

HARIHARANANDA BALSABRAM, ARUA, KENDRAPARA, PEDAGOGICAL PLAN FOR THE SESSION-2019-20 (Class-XI)

Subject-English							
Sl No & Month	Name & Details of the book	Name & Details of the lesson	No of Class	Learning Objective	Learning Outcome	TLM Used	Pedagogical Method and Assessment
June-July	Hornbill	The portrait of lady	5	Understanding the text Understanding meaning Understanding the characters Understanding human relationships	New words and phrases Understanding the story Characters	Textbook, chalk , blackboard, pictures given in the book, digital board	Interaction discussion ,lecture, role play etc Assessment: Class test
	Snapshots	The summer of the beautiful white horse	3	Understanding a foreign folktale Understanding human conscience	The meaning of the text New words Characters	Textbook, chalk , blackboard, pictures given in the book, digital board	Interaction discussion ,lecture etc Assessment: Class test
	Reading	Reading comprehension	2	Understanding a text	Understanding meaning	Textbook, chalk , blackboard, pictures given in the book, digital board	Interaction discussion ,lecture etc Assessment: Class test
	Writing	Notice	3	Method of notice writing	Writing notice	Textbook, chalk , blackboard, pictures given in the book, digital board	Classwork, practice Assessment: Class test
	ASL	Intro, sound system	5	-----	Class	Textbook, chalk , blackboard, pictures given in the book, digital board	Interaction discussion ,lecture etc Assessment: Class test
August	Hornbill	We are not afraid...	4	Understanding the nature of Adventure Human psychology	Understanding the text Understanding the importance of strength in strong condition New words and phrases	Textbook, chalk , blackboard, pictures given in the book, digital	Interaction discussion ,lecture etc Assessment:

HARIHARANANDA BALSABRAM, ARUA, KENDRAPARA, PEDAGOGICAL PLAN FOR THE SESSION-2019-20 (Class-XI)

						board	Class test
		The laburnum top	4	Meaning of the poem The concept of happiness and sad in life	New words Philosophical concept Meaning of the poem	Textbook, chalk , blackboard, pictures given in the book, digital board	Interaction discussion ,lecture etc Assessment: Class test
	Snapshots	The address	3	Meaning of the text understanding post war situation	New words Meaning of the poem Understanding post war situation Understanding human psychology	Textbook, chalk , blackboard, pictures given in the book, digital board	Interaction discussion ,lecture etc Assessment: Class test
	Reading	Note making	5	Skill of note making and summarising	Note making and summarising	Blackboard chalk , duster	Class work, writing Assessment: Class test
	Writing	Advertisement	3	Skill of advertisement writing	Advertisement writing	Blackboard chalk , duster	Class work, writing Assessment: Class test
		Placing order letter	4	Skill of letter writing	Letter writing	Blackboard chalk , duster	Class work, writing Assessment: Class test
September	Hornbill	Discovering Tut The saga continues	3	Changing dimension of archaeology and history Meaning of the story	Interdisciplinary approach in history and science Meaning of the text New word meaning	Textbook, chalk , blackboard, pictures given in the book, digital board	Interaction discussion ,lecture etc Assessment: Class test
	Snapshot	Ranga's marriage	3	Understanding the text Understanding the fatal of child marriage Understanding the text	Meaning of the text New word meaning Understanding human characters Understanding the negative impact of child marriage	Textbook, chalk , blackboard, pictures given in the book, digital board	Interaction discussion ,lecture etc Assessment: Class test
	Writing	Article writing	4	Skill of article writing	Article writing on different topics	Blackboard chalk , duster	Class work, writing

HARIHARANANDA BALSABRAM, ARUA, KENDRAPARA, PEDAGOGICAL PLAN FOR THE SESSION-2019-20 (Class-XI)

							Assessment: Class test
	Grammar	Modals	3	Concept of Modal verbs	Use in writing and grammar	Blackboard chalk , duster	Class work, writing Assessment: Class test
	ASL	Practice presentation	4	Presentation on different topics	Presentation	Blackboard chalk , duster	Class work, writing Assessment: Class test
	Hornbill	Landscape of the soul	5	Understanding the text Understanding the philosophical view of Chinese art Understanding difference between Chinese and European art Concept of raw art	Meaning of the text New words Philosophy in Daoism Concept of Raw art	Textbook, chalk , blackboard, pictures given in the book, digital board	Interaction discussion ,lecture etc Assessment: Class test
October	Snapshots	Albert Einstein	4	Life and personality of Einstein	The problem of rigidness in school system Meaning of the text New words Characters of Einstein	Textbook, chalk, blackboard, pictures given in the book, digital board	Interaction discussion, lecture etc Assessment: Class test
	Grammar	Voice charge	6	Concept of active /passive voice	Active passive voice	Blackboard chalk , duster	Class work, writing Assessment: Class test
	Revision	-	10	Revision	Revision	Blackboard chalk , duster	Class work, writing Assessment: Class test

HARIHARANANDA BALSABRAM, ARUA, KENDRAPARA, PEDAGOGICAL PLAN FOR THE SESSION-2019-20 (Class-XI)

November	Hornbill	The Ailing planet	4	Concept of sustainable development Environmental protection To aware of environmental degradation	Meaning of the text New words Protect and preserve nature Textual grammar	Textbook, chalk , blackboard, pictures given in the book, digital board	Interaction discussion ,lecture etc Assessment: Class test
	Snapshots	Mothers day	5	Problems of Patriarchal society	Meaning of the text New words Understanding of the characters Implement of the message in their life Human values	Textbook, chalk , blackboard, pictures given in the book, digital board	Interaction discussion ,lecture etc Assessment: Class test
	Writing	Job Application	5	Job application writing	Skill of writing job Application	Blackboard chalk , duster	Class work, writing Assessment: Class test
	Writing	Drafting poster	4	Drafting poster	Skill of drafting poster	Blackboard chalk , duster	Class work, writing Assessment: Class test
	Hornbill	The voice of the rain	3	Imagination of the poet Rain cycle	Meaning of the poem New words Co -relate concept of rain cycle with imagination	Textbook, chalk , blackboard, pictures given in the book, digital board	Interaction discussion ,lecture etc Assessment: Class test
December	Hornbill	The browning version	5	Importance of respecting teachers Rethinking of teacher-students relationship Redefining values	Meaning of the text New words Understanding of Importance of respecting teachers Understanding and Rethinking of teacher-students relationship Understanding values	Textbook, chalk , blackboard, pictures given in the book, digital board	Interaction discussion ,lecture etc Assessment: Class test
	Snapshots	The ghat of the only world.....	5	Understanding the agony of a minority intellectual	Meaning of the text Understanding of Amitav Ghosh and Agha Shahid Ali New words	Textbook, chalk , blackboard, pictures given in the book, digital board	Interaction discussion ,lecture etc Assessment: Class test

HARIHARANANDA BALSABRAM, ARUA, KENDRAPARA, PEDAGOGICAL PLAN FOR THE SESSION-2019-20 (Class-XI)

	Writing	Report writing	5	Method of Report Writing	Skill of report writing	Blackboard chalk , duster	Class work, writing Assessment: Class test
	Grammar	Clauses	5	Concept of clause	Use of clause in writing and grammar	Blackboard chalk , duster	Class work, writing Assessment: Class test
Jan-Feb	Hornbill	Childhood	3	Understanding the meaning of the text	Understanding meaning New words Understanding grown up learning	Textbook, chalk , blackboard, pictures given in the book, digital board	Interaction discussion ,lecture etc Assessment: Class test
		The adventure	5	Understanding catastrophe theory Science fiction in humour	Meaning of the text Word meanings Character of protagonist Rethinking Alternative history	Textbook, chalk , blackboard, pictures given in the book, digital board	Interaction discussion ,lecture etc Assessment: Class test
		Silk road	5	Understanding nature Understanding travelogue	Meaning of the text New word meaning Experience of a journey in difficult condition	Textbook, chalk , blackboard, pictures given in the book, digital board	Interaction discussion ,lecture etc Assessment: Class test
		Father to son	3	Understanding the father- son relationship	Understanding the meaning Understanding the new words Understanding father son relationships Human values	Textbook, chalk , blackboard, pictures given in the book, digital board	Interaction discussion ,lecture etc Assessment: Class test
	Snapshots	Birth	4	Understanding of the text Understanding the presence of mind of the protagonist	Understanding the story New word meaning Understanding the power of thinking and presence of mind	Textbook, chalk , blackboard, pictures given in the book, digital	Interaction discussion ,lecture etc Assessment:

