SPLIT UP OF SYLLABUS
CLASS XI

NAVODAYA VIDYALAYA SAMITI

Split up of syllabus

CLASS : XI SUBJECT : ENGLISH

Unit No	Name of The Chapter/unit	Marks
01	Reading Skills	26
02	Creative Writing Skills	23
03	Literature Text Book and Supplementary reading text	31
	Total	80
01	Internal Assessment 1) Listening 2) Speaking 3) Project work	 05 05 10
	Grand Total	**100**

MONTH	NOOFDAYS	NOOFDAYS	Main Topic and Sub-Topics to be Covered			Activities/Projects/ Practical Experiments to be Held/Specific Assessment Tool(s)(Suggested)
			Hornbill/ Snapshots	Reading, Grammar& Advance Writing Skills		
APRIL. 2024	21	21	The Summer of the White Beautiful Horse (Prose) A Photograph (Poem)	Short Writing Task- Classified Advertisements		1.Collecting Ads and displaying in the classrooms 2. Students may be instructed to analyse the lesson and decipher the theme of the lesson. Organise the class to form pairs. Provide the students with chits based on the content of the lesson. Give the students 10 minutes to interpret the topic and present. Summarise and share the feedback too.
JULY 2024	26	26	The Portrait of a Lady(Prose)	Short Writing Task- -.2.Poster 1.Unseen Passage to assess comprehension, interpretation inference and vocabulary. (Factual, descriptive or literary)		1. Making posters on current topics – Cyber Security, AI etc 2. Prepare a 'Thankyou' card for you and mother /grandfatherand mention one of her/his characteristic straits that inspire you the most. 3. Write few lines on the characteristics of your parents that you like the most
			1st Unit Test 26 to 29 April 2024			
AUGUST20	22	22	2.We're not Afraid to Die …..If we can be together (Prose) 3. Discovering Tut: the saga	2. Unseen Passage: Case –based passage with Verbal / Visual inputs like statistical	3. Grammar - Practice of Questions on Gap filling	1)Practice of ASL 2)Collecting posters and displaying in Classrooms 3) Class magazine on the life, traits, festivals, art andCulture of a tribe:The students can work on the following to give a multi Cultural picture of the tribes in India as Gond,Bhil, khasi, Munda Angami etc. Find more about it andCreate an art integrated project.

MONTH	NOOFDAYS	NOOFDAYS	Main Topic and Sub-Topics to be Covered			Activities/Projects/ Practical Experiments to be Held/Specific Assessment Tool(s)(Suggested)
			Hornbill/ Snapshots	Reading, Grammar& Advance Writing Skills		
			Continues(Prose)	data, chart etc.	(Tenses, Clauses)	4) Listening skills practice test. 5) Browse internet to get more information about the mummies of Egypt
			2nd Unit Test :08-10 August 2024			
SEPTEMBER2024	17	19	1. The Laburnum Top (Poem) • The Address (Prose)	• Long Compositions: a. Speech Writing. b. Debate Writing. Grammar :Questions on re-ordering / Transformation of sentences		5) Presentation of speeches by students both oral & written 6) Read the diary of Lena Mukhina who struggled to fight starvation and an internal battle of isolation. Collect quotes and pictures of World wars, and the wars going on in the world presently. The students may be asked to add more phrases indicating ideas of ensuring peace in the world.
			• The Voice of the Rain(Poem) • Mother's Day(Play)	3.Note Making & Summarization		• Topics for assessment of speaking skills to be assigned to students. • Fastest reading contest may be organized. • Ask the students to write a poem on natural phenomena. • The Students may be asked to find out experiments In recycling that help in environmental conservation.
			Term–01(23 September to 04 October 2024)			
OCTOBER 2024	17	19	• Childhood(Poem) Birth(Prose)	Practice on Classified Advertisement		1)Group discussion on the following issues that has provoked controversies and affected the lives of people- • Cyberbullying • Union common civil code • Gender discrimination etc. 2. Write a brief note on one of your childhood experience (good or bad) and present the same in the class. Story–Telling Competition
NOVEMBER 2024.	20	20	The Adventure 1. Revision of writing skills – Speech Writing, Debate writing	Transformation of sentence.		Topics on speech writing – 1. Artificial Intelligence 2. Women Empowerment 3. Use of Social Media Topics of Debate Writing may also be discussed.
DECEMBER2024		20	• Silk Road(Prose) – Revision • Project Work	Comprehension of Unseen Passages(Revision) Preparation for the presentation of ASL		• Project work to be assigned. • The documentary film on the Mount Kailash may be shown and may be asked to write a brief note on it.

MONTH	NOOFDAYS	NOOFDAYS	Main Topic and Sub-Topics to be Covered		Activities/Projects/ Practical Experiments to be Held/Specific Assessment Tool(s)(Suggested)
			Hornbill/ Snapshots	Reading, Grammar& Advance Writing Skills	
	18				• The Students may be asked to write About the journey that they have undertaken. Project on the stories of the People who scaled Mount Everest
			3rd Unit Test – 12-14 December 2024		
JANUARY.2025	14	14	Father to Son (Poem)	Note Making and Summarization (Revision)	• Conversation Cards/ Abbreviation flash cards can be used to teach classified ads. Students to create their own ads based on advertising technique they have learnt. • Organise the Story–Telling Competition Create a dialogue between father and so non generation gap (dialogue may be Written by students)
			4thUnitTest 06-08 Feb2025		
FEBRUARY.2025	21	21	The Tale of Melon City	Revision of unseen comprehension passage (Case Based)	III)Submission of Project. IV) ASL to be conducted. Revision of syllabus
MARCH2025			Revision		
			TERM-2 EXAM 17-28 March 2025		

NAVODAYA VIDYALAYA SAMITI

CLASS: 11 **SUBJECT: हिन्दी**

काई सं	इकाई / पाठ का नाम	उप–भारांक	भारांक
	खंड अ (वस्तुपरक प्रश्न)		
1.	**अपठित गद्यांश/पद्यांश:** • एक अपठित गद्यांश (अधिकतम 300 शब्दों का) (1 अंक x 10 प्रश्न) • दो अपठित पद्यांशो में से कोई एक पद्यांश (अधिकतम 150 शब्दों का) (1 अंक x 5 प्रश्न)	10 5	15
2.	पाठ्य पुस्तक **अभिव्यक्ति और माध्यम** की इकाई एक से पाठ सांख्या 1 तथा 2 पर आधारित । v) बहुविकल्पात्मक प्रश्न (1 अंक x 5 प्रश्न)	5	5
3.	**पाठ्य पुस्तक आरोह भाग -1** से (i)बहुविकल्पात्मक प्रश्न • पठित काव्यांश पर पाँच बहुविकल्पी प्रश्न (1 अंक x 05 प्रश्न) • पठित गद्यांश पर पाँच बहुविकल्पी प्रश्न (1 अंक x 05 प्रश्न)	5 5	10
4.	**पूरक पाठ्य पुस्तक वितान भाग -1** से बहुविकल्पी प्रश्न • पठित पाठों पर दस बहुविकल्पी प्रश्न (1 अंक x 10 प्रश्न)	10	10
	खंड-ब (वर्णनात्मक प्रश्न)		
5.	पाठ्य पुस्तक, अभिव्यक्ति और माध्यम से सृजनात्मक लेखन और व्यावहारिक लेखन पाठ संख्या 1 (जनसांचार माध्यम), 2 (पत्रकारिता के विविध आयाम), 9 (डायरी लेखन की कला), 10 (कथा-पटकथा), 14 (कार्यालयी लेखन और प्रक्रिया), 15 (स्व-वृत्त लेखन और रोज़गार संबंधी आवेदन पत्र) तथा 16 (कोश- एक परिचय) पर आधारित (i) दिये गए चार अप्रत्याशित विषयों से किसी एक विषय पर लगभग 120 शब्दों में रचनात्मक लेखन (5 अंक x 1 प्रश्न)	5	

	• औपचारिक पत्र लेखन (5 अंक x 1 प्रश्न) (विकल्प सहित) • डायरी लेखन, कथा- पटकथा विषयों पर लेखन पर आधारित दो प्रश्न (3 अंक x 2 प्रश्न) (विकल्पसहित((लगभग 60 शब्दों में) • स्ववृत्त लेखन और रोज़गार संबंधी आवेदन पत्र तथा शब्दकोश, सन्दर्भ ग्रंथों की उपयोगी विधि और परिचय पर आधारित तीन में से दो प्रश्न (2 अंक x 2 प्रश्न) (विकल्पसहित) (लगभग 40 शब्दों में)	5 6 4	20
6.	पाठ्य पुस्तक आरोह भाग-1 • काव्य खंड पर आधारित तीन प्रश्नों में से किन्हीं दो प्रश्नों के उत्तर (लगभग 60 शब्दों में) (3 अंक x 2 प्रश्न) • काव्य खंड पर आधारित तीन प्रश्नों में से किन्हीं दो प्रश्नों के उत्तर)लगभग 40 शब्दों में) (2 अंक x 2 प्रश्न (• गद्य खंड पर आधारित तीन प्रश्नों में से किन्हीं दो प्रश्नों के उत्तर (लगभग 60 शब्दों में) (3 अंक x 2 प्रश्न) • गद्य खंड पर आधारित तीन प्रश्नों में से किन्हीं दो प्रश्नों के उत्तर (लगभग 40 शब्दों में) (2अंक x 2 प्रश्न)	6 4 6 4	20
7.	xi) श्रवण एवं वाचन xii) परियोजना कार्य	10 10	20
	कुल	100	100

माह	कार्यदिवस	कालांश	पाठ / उप-पाठ का नाम			
			आरोह भाग –एक	वितान भाग – एक	अभिव्यक्ति और माध्यम/ रचनात्मक लेखन	क्रिया -कलाप / परियोजना कार्य
अप्रैल ,2024	24	28	गद्य खंड: 1. नमक का दरोगा- प्रेमचंद पद्य खंड 2. हम तौ एक-एक करि जानां-कबीर	भारतीय गायिकाओ में बेजोड़ : लता -मंगेशकर कुमार गंधर्व	अपठित गद्यांश अपठित पद्यांश	अन्य संत कवियों के ईश्वर सम्बन्धी विचारों पर परिचर्चा
प्रथम इकाई परीक्षा						

माह	कार्यदिवस	कालांश	पाठ / उप-पाठ का नाम			
			आरोह भाग –एक	वितान भाग – एक	अभिव्यक्ति और माध्यम/ रचनात्मक लेखन	क्रिया -कलाप / परियोजना कार्य
जुलाई2024	26	30	गद्य खंड : मियां नसीरुद्दीन – कृष्णा सोबती अपू के साथ ढाई साल – सत्यजित राय पद्य खंड • मेरे तो गिरिधर गोपाल दूसरो न कोई- मीराबाई	भारतीय गायिकाओ में बेजोड़ : लता मंगेशकर- कुमार गंधर्व	1-जनसंचार माध्यम 2-औपचारिक पत्र लेखन	संगीत शिक्षक से चर्चा कर चित्रपट संगीत व शास्त्रीय संगीत में अंतर सूचीबद्ध करना

अगस्त ,2024	25	28	गद्य खंड :: 1.विदाई संभाषण – बाल मुकुंद गुप्त पद्य खंड 1.घर की याद – भवानी प्रसाद मिश्र	राजस्थान की रजत बूँदें – अनुपम मिश्र	पत्रकारिता के विविध आयाम	अंग्रेजी शासन के दौरान भारतीयों पर हुए अत्याचार --- परिचर्चा।
द्वितीय इकाई परीक्षा						
सितम्बर ,2024	17	19	**पुनरावृत्ति** गद्य खंड: (i) गलता लोहा- शेखर जोशी पद्य खंड (i)चंपा काले काले अच्छर नहीं चीन्हती त्रिलोचन –	राजस्थान की रजत बूँदें – अनुपम मिश्र	1.कथा - पटकथा 2.डायरी लेखन	प्रकृति को सन्देश वाहक के रूप में व्यक्त करवाली कुछ कविताओं का संकलन ।
प्रथम सत्रांत परीक्षा						
अक्टूबर, 2024	21	24	गद्य खंड : 1.रजनी – मन्नू भंडारी	आलो-आंधारि (बेबी हलदार)	कार्यालयी लेखन और प्रक्रिया	कार्यालयी लेखन और प्रक्रिया में प्रयुक्त होने वाले प्रपत्रों की जानकारी प्राप्त करना
नवंबर, 2024	20	23	पद्य खंड : 2. ग़ज़ल- दुष्यंत कुमार	आलो - आंधारि बेबी) हलदार(	स्व-वृत्त (बयोडेटा) लेखन	

दिसंबर202 4	20	23	**पुनरावृत्ति** गद्य खंड :जामुन का पेड) कृश्नचंदर(	आलो - आंधारि बेबी) हलदार(	रोजगार संबंधी आवेदन पत्र	आज़ादी के आन्दोलन में प्रयुक्त एवं प्रचलित नारों का संकलन । हिन्दी साहित्य के प्रसिद्ध डायरी लेखन के उदाहरणों का संकलन।
तृतीय इकाईपरीक्षा						
जनवरी202 ,5	14	16	गद्य खंड: 2. भारत माता – जवाहरलाल नेहरू पद्य खंड 1. हे भूख, मत मचल-अक्क महादेवी 2. से मेरे जूही के फूल-अक्क महादेवी	भारतीय कलाएं	कोश- एक परिचय एवं संदर्भ ग्रन्थों की उपयोगी विधि और परिचय	पुस्तकालय में उपलब्ध विभिन्न प्रकार के शब्दकोशों की सूची बनाना
फरवरी,2025	24	28	पद्यखंड: 1. सबसे खतरनाक अवतार सिंह- पाश 2. आओ मिलकर बचाएं – निर्मला पुतुल	भारतीय कलाएं	रचनात्मक लेखन संक्षिप्त प्रश्नोत्तर	
चतुर्थ इकाई परीक्षा						
मार्च, 2025			वार्षिक परीक्षा को ध्यान में रखते हुए पूर्व पठितांश की पुनरावृत्ति	 **वार्षिक परीक्षा**		

