presentation skills • Identifying the main events chronologically 	Debate on television being an idiot box or a relevant informative device.	Discuss Sarojini Naidu's poetry as "Indian in thought and spirit".
3 rd term	Revision of all the text books (Merchant of Venice , Treasure Trove- Poetry & Short Story)		Feedback on what they have thought about the progress of the play in not more than 150 words.	How is the Merchant of Venice a tragicomedy? (250-300 words)

Subject :- Mathematics

1ST Term Portion:

CH-1 Value Added Tax. Computation of tax including problems involving discounts, list-price ,profits,loss, basic/cost price including inverse cases.

CH-2 Banking . Recurring Deposit Accounts , computation of interest using the formula .

CH-3 Shares and Dividends. Computation face value , market value ,dividend ,premium using formulas.

CH-4 Linear Inequations .Linear inequation for one unknown variable $x \in N , W , Z , R$. Solving algebraically and writing the solution in set notation form.

CH-5 Quadratic Equations. Quadratic equation in one unknown. Nature of roots ,Solving problems.

CH-11 Section formula .Section and mid point formula. Internal section only .

CH-13 Similarity. Axioms of similarity of triangles . Basic theorem of proportionality.

CH-Trigonometry Identities. Using identities to solve/prove algebraic trigonometric expression.

Trigonometric ratio of complementary angles.

Unit Test: CH-1 Value Added Tax. CH-2 Banking . Internal Assessment: VAT or Banking.

2ND Term Portion:

CH-6 Ratio and Proportion.

Duplicate ,triplicate,compound ratios,continued and mean proportion.componendo , dividend,alternendo and invertendo properties and their applications.

CH-7 Factorization of Polynomials Factor theorem ,remainder theorem and factorization.

CH-8 Matrices. Order and row of matrix ,compatibility of addition, subtraction and multiplication.

CH-9 Arithmetic Progression. Common difference , terms of A.P ,to find the sum of A.P.

CH-12 Equation of Straight Line. Slope-intercept, two-point form, conditions for two lines to be parallel or perpendicular.

CH-14 Locus. Definition, meaning, theorem based on Loci.

CH-Heights and Distances. Solving 2-D problems involving angle of elevation and angle of depression.

Unit Test: CH-6 Ratio and Proportion CH-7 Factorization . Internal Assessment: Locus .

3RD Term Portions:

CH-15-Circles. Chord properties, arc properties, cyclic properties, tangent properties.

CH-16-Constructions. Construction of tangents to a circle. Circumscribing and inscribing a circle on a triangle and regular hexagon.

CH-17-Area and Volume of Solids. Total surface area, curved surface area, volume of 3D figure and merged figure.

CH-20- Statistics Measurement of Central Tendency, Graphical Representation.

CH-2-1 Probability. Definition of probability, simple problems on single events.

Internal Assessment: Measurement of Central Tendency and their graphical representation.

Subject :- Physics

1ST Term Portions:

CH-1 Force Turning forces concepts, moment of forces; forces in equilibrium, centre of gravity.

CH:2 Work, Energy and Power. Work, energy and power and their relation with force, different type of energy, principle of conservation of energy.

CH-3 Machines. Levers and their type, mechanical advantage, velocity ratio, efficiency of lever, pulleys.

CH:5 Refraction through a lens. Type of lens, technical terms of lens, ray diagram to show the formation of image by lens, power of lens.

CH:6 Spectrum. Deviation produced by prism, electromagnetic spectrum and its classification. Scattering of light and its applications.

Unit Test: (i) Force (ii) Machine

2ND Term Portions:

CH-7 Sound. Reflection of sound waves, echoes and their uses, natural vibration, damped vibration and forced vibration, loudness, pitch, quality of sound waves.

CH-8 Current electricity Ohm's law, concepts of e.m.f., potential difference, resistance in series and parallel, internal resistance.

CH-9 Electrical Power and Household Circuit, Main circuit, switches, fuse, earthing safety precautions colour coding of wires.

CH-10 Electro magnetism. Magnetic effect of current, electro-magnetic induction, transformer, D.C motor.