HARIHARANANDA BALSABRAM, ARUA, KENDRAPARA, PEDAGOGICAL PLAN FOR THE SESSION-2019-20 (Class-XI)

					Understanding the main character	board	Class test
		The tale of melon city	4	Understanding the text Understanding the irony	Meaning of the text New words Dramatic irony of the text Use of mind in a situation Human values	Textbook, chalk , blackboard, pictures given in the book, digital board	Interaction discussion ,lecture etc
	-	Revision	10	Revision	Practice	Blackboard chalk , duster	Class work, writing Assessment: Class test

HARIHARANANDA BALSABRAM, ARUA, KENDRAPARA, PEDAGOGICAL PLAN FOR THE SESSION-2019-20 (Class-XI)

Subject: Physics						
Lesson no & Name	No of Periods	Objectives (Concepts and Skills)	Learning Outcomes	Teaching Aids	Pedagogy/Teaching Methodology	Assessment
Chapter-1: Physical World	4 Practical (1)	<ul style="list-style-type: none"> ➤ Physics-scope and excitement ➤ nature of physical laws ➤ Physics ➤ technology and society 	<p>Make it sure that the student learns the concepts given:</p> <ul style="list-style-type: none"> ➤ The brief idea of natural laws ➤ Identification of various physical laws governing in the universe. ➤ discussion of scope and excitement ➤ application 	<ul style="list-style-type: none"> ➤ Text Book ➤ Reference book ➤ Models ➤ Graph ➤ Pictures ➤ and other TLM if any 	<p>Activating prior knowledge by random questioning</p> <ul style="list-style-type: none"> ➤ Introducing the topic to be taught after getting the expected response from the students. ➤ Developing hypothesis by (a) Brain storming, (b) Lecture , (c) Discussion and (d) In Text Question 	<ul style="list-style-type: none"> ➤ Class work ➤ Home work ➤ Group Discussion ➤ MCQ Texts ➤ Verbal Text ➤ Project Work ➤ Unit Text
Chapter-2: Units and Measurements	6 Practical (1)	<ul style="list-style-type: none"> ➤ Need for measurement ➤ Units of measurement ➤ systems of units; SI units ➤ fundamental and derived units ➤ Length, mass and time measurements; accuracy and precision of measuring instruments ➤ Errors in measurement ➤ Significant figures. ➤ Dimensions of physical quantities ➤ dimensional analysis and its applications. 	<p>Make it sure that the student learns the concepts given:</p> <ul style="list-style-type: none"> ➤ The brief idea of units, physical quantities ➤ Identification of various physical quantities with units and dimension ➤ derive the formula of different physical quantities ➤ application 	<ul style="list-style-type: none"> ➤ Text Book ➤ Reference book ➤ Models ➤ Graph ➤ Pictures ➤ and other TLM if any 	<p>Activating prior knowledge by random questioning</p> <ul style="list-style-type: none"> ➤ Introducing the topic to be taught after getting the expected response from the students. ➤ Developing hypothesis by (a) Brain storming, (b) Lecture , (c) Discussion and (d) In Text Question 	<ul style="list-style-type: none"> ➤ Class work ➤ Home work ➤ Group Discussion ➤ MCQ Texts ➤ Verbal Text ➤ Project Work ➤ Unit Text

HARIHARANANDA BALSABRAM, ARUA, KENDRAPARA, PEDAGOGICAL PLAN FOR THE SESSION-2019-20 (Class-XI)

Chapter-3: Motion in a Straight Line	12 Practical (1)	<ul style="list-style-type: none"> ➤ Frame of reference ➤ Motion in a straight line: ➤ Position-time graph, speed and velocity. ➤ Elementary concepts of differentiation and integration for describing motion, ➤ uniform and nonuniform motion ➤ average speed and instantaneous velocity ➤ uniformly accelerated motion ➤ Velocity - time and position-time graphs. ➤ Relations for uniformly accelerated motion (graphical treatment). 	<p>Make it sure that the student learns the concepts given:</p> <ul style="list-style-type: none"> ➤ The brief idea of frame of reference, position of an object ➤ Writing equation of motion ➤ Identification of various types of motion ➤ different types of graphs ➤ application 	<ul style="list-style-type: none"> ➤ Text Book ➤ Reference book ➤ Models ➤ Graph ➤ Pictures and other TLM if any 	<p>Activating prior knowledge by random questioning</p> <ul style="list-style-type: none"> ➤ Introducing the topic to be taught after getting the expected response from the students. ➤ Developing hypothesis by (a) Brain storming, (b) Lecture , (c) Discussion and (d) In Text Question 	<ul style="list-style-type: none"> ➤ Class work ➤ Home work ➤ Group Discussion ➤ MCQ Texts ➤ Verbal Text ➤ Project Work ➤ Unit Text
Chapter-4: Motion in a Plane	12 Practical (2)	<ul style="list-style-type: none"> ➤ 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, relative velocity, 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. 	<p>Make it sure that the student learns the concepts given:</p> <ul style="list-style-type: none"> ➤ The brief idea of scalar and vector quantities ➤ Writing formula for scalar and vector quantities ➤ ideas about addition, subtraction of vectors ➤ Identifying the components of a vector(horizontal and vertical) ➤ application 	<ul style="list-style-type: none"> ➤ Text Book ➤ Reference book ➤ Flowchart ➤ Graph ➤ Pictures and other TLM if any 	<p>Activating prior knowledge by random questioning</p> <ul style="list-style-type: none"> ➤ Introducing the topic to be taught after getting the expected response from the students. ➤ Developing hypothesis by (a) Brain storming, (b) Lecture , (c) Discussion and (d) In Text Question 	<ul style="list-style-type: none"> ➤ Class work ➤ Home work ➤ Group Discussion ➤ MCQ Texts ➤ Verbal Text ➤ Project Work ➤ Unit Text
Chapter-5: Laws of	14 Practical	<ul style="list-style-type: none"> ➤ Intuitive concept of force ➤ Inertia 	<p>Make it sure that the student learns the concepts</p>	<ul style="list-style-type: none"> ➤ Text Book ➤ Reference 	<p>Activating prior knowledge by random</p>	<ul style="list-style-type: none"> ➤ Class work ➤ Home work

HARIHARANANDA BALSABRAM, ARUA, KENDRAPARA, PEDAGOGICAL PLAN FOR THE SESSION-2019-20 (Class-XI)