NAVODAYA VIDYALAYA SAMITI

CLASS: XI **SUBJECT: MATHEMATICS SUBJECT CODE: 041**

Unit No	Name of The Chapter/unit	Periods	Marks
I	Sets and Functions	60	23
II	Algebra	50	25
III	Coordinate Geometry	50	12
IV	Calculus	40	08
V	Statistics and Probability	40	12
	Total	240	80
	Internal Assessment---------- (20Marks) A. Unit Tests(Best 2 out of 3 tests conducted) --------- (10Marks) B. Mathematics Activities ---------- (10Marks) 1.The activities performed by the student throughout the year end record keeping ---------- (05Marks) 2.Assessment of the activity performed during the year end test ..... (03Marks) 3.Viva-voce ---------- (02Marks)		20
	Grand Total		100

MONTH	NOOFDAYS	NOOFPERIODS	Main Topic and Sub-Topics to be Covered	Activities/Projects/Practical Experiments to be Held/Specific Assessment Tool(s) (Suggested)	
APRIL 2023	22	20 10	**Unit -I : Sets and Functions Sets** Sets and their representations, Empty set, Finite and Infinite sets, Equal sets, Subsets, Subsets of a set of real numbers especially intervals (with notations). Universal set. Venn diagrams. Union and Intersection of sets. Difference of sets. Complement of a set. Properties of Complement. **Relations and Functions** Ordered pairs. Cartesian product of sets. Number of elements in the Cartesian product of two finite sets. Cartesian product of the set of reals with itself (upto R x R x R).Definition of relation, pictorial diagrams, domain, co-domain and range of a relation.	Activity 1: To find the number of subsets of a given set and verify that if a set has 'n' elements then total number of subsets is 2^n	UT – 1 (26-29 April 2024)

MONTH	NOOFDAYS	NOOFPERIODS	Main Topic and Sub-Topics to be Covered	Activities/Projects/Practical Experiments to be Held/Specific Assessment Tool(s) (Suggested)	
JULY2024	26	10 10 10	**Relations and Functions** (continue) Function as a special type of relation. Pictorial representation of a function, domain, co-domain and range of a function. Real valued functions, domain and range of these functions, constant, identity, polynomial, rational, modulus, signum, exponential, logarithmic and greatest integer functions, with their graphs. Sum, difference, product and quotients of functions. **Unit–II: Algebra** **Complex numbers and Quadratic equations** Need for complex numbers, especially$\sqrt{-1}$, to be motivated by inability to solve some of the quadratic equations. Algebraic properties of complex numbers. Argand plane **Permutations and Combinations**: Fundamental principle of counting. Factorial *n.* (n!) Permutations and combinations, derivation of Formulae for ${}^{n}p_{r}$ and ${}^{n}c_{r}$ and their connections, simple applications.		

MONTH	NOOFDAYS	NOOFPERIODS	Main Topic and Sub-Topics to be Covered	Activities/Projects/Practical Experiments to be Held/Specific Assessment Tool(s) (Suggested)	
AUGUST 2024	22	20 5	**Unit -I : Sets and Functions** **Trigonometric functions** Positive and negative angles. Measuring angles in radians and in degrees and conversion from one measure to another. Definition of trigonometric functions with the help of unit circle. Truth of the identity sin2x + cos2x = 1, for all x. Signs of trigonometric functions. Domain and range of trigonometric functions and their graphs. Expressing *sin (x±y)* and *cos (x±y)* in terms of sin*x*, sin*y*, cos*x*&cos*y*and their simple applications. Deducing identities like the following: $\tan(x \pm y) = \frac{\tan x \pm \tan y}{1 \mp \tan x \tan y}$ $\cot(x \pm y) = \frac{\cot x \cot y \mp 1}{\cot y \pm \cot x}$ $\sin x \pm \sin y = 2\sin\frac{x \pm y}{2}\cos\frac{x \mp y}{2}$ $\cos x + \cos y = 2\cos\frac{x+y}{2}\cos\frac{x-y}{2}$ $\cos x - \cos y = 2\sin\frac{x+y}{2}\sin\frac{x-y}{2}$ Identities related to sin2*x*, cos2*x*, tan2*x*, sin3*x*, cos3*x* and tan3*x* etc., **Sequences and Series** Sequence and Series. Arithmetic Mean (A.M.)	Activity2: To plot the graphs of sinx, sin 2x, 2sinx and $\sin\frac{x}{2}$Using the same coordinate axis	**Unit Test–II (08-08-2024 TO 10-08-24)**

MONTH	NOOFDAYS	NOOFPERIODS	Main Topic and Sub-Topics to be Covered	Activities/Projects/Practical Experiments to be Held/Specific Assessment Tool(s) (Suggested)	
SEPTEMBER 2024	16	5 20	**Sequences and Series** (continue) Geometric Progression (G.P.), general term of a G.P., sum of *n* terms of a G.P., infinite G.P. and its sum, geometric mean (G.M.), relation between A.M. and G.M. **Unit – IV: Calculus** **Limits** Derivative introduced as rate of change both as that of distance function and geometrically. Intuitive idea of limit. Limits of polynomials and rational functions trigonometric, exponential and logarithmic functions.	Activity 3: To demonstrate that the arithmetic mean of two different positive numbers is always greater than the geometric mean. Activity4: To find analytically $\lim_{x\to c} f(x) = \frac{x^2 - c^2}{x - c}$	
TERM TEST -1 (23-09-24 TO 04-10-24) **Up to September syllabus**					
OCTOBER 2024	18	20	**Unit- V: Statistics and Probability** **Statistics** Measures of Dispersion: Range, Mean deviation, variance and standard deviation of ungrouped/ grouped data.		
Autumn Break(28-10-24 TO 03-11-24)					
NOVEMBER 2024	20	15 10 10	**UNIT III: COORDINATE GEOMETRY** **Straight lines** Brief recall of two dimensional geometry from earlier classes. Slope of a line and angle between two lines. Various forms of equations of a line: parallel to axis, point -slope form, slope-intercept form, two-point form, intercept form, Distance of a point from a line. **Unit – II: Algebra** **Linear inequalities** Linear inequalities. Algebraic solutions of linear inequalities in one variable and their representation on the number line. **Binomial Theorem**	Activity5: To verify that the equation of a line passing through the point of intersection of two lines $a_1x+b_1y+c_1=0$ and $a_2x+b_2y+c_2=0$ is of the form $(a_1x+b_1y+c_1)+\lambda(a_2x+b_2y+c_2)=0$ Activity 6 To verify that the graph of given inequality by $5x+4y-40<0$ of the form $ax+by+c<0$ $a,b>0$ and	

MONTH	NOOFDAYS	NOOFPERIODS	Main Topic and Sub-Topics to be Covered	Activities/Projects/Practical Experiments to be Held/Specific Assessment Tool(s) (Suggested)	
			Historical perspective, statement and proof of the binomial theorem for positive integral indices. Pascal's triangle, simple applications..	c<0 Activity:7 To construct a Pascal triangle and to write binomial expansion for a given positive integral	
DECEMBER 2024	17	10 25	**Unit – III: Coordinate Geometry** **Introduction to 3D geometry** Coordinate axes and Coordinate planes in three dimensions. Coordinates of a point. Distance between two points **Conic Sections** Sections of a cone: Circles, ellipse, parabola and hyperbola. A point, a straight line and a pair of intersecting lines as a degenerated case of conic section. Standard equations and simple properties of parabola, ellipse and hyperbola. Standard equation of a circle.	Activity8: To explain the concept of octants by 3 mutually perpendicular planes in space Activity 9: To construct different types of conic sections	UNIT TEST-3 (12-12-24 TO 14-12-24)
JANUARY 2025	15	20	**UNIT-IV CALCULUS (continue)** Definition of derivative relate it to scope of tangent of the curve, derivative of sum, difference, product and quotient of functions. Derivatives of polynomial and trigonometric function		

MONTH	NOOFDAYS	NOOFPERIODS	Main Topic and Sub-Topics to be Covered	Activities/Projects/Practical Experiments to be Held/Specific Assessment Tool(s) (Suggested)	
FEBRUARY 2025	21	20	**Probability** Events: occurrence of events, 'not', 'and' and 'or' events. Exhaustive events, mutually exclusive events. Axiomatic approach to probability. Probability of an event. addition formula and probability of complement of an event	Activity 10: To write the sample space when coin is tossed one time, two times , three times and four times.	**UNIT TEST-4 (06-02-24 TO 08-02-24)**
MARCH 2025			Revision ANNUAL EXAMINATION		

Prescribed Books:

) Mathematics Textbook for Class XI, NCERT Publication
) Mathematics Exemplar Problem for Class XI, Published by NCERT
) Mathematics Lab Manual class XI, published by NCERT
http://www.ncert.nic.in/exemplar/labmanuals.html

Note:

The activities listed above are suggestive only. Teachers are advised to refer the Lab Manual for class XI, published by CBSE. Throughout the year any 10 activities shall be performed by the student from the activities given in the Lab Manual.

NAVODAYA VIDYALAYA SAMITI

CLASS: XI SUBJECT:PHYSICS

Unit No	Name of the Chapter / Unit	No. of Periods	Marks
Unit–I	**Physical World and Measurement**	**08**	**23**
	Chapter–2: Units and Measurements		
Unit-II	**Kinematics**	**24**	
	Chapter–3: Motion in a Straight Line		
	Chapter–4: Motion in a Plane		
Unit–III	**Laws of Motion**	**14**	
	Chapter–5: Laws of Motion		
Unit–IV	**Work, Energy and Power**	**14**	**17**
	Chapter–6: Work, Energy and Power		
Unit–V	**Motion of System of Particles and Rigid Body**	**18**	
	Chapter–7: System of Particles and Rotational Motion		
Unit-VI	**Gravitation**	**12**	
	Chapter–8: Gravitation		
Unit–VII	**Properties of Bulk Matter**	**24**	**20**
	Chapter–9: Mechanical Properties of Solids		
	Chapter–10: Mechanical Properties of Fluids		
	Chapter–11: Thermal Properties of Matter		
Unit–VIII	**Thermodynamics**	**12**	
	Chapter–12: Thermodynamics		
Unit–IX	**Behaviour of Perfect Gases and Kinetic Theory of Gases**	**08**	
	Chapter–13: Kinetic Theory		
Unit–X	**Oscillations and Waves**	**26**	**10**
	Chapter–14: Oscillations		
	Chapter–15: Waves		
Total		**160**	**70**

Month	No. of Days	No. of Periods	Weightage of Marks for the Unit/ Chapter	Units/Subunits/ Topics/Chapters to be Covered	Details of Activity/Practical/ Projects to be given	Unit Tests /Formative Tests/ Assignment
APRIL 2024	24	24		**Units and Measurements:** Need for measurement, systems of units; SI units, fundamental and derived units. Mathematical tools-basic concepts of algebra, trigonometry, calculus for understanding concepts in Physics. Significant figures. Dimensions of physical quantities, dimensional analysis and its applications. **Motion in a Straight Line:**Frame of reference, Motion in a straight line, Elementary concepts of differentiation and integration for describing motion, uniform and non- uniform motion, and instantaneous velocity, uniformly accelerated motion, Motion in a Straight Line: velocity - time and position-time graphs. Relations for uniformly accelerated motion (graphical treatment).	**Experiments: 1** (Measure the diameter of a small spherical/cylindrical body and to calculate its volume using Vernier callipers) **Activity:1** (Make a paper scale of given least count 0.2cm, 0.5 cm)	**Unit test-1** **Assignment- 1** (Based on Mechanics)
JULY 2024	24	24	23	**Motion in a Plane:** Scalar and vector quantities; position and displacement vectors, general vectors and their notations; equality of vectors, multiplication of vectors by a real number; addition and subtraction of vectors, Unit vector; resolution of a vector in a plane, rectangular components, Scalar and Vector product of vectors. Motion in a plane, cases of uniform velocity and uniform acceleration-projectile motion, uniform circular motion.	**Activity:2** (By the principle of moments ,find out the mass of a given body)	

Month	No. of Days	No. of Periods	Weightage of Marks for the Unit/ Chapter	Units/Subunits/ Topics/Chapters to be Covered	Details of Activity/Practical/ Projects to be given	Unit Tests /Formative Tests/ Assignment
AUGUST 2024	25	06 14 08	17	Laws of Motion Intuitive concept of force, Inertia, Newton's first law of motion; momentum and Newton's second law of motion; impulse; Newton's third law of motion. Law of conservation of linear momentum and its applications. Equilibrium of concurrent forces, Static and kinetic friction, laws of friction, rolling friction, lubrication. Dynamics of uniform circular motion: Centripetal force, examples of circular motion (vehicle on a level circular road, vehicle on a banked road). **Work, Energy and Power :** Work done by a constant force and a variable force; kinetic energy, work energy theorem. Power. Notion of potential energy, potential energy of a spring.	**Experiments: 2&3** 2.Measure the diameter of a given wire and thickness of a given sheet using Screw gauge 3.Using simple pendulum plot L-T2 graph and use it to find out the effective length of Second's pendulum **Activity: 3** (3.Study the variation in range of a projectile with angle of projection.	**Assignment-2** **(**Based on projectile motion and Newton's Laws of motion) **Unit Test-2**
SEPTEMBER 2024	24	6 18		Conservative forces: non-conservative forces, motion in a vertical circle; elastic and inelastic collisions in one and two Dimensions System of Particles and Rotational Motion: Centre of mass of a two-particle system, momentum conservation and Centre of mass motion. Centre of mass of a rigid body; centre of mass of a uniform rod. Moment of a force, torque, angular momentum, law of conservation of angular momentum and its applications. Equilibrium of rigid bodies, rigid body rotation and equations of rotational motion, comparison of linear and rotational motions. Moment of inertia, radius of gyration, values of moments of inertia for simple geometrical objects (no derivation).	**Experiments: 4&5** 4. To find out the weight of a given body using parallelogram law of vectors 5. Find the force constant of a helical spring by plotting a graph between load and extension **Activity: 4** Observe change of state and plot a cooling curve for molten wax	**Assignment -3** (Based on work – energy- power and System of Particles and Rotational Motion)

