SYLLABUS OF FOR ANNUAL EXAMINATION —(CLASS-IX):—-

SUBJECT:-ENGLISH

LESSONS FROM TEXTBOOK —BEEHIVE:—-
1) THE SNAKE AND THE MIRROR
2) MY CHILDHOOD
3) REACH FOR THE TOP
4) KATHMANDU

POEMS:—
1) A LEGEND OF THE NORTHLAND
2) NO MEN ARE FOREIGN
3) ON KILLING A TREE
4) A SLUMBER DID MY SPIRIT SEAL

LESSONS FROM TEXTBOOK—MOMENTS:—-
1) THE HAPPY PRINCE
2) THE LAST LEAF
3) A HOUSE IS NOT A HOME
4) THE BEGGAR

TOPICS FOR GRAMMAR:—
1) TENSES
2) MODALS
3) REPORTED SPEECH
4) CHANGE THE VOICE
5) EDITING
6) PREPOSITIONS
7) ARTICLES
8) SUBJCT-VERB AGREEMENT

TOPICS FOR WRITING SKILL:—
1) STORY WRITING
2) PARAGRAPH WRITING
3) DIARY ENTRY
4) LETTER WRITING
5) ANALYTICAL PARAGRAPH

NOTE:—-SYLLABUS COVERED DURING MID-TERM EXAMS WILL ALSO BE INCLUDED IN ANNUAL EXAMINATION.

COURSE STRUCTURE

CLASS IX

(Annual Examination) **Marks: 80**

Unit No.	Unit	Marks
I	Matter - Its Nature and Behaviour	25
II	Organization in the Living World	22
III	Motion, Force and Work	27
IV	Food; Food Production	06
	Total	**80**
	Internal assessment	**20**
	Grand Total	**100**

Theme: Materials

Unit I: Matter-Nature and Behaviour

Definition of matter; solid, liquid and gas; characteristics - shape, volume, density; change of state-melting (absorption of heat), freezing, evaporation (cooling by evaporation), condensation, sublimation.

Nature of matter: Elements, compounds and mixtures. Heterogeneous and homogenous mixtures, colloids and suspensions. Physical and chemical changes (excluding separating the components of a mixture).

Particle nature and their basic units: Atoms and molecules, Law of Chemical Combination, Chemical formula of common compounds, Atomic and molecular masses.

Structure of atoms: Electrons, protons and neutrons, Valency, Atomic Number and Mass Number, Isotopes and Isobars.

Theme: The World of the Living

Unit II: Organization in the Living World

Cell - Basic Unit of life : Cell as a basic unit of life; prokaryotic and eukaryotic cells, multicellular organisms; cell membrane and cell wall, cell organelles and cell inclusions; chloroplast, mitochondria, vacuoles, endoplasmic reticulum, Golgi apparatus; nucleus, chromosomes - basic structure, number.

Tissues, Organs, Organ System, Organism:

Structure and functions of animal and plant tissues (only four types of tissues in animals; Meristematic and Permanent tissues in plants).

Theme: Moving Things, People and Ideas

Unit III: Motion, Force and Work

Motion: Distance and displacement, velocity; uniform and non-uniform motion along a straight line; acceleration, distance-time and velocity-time graphs for uniform motion and uniformly accelerated motion, elementary idea of uniform circular motion.

Force and Newton's laws : Force and Motion, Newton's Laws of Motion, Action and Reaction forces, Inertia of a body, Inertia and mass, Momentum, Force and Acceleration.

Gravitation: Gravitation; Universal Law of Gravitation, Force of Gravitation of the earth (gravity), Acceleration due to Gravity; Mass and Weight; Free fall.

Floatation: Thrust and Pressure. Archimedes' Principle; Buoyancy.

Work, Energy and Power: Work done by a Force, Energy, power; Kinetic and Potential energy; Law of conservation of energy (excluding commercial unit of Energy).

Sound: Nature of sound and its propagation in various media, speed of sound, range of hearing in humans; ultrasound; reflection of sound; echo.

Theme: Food

Unit IV: Food Production

Plant and animal breeding and selection for quality improvement and management; Use of fertilizers and manures; Protection from pests and diseases; Organic farming.

Note for the Teachers:

1. The chapter Natural Resources (NCERT Chapter 14) will not be assessed in the year-end examination. However, learners may be assigned to read this chapter and encouraged to prepare a brief write up on any concept of this chapter in their Portfolio. This may be for Internal Assessment and credit may be given for Periodic Assessment/Portfolio.
2. The NCERT text books present information in boxes across the book. These help students to get conceptual clarity. However, the information in these boxes would not be assessed in the year-end examination.