Motion	(2)	<ul style="list-style-type: none"> ➤ 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). 	given: <ul style="list-style-type: none"> ➤ The brief idea of inertia and force ➤ Writing equation for force and momentum ➤ Identification of various types of force ➤ learning Newton's laws ➤ application 	book <ul style="list-style-type: none"> ➤ Models ➤ Graph ➤ Pictures ➤ and other TLM if any 	questioning <ul style="list-style-type: none"> ➤ Introducing the topic to be taught after getting the expected response from the students. ➤ Developing hypothesis by (a) Brain storming, (b) Lecture , (c) Discussion and (d) In Text Question 	<ul style="list-style-type: none"> ➤ Group Discussion ➤ MCQ Texts ➤ Verbal Text ➤ Project Work ➤ Unit Text
Chapter-6: Work, Energy and Power	12 Practical (2)	<ul style="list-style-type: none"> ➤ 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 ➤ conservative forces: conservation of mechanical energy (kinetic and potential energies) ➤ non-conservative forces: motion in a vertical circle ➤ Elastic and inelastic collisions in one and two dimensions. 	Make it sure that the student learns the concepts given: <ul style="list-style-type: none"> ➤ The brief idea of work and energy ➤ Writing equation for work and energy ➤ Identification of various types of energies ➤ Identifying the types of collision ➤ application 	<ul style="list-style-type: none"> ➤ Text Book ➤ Reference book ➤ Models ➤ Graph ➤ Pictures ➤ and other TLM if any 	Activating prior knowledge by random questioning <ul style="list-style-type: none"> ➤ Introducing the topic to be taught after getting the expected response from the students. ➤ Developing hypothesis by (a) Brain storming, (b) Lecture , (c) Discussion and (d) In Text Question 	<ul style="list-style-type: none"> ➤ Class work ➤ Home work ➤ Group Discussion ➤ MCQ Texts ➤ Verbal Text ➤ Project Work ➤ Unit Text
Chapter-7:	18	<ul style="list-style-type: none"> ➤ Centre of mass of a two-particle 	Make it sure that the	➤ Text Book	Activating prior	➤ Class work

HARIHARANANDA BALSABRAM, ARUA, KENDRAPARA, PEDAGOGICAL PLAN FOR THE SESSION-2019-20 (Class-XI)

System of Particles and Rotational Motion	Practical (2)	<p>system, momentum conservation and centre of mass motion.</p> <ul style="list-style-type: none"> ➤ Centre of mass of a rigid body; centre of mass of a uniform rod. ➤ Moment of a force, torque, angular momentum ➤ laws 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). Statement of parallel and perpendicular axes theorems and their Applications. 	<p>student learns the concepts given:</p> <ul style="list-style-type: none"> ➤ The brief idea of center of mass ➤ Writing equation for center of mass for different bodies ➤ Identification of different types of bodies having moment of inertia ➤ statement parallel and perpendicular theorem ➤ application 	<ul style="list-style-type: none"> ➤ Reference book ➤ Models ➤ Graph ➤ Pictures ➤ and other TLM if any 	<p>knowledge by random questioning</p> <ul style="list-style-type: none"> ➤ Introducing the topic to be taught after getting the expected response from the students. ➤ Developing hypothesis by (a) Brain storming, (b) Lecture , (c) Discussion and (d) In Text Question 	<ul style="list-style-type: none"> ➤ Home work ➤ Group Discussion ➤ MCQ Texts ➤ Verbal Text ➤ Project Work ➤ Unit Text
Chapter-8: Gravitation	12 Practical (2)	<ul style="list-style-type: none"> ➤ 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 ➤ Geo-stationary satellites. 	<p>Make it sure that the student learns the concepts given:</p> <ul style="list-style-type: none"> ➤ The brief idea of gravitation ➤ Writing equation for magnitude of gravitational force ➤ variation of g with altitude and depth ➤ derivation for escape, orbital velocity ➤ application 	<ul style="list-style-type: none"> ➤ Text Book ➤ Reference book ➤ Models ➤ Graph ➤ Pictures ➤ and other TLM if any 	<p>Activating prior knowledge by random questioning</p> <ul style="list-style-type: none"> ➤ Introducing the topic to be taught after getting the expected response from the students. ➤ Developing hypothesis by (a) Brain storming, (b) Lecture , (c) Discussion and (d) In Text Question 	<ul style="list-style-type: none"> ➤ Class work ➤ Home work ➤ Group Discussion ➤ MCQ Texts ➤ Verbal Text ➤ Project Work ➤ Unit Text

HARIHARANANDA BALSABRAM, ARUA, KENDRAPARA, PEDAGOGICAL PLAN FOR THE SESSION-2019-20 (Class-XI)

Chapter-9: Mechanical Properties of Solids	10 Practical (2)	<ul style="list-style-type: none"> ➤ Elastic behavior ➤ Stress-strain relationship ➤ Hooke's law ➤ Young's modulus ➤ bulk modulus, shear modulus of rigidity ➤ Poisson's ratio ➤ Elastic energy. 	<p>Make it sure that the student learns the concepts given:</p> <ul style="list-style-type: none"> ➤ The brief idea of elastic behavior ➤ Writing equation for stress and strain ➤ Identification of various types of elastic modulus ➤ Identifying the substance having elasticity ➤ application 	<ul style="list-style-type: none"> ➤ Text Book ➤ Reference book ➤ Models ➤ Graph ➤ Pictures and other TLM if any 	<p>Activating prior knowledge by random questioning</p> <ul style="list-style-type: none"> ➤ Introducing the topic to be taught after getting the expected response from the students. ➤ Developing hypothesis by (a) Brain storming, (b) Lecture, (c) Discussion and (d) In Text Question 	<ul style="list-style-type: none"> ➤ Class work ➤ Home work ➤ Group Discussion ➤ MCQ Texts ➤ Verbal Text ➤ Project Work ➤ Unit Text
Chapter-10: Mechanical Properties of Fluids	10 Practical (2)	<ul style="list-style-type: none"> ➤ 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 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. 	<p>Make it sure that the student learns the concepts given:</p> <ul style="list-style-type: none"> ➤ The brief idea of pressure and its effect ➤ Writing equation for Pascal's law. ➤ application of Pascal's law of pressure ➤ Bernoulli's theorem and its application ➤ application 	<ul style="list-style-type: none"> ➤ Text Book ➤ Reference book ➤ Models ➤ Graph ➤ Pictures and other TLM if any 	<p>Activating prior knowledge by random questioning</p> <ul style="list-style-type: none"> ➤ Introducing the topic to be taught after getting the expected response from the students. ➤ Developing hypothesis by (a) Brain storming, (b) Lecture, (c) Discussion and (d) In Text Question 	<ul style="list-style-type: none"> ➤ Class work ➤ Home work ➤ Group Discussion ➤ MCQ Texts ➤ Verbal Text ➤ Project Work ➤ Unit Text
Chapter-11:	6		Make it sure that the	➤ Text	Activating prior	➤ Class work

HARIHARANANDA BALSABRAM, ARUA, KENDRAPARA, PEDAGOGICAL PLAN FOR THE SESSION-2019-20 (Class-XI)