Month	No. of Days	No. of Periods	Weightage of Marks for the Unit/ Chapter	Units/Subunits/ Topics/Chapters to be Covered	Details of Activity/Practical/ Projects to be given	Unit Tests /Formative Tests/ Assignment
		Term Test-1 (up to syllabus covered till 20th September 2024)				
OCTOBER 2024	10	**12**		Gravitation: Kepler's laws of planetary motion, universal law of gravitation. Acceleration due to gravity and its variation with altitude and depth. Gravitational potential energy and gravitational potential, escape velocity, orbital velocity of a satellite.	**Experiment: 6 & 7** (6 Determine the surface tension of liquid by capillary rise method 7. Study the relation between frequency and length of a given wire under constant tension using sonometer **Activities: 5** (5. Study the factors affecting the rate of loss of heat of a liquid)	
NOVEMBER 2024	**15**	**18**	**20**	**Mechanical Properties of Solids:** Elasticity, Stress-strain relationship, Hooke's law, Young's modulus, bulk modulus, shear modulus of rigidity (qualitative idea only), Poisson's ratio; elastic energy. **Mechanical Properties of Fluids:** Pressure due to a fluid column; Pascal's law and its applications (hydraulic lift and hydraulic brakes), effect of gravity on fluid pressure. Viscosity, Stokes' law, terminal velocity, streamline and turbulent flow, critical velocity, Bernoulli's theorem and its simple applications. Surface energy and surface tension, angle of contact, excess of pressure across a curved surface, application of surface tension ideas to drops, bubbles and capillary rise.	**Experiment: 8** Find the speed of sound in air at room temperature using a resonance tube at two resonance positions **Activity 6** Study the effect of load on depression of a suitably clamped meter scale loaded at its 1) ends 2) Its middle	**Assignment -4** Based on properties of matter

Month	No. of Days	No. of Periods	Weightage of Marks for the Unit/ Chapter	Units/Subunits/ Topics/Chapters to be Covered	Details of Activity/Practical/ Projects to be given	Unit Tests /Formative Tests/ Assignment
DECEMBER 2024	24	06 12 08		**Thermal Properties of Matter:** Heat, temperature, thermal expansion; thermal expansion of solids, liquids and gases, anomalous expansion of water; specific heat capacity; Cp, Cv - calorimetry; change ofstate - latent heat capacity. **Thermal Properties of Matter:** Heat transfer-conduction, convection and radiation, thermal conductivity, qualitative ideas of Blackbody radiation, Wein's displacement Law, Stefan's law. **Thermodynamics:** Thermal equilibrium and definition of temperature zeroth law of thermodynamics, heat, work and internal energy. First law of thermodynamics, Second law of thermodynamics: gaseous state of matter, change of condition of gaseous state -isothermal, adiabatic, reversible, irreversible, and cyclic processes. **Kinetic Theory:** Equation of state of a perfect gas, work done in compressing a gas. Kinetic theory of gases - assumptions, concept of pressure. Kinetic interpretation of temperature; rms speed of gas molecules; degrees of freedom, law of equi-partition of energy (statement only) and application to specific heat capacities of gases; concept of mean free path, Avogadro's number.	**Project: 1** From the list provided by CBSE Completion of left over practical	**Unit Test-3**
JANUARY 2025	20	26	10	**Oscillations:** Periodic motion - time period, frequency, displacement as a function of time, periodic functions and their application. longitudinal waves, speed of travelling wave,displacement relation for a progressive wave, principle of superposition of waves. **Waves**: reflection of waves, standing waves in strings and organ pipes, fundamental mode and harmonics, Beats.	Completion of left over practicals, Activities & project.	
FEBRUA	25	30		Revision		Unit Test-4

Month	No. of Days	No. of Periods	Weightage of Marks for the Unit/ Chapter	Units/Subunits/ Topics/Chapters to be Covered	Details of Activity/Practical/ Projects to be given	Unit Tests /Formative Tests/ Assignment
March 2025	**Practical Exam, Revision & Term-II Examination**					

PRACTICALS

Total Periods :

The record, to be submitted by the students, at the time of their annual examination, has to include: Record of at leas
Experiments [with 4 from each section], to be performed by the students.
Record of at least 6 Activities [with 3 each from section A and section B], to be performed by the students, Report o
the project carried out by the students

EVALUATION SCHEME

Time 3 hours MAX.MARKS: 30

Twoexperimentsonefromeachsection	7+7 Marks
Practicalrecord[experimentsandactivities]	5 Marks
Oneactivityfrom anysection	3 Marks
InvestigatoryProject	3 Marks
Vivaonexperiments,activitiesandproject	5 Marks
Total	30marks

SECTION–A

Experiments

a. To measure diameter of a small spherical/cylindrical body and to measure internal diameter and depth of a given beaker/calorimeter using Vernier Calipers and hence find its volume.
b. To measure diameter of a given wire and thickness of a given sheet using screw gauge.
c. To determine volume of an irregular lamina using screw gauge.
d. To determine radius of curvature of a given spherical surface by a spherometer.
e. To determine the mass of two different objects using a beam balance.
f. To find the weight of a given body using parallelogram law of vectors.
g. Using a simple pendulum, plot its L-T2 graph and use it to find the effective length of second's pendulum.
h. To study variation of time period of a simple pendulum of a given length by taking bobs of same size but different masses and interpret the result.

i. To study the relationship between force of limiting friction and normal reaction and to find the co-efficient of friction between a block and a horizontal surface.
j. To find the downward force, along an inclined plane, acting on a roller due to gravitational pull of the earth and study its relationship with the angle of inclination θ by plotting graph between force and Sin θ.

Activities

1. To make a paper scale of given least count, e.g., 0.2cm, 0.5 cm.
2. To determine mass of a given body using a metre scale by principle of moments.
3. To plot a graph for a given set of data, with proper choice of scales and error bars.
4. To measure the force of limiting friction for rolling of a roller on a horizontal plane.
5. To study the variation in range of a projectile with angle of projection.
6. To study the conservation of energy of a ball rolling down on an inclined plane (using a double inclined plane).
7. To study dissipation of energy of a simple pendulum by plotting a graph between square of amplitude and time.

SECTION-B

Experiments

2. To determine Young's modulus of elasticity of the material of a given wire.
3. To find the force constant of a helical spring by plotting a graph between load and extension.
4. To study the variation in volume with pressure for a sample of air at constant temperature by plotti graphs between P and V, and between P and 1/V.
5. To determine the surface tension of water by capillary rise method.
6. To determine the coefficient of viscosity of a given viscous liquid by measuring terminal velocity of given spherical body.
7. To study the relationship between the temperature of a hot body and time by plotting a cooling curve.
8. To determine specific heat capacity of a given solid by method of mixtures.
9. To study the relation between frequency and length of a given wire under constant tension usi sonometer.
10. To study the relation between the length of a given wire and tension for constant frequency usi sonometer.
11. To find the speed of sound in air at room temperature using a resonance tube by tworesonance positions

Activities

1. To observe change of state and plot a cooling curve for molten wax. To observe and explain the effect heating on a bi-metallic strip.
2. To note the change in level of liquid in a container on heating and interpret the observations.
3. To study the effect of detergent on surface tension of water by observing capillary rise. To study t factors affecting the rate of loss of heat of a liquid.
4. To study the effect of load on depression of a suitably clamped metre scale loaded at (i) its end (ii) in t middle.
5. To observe the decrease in pressure with increase in velocity of a fluid.

Practical Examination for Visually Impaired Students Class XI

Note: Same Evaluation scheme and general guidelines for visually impaired students as given for Class XII may be followed

- Items for Identification/ familiarity with the apparatus for assessment in practical(Allexperiments)

Spherical ball, Cylindrical objects, vernier calipers, beaker, calorimeter, Screw gauge, wire, Beam balanc spring balance, weight box, gram and milligram weights, forceps, Parallelogram law of vectors apparatu pulleys and pans used in the same 'weights' used, Bob and string used in a simple pendulum, meter sca split cork, suspension arrangement, stop clock/stop watch, Helical spring, suspension arrangement use weights, arrangement used for measuring extension, Sonometer, Wedges, pan and pulley used in it, 'weigh Tuning Fork, Meter scale, Beam balance, Weight box, gram and milligram weights, forceps, Resonan Tube, Tuning Fork, Meter scale, Flask/Beaker used for adding water.

- List of Practicals

- To measure diameter of a small spherical/cylindrical body using vernier calipers.
- To measure the internal diameter and depth of a given beaker/calorimeter using vernier calipers a hence find its volume.
- To measure diameter of given wire using screw gauge.
- To measure thickness of a given sheet using screw gauge.
- To determine the mass of a given object using a beam balance.
- To find the weight of given body using the parallelogram law of vectors.
- Using a simple pendulum plot L-T and L-T2 graphs. Hence find the effective length of second pendulum using appropriate length values.
- To find the force constant of given helical spring by plotting a graph between load and extension
- To study the relation between frequency and length of a given wire under constant tension using sonometer.
- To study the relation between the length of a given wire and tension, for constant frequency, using sonometer.
- To find the speed of sound in air, at room temperature, using a resonance tube, by observing the tv resonance positions.

Note: The above practicals may be carried out in an experiential manner rather than recording observations.

Note:The content indicated in NCERT textbooks as excluded for the year 2024-25 is not to be tested by schools.

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NAVODAYA VIDYALAYA SAMITI

CLASS: XI **SUBJECT: Chemistry**

Unit No	Name of The Chapter/ unit	Marks	Periods
1	Some Basic Concepts of Chemistry	7	18
2	Structure of Atom	9	20
3	Classification of Elements and Periodicity in Properties	6	12
4	Chemical Bonding and Molecular Structure	7	20
5	Chemical Thermodynamics	9	23
6	Equilibrium	7	20
7	Redox Reactions	4	9
8	Organic Chemistry: Some basic Principles and Technique	11	20
9	Hydrocarbons	10	18
	Total	70	160
	Practical Assessment	30	--
	Grand Total	100	--

PRACTICALS

Time Allowed: 03 Hours **Max.Marks:30**

Evaluation Scheme	Marks
I. Volumetric Analysis	08 Marks
II. Salt Analysis	08 Marks
III. Content based experiment	06 Marks
IV. Record + Viva	04 Marks
V. Project + Viva	04 Marks
Total	30 Marks

MONTH	NO OF DAYS	NO. OF PERIODS	Weightage of Marks for the Unit/ Chapter	Main Topic and Sub-Topics to be Covered	Activities/Projects/ Practical Experiments to be Held/ Specific Assessment Tool(s) (Suggested)	TESTS Periodic / Term /Pre-Board/ Revision/ Annual Exam
APRIL	26	18 + 07	7 3	**Unit 1: Some Basic Concepts of Chemistry (18 Periods)** General Introduction: Importance and scope of Chemistry. Nature of matter, laws of chemical combination, Dalton's atomic theory: concept of elements, atoms and molecules. Atomic and molecular masses, mole concept and molar mass, percentage composition, empirical and molecular formula, chemical reactions, stoichiometry and calculations based on stoichiometry. **Unit 2: Structure of Atom (20 Periods)** Discovery of Electron, Proton and Neutron, atomic number, isotopes and isobars. Thomson's model and its limitations. Bohr's model and its limitations,	• **Basic Laboratory Techniques** a) Cutting glass tube and glass rod. b)Bending a glass tube c) Drawing out a glassjet. d) Boring acork. • Use of Chemical Balance • Preparation of standard solution of Oxalic Acid. • Preparation of standard solution of sodium carbonate.	**UNIT TEST-I 26-29 APRIL 2024**

JULY	24	13 + 06	**06** **03**	concept of shells and subshells, dual nature of matter and light, de Broglie's relationship, Heisenberg uncertainty principle, concept of orbitals, quantum numbers, shape of s, p and d orbitals, Rules for filling electrons in orbitals – Aufbau principle, Pauli's exclusion principle and Hund's rule, electronic configuration of atoms, stability of half-filled and completely filledorbitals. **Unit 3: Classification of elements and periodicity in properties (12 Periods)** Significance of classification, brief history of the development of periodic table. Modern periodic law and the present form of periodic table,	• **Characterization and Purification of Chemical Substance** • Crystallization of an impure sample of any one of the following: alum, copper Sulphate, benzoic acid. • Determination of melting point of an organic Compound. • Determination of Boiling point ofan organic compound • Determination of strength of a given solution of sodium hydroxide by titrating it against standard solution of oxalic acid	
AUGUST	27	06+ 20	**03** **0 7**	Periodic trends in properties of elements –atomic radii, ionic radii, Ionization enthalpy, electron gain enthalpy, electro negativity, valency, Nomenclature of elementswithatomicnumbergreater than 100. **Unit 4:Chemical bonding and molecular structure (20 Periods)** Valence electrons, ionic bond, covalent bond: bond parameters, Lewis structure, polar character of covalent bond, covalent character of ionic bond, valence bond theory, resonance, geometry of covalent molecules, VSEPR theory, concept of hybridization, involving s, p and d orbital and shapes of some simple molecules, molecular orbital theory of homo nuclear diatomic molecules (Qualitative idea only), hydrogenbond.	• Determination of strength of a given solution of hydrochloric acid by titrating it against standard solution of sodium carbonate.	**UNIT TEST -II 8-10 AUGUST-2024**

SEPTEMBER	24	23	**09**	**Unit: 5 Thermodynamics (23 Periods)** Concept of System and types of system, surrounding, work, heat, energy, extensive and intensive properties, state functions. First law of thermodynamics -internal energy and enthalpy, heat capacity and specific heat, measurement of ΔU and ΔH, Hess's law of constant heat summation, enthalpies of bond dissociation, combustion, formation, atomization, sublimation, phase transformation, ionization and solution and dilution. Second Law of Thermodynamics. Introduction of entropy as a state function, free energy change for spontaneous and non - spontaneous process criteria forequilibrium. Third law of Thermodynamics (brief introduction)	• Enthalpy of dissolutions of copper sulphate or potassium nitrate. • Enthalpy of neutralization of strong acid (HCl) and strong base (NaOH) a)	**REVISION AND TERM TEST-I** **23 Sep -04 OCTOBER 2024**
OCTOBER	21	10	**04**	**Unit 6 Equilibrium (20 Periods)** Equilibrium in physical and chemical processes, dynamic nature of equilibrium, law of mass action, equilibrium constant, factors affecting equilibrium - Le Chatelier's principle, ionic equilibrium - ionization of acids and bases,	• **Any one of the following experiments: Experiments based on pH (04 Periods)** Determination of pH of some solutions obtained from fruit juices, varied concentrations of acids, bases and salts using pH paper or universal indicator. (ii) Comparing the pH of solutions of strong and weak acid of same concentration (iii) Study the pH change by common-ion in case of weak acids and weak bases.	