Unit Test (i) Electrical power and Domestic circuit . (ii) Current electricity .

3RD Term Portions:

CH-11 Calorimetry. Calorimetry ,sp heatcapacity numerical problem,latent heat .

CH- 12 Radioactivity. Radioactivity ,background radiation and safety precautions ,basic introduction of nuclear fission and fusion.

Subject :- Chemistry

BOOK TO FOLLOW:- Concise chemistry- CLASS 10, by Selina publisher

1 st unit	Chp- 6 (Electrolysis)
1 st term	Chp 2 (chemical bonding) Chp 3 (acids, bases and salts) Chp- 5 (mole concept and Stoichiometry)
Activity for 1 st term	1)Activity to show various chemical bonding between molecules
Project for 1 st term	Draw an electrolytic cell to show the applications of electrolysis with a brief description of their dissociation in a scrap book.

2 nd unit	Chp- 7 (Metallurgy)
2 nd term	Chp- 4 (Analytical chemistry) Chp- 1 (periodic table) Chp- 8 (study of compounds- hydrogen chloride)
Activity for 2 nd term	1)Activity to show HCl gas is heavier than air
Project for 2 nd term	Draw a periodic table referring to pg. no. 125 from the book in a scrap book

Pre- boards (includes entire syllabus)	Chp- 9 (study of compounds- ammonia)
	Chp- 10 (study of compounds- nitric acid)
	Chp- 11 (sulphuric acid)
	Chp -12 (organic chemistry)

Subject – Biology

NAME OF THE BOOK: CONCISE BIOLOGY

NAME OF THE AUTHOR: H.S.VISHNOI

Ist UNIT TEST

1. Structure of chromosome, cell cycle and cell division

The pupil knows the

- i. Structure of chromosomes, cell cycle and cell division
- ii. Cell cycle
- iii. Mitosis and its stages
- iv. Meiosis as a reduction division
- v. Significance and major differences between mitotic and meiotic division

2. Genetics – some basic fundamentals

The students understand the

- i. Meaning of genetics
- ii. Monohybrid cross and dihybrid cross
- iii. Mendel's law of inheritance of diseases
- iv. Sex-linked inheritance of diseases
- v. Sex-determination in human beings

1st TERMINAL EXAMINATION

1. Absorption by roots

The students understand the

- i. Characteristics of roots which make them suitable for absorbing water
- ii. Structure of a full grown root hair
- iii. Absorption of water and minerals by roots
- iv. Active and passive transport
- v. Forces contributing to ascent of sap

2. Transpiration

- i. Process and significance of transpiration
- ii. Kinds of transpiration
- iii. Factors affecting rate of transpiration
- iv. Adaptations in plants to reduce transpiration
- v. Brief idea of guttation and bleeding

3. Photosynthesis

The students understand the

- i. Meaning and process of photosynthesis
- ii. Internal structure of chloroplast
- iii. Importance of photosynthesis to life in general
- iv. Light and dark reaction
- v. Adaptations in a plant for photosynthesis
- vi. Opening and closing of stomata

- vii. Factors affecting photosynthesis
 - 3. Chemical coordination in plants
The students understand the
 - i. Role of plant growth regulators
 - ii. Tropic movements in plants
 - 4. The circulatory system [human body]
The students understand the
 - i. Main features of the circulatory system
 - ii. Composition of blood
 - iii. Structure and working of the heart, blood vessels and blood
 - iv. Circulation of blood
 - v. Blood coagulation
 - vi. ABO blood group system, Rh factor, concept of blood circulation
 - 5. Population- the increasing numbers and rising problems
The pupil knows the
 - i. Reasons for rise in human population
 - ii. Effects of population explosion
 - iii. Methods of population control
- PROJECT: Make a project on “Bhopal gas tragedy”.