Thermal Properties of Matter	Practical (2)	<ul style="list-style-type: none"> ➤ Heat and temperature ➤ Thermal expansion; thermal expansion of solids, liquids and gases ➤ Anomalous expansion of water ➤ Specific heat capacity; C_p, C_v - calorimetry; change of state - latent heat capacity. ➤ Heat transfer-conduction, convection and radiation, thermal conductivity, qualitative ideas of ➤ Blackbody radiation, Wien's displacement Law, Stefan's law, Green house effect. 	student learns the concepts given: <ul style="list-style-type: none"> ➤ The brief idea of heat and temperature ➤ Writing equation for C_p and C_v. ➤ Identification of various types of change of state in matter ➤ application 	<ul style="list-style-type: none"> ➤ Book ➤ Reference book ➤ Models ➤ Graph ➤ Pictures ➤ and other TLM if any 	knowledge by random questioning <ul style="list-style-type: none"> ➤ Introducing the topic to be taught after getting the expected response from the students. ➤ Developing hypothesis by (a) Brain storming, (b) Lecture, (c) Discussion and (d) In Text Question 	<ul style="list-style-type: none"> ➤ Home work ➤ Group Discussion ➤ MCQ Texts ➤ Verbal Text ➤ Project Work ➤ Unit Text
Chapter-12: Thermodynamics	12 Practical (2)	<ul style="list-style-type: none"> ➤ Thermal equilibrium and definition of temperature (zeroth law of thermodynamics) ➤ heat, work and internal energy ➤ First law of thermodynamics ➤ Isothermal and adiabatic processes. ➤ Second law of thermodynamics: Reversible and irreversible processes, ➤ Heat engine and refrigerator. 	Make it sure that the student learns the concepts given: <ul style="list-style-type: none"> ➤ The brief idea of heat, work and internal energy ➤ Writing equation for heat and work ➤ Identification of various types of processes ➤ Identifying the reversible and irreversible processes ➤ application 	<ul style="list-style-type: none"> ➤ Text Book ➤ Reference book ➤ Models ➤ Graph ➤ Pictures ➤ and other TLM if any 	Activating prior knowledge by random questioning <ul style="list-style-type: none"> ➤ Introducing the topic to be taught after getting the expected response from the students. ➤ Developing hypothesis by (a) Brain storming, (b) Lecture, (c) Discussion and (d) In Text Question 	<ul style="list-style-type: none"> ➤ Class work ➤ Home work ➤ Group Discussion ➤ MCQ Texts ➤ Verbal Text ➤ Project Work ➤ Unit Text
Chapter-13: Kinetic Theory	8 Practical (2)	<ul style="list-style-type: none"> ➤ Equation of state of a perfect gas ➤ Work done in compressing a gas. ➤ Kinetic theory of gases - assumptions, concept of pressure ➤ Kinetic interpretation of 	Make it sure that the student learns the concepts given: <ul style="list-style-type: none"> ➤ The brief idea of kinetic theory of 	<ul style="list-style-type: none"> ➤ Text Book ➤ Reference book ➤ Models 	Activating prior knowledge by random questioning <ul style="list-style-type: none"> ➤ Introducing the topic to be taught 	<ul style="list-style-type: none"> ➤ Class work ➤ Home work ➤ Group Discussion ➤ MCQ Texts

HARIHARANANDA BALSABRAM, ARUA, KENDRAPARA, PEDAGOGICAL PLAN FOR THE SESSION-2019-20 (Class-XI)

		<ul style="list-style-type: none"> ➤ 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. 	<ul style="list-style-type: none"> gases ➤ Writing equation for equation of state ➤ Identification of various degrees of freedom of different gas ➤ application 	<ul style="list-style-type: none"> ➤ Graph ➤ Pictures ➤ and other TLM if any 	<p>after getting the expected response from the students.</p> <ul style="list-style-type: none"> ➤ Developing hypothesis by (a) Brain storming, (b) Lecture , (c) Discussion and (d) In Text Question 	<ul style="list-style-type: none"> ➤ Verbal Text ➤ Project Work ➤ Unit Text
Chapter–14: Oscillations	14 Practical (1)	<ul style="list-style-type: none"> ➤ Periodic motion - time period ➤ Frequency ➤ Displacement as a function of time, periodic functions. ➤ Simple harmonic motion (S.H.M) and its equation ➤ phase; oscillations of a spring-restoring force ➤ force constant ➤ energy in S.H.M. Kinetic and potential energies ➤ simple pendulum derivation ➤ of expression for its time period. ➤ Free, forced and damped oscillations (qualitative ideas only), resonance. 	<p>Make it sure that the student learns the concepts given:</p> <ul style="list-style-type: none"> ➤ The brief idea of periodic function ➤ Writing equation for displacement of waves. ➤ Identification of various types of periodic function ➤ Identifying the free, force and damped oscillation ➤ application 	<ul style="list-style-type: none"> ➤ Text Book ➤ Reference book ➤ Models ➤ Graph ➤ Pictures ➤ and other TLM if any 	<p>Activating prior knowledge by random questioning</p> <ul style="list-style-type: none"> ➤ Introducing the topic to be taught after getting the expected response from the students. ➤ Developing hypothesis by (a) Brain storming, (b) Lecture , (c) Discussion and (d) In Text Question 	<ul style="list-style-type: none"> ➤ Class work ➤ Home work ➤ Group Discussion ➤ MCQ Texts ➤ Verbal Text ➤ Project Work ➤ Unit Text
Chapter–15: Waves	12 Practical (1)	<ul style="list-style-type: none"> ➤ Wave motion ➤ Transverse and longitudinal waves, speed of wave motion ➤ displacement relation ➤ for a progressive wave ➤ principle of superposition of waves ➤ reflection of waves, standing waves 	<p>Make it sure that the student learns the concepts given:</p> <ul style="list-style-type: none"> ➤ The brief idea of wave motion ➤ Writing equation for displacement and speed. 	<ul style="list-style-type: none"> ➤ Text Book ➤ Reference book ➤ Models ➤ Graph ➤ Pictures ➤ and 	<p>Activating prior knowledge by random questioning</p> <ul style="list-style-type: none"> ➤ Introducing the topic to be taught after getting the expected response from the students. 	<ul style="list-style-type: none"> ➤ Class work ➤ Home work ➤ Group Discussion ➤ MCQ Texts ➤ Verbal Text ➤ Project Work ➤ Unit Text

HARIHARANANDA BALSABRAM, ARUA, KENDRAPARA, PEDAGOGICAL PLAN FOR THE SESSION-2019-20 (Class-XI)

		<ul style="list-style-type: none">➤ in strings and organ pipes➤ fundamental mode and harmonics➤ Beats➤ Doppler Effect.	<ul style="list-style-type: none">➤ Identification of types of Wave formation in organ pipes.➤ application➤ brief idea of Doppler effect➤ application	other TLM if any	<ul style="list-style-type: none">➤ Developing hypothesis by (a) Brain storming, (b) Lecture , (c) Discussion and (d) In Text Question	
--	--	-----------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	------------------	------------------------------------------------------------------------------------------------------------------------------------------------------	--

HARIHARANANDA BALSABRAM, ARUA, KENDRAPARA, PEDAGOGICAL PLAN FOR THE SESSION-2019-20 (Class-XI)

Subject: Chemistry						
Lesson no and name	No of periods	Objective (Concepts and skills)	Learning Outcomes	Instructional Tools/ References	Pedagogy	Activity/Assignment/ Project/ Assessment
Chapter-1 Some basic concepts of chemistry	16	1. Concept on laws of chemical combination. 2. Calculation of atomic masses molecular mass. 3. Concept on mole concept, 4. Concept on determination of molarity, molality, normality etc.	Make it sure that the student learns the concepts given: 1. The brief idea of various types of laws of chemical combination. 2. Identification of various application mole concept. 3. Identifying the molarity, normality etc.	In addition to general teaching tools including blackboard and chalk, etc, the teacher will use demonstration method showing various laws of chemical combination, molarity etc. Text Book: NCERT Reference: Chemistry books by pradeep.	1. Activating prior knowledge by random questioning 2. Introducing the topic to be taught after getting the expected response from the students. 3. Developing hypothesis by (a) Brain storming, (b) Lecture, (c) Discussion and (d) In Text Questions	1. The teacher will give Home Assignments and the areas of assessment will be Content of Knowledge, Presentation, Correctness, Time management and Thinking skills 2. Divide the students in the class in four groups and ask them to give examples of different types laws of chemical combination. 3. Remind the students about the concentration of solution 4. Group Discussion related to corrosion and rusting. 5. In Text Questions
Chapter-2 Structure of atom	18	1. Bohr's model and its limitations. 2. concept of shells and subshells, dual nature of matter and light, de Broglie's relationship, Heisenberg uncertainty principle. 3. concept of orbitals, quantum numbers, shapes of s, p and d orbitals, rules for filling electrons in orbitals - Aufbau principle, Pauli's exclusion principle and Hund's rule. 4. concept on electronic configuration of atoms, stability of half-filled and completely filled orbitals.	Make it sure that the student learns the concepts given: 2. Knowing the application regarding atoms and electromagnetic radiation. 3. Identifying reactivity of electrolytic reaction.	In addition to general teaching tools including blackboard and chalk, etc, the teacher will use demonstration method concept of orbitals, Text Book: NCERT Reference: Chemistry books by pradeep.	1. Activating prior knowledge by random questioning 2. Introducing the topic to be taught after getting the expected response from the students. 3. Developing hypothesis by (a) Brain storming, (b) Lecture, (c) Discussion and (d) In Text Questions	1. Divide the students in the class in four groups and ask them to give examples of different types of reactions, 2. The teacher will give Home Assignments and the areas of assessment will be Content of Knowledge, Presentation, Correctness, Time management and Thinking skills 3. Remind the students about the physical and chemical changes. 4. Group Discussion related to corrosion and rusting. 5. In Text Questions