NOVEMBER	15	10+ 05	**03** **02**	strong and weak electrolytes, degree of ionization, concept of pH, hydrolysis of salts (elementary idea), buffer solution, solubility product, common ion effect (With illustrative examples). **Unit 7: Redox Reactions (9 Periods)** Concept of oxidation and reduction, Redox reactions, oxidation number,	• **Salt Analysis** (Insoluble salts should be avoided; Sufficient number of single salts should be given for analysis so that at least one cation from each group and important anions are covered) **Cations-** **Pb^{2+}, Cu^{2+}, As^{3+}, 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-}, SO_3^{2-},SO_4^{2-} NO_3^-, Cl^-, Br^-, I^-, PO_4^{3-}, $C_2O_4^{2-}$, CH_3COO^-**	
DECEMBER	24	04 + 10	**02** **06**	balancing redox reactions, application of redox reactions **Unit 8: Organic Chemistry - Some Basic Principles and Technique (20 Periods)** General introduction, methods of qualitative and quantitative analysis, classification and IUPAC nomenclature of organic compounds.	• **Determination of Nitrogen, Sulphur, Chlorine in organic compounds**	**UNIT TEST III 12-14 DECEMBER 2024**
JANUARY	25	10 +06	**0 5** **0 2**	Electronic displacements in a covalent bond: inductive effect, electromeric effect, resonance and hyper conjugation. Homolytic and heterolytic fission of a covalent bond: free radicals, carbocations, carbanions, electrophiles and nucleophiles. types of organic reactions. **Unit 9: Hydrocarbons (18 Periods)** **Classification of Hydrocarbons Alkanes** - Nomenclature, isomerism, conformation (ethane only),physical properties, chemical reactions including free radical mechanism of halogenation combustion and pyrolysis.	**Few investigatory projects** 1.Study the Methods of Purification of Water. 2.Investigation of foaming capacity of differentwashing soaps and the effect of addition sodium carbonate.	

FEBRUARY	24	12	**08**	**Alkenes** - Nomenclature, structure of double bond (ethene), geometrical isomerism, physical properties, methods of preparation, chemical reactions addition of hydrogen, halogen, water, hydrogen halides (Markonikov's addition and peroxide effect), ozonolysis, mechanism of electrophilic addition. **Alkynes** - Nomenclature, structure of triple bond (ethyne), physical properties, methods of preparation, chemical reactions: acidic character of alkynes, addition reaction with hydrogen, Halogens, hydrogen halides and water. **Aromatic Hydrocarbons:** Introduction IUPAC nomenclature, benzene resonance, aromaticity, chemical reactions: nitration sulphonation, halogenation, Friedel Craft's alkylation and acylation, mechanism of electrophilic substitution. Directive influence of a substituent in mono-substituted benzene, carcinogenicity and toxicity.	3. Study the acidity of different samples of tea leaves 4. Determination of the rate of evaporation of different liquids. 5. Study the effect of acids and bases on the tensile strength of fibre. **----------**	**UNIT TEST IV 06-08 FEBRUARY 2025**
				REVISION AND PRACTICAL EXAMINATION		
MARCH	20	-----	-----	**Annual Examinations**	----------	**Annual examinations 17-28 March 2025**

NAVODAYAVIDYALAYASAMITI

CLASS:XI (SCI) **SUBJECT: BIOLOGY** **SUBJECTCODE:044**

Unit No	NameoftheChapter/Unit	Marks	Periods
I	DiversityofLivingOrganisms	15	**23**
II	Structural Organisation in Plants andAnimals	10	**23**
III	Cell:StructureandFunction	15	**34**
IV	Plant Physiology	12	**40**
V	HumanPhysiology	18	**40**
	Total	**70**	**160**
	Practical	**30**	
	Grand Total	**100**	

PRACTICALS

TimeAllowed :ThreeHours **Max. Marks:30**

EvaluationScheme		Marks
OneMajor Experiment Part A(Experiment No-1,3,7,8)		5Marks
OneMinor Experiment Part A (Experiment No-6,9,10,11,12,13)		4Marks
SlidePreparationPartA(ExperimentNo-2,4,5)		5Marks
SpottingPart B		7Marks
PracticalRecord+VivaVoce	**Credit to the students'work 4 Marks over theacademicsessionmay begiven**	4Marks
ProjectRecord+VivaVoce		5Marks
Total		30Marks

MONTH	NOOF DAYS	NOOF PERIODS	Main Topic and Sub-Topics to beCovered	Activities/Projects/ PracticalExperimentstobe Held
APRIL-2024	21	21+9 =30	**Unit-I Diversity of LivingOrganisms** **Chapter-1: The Living World**Biodiversity;Needforclassification;three domains of life; taxonomy andsystematics; concept of species andtaxonomical hierarchy; binomialnomenclature. **Chapter-2:BiologicalClassification** Five kingdom classification; SalientfeaturesandclassificationofMonera,Protista and Fungi into major groups:Lichens,Virusesand Viroids. 26 April to 29 April 2024 UT -1	**Spotting:** 1. Studyofthepartsofacompoundmicroscope. 2. Study of the specimens/slides/models and identificationwith reasons-Bacteria,Oscillatoria, Spirogyra, Rhizopus,mushroom,yeast, liverwort.
JULY 2024	25	25+ 12= 37	**Chapter-3:PlantKingdom** Salientfeaturesandclassificationofplants into major groups - Algae,Bryophyta, Pteridophyta,Gymnospermae. **Chapter-4: Animal Kingdom**Salient features and classification ofanimals, non-chordates up to phylalevel and chordates up to class level(three to five salient features and atleasttwoexamplesofeachcategory).(No live animals or specimen shouldbedisplayed.)	Study of the specimens/slides/models and identificationwith reasons-Spirogyra,Rhizopus, mushroom, yeast,liverwort, moss, fern, pine, onemonocotyledous plant, onedicotyledonous plant and onelichen. Virtual specimens/slides/modelsandidentifying featuresof -Amoeba, Hydra, liverfluke,Ascaris, leech, earthworm,prawn, silkworm, honey bee,snail, starfish, shark, rohu, frog,lizard,pigeon andrabbit.

August– 2024	**25**	**25+12 =37**	**Unit-II Structural Organization inAnimalsand Plants** **Chapter-5: Morphology ofFloweringPlants** Morphology of different parts offlowering plants: root, stem, leaf,inflorescence,flower,fruitandseed.Descriptionoffamilysolanaceae. **Chapter-6: Anatomy of FloweringPlants:** Anatomy and functions of tissuesystemsin dicotsand monocots.	**Spotting:** 4.Studyandidentificationofdifferenttypes of inflorescence (cymose andracemose). **<u>Experiment:</u>** 1.Study and describe locally availablecommon flowering plants, from familySolanaceae (Poaceae, Asteraceae orBrassicaceae can be substituted)including dissection and display offloral whorls, anther, and ovary to showthe number ofchambers(floralformulae and floral diagrams), type ofroot(tapandadventitious);typeofstem(herbaceousandwoody);leaf (arrangement, shape, venation, simpleandcompound). PreparationandstudyofT.S.ofdicotandmonocotrootsandstems(primary).
			UT-2	
September-2024	**18**	**18+7= 25**	**Chapter-7: Structural Organisationin Animals** Morphology, anatomy and functionsof different systems (digestive,circulatory, respiratory, nervous andreproductive)offrog. **Chapter-8:Cell-TheUnitofLife** Cell theory and cell as the basic unitof life: Structure of prokaryotic andeukaryoticcells;Plantcellandanimalcell; cell envelope; cell membrane,cell wall; cell organelles - structureand function; endomembrane system,endoplasmic reticulum, golgi bodies,lysosomes, vacuoles; mitochondria,ribosomes, plastids, microbodies;cytoskeleton, cilia, flagella, centrioles(ultrastructureandfunction);nucleus.	**<u>Experiment</u>** 3. . Study of osmosis by potatoosmometer. 4. Study of plasmolysis in epidermalpeels(e.g.Rhoeo/lillyleavesorflashyscaleleaves of onion bulb). Study of distribution of stomata intheupperandlowersurfaceofleaves
October -2024	**22**	**22+9=**	**Chapter-9:BioMolecules** Chemical constituents of living cells:bio molecules, structure and	**<u>Experiment</u>:** 6. Test for the presence of sugar, starch,proteins and fats. Detection

		31	functionof proteins, carbohydrates,lipids,nucleic acids; Enzymestypes,properties,enzyme action	in suitableplantand animal materials.
			Term-I23 Sept.-4 Oct	
November-2024	20	20+6=26	**Chapter-10: Cell Cycle and CellDivision** Cell cycle, mitosis, meiosis and theirsignificance **Unit-IVPlantPhysiology** **Chapter-13: Photosynthesis inHigherPlants** Photosynthesis as a meansofautotrophic nutrition; site ofphotosynthesis,pigmentsinvolvedinphotosynthesis (elementary idea);photochemical and biosyntheticphases of photosynthesis; cyclic andnon-cyclic photophosphorylation;chemiosmotic hypothesis;photorespiration; C3 and C4pathways; Factors affectingphotosynthesis.	**Spotting**: cc) Study of mitosis in onion root tipcells and animals cells (grasshopper)frompermanent slides. **Experiment:** 7. Comparative study of the rates oftranspiration in the upper and lowersurfaceofleaves.8.Separation ofplantpigments through paperchromatography.
December-2024	20	20+9= 29	**Chapter-14:RespirationinPlants** Exchangeofgases;cellularrespiration - glycolysis,fermentation(anaerobic),TCA cycle and electron transportsystem(aerobic);energy relations-number of ATP molecules generated;amphibolic pathways; respiratoryquotient. **Chapter-15: Plant - Growth andDevelopment** Seed germination; phases of plantgrowthand plant growthrate;conditions of growth; differentiation,dedifferentiationandredifferentiation;sequenceofdevelopmentalprocesses in a plant cell; growth regulators-auxin, gibberlin, cytokinin, ethylene,ABA. **Unit-VHumanPhysiology** **Chapter-17: Breathing andExchangeof Gases** Respiratoryorgansinanimals(recallonly); Respiratory system in	**Experiment**: 9.Study of the rate of respiration inflower buds /leaf tissue and germinatingseeds

			humans;Mechanismof breathingand itsregulation in humans - exchange ofgases,transport ofgasesandregulation of respiration, respiratoryvolume;disorders relatedtorespiration - asthma, emphysema,occupationalrespirator y disorders	
			PWT3 /UT 312-14 Dec 2024	
January-2025	12	12+ 6= 18	**Unit-VHumanPhysiology** **Chapter-18: Body Fluids andCirculation** Composition of blood, blood groups,coagulationof blood; compositionoflymphanditsfunction;hu mancirculatory system - Structure of humanheart and blood vessels; cardiac cycle,cardiac output, ECG; doublecirculation;regulation of cardiac activity; disorders ofcirculatory system - hypertension,coronary artery disease,angina pectoris,heartfailure. **Chapter-19: Excretory Products andtheirElimination** **Chapter-20: Locomotion andMovement**	**Experiment:** 10. Testforpresenceofureainurine. 11. Test for presence of sugar inurine. 12. Test for presence of albumin inurine. . Test for presence of bile salts inurine. **Spotting:** 6.Studyofhumanskeletonanddiffere nttypes of joints.
Febraury-2025	15	15+6 = 21	**Chapter-21: Neural Control andCoordination** Neuron and nerves; Nervous system inhumans-central nervoussystem;peripheraln ervoussystemandvisceral nervoussystem;generationa ndconductionofnerveimpul se. **Chapter-22: Chemical CoordinationandIntegration** Endocrineglands and hormones; humanendocrine system - hypothalamus,pituitary, pineal, thyroid, parathyroid,adrenal, pancreas, gonads; mechanism ofhormone action (elementary idea); role ofhormones as messengers and	

			regulators,hypo - and hyperactivity and relateddisorders, dwarfism, acromegaly,cretinism, goiter, exophthalmic goiter,diabetes,Addison's disease. **Note:** Diseases related to all the humanphysiological systems to be taught inbrief.	
			PWT 4/ UT 4 06-08FEBRUARY	
March-2025			**TERMII ANNUAL EXAM**	

NAVODAYA VIDYALAYA SAMITI,

CLASS: XI **SUBJECT: HISTORY** **SUBJECT CODE: 027**

Unit No.	Name of The Chapter/ unit	Marks	Periods
INTRODUCTION	Introduction to World History		4
Section-I	Early Societies		
	Introduction		4
2	Writing and City Life	10	20
Section-II	Empires		
	Introduction		4
3	An empire across three continents	10	20
5	Nomadic Empires	10	20
Section-III	Changing Traditions		
	Introduction		4
6	The Three Orders	10	20
7	Changing Cultural Traditions	10	20
Section-IV	Paths to Modernization		
	Introduction		4
10	Displacing Indigenous People	10	25
11	Paths To Modernization	15	25
	Map work of the Related Themes	5	15
	Total	80	185
	Internal Assessment	20	25
	Grand Total	100	210

MONTH	NUMBER Of DAYS	NUMBER Of PERIODS	Main Topic and Sub-Topics:	Activities/Projects/ Practical Experiments to be held/ Specific Assessment Tool(s) (Suggested)
APRIL 2024	22	32	Introduction to World History Introduction of Early Societies	A discussion on early human life and changes occurred in it.
			Writing and City Life Focus: Iraq, 3rd millennium BCE 1. Growth of towns 2. Nature of early urban societies 3. Historians' Debate on uses of writing	"Written quiz" on the significance of writing. Announcement /selection of topic for project work.
UNIT TEST-Ist (26-29 April 2024)				
JULY 2024 AUG. 2024	26 22	38	Introduction of Empires **An empire across three continents** Focus: Roman Empire, 27 BCE to 600 CE a) Political evolution b) Economic Expansion Religion-culture foundation Late Antiquity Historians' view on the Institution of Slavery	Prepare a short note on the role of slavery as a significant element in the economy of Roman empire.