PRACTICALS

Practicals should be conducted alongside the concepts taught in theory classes.

(LIST OF EXPERIMENTS)

1. Preparation of: **Unit-I**

a) a true solution of common salt, sugar and alum

b) a suspension of soil, chalk powder and fine sand in water

c) a colloidal solution of starch in water and egg albumin/milk in water and distinguish between these on the basis of

- transparency
- filtration criterion
- stability

2. Preparation of **Unit-I**

a) A mixture

b) A compound

using iron filings and sulphur powder and distinguishing between these on the basis of:

(i) appearance, i.e., homogeneity and heterogeneity

(ii) behaviour towards a magnet

(iii) behaviour towards carbon disulphide as a solvent

(iv) effect of heat

3. Perform the following reactions and classify them as physical or chemical changes: **Unit-I**

a) Iron with copper sulphate solution in water

b) Burning of magnesium ribbon in air

c) Zinc with dilute sulphuric acid

d) Heating of copper sulphate crystals

e) Sodium sulphate with barium chloride in the form of their solutions in water

4. Preparation of stained temporary mounts of (a) onion peel, (b) human cheek cells & to record observations and draw their labeled diagrams. **Unit-II**

5. Identification of Parenchyma, Collenchyma and Sclerenchyma tissues in plants, striped, smoothand cardiac muscle fibers and nerve cells in animals, from prepared slides. Draw their labeled diagrams. **Unit-II**

6. Determination of the melting point of ice and the boiling point of water. **Unit-I**

7. Verification of the Laws of reflection of sound. **Unit-III**

8. Determination of the density of solid (denser than water) by using a spring balance and a measuring cylinder. **Unit-III**

9. Establishing the relation between the loss in weight of a solid when fully immersed in **Unit-III**

   a) Tap water

   b) Strongly salty water with the weight of water displaced by it by taking at least two differentsolids.

10. Determination of the speed of a pulse propagated through a stretched string/slinky (helical spring). **Unit-III**

11. Verification of the law of conservation of mass in a chemical reaction. **Unit-III**

Syllabus of IT(402) 2024-25

Employability Skills
Unit 1 : Communication Skills-I
Unit 2 : Self-Management Skills-I
Unit 3 : ICT Skills-I
Unit 4 : Entrepreneurial Skills-I
Unit 5 : Green Skills-I

Subject Specific Skills
Unit 1: Introduction to IT- ITeS industry
Unit 2: Data Entry & Keyboarding Skills
Unit 3: Digital Documentation
Unit 4:Electronic Spreadsheet
Unit 5: Digital Presentation

COURSE STRUCTURE CLASS -IX

Units	Unit Name	Marks
I	NUMBER SYSTEMS	10
II	ALGEBRA	20
III	COORDINATE GEOMETRY	04
IV	GEOMETRY	27
V	MENSURATION	13
VI	STATISTICS	06
	Total	80

UNIT I: NUMBER SYSTEMS

1. REAL NUMBERS (18) Periods

1. Review of representation of natural numbers, integers, and rational numbers on the number line. Rational numbers as recurring/ terminating decimals. Operations on real numbers.

2. Examples of non-recurring/non-terminating decimals. Existence of non-rational numbers (irrational numbers) such as $\sqrt{2}$, $\sqrt{3}$ and their representation on the number line. Explaining that every real number is represented by a unique point on the number line and conversely, viz. every point on the number line represents a unique real number.

3. Definition of nth root of a real number.

4. Rationalization (with precise meaning) of real numbers of the type $\frac{1}{a+b\sqrt{x}}$ and $\frac{1}{\sqrt{x}+\sqrt{y}}$ (and their combinations) where x and y are natural number and a and b are integers.

5. Recall of laws of exponents with integral powers. Rational exponents with positive real bases (to be done by particular cases, allowing learner to arrive at the general laws.)

UNIT II: ALGEBRA

1. POLYNOMIALS (26) Periods

Definition of a polynomial in one variable, with examples and counter examples. Coefficients of a polynomial, terms of a polynomial and zero polynomial. Degree of a polynomial. Constant, linear, quadratic and cubic polynomials. Monomials, binomials, trinomials. Factors and multiples. Zeros of a polynomial. Motivate and State the Remainder Theorem with examples. Statement and proof of the Factor Theorem. Factorization of $ax^2 + bx + c$, $a \neq 0$ where a, b and c are real numbers, and of cubic polynomials using the Factor Theorem.