HARIHARANANDA BALSABRAM, ARUA, KENDRAPARA, PEDAGOGICAL PLAN FOR THE SESSION-2019-20 (Class-XI)

Chapter-3 classification of elements and periodicity	11	1. concept on Modern periodic law and the present form of periodic table, 2. idea about periodic trends in properties of elements -atomic radii, ionic radii, inert gas radii, Ionization enthalpy, electron gain enthalpy, electronegativity, valency. 3. concept on Nomenclature of elements with atomic number greater than 100 .	Make it sure that the student learns the concepts given: 1. The brief idea of various order of reaction. 2. Knowing the application of rate of reaction. 3. Identifying reactivity of reacting molecule.	. Text Book: NCERT Reference: Chemistry books by pradeep.	1. Activating prior knowledge by random questioning 2. Introducing the topic to be taught after getting the expected response from the students. 3. Developing hypothesis by (a) Brain storming, (b) Lecture, (c) Discussion and (d) In Text Questions	1 . The teacher will give Home Assignments and the areas of assessment will be Content of Knowledge, Presentation, Correctness, Time management and Thinking skills 2. Divide the students in the class in four groups and ask them to give examples of each element. 3. Remind the students about the rate of reaction. 4. Group Discussion related to kinetic of reaction. 5. In Text Questions
Chapter-4 chemical bonding and molecular structure	17	1. concept on ionic bond, covalent bond, bond parameters. 2. concept on Lewis structure, polar character of covalent bond, covalent character of ionic bond, valence bond theory, resonance, 3. Idea about geometry of covalent molecules, VSEPR theory, concept of hybridization, involving s, p and d orbitals and shapes of some simple molecules. 4. concept on molecular orbital theory of homonuclear diatomic molecules (qualitative idea only), hydrogen bond	Make it sure that the student learns the concepts given: 1. The brief idea of adsorption. 2. Knowing the application regarding catalysis. 3. Identifying reactivity of enzyme catalysis and various properties of colloid.	Text Book: NCERT Reference: Chemistry books by pradeep.	1. Activating prior knowledge by random questioning 2. Introducing the topic to be taught after getting the expected response from the students. 3. Developing hypothesis by (a) Brain storming, (b) Lecture, (c) Discussion and (d) In Text Questions	1 . The teacher will give Home Assignments and the areas of assessment will be Content of Knowledge, Presentation, Correctness, Time management and Thinking skills 2. Divide the students in the class in four groups and ask them to give examples of different types of reactions, 3. Remind the students about the properties of catalysis, colloid and suspension. 4. Group Discussion related adsorption of gases. 5. In Text Questions

HARIHARANANDA BALSABRAM, ARUA, KENDRAPARA, PEDAGOGICAL PLAN FOR THE SESSION-2019-20 (Class-XI)

Chapter-5 states of matter	14	<p>1. Concept on Three states of matter,</p> <p>2. Deviation from ideal behaviour, liquefaction of gases, critical temperature, kinetic energy and molecular speeds (elementary idea) .</p> <p>3. concept on Liquid State: vapour pressure, viscosity and surface tension (qualitative idea only, no mathematical derivations) .</p>	<p>Make it sure that the student learns the concepts given:</p> <p>1. The brief idea of various processes of extraction.</p> <p>2. Knowing the application regarding its properties.</p> <p>3. Identifying reactivity of metallurgical elements.</p>	<p>In addition to general teaching tools including blackboard and chalk, etc, the teacher will use demonstration method liquefaction of gasses.</p> <p>Text Book: NCERT</p> <p>Reference: Chemistry books by pradeep.</p>	<p>1. Activating prior knowledge by random questioning</p> <p>2. Introducing the topic to be taught after getting the expected response from the students.</p> <p>3. Developing hypothesis by (a) Brain storming, (b) Lecture, (c) Discussion and (d) In Text Questions</p>	<p>1 . The teacher will give Home Assignments and the areas of assessment will be Content of Knowledge, Presentation, Correctness, Time management and Thinking skills</p> <p>2. Divide the students in the class in four groups and ask them to give examples of metallurgical elements.,</p> <p>3. Remind the students about the states of matter.</p> <p>4. Group Discussion related to extraction of metallurgical elements.</p> <p>5. In Text Questions</p>
Chapter-6 chemical thermodynamics	19	<p>1. Concepts of System and types of systems, surroundings, work, heat, energy, extensive and intensive properties, state functions.</p> <p>2. concept on internal energy and enthalpy, heat capacity and specific heat, measurement of ΔU and ΔH, Hess's law of constant heat summation,</p> <p>3. concept on 1st & Second law of Thermodynamics (brief introduction)</p> <p>4. Introduction of entropy as a state function, Gibb's energy change for spontaneous and non-spontaneous processes, criteria for equilibrium.</p> <p>5. concept on Third law of thermodynamics (brief introduction).</p>	<p>Make it sure that the student learns the concepts given:</p> <p>1. The brief idea of various System and types of systems, surroundings, work, heat, energy, extensive and intensive properties, state functions.</p> <p>2. Knowing the application 1st law and 2nd law..</p>	<p>In addition to general teaching tools including blackboard and chalk, etc, the teacher will use demonstration method showing various types of properties and uses of p-Block element.</p> <p>Text Book: NCERT</p> <p>Reference: Chemistry books by pradeep.</p>	<p>1. Activating prior knowledge by random questioning</p> <p>2. Introducing the topic to be taught after getting the expected response from the students.</p> <p>3. Developing hypothesis by (a) Brain storming, (b) Lecture, (c) Discussion and (d) In Text Questions</p>	<p>1 . The teacher will give Home Assignments and the areas of assessment will be Content of Knowledge, Presentation, Correctness, Time management and Thinking skills</p> <p>2. Divide the students in the class in four groups and ask them to give examples of different p-Block element,</p> <p>3. Remind the students about the physical and chemical properties of p-Block element.</p> <p>4. Group Discussion related to p-Block element</p> <p>5. In Text Questions</p>

HARIHARANANDA BALSABRAM, ARUA, KENDRAPARA, PEDAGOGICAL PLAN FOR THE SESSION-2019-20 (Class-XI)