		32	**Nomadic Empires (Up to page No. 113)** Focus: The Mongol, 13th to 14th century The nature of nomadism Formation of empires Conquests and relations with other states Historians' views on nomadic societies and state formation	How can we understand Genghis Khan as an "Oceanic ruler" **Project work:** Collection of data Preparation of project
UNIT TEST-2nd (08-10 Aug 2024)				
SEP. 2024	17	26	**The Three Orders** Focus: Western Europe 13th - 16th century a) Feudal society and economy	What similarities do you find between the conditions of life for a French serf and a Roman slave
			Formation of state Church and society Historians' views on decline of feudalism	**Project work:** Analysis of the data Map Work -Location and labelling on the maps based on the given chapters.
Mid Term 23 Sep. to 04 Oct. 2024				
OCT2024	18	27	• Introduction of Changing Traditions • **Changing Cultural Traditions** Focus: Europe 14th -17th century a) New ideas and new trends in literature and arts • Relationship with earlier ideas	A project on European Renaissance Completion of the project work.
NOV 2024	20	30	• The contribution of West Asia • Historians' viewpoint on the validity of the notion 'European Renaissance • Introduction to Paths of Modernization	A project on European Renaissance Completion of the project work

DEC. 2024	17	26	**Displacing Indigenous People** Focus: North America and Australia, 18th to 20th century a) European colonists in North America and Australia b) Formation of White Settler societies Displacement and repression of local people Historians' viewpoint on the impact of European settlement on indigenous population	Compare and contrast the 10 political situations of the native people of India and Australia during the first quarter of 20th century. Map based on the Theme: Displacing Indigenous People
UNIT TEST-III 12 Dec.2024 to 14 Dec.2024				
JAN. 2025	12	18	**Paths To Modernization** Focus: East Asia, late 19th to 20th century Militarization and economic growth in Japan. China and the communist alternative	Discuss about opium wars and occupation of Hong Kong by Britain.
FEB 2025	20	28	Historians' Debate on the meaning of modernization	Map based on the Theme: Paths to Modernization
Unit Test-4 06 Feb.2025 to 08 Feb.2025				
March 2025	**Revision**			
TERM END EXAMS (17-28 MARCH 2025)				

***The learning objectives and learning outcomes of each theme must be followed as per the CBSE class XI course structure (2024-25).**

NAVODAYA VIDYALAYA SAMITI

CLASS: XI **SUBJECT: GEOGRAPHY** **SUB.CODE: 029**

Sl. No.	NAME OF THE TEXTBOOKS/ UNITS/CHAPTERS	ALLOTTED MARKS	NUMBER OF PERIODS
1	Fundamentals of Physical Geography	30	85
2	India- Physical Environment	30	85
3	Practical Work in Geography – Part I	25+3+2= 30	40
4	Map Work from Fundamentals of Physical Geography	5	5
5	Map work from India –Physical Environment	5	5
	Total	100 Marks	220

Month	No. of days	No. of Periods	Main topic and subtopics to be covered	Activities/projects/practical
APRIL 2024	22	32	**Fundamentals of Physical Geography.** **Unit 1** 1 Geography as a Discipline Unit II 2The Origin and Evolution of the Earth **India – Physical Environment.** **Unit 1** 1 India — Location **PWT/UT 1st (26-29 April 2024)**	Practical work in Geography Introduction to Maps Activities

Month	No. of days	No. of Periods	Main topic and subtopics to be covered	Activities/projects/practical
JULY 2024 155Number of Periods June Chapter 3 & 4 - Migration and Human Development deleted	26 Days	38 Periods	**Fundamentals of Physical Geography.** **Unit II** 3 Interior of the Earth 4 Distribution of Oceans and Continents **India – Physical Environment.** **Unit II** 2 Structure and Physiography	Practical work in Geography 1 Introduction to Maps Activities Assignment / map work – India Political
AUGUST 2024	22 Days	32 Periods	**Fundamentals of Physical Geography.** **Unit III** 5 Minerals and Rocks - Deleted 6 Geomorphic Processes 7 Landforms and their Evolution **UNIT IV** 8 Composition and Structure of Atmosphere **PWT/UT-II (08-10Aug. 2024)**	Practical work in Geography 1 Latitude, longitude and timeActivities Assignment / map work – Physical features of India
SEPTEMBER 2024	17 Days	26 Periods	**India – Physical Environment.** **Unit II** 3 Drainage System **Unit III** 4 Climate	Practical work in Geography Assignment / map work – Rivers and lakes of India
	Mid Term Examination (23 Sep. – 04 Oct. 2024)			
OCTOBER 2024	18 Days	27 Periods	**Fundamentals of Physical Geography.** **Unit IV** 9 Solar Radiation, Heat Balance and Temperature 10 Atmospheric Circulation and Weather Systems (½ chapter)	Activities Assignment/ project works

Month	No. of days	No. of Periods	Main topic and subtopics to be covered	Activities/projects/practical
NOVEMBER 2024	20 Days	30 Periods	**Fundamentals of Physical Geography.** **Unit IV** 10 Atmospheric Circulation and Weather Systems (½ chapter) **Fundamentals of Physical Geography.** **Unit IV** 11 Water in the Atmosphere **Fundamentals of Physical Geography.** **Unit IV** 12 World Climate and Climate Change	Activities Assignment/ project works
DCEMBER 2024	17 Days	26 Periods	**Fundamentals of Physical Geography.** **Unit V** 13 Water (Oceans) **India – Physical Environment.** **Unit III** 5 Natural Vegetation **PWT/UT-III** **(12/12/2024 TO 14/12/2024)**	Practical work in Geography 1 Map Projections
JANUARY 2025	12 Days	18 Periods	**Fundamentals of Physical Geography.** **Unit V** 14 Movements of Ocean Water **India – Physical Environment.** **Unit III** 6 Soils – Deleted **Unit IV** 7 Natural Hazards and Disasters	Practical work in Geography 1 Topographical Maps. Map work: Location of Biosphere reserves and major forest types
FEBRUARY 2025	20 Days	28 Periods	**Fundamentals of Physical Geography.** **Unit VI** 15 Life on the Earth - Deleted 16 Biodiversity and Conservation **PWT/UT-IV** **(06/02/2025 TO 8/2/2025)**	Practical work in Geography 1 Introduction to Remote sensing
MARCH 2025	**Revision**			
TERM END EXAMINATION 2025 (17/03/2025 TO 28/03/2025)				

SUGGESTED CLASS ROOM ACTIVITIES: -

- GROUP DISCUSSION OR DEBATE
- MAP PRACTICE
- GRAPH AND DATA INTERPRETATION
- FOCUS ON LOCAL AREA RESOURCES & ENVIRONMENT
- OTHER RELEVENT ACTIVITIES

Note*: Any changes in the syllabus, if announced by CBSE during the academic year 2024-25, have to be incorporated into the split-up syllabus by the concerned teachers and Principal accordingly. In this regard, Principals and teachers will always remain in touch with CBSE and its website. Art integrated activities must be integrated with the teaching-learning process*

NAVODAYA VIDYALAYA SAMITI

CLASS:11 SUBJECT:ECONOMICS SUBJECTCODE:030

Units		**Marks**	**Periods**
PartA	**StatisticsforEconomics**		
	Introduction	15	10
	Collection,OrganizationandPresentationofData		30
	StatisticalToolsandInterpretation	25	50
		40	90
PartB	**IntroductoryMicroEconomics**		
	Introduction	04	10
	Consumer'sEquilibriumandDemand	15	40
	ProducerBehaviorandSupply	15	35
	Forms of Market and Price Determination under Perfect Competition with simple applications	06	25
		40	110
	TheoryPaper(Total)	**80**	**200**
PartC	**ProjectWork**	20	20
	GrandTotal	**100**	220

Month	No.ofdays	No.ofPeriods	MainTopicandSubtopicstobecovered	Activities/Projects/ Practical/ Experiments to be held/Specific Assessment Tool(s) suggested.
APRIL2024	22	27	**Unit 1: Introduction** What is Economics? Meaning, Scope, Functions of StatisticsImportance of Statistics inEconomics **Unit 2: Collection, Organizationand PresentationofdataCollection ofdata**-sourcesofdata- primary andsecondary;howbasicdata is collected withconcepts of Sampling; methods of collecting data; some important sources of secondary data:Census of India and NationalSampleSurvey Organization. **UT-IEXAMINATION26TO29APRIL,2024** ***Syllabus:-Introduction;CollectionofData***	**ActivityBased Teaching** Preparationof a Questionnaire by different groups of students - spending habitsof JNV students, Dropoutof students from class VI to classVIII Environmental Awareness etc.
JULY2024	26	35	**OrganizationofData:** Meaningandtypesofvariables; Frequency Distribution **Presentation of Data:** Tabular Presentation and Diagrammatic Presentation of Data: (i)Geometric forms (bar diagrams and pie diagrams), (ii) Frequency diagrams (histogram, polygon and Ogive) and (iii) Arithmetic line graphs (timeseries graph). **Unit:3** **StatisticalToolsandInterpretation** (For all the numerical problems and solutions, the appropriate economic interpretation may be attempted. Thismeans,the studentsneedtosolvethe problemsand provideinterpretation for the resultsderived. **Measures of CentralTendency**- Arithmetic Mean, Median and Mode	**ActivityBased Teaching:** Construction of Bar diagram on Student strength ofdifferent classon the basisof Sex,Category etc. Calculation of Modal ShoesSize of a Particular Class, Construction of Time series graph on the basis of no. of Registration of Candidates inJNVST in lastfive years.

Month	No.ofdays	No.ofPeriods	MainTopicandSubtopicstobecovered	Activities/Projects/ Practical/ Experiments to be held/Specific Assessment Tool(s) suggested.
AUGUST2024	22	28	**Correlation:**Meaning and properties,Scatter diagram; Measures ofcorrelation – Karl Pearson'smethod (two variablesungrouped data), Spearman's rank correlation. **Introduction to Index Numbers-** meaning, types- wholesale price index, Consumer price Index and index of industrial production, uses of index numbers; inflation and index numbers. **UT-IIEXAMINATION08TO10AUGUST,2024** ***Syllabus for UT-II Exam: - Organization of Data, Presentation of Data, Statistical ToolsInterpretation, Measures of Central Tendency – Arithmetic Mean***	Questions on different types of Correlation, Rank Correlation Assertion and Reason types of Questionsbased on Correlation, Index Numbers Calculation of inflation rate
SEPTEMBER2024	17	10	**INTRODUCTORY MICRO ECONOMICS (40 MARKS)** **UNIT4:Introduction** Meaning of microeconomics and macroeconomics; positive and normative economics What is an economy? Centralproblems of an economy: what, how and for whom to produce; concepts of production possibility frontier and opportunity cost. **RevisionforTerm1Examination** **TERM1EXAM23Septemberto04October,2024** ***SyllabusforTERM-IExam:-Units1to4***	
OCTOBER2024	18	24	**Unit-5: Consumer's Equilibrium and Demand** Consumer's equilibrium -meaning of utility, marginal utility, law of diminishing marginal utility, conditions of consumer's equilibrium using marginal utility analysis. Indifference curve analysis of Consumer'sequilibrium-the Consumer's budget (budget set and budget line),preferences of the consumer(indifferencecurve,indifferencemap)andc onditions ofconsumer'sequilibrium.	ProjectWork: 1.EffectonPPC due to various governmentpolicies Opportunity Cost as an Economic Tool(taking real life situations)