Recall of algebraic expressions and identities. Verification of identities:
$(x + y + z)^2 = x^2 + y^2 + z^2 + 2xy + 2yz + 2zx$
$(x \pm y)^3 = x^3 \pm y^3 \pm 3xy\,(x \pm y)$
$x^3 \pm y^3 = (x \pm y)\,(x^2 \mp xy + y^2$
$x^3 + y^3 + z^3 - 3xyz = (x + y + z)\,(x^2 + y^2 + z^2 - xy - yz - zx)$
and their use in factorization of polynomials.

2. LINEAR EQUATIONS IN TWO VARIABLES (16) Periods

Recall of linear equations in one variable. Introduction to the equation in two variables. Focus on linear equations of the type $ax + by + c=0$. Explain that a linear equation in two variables has infinitely many solutions and justify their being written as ordered pairs of real numbers, plotting them and showing that they lie on a line.

UNIT III: COORDINATE GEOMETRY

COORDINATE GEOMETRY (7) Periods

The Cartesian plane, coordinates of a point, names and terms associated with the coordinate plane, notations.

UNIT IV: GEOMETRY

1. INTRODUCTION TO EUCLID'S GEOMETRY (7) Periods

History - Geometry in India and Euclid's geometry. Euclid's method of formalizing observed phenomenon into rigorous Mathematics with definitions, common/obvious notions, axioms/postulates and theorems. The five postulates of Euclid. Showing the relationship between axiom and theorem, for example:

(Axiom) 1. Given two distinct points, there exists one and only one line through them.
(Theorem) 2. (Prove) Two distinct lines cannot have more than one point in common.

2. LINES AND ANGLES (15) Periods

1. (Motivate) If a ray stands on a line, then the sum of the two adjacent angles so formed is 180^o and the converse.
2. (Prove) If two lines intersect, vertically opposite angles are equal.
3. (Motivate) Lines which are parallel to a given line are parallel.

3. TRIANGLES (22) Periods

1. (Motivate) Two triangles are congruent if any two sides and the included angle of one triangle is equal to any two sides and the included angle of the other triangle (SAS Congruence).
2. (Prove) Two triangles are congruent if any two angles and the included side of one triangle is equal to any two angles and the included side of the other triangle (ASA Congruence).

3. (Motivate) Two triangles are congruent if the three sides of one triangle are equal to three sides of the other triangle (SSS Congruence).

4. (Motivate) Two right triangles are congruent if the hypotenuse and a side of one triangle are equal (respectively) to the hypotenuse and a side of the other triangle. (RHS Congruence)
5. (Prove) The angles opposite to equal sides of a triangle are equal.
6. (Motivate) The sides opposite to equal angles of a triangle are equal.

4. QUADRILATERALS (13) Periods

1. (Prove) The diagonal divides a parallelogram into two congruent triangles.
2. (Motivate) In a parallelogram opposite sides are equal, and conversely.
3. (Motivate) In a parallelogram opposite angles are equal, and conversely.
4. (Motivate) A quadrilateral is a parallelogram if a pair of its opposite sides is parallel and equal.
5. (Motivate) In a parallelogram, the diagonals bisect each other and conversely.
6. (Motivate) In a triangle, the line segment joining the mid points of any two sides is parallel to the third side and in half of it and (motivate) its converse.

5. CIRCLES (17) Periods

1. (Prove) Equal chords of a circle subtend equal angles at the center and (motivate) its converse.
2. (Motivate) The perpendicular from the center of a circle to a chord bisects the chord and conversely, the line drawn through the center of a circle to bisect a chord is perpendicular to the chord.
3. (Motivate) Equal chords of a circle (or of congruent circles) are equidistant from the center (or their respective centers) and conversely.
4. (Prove) The angle subtended by an arc at the center is double the angle subtended by it at any point on the remaining part of the circle.
5. (Motivate) Angles in the same segment of a circle are equal.
6. (Motivate) If a line segment joining two points subtends equal angle at two other points lying on the same side of the line containing the segment, the four points lie on a circle.
7. (Motivate) The sum of either of the pair of the opposite angles of a cyclic quadrilateral is 180° and its converse.

UNIT V: MENSURATION

1. AREAS (5) Periods

Area of a triangle using Heron's formula (without proof)

2. SURFACE AREAS AND VOLUMES (17) Periods

UNIT VI: STATISTICS

STATISTICS (15) Periods

Bar graphs, histograms (with varying base lengths), and frequency polygons.