Chapter-7 Equilibrium	15	1. concept on dynamic nature of equilibrium, law of mass action, equilibrium constant, 2. concept on Le Chatelier's principle, ionic equilibrium- ionization of acids and bases, strong and weak electrolytes. 3. concept on degree of ionization, ionization of poly basic acids, acid strength, 4. concept of pH, Henderson Equation, hydrolysis of salts (elementary idea), buffer solution, solubility product, common ion effect (with illustrative examples)	Make it sure that the student learns the concepts given: 1. The brief idea of various ionic equilibrium- ionization of acids and bases, strong and weak electrolytes. 3. Identifying reactivity of properties of $K_2Cr_2O_7$ and $KMnO_4$.	In addition to general teaching tools including blackboard and chalk, etc, the teacher will use demonstration method showing various thermodynamic reaction. Text Book: NCERT Reference: Chemistry books by pradeep.	1. Activating prior knowledge by random questioning 2. Introducing the topic to be taught after getting the expected response from the students. 3. Developing hypothesis by (a) Brain storming, (b) Lecture, (c) Discussion and (d) In Text Questions	1. The teacher will give Home Assignments and the areas of assessment will be Content of Knowledge, Presentation, Correctness, Time management and Thinking skills 2. Divide the students in the class in four groups and ask them to give examples of thermodynamic properties. 3. Remind the students about ionic equilibrium- ionization of acids and bases, strong and weak electrolytes. 4. Group Discussion related to transition metals. 5. In Text Questions
Chapter-8 Redox reaction	10	Concept of oxidation and reduction, redox reactions, oxidation number, balancing redox reactions, in terms of loss and gain of electrons and change in oxidation number, applications of redox reactions.	Make it sure that the student learns the concepts given: 1. The brief idea of various balancing redox reactions. 2. Knowing the application of balancing redox reactions	Text Book: NCERT Reference: Chemistry books by pradeep.	1. Activating prior knowledge by random questioning 2. Introducing the topic to be taught after getting the expected response from the students. 3. Developing hypothesis by (a) Brain storming, (b) Lecture, (c) Discussion and (d) In Text Questions	1. The teacher will give Home Assignments and the areas of assessment will be Content of Knowledge, Presentation, Correctness, Time management and Thinking skills 2. Divide the students in the class in four groups and ask them to give examples of balancing redox reactions, 3. Remind the students about the balancing redox reactions 4. Group Discussion related to Coordination compounds. 5. In Text Questions

HARIHARANANDA BALSABRAM, ARUA, KENDRAPARA, PEDAGOGICAL PLAN FOR THE SESSION-2019-20 (Class-XI)

Chapter-9 Hydrogen	10	1. Concept on preparation properties and uses of hydrogen compound. Its application.	Make it sure that the student learns the concepts given: 1. The brief idea hydrogen compound. 2. Knowing the application hydrogen compound. 3. Identifying reactivity hydrogen compound.	Make it sure that the student learns the concepts given: 1. The brief idea of various hydrogen compound. 2. Identification of various application for hydrogen compound. 3. Identifying the mechanism for hydrogen compound by using different method.	1. Activating prior knowledge by random questioning 2. Introducing the topic to be taught after getting the expected response from the students. 3. Developing hypothesis by (a) Brain storming, (b) Lecture, (c) Discussion and (d) In Text Questions	1. The teacher will give Home Assignments and the areas of assessment will be Content of Knowledge, Presentation, Correctness, Time management and Thinking skills 2. Divide the students in the class in four groups and ask them to give examples of different hydrogen compound. 3. Group Discussion related to named reaction. 4. In Text Questions
Chapter-10 S block elements	12	1. Concept on preparation properties uses of s- block elements.	Make it sure that the student learns the concepts given: 1. The brief idea of various s- block elements. 2. Knowing the application and uses of s- block elements. 3. Identifying reactivity s- block elements.	Text Book: NCERT Reference: Chemistry books by pradeep.	1. Activating prior knowledge by random questioning 2. Introducing the topic to be taught after getting the expected response from the students. 3. Developing hypothesis by (a) Brain storming, (b) Lecture, (c) Discussion and (d) In Text Questions	1. The teacher will give Home Assignments and the areas of assessment will be Content of Knowledge, Presentation, Correctness, Time management and Thinking skills 2. Divide the students in the class in four groups and ask them to give examples of s- block elements. 3. Remind the students about the properties. 4. Group Discussion related to corrosion and rusting. 5. In Text Questions

HARIHARANANDA BALSABRAM, ARUA, KENDRAPARA, PEDAGOGICAL PLAN FOR THE SESSION-2019-20 (Class-XI)

Chapter-11 Some p- block elements	16	1. Concept on preparation properties and uses of group 13 and group 14 elements.	Make it sure that the student learns the concepts given: 1. The brief idea of various reaction group 13 and group 14 elements.. 3. Identifying reactivity of group 13 and group 14 elements.	In addition to general teaching tools including blackboard and chalk, etc, the teacher will use demonstration method showing preparation of group 13 and 14. Text Book: NCERT Reference: Chemistry books by pradeep.	Make it sure that the student learns the concepts given: 1. The brief idea of various types of solution. 2. Identification of various application group 13 and 14. 3. Identifying thethe mechanism..	1 . The teacher will give Home Assignments and the areas of assessment will be Content of Knowledge, Presentation, Correctness, Time management and Thinking skills 3. Remind the students about group 13 14 4. Group Discussion related to varrious question. 5. In Text Questions
Chapter-12 organic chemistry-basic principle and technique	20	1. Concept on General introduction, methods of purification, qualitative and quantitative analysis. 2. Concept on IUPAC nomenclature of organic compounds. 3. Idea about the Electronic displacements in a covalent bond: inductive effect, electromeric effect, resonance and hyper conjugation. 4. Concept on Homolytic and heterolytic fission of a covalent bond.	Make it sure that the student learns the concepts given: 1. The brief idea about the quantitative analysis . 2. Knowing the application inductive effect, electromeric effect, resonance and hyper conjugation. 3. Identifying the physical and chemical properties.	In addition to general teaching tools including blackboard and chalk, etc, the teacher will use demonstration method showing various types of organic compound and its separation. Text Book: NCERT Reference: Chemistry books by pradeep.	1. Developing hypothesis by (a) Brain storming Developing hypothesis by (a) Brain storming, (b) Lecture, (c) Discussion and (d) In Text Questions 2. Introducing the topic to be taught after getting the expected response from the students. 3. Activating prior knowledge by random questioning.	1 . The teacher will give Home Assignments and the areas of assessment will be Content of Knowledge, Presentation, Correctness, Time management and Thinking skills 2. Divide the students in the class in four groups and ask them to remember the inductive effect, electromeric effect, resonance and hyper conjugation. 3. Remind the students about amines. 4. Group Discussion related to inductive effect, electromeric effect, resonance and hyper conjugation. 5. In Text Questions

HARIHARANANDA BALSABRAM, ARUA, KENDRAPARA, PEDAGOGICAL PLAN FOR THE SESSION-2019-20 (Class-XI)

Chapter-13 Hydrocarbon	8	<p>1. Concept on Hydrocarbon.</p> <p>2. Idea about Classification hydrocarbon.</p> <p>3. Concept on alkane alkene and alkynes..</p> <p>4. Concept on Preparation properties and uses of hydrocarbon.</p>	<p>Make it sure that the student learns the concepts given:</p> <p>1. The brief idea of various hydrocarbon.</p> <p>2. Knowing the application regarding classification hydrocarbon.</p> <p>3. Identifying the alkanes alkenes and alkynes..</p>	<p>In addition to general teaching tools including blackboard and chalk, etc, the teacher will use demonstration method showing various types hydrocarbon.</p> <p>Text Book: NCERT</p> <p>Reference: Chemistry books by pradeep.</p>	<p>1. Activating prior knowledge by random questioning</p> <p>2. Introducing the topic to be taught after getting the expected response from the students.</p> <p>3. Developing hypothesis by (a) Brain storming, (b) Lecture, (c) Discussion and (d) In Text Questions</p>	<p>1. The teacher will give Home Assignments and the areas of assessment will be Content of Knowledge, Presentation, Correctness, Time management and Thinking skills</p> <p>2. Divide the students in the class in four groups and ask them to give examples of different types of hydrocarbon.</p> <p>3. Remind the students about the hydrocarbon.</p> <p>4. Group Discussion related to proteins and amino acids.</p> <p>5. In Text Questions</p>
Chapter-14 Environmental chemistry	8	<p>1. Concept on Environmental pollution</p> <p>2. Concept on acid rain, ozone and its reactions, effects of depletion of ozone layer.</p> <p>3. Concept on greenhouse effect and global warming-</p>	<p>Make it sure that the student learns the concepts given:</p> <p>1. The brief idea of importance of Environmental pollution</p> <p>2. Knowing the application of greenhouse effect and global warming.</p> <p>3. Identifying the characteristics of acid rain</p>	<p>Text Book: NCERT</p> <p>Reference: Chemistry books Solomon.</p> <p>In addition to general teaching tools including blackboard and chalk, etc, the teacher will use demonstration method evs method.</p>	<p>1. Activating prior knowledge by random questioning</p> <p>2. Introducing the topic to be taught after getting the expected response from the students.</p> <p>3. Developing hypothesis by (a) Brain storming, (b) Lecture, (c) Discussion and (d) In Text Questions</p>	<p>1. The teacher will give Home Assignments and the areas of assessment will be Content of Knowledge, Presentation, Correctness, Time management and Thinking skills</p> <p>2. Divide the students in the class in four groups and ask them to give examples acid rains.</p> <p>3. Remind the students about the pollution.</p> <p>4. Group Discussion related to their properties and uses.</p> <p>5. In Text Questions</p>