Month	No.ofdays	No.ofPeriods	MainTopicandSubtopicstobecovered	Activities/Projects/ Practical/ Experiments to be held/Specific Assessment Tool(s) suggested.
NOVEMBER2024	20	25	Demand, market demand, determinants of demand, demand schedule, demand curve and its slope, Movement along and shifts in the demand curve; Price elasticity of demand - factors affecting price elasticityof demand; measurement of price elasticityof demand – percentage- change method and total expenditure method. **Unit6:ProducerBehaviorandSupply** MeaningofProductionFunction–Short-Runand Long-Run Total Product, Average Product andMarginal Product.Returns to a Factor	**Activity based Teaching:** Individual Demand & Market Demand Schedule
DECEMBER2024	17	26	**Unit6:ProducerBehaviorandSupply** Cost:Shortruncosts-totalcost,totalfixedcost,total variable cost; Average cost; Average fixed cost, average variablecostandmarginalcost-meaningand their relationships. Revenue: total, average and marginal revenue - meaning and their relationship. Producer'sequilibrium- meaning and its conditions in terms of marginal revenue-marginal cost. Supply,marketsupply,determinantsofsupply, supplyschedule,supply curveanditsslope, movementsalong and shiftsin supply curve, price elasticityofsupply;measurementofpriceelasticity ofsupply-percentage-changemethod. **UT–IIIEXAMINATION12TO14DEC.,2024**	Case study questions and competitive Exam based questions Assertion and Reason typesof Questions on Producer’s equilibrium. Numerical Questions onElasticity of Supply

Month	No.ofdays	No.ofPeriods	MainTopicandSubtopicstobecovered	Activities/Projects/ Practical/ Experiments to be held/Specific Assessment Tool(s) suggested.
			SyllabusforUT-IIIExam:-Unit5andUnit6	
JANUAR Y 2025	14	19	**Unit 7: Forms of Market and Price Determination under Perfect Competitionwith simple application** Perfectcompetition-Features;Determinationofmarket equilibrium andeffects of shifts in demand and supply.	**Project Work:**Effect of PriceChange on a Complementary Good (taking prices from reallifevisiting local market)
FEBRUARY 2025	19	6 20	Simple Applications of Demand and Supply: Price ceiling, price floor. **PREPARATIONOFPROJECTWORK** **&** **RevisionfortheUTIV&FinalExams** **UT–IVEXAMINATION06TO08FEB,2025** ***SyllabusforUT-IVExam:-Unit6and7***	PracticeTests
MARCH 2025	10		**Revision for the Final Exams TERM – II EXAMS 17 TO 28 MARCH 2025**	PracticeTests

SUGGESTEDQUESTIONPAPERPATTERNBYCBSE
Economics(CodeNo.030)
ClassXI(2024-25)Theory:80Marks3hrs.Project:20Marks

SN	**TypologyofQuestions**	Marks	Percentage
1	**Remembering and Understanding:** Exhibit memory of previously learned material by recalling facts, terms, basic concepts, and answers. Demonstrate understanding of facts and ideas by organizing, comparing, translating, interpreting, giving descriptions, and statingmain ideas	44	55%
2	**Applying:** Solve problems to new situations by applying acquired knowledge, facts, techniques and rules in a different way.	18	22.5%
3	**Analyzing, Evaluating and Creating:**Examine and break information into parts by identifying motives or causes. Make inferences and find evidence to support generalizations. Present and defend opinions by making judgments about information, validity of ideas, or quality of work based on a set of criteria. Compileinformation togetherin adifferent way by combining elements in a new pattern or proposing alternative solutions.	18	22.5%
	Total	80	100%

NAVODAYA VIDYALAYA SAMITI

CLASS XI (2024-25) **SUBJECT: ACCOUNTANCY (055)**

Part A: FINANCIAL ACCOUNTING-I (56 Marks)			
Units	Name of the Chapter/ Unit	Marks	Periods
Unit-1	Theoretical Framework	12	25
Unit 2.	Accounting Process	44	115
	Total	56	140
Part B: FINANCIAL ACCOUNTING-II (24 Marks)			
Unit 3.	Financial Statements of Sole Proprietorship	24	60
	Total	**24**	**60**
Part-C: PROJECT WORK (20 Marks)			
	Project Work	20	20
	Total	**20**	**20**
	Grand Total (A +B+C)	**100**	**220**

Month	No. of days	No. of Periods	Main Topic and Subtopics to be covered	Activities/Projects/ Practical/ Experiments to be held/Specific Assessment Tool(s) suggested.
APRIL 2024	22	28	**Introduction to Accounting** Accounting - Concept, meaning, as a source of information, types of accounting information; users of accounting information and their needs. Qualitative Characteristics of Accounting Information. Role of Accounting in Business. **Basic Accounting Terms** Entity, Business Transaction, Capital, Drawings, Liabilities (Non-current and Current), Assets (Non-current and Current), Expenditure (Capital and Revenue), Expenses, Revenue, Income, Profit, Gain, Loss, Purchase, Sales, Goods, Stock, Debtors. Creditors, Voucher, Discount (Trade Discount and Cash Discount) **Theory Base of Accounting** Fundamental Accounting Assumptions: GAAP – Concept Basic Accounting Concepts: Business Entity, Money Measurement, Going Concern, Accounting Period **UT-I EXAMINATION 26 TO 29 APRIL, 2024** ***Syllabus: - Introduction to Accounting, Accounting Terms***	Different assignments can be given to the students to understand the topic through role play method.

Month	No. of days	No. of Periods	Main Topic and Subtopics to be covered	Activities/Projects/ Practical/ Experiments to be held/Specific Assessment Tool(s) suggested.
JULY 2024	26	34	**Theory Base of Accounting** Cost Concept, Dual Aspect, Revenue Recognition, Matching, Full Disclosure, Consistency, Conservatism, Materiality and Objectivity System of Accounting, Basis of Accounting: Cash Basis and Accrual Basis Accounting Standards: Applicability of Accounting Standards (AS) and Indian Accounting Standards (IndAS) Goods and Service Tax (GST): Characteristics and Advantages **Unit-2: Accounting Process** **Recording of Business Transactions** Voucher and Transactions: Source Documents and Vouchers, Preparation of Vouchers, Accounting Equation Approach: Meaning and Analysis, Rules of Debit and Credit Recording of Transactions: Books of Original Entry – Journal Special Purpose Books Cash Book: Simple, Cash book with bank column and petty cash book Purchase Book, Sales Book, Purchase Return Book Sales Return Book, Journal Proper **Note: Including trade discount, freight and cartage expenses for simple GST calculation**	Project, The IndianAccounting Standard can be drawn in chart Paper.

Month	No. of days	No. of Periods	Main Topic and Subtopics to be covered	Activities/Projects/ Practical/ Experiments to be held/Specific Assessment Tool(s) suggested.
AUGUST 2024	22	32	**Ledger:** Format, Posting from Journal and Subsidiary Books, Balancing of Accounts **Bank Reconciliation Statement** Need and Preparation of Bank Reconciliation Statement **Depreciation, Provision and Reserve** Depreciation: Meaning, Features, Need, Causes, Factors Other similar terms: Depletion and Amortisation Methods of Depreciation: Straight Line Method (SLM) and Written Down Value Method (WDV) (Note: Excluding change of method) Difference between SLM and WDV Advantages of SLM and WDV Preparation of asset account, depreciation account and provision for depreciation account **UT-II EXAMINATION 08 TO 10 AUGUST, 2024** ***Syllabus for UT-II Exam: - Theory base of Accounting, Vouchers, Accounting Equations, Journal, Subsidiary Books***	Quiz, Class Test, Weekly Test, Oral Test, Mind map, Case Studies, Role Play, Crossword Puzzles
SEPTEMBER 2024	17	20	Treatment of disposal of asset **Provision and Reserve** Provision, Reserves, Difference between Provisions and Reserves Types of Reserves: Revenue Reserve, Capital Reserve, General Reserve, Specific Reserve, Secret Reserve Difference between Revenue Reserve and Capital Reserve **Revision for Term 1 Examination** **TERM 1 EXAM 23 September to 04 October, 2024** ***Syllabus for TERM - I Exam: - Introduction to Accounting to Depreciation, Provision and Reserves***	Quiz, Class Test, Weekly Test, Oral Test, Mind map, Case Studies, Role Play, Crossword Puzzles

Month	No. of days	No. of Periods	Main Topic and Subtopics to be covered	Activities/Projects/ Practical/ Experiments to be held/Specific Assessment Tool(s) suggested.
OCTOBER 2024	18	26	**Trial Balance and Rectification of Errors** Trial Balance: Objectives, meaning and preparation Errors: Classification - Error of omission, commission, principle and compensating, their effect on Trial Balance. Detection and rectification of errors: (i) Error which do not affect trial balance (ii) Errors which affect trial balance Preparation of Suspense Account	Quiz, Class Test, Weekly Test, Oral Test, Mind map, Case Studies, Role Play, Crossword Puzzles
NOVEMBER 2024	20	30	**Financial Statement of Sole – Proprietorship** Meaning, Objectives and Importance; Revenue and Capital Expenditure; Deferred Revenue Expenditure, Opening Journal Entry. Trading and Profit and Loss Account: Gross Profit, Operating Profit and Net Profit. Preparation of Balance Sheet: Need, grouping and marshalling of assets and liabilities. Adjustment in preparation of Financial Statements with respect to Closing Stock, Outstanding Expenses, Prepaid Expenses, Accrued Income, Income Received in Advance, Depreciation.	Project, Quiz, Class Test, Weekly Test, Oral Test, Mind map, Entry card, Exit Card, Case Studies, Role Play, Crossword Puzzles
DECEMBER 2024	17	20	Adjustment in preparation of Financial Statements with respect to Bad Debts, Provision for Doubtful Debts, Provision for Discount on Debtors, Abnormal Loss, Goods taken for personal use/staff welfare, Interest on capital and manager's commission. Preparation of Trading and Profit and Loss Account and Balance Sheet of a sole proprietorship with adjustment. **UT – III EXAMINATION 12 TO 14 DEC., 2024** ***Syllabus for UT-III Exam: - Trial Balance and Rectification of Error, Financial Statements without Adjustments***	Project, Quiz, Class Test, Weekly Test, Oral Test, Mind map, Entry card, Exit Card, Case Studies, Role Play

Month	No. of days	No. of Periods	Main Topic and Subtopics to be covered	Activities/Projects/ Practical/ Experiments to be held/Specific Assessment Tool(s) suggested.
JANUARY 2025	14	10	**Incomplete Records** Features, reasons and limitations. Ascertainment of Profit/Loss by Statement of Affairs method (excluding conversion method)	Project, Quiz, Class Test, Weekly Test, Oral Test, Crossword Puzzles
FEBRUARY 2025	19	20	**PREPARATION OF PROJECT WORK** **&** **Revision for the UT IV &Final Exams** **UT – IV EXAMINATION 06 TO 08 FEB, 2025** ***Syllabus for UT-IV Exam: - Financial Statement with adjustment and Incomplete Records***	Practice Tests
MARCH 2025	10		**Revision for the Final Exams** **TERM – II EXAMS 17 TO 28 MARCH 2025**	Practice Tests

SUGGESTED QUESTION PAPER PATTERN BY CBSE
Accountancy (Code No. 055)
Class XI (2024-25) Theory: 80 Marks 3 hrs. Project: 20 Marks

SN	**Typology of Questions**	Marks	Percentage
1	**Remembering and Understanding:** Exhibit memory of previously learned material by recalling facts, terms, basic concepts, and answers. Demonstrate understanding of facts and ideas by organizing, comparing, translating, interpreting, giving descriptions, and stating main ideas	44	55%
2	**Applying:** Solve problems to new situationsby applying acquired knowledge, facts, techniques and rules in a different way.	19	23.75%
3	**Analysing, Evaluating and Creating:** Examine and break information into parts by identifying motives or causes. Make inferences and find evidence to support generalizations. Present and defend opinions by making judgments about information, validity of ideas, or quality of work based on a set of criteria. Compile information together in a different way by combining elements in a new pattern or proposing alternative solutions.	17	21.25%
Total		80	100%

NAVODAYA VIDYALAYA SAMITI

CLASS XI (2024-25) **SUBJECT: BUSINESS STUDIES (054)**

Units	Topics	Periods	Marks
Part A	**FOUNDATION OF BUSINESS**		
1	Evolution and Fundamentals of Business	18	16
2	Forms of Business Organisation	24	
3	Public, Private and Global Enterprises	18	14
4	Business Services	18	
5	Emerging Modes of Business	10	10
6	Social Responsibility of Business and Business Ethics	12	
	TOTAL	**100**	**40**
Part B	**FINANCE AND TRADE**		
1	Sources of Business Finance	30	20
2	Small Business and Enterprises	16	
3	Internal Trade	30	20
4	International Business	14	
	TOTAL	**90**	**40**
Part C	**PROJECT WORK (ONE)**	30	20

PART A: FOUNDATION OF BUSINESS

Month	No. of days	No. of Periods	Main Topic and Subtopics to be covered	Activities/Projects/ Practical/ Experiments to be held/Specific Assessment Tool(s) suggested.
APRIL 2024	**22**	**28**	**Unit. 01 – Evolution and Fundamentals of Business** History of Trade and Commerce in India: Indigenous Banking System, Rise of Intermediaries, Transport, Trading Communities, Merchant Corporations, Major Trade Centres, Major Import and Exports, Position of Indian Sub-Continent in the World Economy Business – Meaning, Characteristics, Business, Profession and Employment – Concept Objective of Business Classification of Business Activities – Industry and Commerce Industry Types - Primary, Secondary, Tertiary Meaning and Subgroups Commerce – Trade: (types – internal, external; wholesale and retail) and auxiliaries to trade (Banking, Insurance, Transportation, Warehousing,	Project, Quiz, Mind map, Class Tests, Crossword Puzzles, Case Studies, Role Play