MATHEMATICS
QUESTION PAPER DESIGN
CLASS – IX (2024-25)

Time: 3 Hrs. **Max. Marks: 80**

S. No.	Typology of Questions	Total Marks	% Weightage (approx.)
1	**Remembering:** Exhibit memory of previously learned material by recalling facts, terms, basic concepts, and answers. **Understanding:** Demonstrate understanding of facts and ideas by organizing, comparing, translating, interpreting, giving descriptions, and stating main ideas	43	54
2	**Applying:** Solve problems to new situations by applying acquired knowledge, facts, techniques and rules in a different way.	19	24
3	**Analysing :** Examine and break information into parts by identifying motives or causes. Make inferences and find evidence to support generalizations **Evaluating:** Present and defend opinions by making judgments about information, validity of ideas, or quality of work based on a set of criteria. **Creating:** Compile information together in a different way by combining elements in a new pattern or proposing alternative solutions	18	22
	Total	80	100

हिंदी पाठ्यक्रम –ब (कोड सं. 085)

कक्षा 09वीं हिंदी – ब परीक्षा हेतु पाठ्यक्रम विनिर्देशन 2024-25

खंड		भारांक
क	अपठित बोध	14
ख	व्यावहारिक व्याकरण	16
ग	पाठ्यपुस्तक एवं पूरक पाठ्यपुस्तक	30
घ	रचनात्मक लेखन	20

- भारांक- (80 (वार्षिक परीक्षा) + 20 (आंतरिक परीक्षा)

निर्धारित समय- 3 घंटे भारांक-80

वार्षिक बोर्ड परीक्षा हेतु भार विभाजन				
खंड – क (अपठित बोध)				
	विषयवस्तु		उपभार	कुल भार
1	अपठित गद्यांश पर बोध, चिंतन, विश्लेषण, सराहना आदि पर बहुविकल्पीय, अतिलघूत्तरात्मक एवं लघूत्तरात्मक प्रश्न			14
	i	दो अपठित गद्यांश लगभग 200 शब्दों के। एक अंकीय तीन बहुविकल्पी प्रश्न (1x3=3) पूछे जाएँगे अतिलघूत्तरात्मक एवं लघूत्तरात्मक प्रश्न (2×2=4) पूछे जाएँगे	7+7	
	खंड – ख (व्यावहारिक व्याकरण)			
2	व्याकरण के लिए निर्धारित विषयों पर विषयवस्तु का बोध, भाषिक बिंदु/ संरचना आदि पर अतिलघूत्तरात्मक प्रश्न। (1x16) कुल 20 प्रश्न पूछे जाएँगे, जिनमें से केवल 16 प्रश्नों के उत्तर देने होंगे।			16
	i	शब्द और पद (2 अंक) (1×2=2) (3 में से 2 प्रश्न)	2	
	ii	अनुस्वार (1 अंक), अनुनासिक (1 अंक) (3 में से 2 प्रश्न)	2	
	iii	उपसर्ग (2 अंक), प्रत्यय (2 अंक) (5 में से 4 प्रश्न)	4	
	iv	स्वर संधि (3 अंक) (4 में से 3 प्रश्न)	3	

3	**खंड – ग (पाठ्यपुस्तक एवं पूरक पाठ्यपुस्तक)**				
	अ	**गद्य खंड (पाठ्यपुस्तक)**		11	
		1	स्पर्श (भाग-1) से निर्धारित पाठों में से गद्यांश के आधार पर विषयवस्तु का ज्ञान, बोध, अभिव्यक्ति आदि पर एक अंकीय पाँच **बहुविकल्पीय** प्रश्न पूछे जाएँगे। (1x5)	5	
		2	स्पर्श (भाग-1) से निर्धारित पाठों में से विषयवस्तु का ज्ञान, बोध, अभिव्यक्ति आदि पर तीन प्रश्न पूछे जाएँगे (25-30 शब्द-सीमा) (विकल्प सहित 4 में से 3 प्रश्न करने होंगे) (2x3)	6	
	ब		**काव्य खंड (पाठ्यपुस्तक)**	11	30
		1	स्पर्श (भाग-1) से निर्धारित कविताओं में से काव्यांश के आधार पर एक अंकीय पाँच **बहुविकल्पीय** प्रश्न पूछे जाएँगे (1x5)	5	
		2	स्पर्श (भाग-1) से निर्धारित कविताओं के आधार पर विद्यार्थियों का काव्यबोध परखने हेतु तीन प्रश्न पूछे जाएँगे (25-30 शब्द-सीमा)। (विकल्प सहित 4 में से 3 प्रश्न करने होंगे) (2x3)	6	
	स		**पूरक पाठ्यपुस्तक कृतिका भाग – 1**	8	
			संचयन (भाग-1) से निर्धारित पाठों पर आधारित दो प्रश्न पूछे जाएँगे (50-60 शब्द-सीमा)। (विकल्प सहित 3 में से 2 प्रश्न करने होंगे) (4x2)	8	
	खंड – घ (रचनात्मक लेखन)				
2	**लेखन**				
	क		विभिन्न विषयों और संदर्भों पर विद्यार्थियों के तर्कसंगत विचार प्रकट करने की क्षमता को परखने के लिए संकेत-बिंदुओं पर आधारित समसामयिक एवं व्यावहारिक जीवन से जुड़े हुए तीन विषयों में से किसी एक विषय पर लगभग 120 शब्दों में अनुच्छेद लेखन (5×1)	5	20
	ख		अभिव्यक्ति की क्षमता पर केंद्रित अनौपचारिक विषयों में लगभग 100 शब्दों में किसी एक विषय पर पत्र। (5x1)	5	
	ग		किसी दृश्य/घटना के चित्र पर आधारित लेखन (5x1) (लगभग 100 शब्दों में) (बिना किसी विकल्प के)	5	