HARIHARANANDA BALSABRAM, ARUA, KENDRAPARA, PEDAGOGICAL PLAN FOR THE SESSION-2019-20 (Class-XI)

Subject: Mathematics

Sl. No.	Name of the Chapter	Tentative No of periods required	Learning Out comes	Internal tools/ References	Pedagogy/Teaching Methodology	Assessment
1	SETS	20	<p>Upon successful completion of Sets students should be able to:</p> <ol style="list-style-type: none"> 1. Identify set, object and roster notation. 2. Determine if a given set is finite or infinite. 3. Determine if two are more sets are equal by examining their elements. 4. How to represent a set diagrammatically by using Venn diagram 5. Verification of laws by using Venn diagram. 6. Finding sub sets of a given set. 7. Understanding universal set, complement set. 8. Intersection, union and difference of two sets. 9. Using laws solving problems. 10. Solving problems on cardinality of sets. 	Black Board, Chalk, NCERT Book	<p>Activating prior knowledge by random questioning</p> <ul style="list-style-type: none"> ➤ Introducing the topic to be taught after getting the expected response from the students. ➤ Developing hypothesis by (a) Brain storming, (b) Lecture , (c) Discussion and (d) In Text Question Answer discussion 	<ul style="list-style-type: none"> • Class work • Home work • Group Discussion • MCQ Texts • Verbal Text • Activity Work • Unit Text
2	RELATIONS AND FUNCTIONS	20	<p>The students should be able to</p> <ol style="list-style-type: none"> 1. Define Cartesian product of sets 2. Define a relation. 3. Distinguish between different types of relations. 4. Define a function and a real valued function. 5. Differentiate between a relation and a function. 6. Distinguish between different types of functions. 7. Identify Domain, Co-Domain and range of 	Black Board, Chalk, NCERT Book	<p>Activating prior knowledge by random questioning</p> <ul style="list-style-type: none"> ➤ Introducing the topic to be taught after getting the expected response from the students. ➤ Developing 	<ul style="list-style-type: none"> • Class work • Home work • Group Discussion • MCQ Texts • Verbal Text • Activity Work

HARIHARANANDA BALSAHRAM, ARUA, KENDRAPARA, PEDAGOGICAL PLAN FOR THE SESSION-2019-20 (Class-XI)

			<p>various relations. Draw the graphs of identity function, greatest integer function, modulus function, Signum function, constant function.</p>		<p>hypothesis by (a) Brain storming, (b) Lecture , (c) Discussion and (d) In Text Question Answer discussion</p>	<ul style="list-style-type: none"> Unit Text
3	TRIGONOMETRIC FUNCTIONS	20	<p>Upon successful completion of Trigonometry, students should be able to:</p> <ol style="list-style-type: none"> Angles: <ol style="list-style-type: none"> Measure angles in degrees and radians and convert from one system to the other. Tell the exact radian and degree measures of the special angles. Use the formulas for the length of a circular arc and the area of a circular sector. Find the angular and linear speed. Solve applied problems involving angles, arc length, area of sector, angular and linear speeds Trigonometric circle <ol style="list-style-type: none"> State the definitions of sine and cosine of any angle on the unit circle. Give the values of sine and cosine at the special angles on the unit circle. Define tangent, cotangent, secant, and cosecant in terms of sine and cosine. State the domains of the trigonometric functions. Determine which quadrants have positive and negative trigonometric values Estimate the values of trigonometric functions 	Black Board, Chalk, NCERT Book	<p>Activating prior knowledge by random questioning</p> <ul style="list-style-type: none"> ➤ Introducing the topic to be taught after getting the expected response from the students. ➤ Developing hypothesis by (a) Brain storming, (b) Lecture , (c) Discussion and (d) In Text Question Answer discussion 	<ul style="list-style-type: none"> Class work Home work Group Discussion MCQ Texts Verbal Text Activity Work Unit Text

HARIHARANANDA BALSABRAM, ARUA, KENDRAPARA, PEDAGOGICAL PLAN FOR THE SESSION-2019-20 (Class-XI)

			<p>tionsofanyanglesusingthetrigonometric circle and the reference angles.</p> <p>vii. Stateandusethefundamentalidentitiesrelatingt hetrigonometricfunctions.</p> <p>viii. Verifythatanequationisanidentitybytransformi ngonesideintotheotherone.</p> <p>ix. State and use the definition of periodic functions.</p> <p>x. Graph sine and cosine functions using amplitude, period, and phase shifts.</p> <p>xi. Graph tangent, cotangent, secant, and cosecant functions</p> <p>xii. Stateforthetrigonometricfunctionsth eirdomain,range,period,symmetries,(Vertical) asymptotes,x-intercepts,y-intercept,andwhetherthefunctionis evenorodd.</p> <p>3. Analytical trigonometry</p> <p>(a) Stateandusevarious trigonometriciden tities:addition,difference,multipleangl es,sub- multiple angles, product-to-sum, sum-to-product, etc.</p> <p>(b) Verifytrigonometricidentitiesandfindcounterex amplestofalseidentities.</p> <p>(c) Define graph of trigonometric functions.</p> <p>(d) Solve trigonometric equations.</p>			
4	PRINCIPL E OF MATHEM ATICAL INDUCTI	10	<p><u>LEARNING OUTCOMES</u> :</p> <p>The students should be able to</p> <ul style="list-style-type: none"> Define the statement of PRINCIPLEOFMATHEMATICALINDUCTIO N 	Black Board, Chalk, NCERT Book	Activating prior knowledge by random questioning ➤ Introducing the topic to be taught	<ul style="list-style-type: none"> Class work Home work Group Discussion MCQ Texts

HARIHARANANDA BALSABRAM, ARUA, KENDRAPARA, PEDAGOGICAL PLAN FOR THE SESSION-2019-20 (Class-XI)

	ON		<ul style="list-style-type: none"> Define the statement $P(n)$. Prove that $P(1)$ is true for all n. Prove that $P(k+1)$ is true whenever $P(k)$ is true. Conclude that $P(n)$ is true for all n. Applies the principle of PMI to various problems. Understand the meaning of Principle of Mathematical Induction. Understand clearly each steps involved in different type of induction. <p>Know how to use induction in daily lives.</p>		<p>after getting the expected response from the students.</p> <p>➤ Developing hypothesis by (a) Brain storming, (b) Lecture , (c) Discussion and (d) In Text Question Answer discussion</p>	<ul style="list-style-type: none"> Verbal Text Activity Work Unit Text
5	COMPLEX NUMBER AND QUADRATIC EQUATIONS	15	<ol style="list-style-type: none"> Use the definitions of the absolute value and of the conjugate of a complex number. Perform basic arithmetic operations on complex numbers. Determine the trigonometric form of a complex number. Multiply and divide two complex numbers in trigonometric form. State and use De Moivre's formula. <p>The students should be able to</p> <ul style="list-style-type: none"> Define a complex number as $z=a+ib$ Represent a complex number geometrically on an Argand plane. Verify the properties of addition, subtraction, multiplication, division of complex numbers. Find the conjugate, modulus, inverse of a complex number. Represent the complex number in the polar form. 	Black Board, Chalk, NCERT Book	<p>Activating prior knowledge by random questioning</p> <p>➤ Introducing the topic to be taught after getting the expected response from the students.</p> <p>➤ Developing hypothesis by (a) Brain storming, (b) Lecture , (c) Discussion and (d) In Text Question Answer discussion</p>	<ul style="list-style-type: none"> Class work Home work Group Discussion MCQ Texts Verbal Text Activity Work Unit Text