Month	No. of days	No. of Periods	Main Topic and Subtopics to be covered	Activities/Projects/ Practical/ Experiments to be held/Specific Assessment Tool(s) suggested.
			Communication and Advertising) – Meaning Business Risk – Concept **Unit. 02 - Forms of Business Organizations** Sole Proprietorship-Concept, merits and limitations. Partnership-Concept, types, merits and limitation of partnership, registration of a partnership firm, partnership deed. Types of partners **UT – I EXAMINATION 26 TO 29 APRIL, 2024** ***Syllabus for UT – I: Evolution and Fundamentals of Business, Sole Proprietorship, Partnership***	
JULY 2024	**26**	**32**	**Unit. 02 - Forms of Business Organizations** Hindu Undivided Family Business: Concept. Cooperative Societies-Concept, merits, and limitations.Company - Concept, merits and limitations; Types: Private, Public and One Person Company – Concept. Formation of company - stages, important documents to be used in formation of a company Choice of form of business organization **Unit. 03 – Public, Private and Global Enterprises** Public Sector and Private Sector Enterprises – Concept Forms of Public Sector Enterprises – Departmental Undertakings, Statutory Corporations and Government Company Global Enterprises – Features Joint Venture, Public Private Partnership – Concept	
AUGUST 2024	**22**	**28**	**Unit. 04 – Business Services** Business services – meaning and types. Banking: Types of bank accounts - savings, current, recurring, fixed deposit and multi-option deposit account Banking services with particular reference to Bank Draft, Bank Overdraft, and Cash credit, E-Banking:- meaning, Types of digital Payments Insurance – Principles. Types – life, health, fire and marine insurance – concept Postal Service - Mail, Registered Post, Parcel, Speed Post, Courier – meaning **Unit. 05 – Emerging Modes of Business** E - business: concept, scope and benefits **UT – II EXAMINATION 08 TO 10 AUG, 2024** ***Syllabus for UT – II: Joint Hindu Family***	Project, Quiz, Mind map, Class Tests, Crossword Puzzles, Case Studies, Role Play, Bank Visits, Display of different Cards

Month	No. of days	No. of Periods	Main Topic and Subtopics to be covered	Activities/Projects/ Practical/ Experiments to be held/Specific Assessment Tool(s) suggested.
			Business,Cooperative Societies, Joint Stock Company, Formation of a Company; Public, Private and Global Enterprises	
SEPTEMBER 2024	**17**	**12**	**Unit. 06 – Social Responsibility of Business and Business Ethics** Concept of Social Responsibility Case of Social Responsibility Responsibility towards owners, investors, consumers, employees, government and community Role of business in environment protection Business Ethics: - Concept and Elements **Revision for Term 1 Examination** **TERM 1 EXAM 23 September to 04 October, 2024**	Project, Quiz, Mind map, Class Tests, Crossword Puzzles, Case Studies, Role Play, Live Presentation of Online Transactions
PART B: FINANCE AND TRADE				
OCTOBER 2024	**18**	**30**	**Unit. 07 – Sources of Business Finance** Concept of Business Finance Owners' Funds- equity shares, preferences share, retained earnings Borrowed funds: debentures and bonds, loan from financial institution, commercial banks, public deposits, trade credit, Inter Corporate Deposits (ICD)	Quiz, Mind map, Class Tests, Crossword Puzzles, Case Studies, Role Play
NOVEMBER 2024	**20**	**22**	**Unit. 08 – Small Business and Enterprises** Entrepreneurship Development (ED): Concept, Characteristics and Need. Process of Entrepreneurship Development: Start-up India Scheme, ways to fund start-up. Intellectual Property Rights and Entrepreneurship. Small scale enterprise as defined by MSMED Act 2006 (Micro, Small and Medium Enterprise Development Act) **Unit. 09 – Internal Trade** Internal trade - meaning and types services rendered by a wholesaler and a retailer	Project, Quiz, Mind map, Class Tests, Crossword Puzzles, Case Studies, Role Play
DECEMBER 2024	**17**	**24**	**Unit. 09 – Internal Trade** Types of retail-trade-Itinerant and small-scale fixed shops retailers Large scale retailers-Departmental stores, chain stores – concept GST (Goods and Services Tax): Concept and key-features Role of small business in India with special reference	Quiz, Mind map, Class Tests, Crossword Puzzles, Case Studies, Role Play, Visit of nearest Departmental Store and Chain Store

Month	No. of days	No. of Periods	Main Topic and Subtopics to be covered	Activities/Projects/ Practical/ Experiments to be held/Specific Assessment Tool(s) suggested.
			to rural areas Government schemes and agencies for small scale industries: National Small Industries Corporation (NSIC) and District Industrial Centre (DIC) with special reference to rural, backward areas **UT – III EXAMINATION 12 TO 14 DEC., 2024** ***Syllabus for UT – III: Sources of Business Finance and Small Business and Enterprises***	
JANUARY 2025	**14**	**14**	**Unit. 10 – International Trade** 1International trade: concept and benefits Export trade – Meaning and procedure Import Trade - Meaning and procedure Documents involved in International Trade; indent, letter of credit, shipping order, shipping bills, mate's receipt (DA/DP) World Trade Organization (WTO) meaning and objectives	Quiz, Mind map, Class Tests, Crossword Puzzles, Case Studies, Role Play
FEBRUARY 2025	**19**	**30**	**PREPARATION OF PROJECT WORK** **&** **Revision for the UT IV &Final Exams** **UT – IV EXAMINATION 06 TO 08 FEB, 2025** ***Syllabus for UT-IV Exam: - Internal Trade and International Trade***	Practice Tests
MARCH 2025	**10**		**Revision for the Final Exams** **TERM – II EXAMS 17 TO 28 MARCH 2025**	Practice Tests

SUGGESTED QUESTION PAPER PATTERN BY CBSE

Business Studies (Code No. 054)

Class XI (2024-25) **Theory: 80 Marks** **Project: 20 Marks**

SN	Typology of Questions	Marks	Percentage
01	**Remembering and Understanding:** Exhibit memory of previously learned material by recalling facts, terms, basic concepts, and answers. Demonstrate understanding of facts and ideas by organizing, comparing, translating, interpreting, giving descriptions, and stating main ideas	44	55%
02	**Applying:** Solve problems to new situations by applying acquired knowledge, facts, techniques and rules in a different way	19	23.75%

)3	**Analysing, Evaluating and Creating:** Examine and break information into parts by identifying motives or causes. Make inferences and find evidence to support generalizations. Present and defend opinions by making judgments about information, validity of ideas, or quality of work based on a set of criteria. Compile information together in a different way by combining elements in a new pattern or proposing alternative solutions.	17	21.25%
	Total	**80**	**100%**

NOTE: - *Any change in the syllabus, if announced by the CBSE during the academic year 2024-25, has to be ncorporated in the split-up syllabus by the concerned teachers accordingly. In this regard Teachers are equested to be in touch with the CBSE website.*

NAVODAYA VIDYALAYA SAMITI,

CLASS : XII SUBJECT : COMPUTER SCIENCE (083)

Month.	No. of Days	No.of periods	Weightage of Marks for Unit/Chapter	Units/Subunits/Topics/Chapters to be Covered	Details of Activity/Practical/ Projects
April	22	23T+2P	10	**Unit I: Computer Systems and Organisation:** • Basic computer organisation: Introduction to Computer System, hardware, software, input device, output device, CPU, memory (primary, cache and secondary), units of memory (bit, byte, KB, MB, GB, TB, PB) • Types of software: System software (Operating systems, system utilities, device drivers), programming tools and language translators (assembler, compiler, and interpreter), application software • Operating System(OS): functions of the operating system, OS user interface • Boolean logic: NOT, AND, OR, NAND, NOR, XOR, NOT, truth tables and De Morgan's laws, Logic circuits • Number System: Binary, Octal, Decimal and Hexadecimal number system; conversion between number systems • Encoding Schemes: ASCII, ISCII, and Unicode (UTF8, UTF32)	• Exploring inside computer system in the computer lab. Record of the configuration of computer system used by the student in the computer lab
PWT-01/UT- 01 (26-29 APRIL 2024)					

Month.	No. of Days	No.of periods	Weightage of Marks for Unit/Chapter	Units/Subunits/Topics/Chapters to be Covered	Details of Activity/Practical/ Projects
JULY	27	26 T	45	**Unit II: Computational Thinking and Programming** - I • Introduction to Problem-solving: Steps for Problem-solving (Analysing the problem, developing an algorithm, coding, testing, and debugging), representation of algorithms using flowchart and pseudocode, decomposition • Familiarization with the basics of Python programming: Introduction to Python, Features of Python, executing a simple “hello world" program, execution modes: interactive mode and script mode, Python character set, Python tokens(keyword, identifier, literal, operator, punctuator), variables, concept of l-value and r-value, use of comments • Knowledge of data types: Number(integer, floating point, complex), boolean, sequence(string, list, tuple), None, Mapping(dictionary), mutable and immutable data types.	**Programming in Python:** Print ‘Hello World’ Program. Programs involving simple data types Program to find absolute value, Program to Sort 3 nos.

Month.	No. of Days	No.of periods	Weightage of Marks for Unit/Chapter	Units/Subunits/Topics/Chapters to be Covered	Details of Activity/Practical/ Projects
AUGUST	22	16T+8P		**Unit II: Computational Thinking and Programming – 1** • Operators: arithmetic operators, relational operators, logical operators, assignment operator, augmented assignment operators, identity operators (is, is not), membership operators (in, not in) • Expressions, statement, type conversion & input/output: precedence of operators, expression, evaluation of expression, python statement, type conversion (explicit & implicit conversion), accepting data as input from the console and displaying output • Errors: syntax errors, logical errors, runtime errors • Flow of control: introduction, use of indentation, sequential flow, conditional and iterative flow control	Python programs to apply different operators and types. Python programs using if, if.. else, if … elif… else. Creating python Programs Using for and While loops as Interest calculation
PWT-02/ UT- 02 (08-10 AUG 2024)					

Month.	No. of Days	No.of periods	Weightage of Marks for Unit/Chapter	Units/Subunits/Topics/Chapters to be Covered	Details of Activity/Practical/ Projects
SEPTEMBER	15	10T+4P		• Conditional statements: if, if-else, if-elif-else, flowcharts, simple programs: e.g.: absolute value, sort 3 numbers and divisibility of a number. • Iterative Statement: for loop, range (), while loop, flowcharts, break and continue statements, nested loops, suggested programs: generating pattern, summation of series, finding the factorial of a positive number, etc. • Strings: introduction, string operations (concatenation, repetition, membership and slicing), • traversing a string using loops, built-in functions/methods–len(), capitalize(), title(), lower(), upper(), count(), find(), index(), endswith(), startswith(), isalnum(), isalpha(), isdigit(), islower(), isupper(), isspace(),lstrip(), rstrip(), strip(), replace(), join(), partition(), split()	Program to calculate factorial of given no., Generation of Fibonacci series etc. Implement StringFunctions using python program
MID TERM (23 SEPT TO 04 OCT 2024)					

Month.	No. of Days	No.of periods	Weightage of Marks for Unit/Chapter	Units/Subunits/Topics/Chapters to be Covered	Details of Activity/Practical/ Projects
OCTOBER	22	08T+13P		**Unit II: Computational Thinking and Programming – 1** • **Lists:** introduction, indexing, list operations (concatenation, repetition, membership and slicing), traversing a list using loops, built-in functions/methods– len(), list(), append(), extend(), insert(), count(), index(), remove(), pop(), reverse(), sort(), sorted(), min(), max(), sum(); nested lists, • suggested programs: finding the maximum, minimum, mean of numeric values stored in a list; linear search on list of numbers and counting the frequency of elements in a list.	Different python Programs to implement List

Month.	No. of Days	No.of periods	Weightage of Marks for Unit/Chapter	Units/Subunits/Topics/Chapters to be Covered	Details of Activity/Practical/ Projects
NOVEMBER	26	10T+10P		• Tuples: introduction, indexing, tuple operations (concatenation, repetition, membership and slicing); built-in functions/methods – len(), tuple(), count(), index(), sorted(), min(), max(), sum(); tuple assignment, nested tuple; suggested programs: finding the minimum, maximum, mean of values stored in a tuple; linear search on a tuple of numbers, counting the frequency of elements in a tuple. • Dictionary: introduction, accessing items in a dictionary using keys, mutability of a dictionary (adding a new term, modifying an existing item), traversing a dictionary, built-in functions/methods – len(), dict(), keys(), values(), items(), get(), update(), del(), del, clear(), fromkeys(), copy(), pop(), popitem(), setdefault(), max(), min(), sorted(); Suggested programs: count the number of times a character appears in a given string using a dictionary, create a dictionary with names of employees, their salary and access them.	Different python Programs to implement Tuples relatedmethods Suggested programs: count the number of times a character appears in a given string using a dictionary, create a dictionary with names of employees, their salary and access them and Different Python Programs to Implement dictionary and relatedmethods.