	घ	भाव एवं दृश्य संकेतों के आधार पर संवाद लेखन (लगभग 100 शब्दों में) (5x1) (विकल्प सहित)	5	
		कुल		**80**
		आंतरिक मूल्यांकन		20
	अ	**सामयिक आकलन**	5	
	ब	**बहुविध आकलन**	5	
	स	**पोर्टफ़ोलियो**	5	
	द	**श्रवण एवं वाचन**	5	
		कुल		**100**

निर्धारित पुस्तकें:

1. **स्पर्श**, भाग-1, एन.सी.ई.आर.टी., नई दिल्ली द्वारा प्रकाशित नवीनतम संस्करण
2. **संचयन**, भाग-1, एन.सी.ई. आर.टी., नई दिल्ली द्वारा प्रकाशित नवीनतम संस्करण

❖ नोट : निम्नलिखित पाठों से प्रश्न नहीं पूछे जाएँगे-

स्पर्श (भाग -1)	• धर्म की आड़ (पूरा पाठ) • आदमीनामा (पूरा पाठ) • एक फूल की चाह (पूरा पाठ)
संचयन (भाग-1)	• हामिद खाँ (पूरा पाठ) • दिये जल उठे (पूरा पाठ)

स्पर्श –
पाठ – 1 दुख का अधिकार
पाठ – 6 रैदास के पद
पाठ – 7 रहीम के दोहे
पाठ – 2 एवरेस्टः मेरी शिखर यात्रा
पाठ – 3 तुम कब जाओगे अतिथि
पाठ – 8 गीत–अगीत
पाठ – 9 हरिवंशराय बच्चन – अग्निपथ
पाठ – 4 वैज्ञानिक चेतना के वाहक चंद्रशेखर वेंकटरमन
पाठ – 5 पाठ– शुक्रतारे के समान
पाठ – 10 अरुण कमल – नए इलाके में
पाठ – 10 खुशबू रचते हैं हाथ
पाठ – 4 मेरा निजी पुस्तकालय

संचयन –
पाठ – 1 गिल्लू
पाठ – 2 श्री राम शर्मा – स्मृति
पाठ – 3 कुल्लू कुम्हार की उनाकोटि

व्याकरण –
शब्द, पद , अनुस्वार, अनुनासिक,
अर्थ की दृष्टि से वाक्य भेद,
उपसर्ग–प्रत्यय
स्वर संधि
विराम चिह्न
अपठित गद्यांश
पठित गद्यांश
पठित पद्यांश
चित्र वर्णन
संवाद लेखन
अनौपचारिक पत्र
अनुच्छेद लेखन

*__Syllabus of Social Science for Annual Examination__
*History
Ch-1(The French Revolution)
Ch-2(Socialism in Europe and the Russian Revolution)
Ch-3(Nazisms and the rise of Hitler)
Ch-4(Forest Society and Colonialism)
*Geography
Ch-1(India - size and Location)
Ch - 2(Physical Features of India)
Ch -3(Drainage)
Ch-4(Climate)
Ch-5(Natural Vegetation and Wildlife)
Ch-6(Population)
*Political science
Ch-1(What is Democracy?Why Democracy)
Ch-2(Constitutional Design)

Ch-3(Electoral Politics)
Ch-4(Working of institutions)
Ch-5(Democratic Rights)
*Economics
Ch-2(People as Resources)
Ch -3(Poverty as a Challenge)
Ch-4 (Food Security in lndia)