Unit TEST

- 1. The nervous system
The students understand the
 - i. Structure of neuron
 - ii. Central, autonomous and peripheral nervous system [in brief]
 - iii. Brain and spinal cord [structure and function]
 - iv. Reflex action
 - v. Eye and ear [structure and function]
 - vi. Eye defects and corrective measures

Unit TERMINAL EXAMINATION

- 1. The reproductive system
The students understand the
 - i. Male and female reproductive organs and function of each organ
 - ii. Fertilization
 - iii. Nutrition and respiration of the embryo
 - iv. Outline of menstrual cycle
 - v. Role of sex hormones
 - vi. Twins
- 2. Pollution
The students understand the:
 - i. Types of pollution [air, water, soil, radiation and noise]
 - ii. Sources of pollution and major pollutants
 - iii. Effects of pollution

- iv. Green house effect, Acid rain, Ozone layer depletion
 - v. Measures to minimise pollution.
3. Endocrine glands
- The students understand the
- i. Correct location and shape of the gland in human body [adrenal, pancreas, pituitary and thyroid.]
 - ii. Hormones secreted by different glands
 - iii. Effect of hypo-secretion and hyper-secretion of hormones on human body.
 - iv. Brief idea of feedback mechanism.
4. Excretion system
- The students understand the:
- i. Meaning and importance of excretion
 - ii. Location of different excretory organs in the human body.
 - iii. Parts of the urinary system along with the blood vessels entering and leaving the kidney.
 - iv. Functions of various parts of the urinary system
 - v. Structure of kidney tubule.
 - vi. A brief idea of ultra-filtration, selective reabsorption and tubular secretion in relation to the composition of blood plasma and urine formed.
5. Human Evolution
- The students understand the
- i. Reasons behind human evolution
 - ii. Theories of evolution
 - iii. Human ancestors
 - iv. Lamarck's theory of inheritance of acquired characteristics.
 - v. Darwin's theory of natural selection.

ACTIVITY: Draw a well-labelled diagram of an eye and a ear.

PROJECT: *Lab Manual.*

Subject :- History / Civics

FIRST TERM

THE NATIONAL MOVEMENT (NON-COOPERATION MOVEMENT , CIVIL OBEDIENCE AND OTHER FORCES AT WORK)

8) THE CRIPPS MISSION AND THE QUIT INDIA MOVEMENT

9) SUBHASH CHANDRA BOSE, FORWARD BLOC AND THE INDIAN NATIONAL ARMY (INA'S objective, Role of Subhas , Defeat of Japan, Significance , Formation of Forward Bloc

(DEMAND FOR PAKISTAN, JINNAH'S TWO 10) Independence and Partition of India NATION THEORY, CABINET MISSION PLAN, ACTION BY MUSLIM LEAGUE AND MOUNTBATTEN PLAN)

CIVICS – 1. The Union Parliament (Lok Sabha ,Rajya Sabha,Speaker , Functions and powers)

2. The Union Executive – I
(President and the vice-president)

3. The Union Executive – II
(The Prime Minister , Union Cabinet and the council of Ministers)

PROJECT = Present a life sketch and contributions of any of the following Presidents of India.(10-12 pages)

1. Dr.Rajendra Prasad
2. Dr. S Radha krishnan
3. A.P.J Abdul Kalam

SECOND TERM

HIS:- CHP-11

The First World War Causes (Nationalism and Imperialism , Armament Race , Division of Europe and Sarajevo Crisis and Effects.)

Chp 12 = Rise of Dictatorship

Causes for the rise of Fascism in Italy and rise of Nazism in Germany.

Chp13 :- The Second World War (1939-1945)

Chp 14:- Objectives of UN, Functions of General Assembly , Security Council and International court of Justice)

Chp 15:- Major agencies of UN.

Chp 16:- The Non-Alignment Movement (Brief meaning, objectives , Role of Pt.Nehru and name of architects of NAM.)

CIVICS

Chp 4- The Union Judiciary (Revision)

Chp 5- The State Judiciary

(Composition, Qualifications Of Judges , Appointment and functions , Original and Appellate and Judicial Review)

Chp 6:- The Subordinate Courts(Distinction b/w Court of District judges and Session Court , Lok Sabha meanings and advantage)

THIRD TERM

Revision of the entire syllabus and PRE – BOARD

Subject :- Geography

1ST TERM:

1st Unit: Chap. 3 Location ,extent and Physical features of India

* Chap. 9.Energy Resources.