Month.	No. of Days	No.of periods	Weightage of Marks for Unit/Chapter	Units/Subunits/Topics/Chapters to be Covered	Details of Activity/Practical/ Projects
DECEMBER	20	10T+4P	15	**Introduction to Python modules:** • Importing module using 'import ' and using from statement, importing math module (pi, e, sqrt(), ceil(), floor(), pow(), fabs(), sin(), cos(), tan()); random module (random(), randint(), randrange()), statistics module (mean(), median(), mode()). **Unit III: Society, Law and Ethics:** • Digital Footprints ● Digital Society and Netizen: net etiquettes, communication etiquettes, social media étiquettes • Data Protection: Intellectual property rights (copyright, patent , trademark), violation of IPR(plagiarism, copyright infringement, trademark infringement), open source software and licensing (Creative Commons, GPL and Apache)	Generate random number using random module and implement different random functions.
PWT-03/ UT -3 (12-14 DEC 2024)					
JANUARY	14	10T+7P		**Unit III: Society, Law and Ethics:** • Cyber Crime: definition, hacking, eavesdropping, phishing and fraud emails, ransomware, cyber trolls, cyber bullying • Cyber safety: safely browsing the web, identity protection, confidentiality • Malware: viruses, trojans, adware • E-waste management: proper disposal of used electronic gadgets. • Information Technology Act (IT Act) • Technology and society: Gender and disability issues while teaching and using computers	
FEBRUARY	**REVISION**				
PWT-04/UT-4 (06-08 FEB 2025)					

Month.	No. of Days	No.of periods	Weightage of Marks for Unit/Chapter	Units/Subunits/Topics/Chapters to be Covered	Details of Activity/Practical/ Projects
MARCH	REVISION				
TERM-END EXAM (17-28 MARCH 2025)					

NOTE: T STANDS FOR THEORY PERIODS AND P STANDS FOR PRACTICAL PERIODS

S.No.	Unit Name	Marks (Total=30)
1.	**Lab Test (12 marks)**	
	Python program (60% logic + 20% documentation + 20% code quality)	**12**
2.	**Report File + Viva (10 marks)**	
	Report file: Minimum 20 Python programs	**7**
	Viva voce	**3**
3.	Project (that uses most of the concepts that have been learnt)	**8**

Suggested Practical List
Python Programming

- Input a welcome message and display it.
- Input two numbers and display the larger / smaller number.
- Input three numbers and display the largest / smallest number.
- Generate the following patterns using nested loop.
- Write a program to input the value of x and n and print the sum of the following series:
  - $1+x+x^2+x^3+x^4+$. ..... x^n
  - $1-x+x^2-x^3+x^4$ ..... x^n
  - $x - x^2 + x^3 - x^4 +$ ..... x^n
- Determine whether a number is a perfect number, an Armstrong number or a palindrome.
- Input a number and check if the number is a prime or composite number.
- Display the terms of a Fibonacci series.
- Compute the greatest common divisor and least common multiple of two integers.
- Count and display the number of vowels, consonants, uppercase, lowercase characters in string.
- Input a string and determine whether it is a palindrome or not; convert the case of characters in a string.
- Find the largest/smallest number in a list/tuple
- Input a list of numbers and swap elements at the even location with the elements at the odd location.
- Input a list/tuple of elements, search for a given element in the list/tuple.
- Input a list of numbers and find the smallest and largest number from the list.

- Create a dictionary with the roll number, name and marks of n students in a class and display the names of students who have scored marks above 75.

6. Suggested Reading Material

A. NCERT Textbook for COMPUTER SCIENCE (Class XI)
B. Support Materials on the CBSE website.

NAVODAYA VIDYALAYA SAMITI,

CLASS : XI SUBJECT : INFORMATICS PRACTICES (065)

MAX. MARKS: 100 (70 Theory + 30 Practical)
Distribution of Marks and Periods

Unit No	Unit Name	Marks	Periods		
		Theory	Theory	Practical	Total
1	Introduction to Computer System	10	10	-	10
2	Introduction to Python	25	35	28	63
3	Database concepts and the Structured Query Language	30	23	17	40
4	Introduction to Emerging Trends	5	7	-	7
5	Practical	30	-	-	-
TOTAL		100	75	45	120

Month.	No. of Days	No.of periods	Weightage of Marks for Unit/Chapter	Units/Subunits/Topics/Chapters to be Covered	Details of Activity/Practical/ Projects
April	22	20T+08P	10 MARKS	**UNIT 1: Introduction to Computer System** • Introduction to computer and computing: • evolution of computing devices, • components of a computer system and their interconnections, and input/output devices. • Computer Memory: Units of memory, types of memory – primary and secondary, data deletion, its recovery, and related security concerns. • Software: purpose and types – system and application software, generic and specific purpose software. **UNIT 2: Introduction to Python** • Basics of Python programming, • Python interpreter - interactive and script mode, • The structure of a program, indentation	Exploring computer system parts and recording the configuration Activities as specified in the NCERT book.
PWT-01/UT- 01 (26-29 APRIL 2024)					

Month.	No. of Days	No.of periods	Weightage of Marks for Unit/Chapter	Units/Subunits/Topics/Chapters to be Covered	Details of Activity/Practical/ Projects
JULY	27	15T+13P	25 MARKS	**Unit 2: Introduction to Python Basics of Python** (Continued..) • Indentation, identifiers, keywords, constants, variables. • types of operators, precedence of operators, • Data types, mutable and immutable data types, statements, expressions, evaluation and comments, input and output statements, data type conversion, debugging. • Control Statements: if-else, if-elif-else, while loop, for loop	• Executing Python program • Chart on Operator • Chart on Data Types
AUGUST	22	05T+10P		Identifiers, keywords, constants, variables, types of operators, precedence of operators, data types, mutable and immutable data types, statements, expressions, evaluation and comments, input and output statements, data type conversion, and debugging. Conditional statements: if-else, for loop.	Practical programs as specified in the list. Activities as specified in the NCERT book
PWT-02/ UT- 02 (08-10 AUG 2024)					

Month.	No. of Days	No.of periods	Weightage of Marks for Unit/Chapter	Units/Subunits/Topics/Chapters to be Covered	Details of Activity/Practical/ Projects
SEPTEMBER	15	05T+10P		**Lists:** list operations - creating, initializing, traversing, and manipulating lists, list methods, and built-in functions. **Dictionary:** the concept of key-value pair, creating, initializing, traversing, updating, and deleting elements, dictionary methods, and built-in functions.	Practical programs as specified in the list. Activities as specified in the NCERT book.
MID TERM (23 SEPT TO 04 OCT 2024)					
OCTOBER	22	13T+7P	30 MARKS	**Unit 3: Database concepts and the Structured Query Language** Database Concepts: Introduction to database concepts and its need, Database Management System. Relational data model: Concept of the domain, tuple, relation, candidate key, primary key, alternate key. Advantages of using Structured Query Language, Data Definition Language, Data Query Language and Data Manipulation Language, Introduction to MySQL, creating a database using MySQL, and Data Types.	SQL commands as specified in the list. Activities as specified in the NCERT book.
NOVEMBER	26	7T+13P	30 MARKS	**Unit 3: Database concepts and the Structured Query Language (Continued……)** **Data Definition:** • CREATE DATABASE • CREATE TABLE, • DROP, ALTER Data Query: • SELECT, FROM, WHERE with relational operators, • BETWEEN,	SQL commands as specified in the list. Activities as specified in the NCERT book.

Month.	No. of Days	No.of periods	Weightage of Marks for Unit/Chapter	Units/Subunits/Topics/Chapters to be Covered	Details of Activity/Practical/ Projects
DECEMBER	20	7T+13P		**Unit 3: Database concepts and the Structured Query Language (Continued……)** • Logical operators, • IS NULL, • IS NOT NULL • Data Manipulation: • INSERT, DELETE,UPDATE	SQL commands as specified in the list. Activities as specified in the NCERT book.
PWT-03/ UT -3 (12-14 DEC 2024)					
JANUARY	14	7T+07P	05 MARKS	**Unit 4: Introduction to the Emerging Trends**: • Artificial Intelligence, • Machine Learning, • Natural Language Processing, • Immersive experience (AR, VR), • Robotics, Big data, and its characteristics, • Internet of Things (IoT), • Sensors, Smart Cities, • Cloud Computing and Cloud Services (SaaS, IaaS, PaaS); • Grid Computing, • Blockchain technology.	Activities as specified in the NCERT book.
FEBRUARY	REVISION				
PWT-04/UT-4 (06-08 FEB 2025)					
MARCH					
TERM-END EXAM (17-28 MARCH 2025)					

Practical Marks Distribution

S.No.	Unit Name	Marks
1	Problem solving using Python programming language	11
3	Creating database using MySQL and performing Queries	**7**
4	Practical file (minimum of 14 python programs, and 14 SQL queries)	7
5	Viva-Voce	5
	Total	30

Suggested Practical List

Programming in Python

1. To find average and grade for given marks.
2. To find sale price of an item with given cost and discount (%).
3. To calculate perimeter/circumference and area of shapes such as triangle, rectangle, square and circle.
4. To calculate Simple and Compound interest.
5. To calculate profit-loss for given Cost and Sell Price.
6. To calculate EMI for Amount, Period and Interest.
7. To calculate tax - GST / Income Tax.
8. To find the largest and smallest numbers in a list.
9. To find the third largest/smallest number in a list.
10. To find the sum of squares of the first 100 natural numbers.
11. To print the first 'n' multiples of given number.
12. To count the number of vowels in user entered string.
13. To print the words starting with a alphabet in a user entered string.
14. To print number of occurrences of a given alphabet in each string.
15. Create a dictionary to store names of states and their capitals.
16. Create a dictionary of students to store names and marks obtained in 5 subjects.
17. To print the highest and lowest values in the dictionary.

Data Management: SQL Commands

18. To create a database

19. To create student table with the student id, class, section, gender, name, dob, and marks as attributes where the student id is the primary key.

20. To insert the details of at least 10 students in the above table.

21. To display the entire content of table.

22. To display Rno, Name and Marks of those students who are scoring marks more than 50.

23. To display Rno, Name, DOB of those students who are born between '2005- 01-01' and '2005-12-31'.

Suggested material

NCERT Informatics Practices - Text book for class - XI (ISBN- 978-93-5292-148-5)

NAVODAYAVIDYALAYASAMITI

CLASS-XI (2024-25) SUBJECT: BIOTECHNOLOGY

UNIT	TOPIC/CHAPTER	MARKS
UNIT-I	Biotechnology:Anoverview	5
UNIT-II	MoleculesofLife	20
UNIT-III	GeneticsandMolecular Biology	20
UNIT-IV	CellsandOrganisms	25
	Practical	30
	Total	**100**

Month	No. ofDays	No. of Periods	Units/Subunits/Chapters/topics/ to be covered	Details of practical/ projecttobe given	SPOTTERS /ACTIVITIES	Unit tests/ Assign ments
APRIL2024	22	22+6=28	**Unit-IBiotechnology:Anoverview (5 Marks)** **Chapter 1: Biotechnology: An Overview** HistoricalPerspectives,Technologyand Applications of Biotechnology, Global market and Biotech Products.	1. Preparation ofbuffersand pH determination.		**UT-1**
JULY2024	26	26+8=34	**Unit-II Molecules of Life(20 Marks)** **Chapter 1: Biomolecules: Building Blocks** Building Blocks of Carbohydrates - Sugars and their Derivatives, Building Blocks of Proteins - Amino Acids, Building Bl ocks of Lipids - Simple FattyAcids.	2.Sterilization techniques	❖ Test for the presenceofsugar. ❖ Testforthe presence of protein. ❖ Test for thepresenceof fat. ❖ Detection ofaminoacidsby using chromatography ❖ Study of the enzymaticactivity of salivary amylase.	

Month	No. ofDays	No. of Periods	Units/Subunits/Chapters/topics/ to be covered	Details of practical/ projecttobe given	SPOTTERS /ACTIVITIES	Unit tests/ Assign ments
AUGUST2024	22	22+6=28	**Chapter 1: Biomolecules Building Blocks** Building Blocks of Lipids - Glycerol and Cholesterol. Building Blocks of Nucleic Acids – Nucleotides. **Chapter 2: Macromolecules: Structure & Function** Carbohydrates - The Energy Givers, Proteins-ThePerformers.	3. Preparation ofbacterial growth medium	Observationof Drosophila a. Toidentifythe sex. b. To study contrasting phenotypictraits. c. Tostudythe karyotype of Drosophila.	**UT-2**
SEPTEMBER2024	17	17+5=22	**Chapter 2: Macromolecules: Structure & Function** Enzymes- The Catalysts, Lipids and Biomembranes-TheBarriers,Nucleic Acids - The Managers.	4. Cell counting	• List out the multipleallelic traitsinhuman beings. • Study the %age of recombination of an easily identifiabletraitin a colony of Drosophila.	**MID- TERM (TERM-I)**
OCTOBER 2024	18	18+6=24	**Unit-IIIGeneticsandMolecular Biology (20 Marks)** **Chapter 1: Concepts of Genetics** HistoricalPerspective,MultipleAlleles, Linkage and Crossing Over, Genetic Mapping.			
NOVEMBER 2024	20	20+6=26	**Chapter2:GenesandGenomes: Structure and Function** Discoveryof DNAasGeneticMaterial, DNA Replication, Fine Structure of the Genes, From Gene to Protein, Transcription– TheBasicProcess,Genetic Code, Translation, Mutations, HumanGenetic Disorders.	5. Sugar Estimation usingDi Nitro Salicylic Acid test (DNStest)	➢ Isolation of DNAfrom availableplantand animal material.	

Month	No. ofDays	No. of Periods	Units/Subunits/Chapters/topics/ to be covered	Details of practical/ projecttobe given	SPOTTERS /ACTIVITIES	Unit tests/ Assign ments
DECEMBER2024	17	17+5=22	**Unit IV: Cells and Organisms (25 Marks)** **Chapter1:TheBasicUnitofLife** Cell Structure and Components, Organization of Life.	6.Assayfor amylase enzyme	➢ Study of differenttypesof plant and animal cells to compare andcontrasttheir size, shape and structure.	**UT-3**
JANUARY2025	15	15+4=19	**Chapter2:CellGrowthand Development** Cell Division, Cell Cycle, Cell Communication, Nutrition, Reproduction,ImmuneResponsein Animals.	7. Protein estimation by biuret method	➢ Study the differentstagesof mitosis in onion root tip. ➢ Study the differentstagesof meiosis in flower buds(Rheoplant).	
FEBRUARY 2025	21	21+6=27	FEBRUARY2025:PracticalExamand Preparation for UT-4 and Annual Exam.			**UT-4**
MARCH2025			**TERM-END Examination (Annualexamination)**			**TERM-END Exam.**

PRACTICALS

Note:Everystudentisrequired todothefollowing experimentsduringthe academicsession.

1. Preparationofbuffers andpHdetermination
2. Sterilizationtechniques
3. Preparationofbacterialgrowthmedium
4. Cellcounting
5. SugarEstimationusingDiNitroSalicylicAcidtest(DNStest)
6. Assayforamylaseenzyme
7. Proteinestimationbybiuretmethod