1st Term:

- Chap. 4. Climate.
- Chap. 11. Food crops.
- Chap 1. Map study: survey map 45/D10
- Chap. 2 map of India.

2nd Term:

2nd Unit: * chap. 12.Commercial cash Crops

2nd Term:

* chap.13. Agricultural Seasons.

- Chap. 14 Manufacturing Industries Mineral- Based
- Chap. 15. Agro-Based Industries.
- Survey map 45/D10.
- Map of India.

Project work: Prepare a project on Wildlife conservation efforts in India.

Portion till pre board:

* **Chap. 16. Transport**

*Chap. 17. Waste management .i

* **Chap. 18. Waste management. ii**

- Chap 1. Interpretation of Topographical maps 45/D10
- Chap 2. maps of India
- Revisions of the chapters.

Subject :- Computer Applications

TERM	SYLLABUS
1ST TERM	<p>ROUND-1 ----- (20 Marks)</p> <ul style="list-style-type: none"> ➤ Chapter – 1 : Basic Concept of Object and Classes ➤ Chapter – 2 : Introduction to Java ➤ Chapter – 3 : Values and Types ➤ Chapter – 4 : Operator ➤ Chapter – 5 : Conditional Control Structure ➤ Chapter – 6 : Looping control Structure <p>PROJECT(50) + Lab. Test (20) + Class Test(10) ----- (80)</p> <p>TERM----- (100 Marks)</p> <ul style="list-style-type: none"> ➤ Chapter – 8 : Methods / Functions ➤ Chapter – 10 : Constructor
2nd TERM	<p>ROUND-1 ----- (20 Marks)</p> <ul style="list-style-type: none"> ➤ Chapter – 9 : Class as a user Defined Data Type ➤ Chapter – 11 : Using Library Classes ➤ Chapter – 13 : Strings <p>PROJECT(50) + Lab. Test (20) + Class Test(10) ----- (80)</p> <p>TERM----- (100 Marks)</p> <ul style="list-style-type: none"> ➤ Chapter – 12 : Arrays ➤ Chapter – 14 : Encapsulation and Inheritance
PRE BOARD	<p>PART – I : THEORY – 100 Marks</p> <p>PART – II : INTERNAL ASSESSMENT – 100 Marks</p> <p>(ALL THE CHAPTERS)</p>

Some Ideas for the Project:

Students have already been introduced to spreadsheets, databases, word processors and presentation software earlier. That familiarity should be used to introduce the idea of how the software can be designed by modeling it as operations permitted on different objects. Other real world systems can also be modeled on the same lines:

1. Calculators

2. Banks
3. A school
4. Toys
5. A game
6. Traffic lights
7. Elevators
8. Retail Outlets
9. An office
10. A company
11. Household gadgets like microwave ovens
12. Washing machines
13. Air Conditioners
14. Cars
15. Airplanes
16. Vending machines
17. Automatic Teller Machines (ATM)
18. A Social System
19. A musical composition
20. A clinical diagnostic system

Important: This list is indicative only. Students should use their imagination to create innovative and original projects.

Objective and scope: Identify and list out the objectives of each session, so that students learning are focused.

Practical Lab exercises: To be done on the computer. Exercise can be divided based on number of classes.

Instruction for working on the computer: Ask the students to carry the book and lab copy to the computer lab in order to try out as many instructions on the computer as possible.

Assignment: To be done by students at home.

Book exercises: To be done in the class so that problems can be solved.

Smart Classroom: To teach computers using smart classroom methodology:

The advantages of smart classroom are as follows:

- 1) More effective teaching / Learning in the classroom.
- 2) Explain the concepts using pictures, videos and animation.
- 3) Increase interest, attention and focus of the students and makes the whole environment vibrant.
- 4) Facilitates the students in understanding the concepts clearly.

Subject :- Moral Science

Text Book : We are the world : Value Education and Life Skills

First Term

Freedom unlimited – Theme : Freedom – A few thoughts on freedom

Joy forever. Theme – Pleasure – Examine prevalent attitudes to pleasure

Forgive and forget – Life skill Theme- Reconciliation – Who wins in a broken relationship

None of my business? What is concern?

Old ways and new Valuable traditions – Are the traditions beneficial

Marriage encounter – Life skill Theme- Partners for life – Pros and cons of arranged marriages and love marriages

Live and let live Theme – Choosing life. What is life for me ?

Project : Observe i. in your school, 2. On your way home from school 3. At home the things about which you could take action based on your concern. Make a programme for doing something however small , about them .

Activity – Discussion on traditions

Second term

Hidden persuaders- Life skill Theme – Good judgment

“Highs” that are ‘lows’- Life skill Theme – Building character

Nearer to you Theme- God centredness

Silent communion Theme - Closeness to God

Suffering with a smile – Life skills Theme Accepting pain

Turning to you Theme- Faith

Only one earth . Theme Preservation of the environment

One half of humanity. Theme- Importance of women

The powers that be Theme- Right use of power

India tomorrow .Theme- Social change

Project : Collect clippings on one area of the environment and what is being done about it.

Subject :- Hindi Language

FIRST UNIT TEST

1. निबंध

विद्यार्थीगण सीखेंगे :-

- अमूर्त चिंतन करना
- विषय की जानकारी एकत्र करना
- क्रमबद्धता
- लेखन शुद्धता

2. व्याकरण भाग

विद्यार्थीगण सीखेंगे :-

- भाववाचक संज्ञा बनाना
- विशेषण शब्दों का निर्माण
- तत्सम-तद्भव शब्दों का निर्माण
- विलोम शब्द

TERM TEST

1. निबंध

विद्यार्थीगण सीखेंगे :-

- निबंध के प्रकार - भावात्मक, विचारात्मक, वर्णनात्मक
- निबंध के स्वरूप
- व्यक्तित्व का प्रकाशन
- निबंध शैली
- प्रबंध और निबंध में अंतर
- निबंध का शिल्पविधान-भूमिका, व्याख्या, निष्कर्ष

2. चित्र पर आधारित रचना

विद्यार्थीगण सीखेंगे :-

- अमूर्त चिंतन करना
- काल्पनिकता का विकास
- लेखन कला का परिमार्जन
- क्रमबद्धलेखन

3. पत्र - लेखन

विद्यार्थीगण सीखेंगे :-

- क्रमबद्धता
- सुचारू एवं शुद्ध लेखन
- कार्यालयी पत्र लेखन
- अनौपचारिक पत्र लेखन

4. अपठित गद्यांश

विद्यार्थीगण सीखेंगे :-

- चिंतन शक्ति का विकास होगा

- प्रश्नों का सटीक उत्तर देना
 - उचित तथा शीघ्र पठन का ज्ञान
5. व्याकरण भाग -

विद्यार्थीगण सीखेंगे :-

- उपसर्ग व प्रत्यय का ज्ञान
- अनेक शब्दों के लिए एक शब्द
- भाववाचक संज्ञा
- विशेषण बनाना
- वाक्य परिवर्तन
- पर्यायवाची शब्द
- विलोम शब्द

SECOND UNIT TEST

1. निबंध
विद्यार्थीगण सीखेंगे :-
पूर्ववत ज्ञान

2. व्याकरणिक ज्ञान -
- भाववाचक संज्ञा
 - विशेषण बनाना
 - वाक्य परिवर्तन
 - पर्यायवाची शब्द
 - विलोम शब्द

SECOND TERM

1. निबंध
विद्यार्थीगण सीखेंगे :-
पूर्ववत ज्ञान

2. पत्र लेखन
विद्यार्थीगण सीखेंगे :-
पूर्ववत ज्ञान

3. चित्र पर आधारित रचना
विद्यार्थीगण सीखेंगे :-
- अमूर्त चिंतन करना
 - काल्पनिकता का विकास
 - लेखन कला का परिमार्जन
 - क्रमबद्धलेखन

4. व्याकरणिक ज्ञान -
1. मुहावरे और लोकोक्तियाँ
विद्यार्थीगण सीखेंगे :-
- मुहावरों का ज्ञान