HARIHARANANDA BALSABRAM, ARUA, KENDRAPARA, PEDAGOGICAL PLAN FOR THE SESSION-2019-20 (Class-XI)

			<ul style="list-style-type: none"> Find the square root of the complex number. vi. 			
6	LINEAR INEQUALITIES	15	<p>The students should be able to</p> <ol style="list-style-type: none"> Define an inequality. differentiate in equations and equations Identify various types of inequalities. (Numerical inequalities, Literal inequalities. Double inequalities, Slack inequities, linear inequalities in one variable, linear inequalities in two variables x and y, system of linear inequalities in two variables) Solve the in-equations Algebraically and graphically. Apply their knowledge and understanding in solving 	Black Board, Chalk, NCERT Book	<p>Activating prior knowledge by random questioning</p> <ul style="list-style-type: none"> ➤ Introducing the topic to be taught after getting the expected response from the students. ➤ Developing hypothesis by (a) Brain storming, (b) Lecture , (c) Discussion and (d) In Text Question Answer discussion 	<ul style="list-style-type: none"> Class work Home work Group Discussion MCQ Texts Verbal Text Activity Work Unit Text
7	PERMUTATIONS AND COMBINATIONS	10	<ol style="list-style-type: none"> Students are able to solve the problems by using Fundamental principle of counting students understand Permutation as an arrangement and apply their knowledge in solving problems Students can apply permutations under restrictions in solving problem 	Black Board, Chalk, NCERT Book	<p>Activating prior knowledge by random questioning</p> <ul style="list-style-type: none"> ➤ Introducing the topic to be taught after getting the expected response from the students. ➤ Developing hypothesis by (a) 	<ul style="list-style-type: none"> Class work Home work Group Discussion MCQ Texts Verbal Text Activity Work Unit Text

HARIHARANANDA BALSABRAM, ARUA, KENDRAPARA, PEDAGOGICAL PLAN FOR THE SESSION-2019-20 (Class-XI)

			<p>4. Students are able to develop pascal's triangle</p> <p>5. students can differentiate permutation and combination and can apply in solving problems</p>		<p>Brain storming, (b) Lecture , (c) Discussion and (d) In Text Question Answer discussion</p>	
8	BINOMIAL THEOREM	10	<p>1. Students can apply Binomial theorem for any positive integers</p> <p>2. They are able to apply binomial theorem in evaluating the particular cases like $(1+x)^n$, $(X-Y)^n$, $(1-x)^n$ etc.</p> <p>3. They are able to find the values of numbers like $(98)^5(100)^7$ etc and develop computational skills</p> <p>4. Students can find General term, middle terms and independent terms of an expansion</p>	Black Board, Chalk, NCERT Book	<p>Activating prior knowledge by random questioning</p> <ul style="list-style-type: none"> ➤ Introducing the topic to be taught after getting the expected response from the students. ➤ Developing hypothesis by (a) Brain storming, (b) Lecture , (c) Discussion and (d) In Text Question Answer discussion 	<ul style="list-style-type: none"> • Class work • Home work • Group Discussion • MCQ Texts • Verbal Text • Activity Work • Unit Text
9	SEQUENCE AND SERIES	10	<p>After studying this lesson, student will be able to :</p> <ul style="list-style-type: none"> ○ Describe the concept of a sequence (progression); ○ Define an A.P. and cite examples; ○ Find common difference and general term of a A.P; ○ find the fourth quantity of an A.P. given any three of the quantities a, d, n and t_n; ○ calculate the common difference or any other term of the A.P. given any two terms of the A.P; ○ derive the formula for the sum of 'n' terms of an A.P; 	Black Board, Chalk, NCERT Book	<p>Activating prior knowledge by random questioning</p> <ul style="list-style-type: none"> ➤ Introducing the topic to be taught after getting the expected response from the students. ➤ Developing hypothesis by (a) Brain storming, (b) Lecture , 	<ul style="list-style-type: none"> • Class work • Home work • Group Discussion • MCQ Texts • Verbal Text • Activity Work • Unit Text

HARIHARANANDA BALSABRAM, ARUA, KENDRAPARA, PEDAGOGICAL PLAN FOR THE SESSION-2019-20 (Class-XI)

			<ul style="list-style-type: none"> ○ calculate the fourth quantity of an A.P. given three of S_n, a and d; ○ insert A.M. between two numbers; ○ solve problems of daily life using concept of an A.P.; ○ state that a geometric progression ○ find the common ratio and general term of a G.P.; ○ Calculate the fourth quantity of a G.P. when any three of the quantities t_n, a, r and n are given. ○ calculate the common ratio and any term when two of the terms of the G.P. are given; ○ write progression when the general term is given; ○ derive the formula for sum of n terms of a G.P.; ○ calculate the fourth quantity of a G.P. if any three of a, r, n and S are given; ○ derive the formula for sum (S_n) of infinite number of terms of a G.P. when $r < 1$; ○ find the third quantity when any two of are given; ○ convert recurring decimals of rational using G.P.; ○ Insert G.M. between two numbers; and establish relationship between A.M. and G.M. 		(c) Discussion and (d) In Text Question Answer discussion	
10	STRAIGHT LINES	10	Expected learning outcomes: <ol style="list-style-type: none"> 1. Students are able to find out slope of a line when (i) Inclination was given, (ii) two points were given. 2. They are able to find out the given lines are perpendicular or parallel from the given slopes. 3. They are able to find out the angle between the lines when the slopes of the lines were given. 4. They are able to find out various forms of the line and conversions from one form to another form. 	Black Board, Chalk, NCERT Book	Activating prior knowledge by random questioning ➤ Introducing the topic to be taught after getting the expected response from the students. ➤ Developing hypothesis by (a)	<ul style="list-style-type: none"> • Class work • Home work • Group Discussion • MCQ Texts • Verbal Text • Activity Work • Unit Text

HARIHARANANDA BALSABRAM, ARUA, KENDRAPARA, PEDAGOGICAL PLAN FOR THE SESSION-2019-20 (Class-XI)

			<p>5. They are able to find out distance of a line from a given point not lying on the line.</p> <p>6. They are able to find out distance between the parallel lines.</p> <p>7. They are able to find out the coordinates of a point using translation of axes.</p> <p>8. They are able to find out equation of the families of lines passing through the point of intersection of the given lines.</p>		<p>Brain storming, (b) Lecture , (c) Discussion and (d) In Text Question Answer discussion</p>	
11	CONIC SECTION S	20	<p>Expected learning out comes:</p> <ol style="list-style-type: none"> Students are able to find out radius & centre of a circle when the equation of a circle is given and vice versa. They are able to find out focus, vertex and length of latus rectum of the parabola from its standard equation. They are able to find out equation of parabola when focus or vertex was given. They are able to find out from the standard equation of ellipse its foci, vertices, eccentricity, length of major axis, length of minor axis and length of latus rectum etc. They are able to find out from the standard equation of hyperbola its foci, vertices, eccentricity, length of major axis, length of minor axis and length of latus rectum etc. They are able to apply their knowledge and un 	<p>Black Board, Chalk, NCERT Book</p>	<p>Activating prior knowledge by random questioning</p> <ul style="list-style-type: none"> ➤ Introducing the topic to be taught after getting the expected response from the students. ➤ Developing hypothesis by (a) Brain storming, (b) Lecture , (c) Discussion and (d) In Text Question Answer discussion 	<ul style="list-style-type: none"> • Class work • Home work • Group Discussion • MCQ Texts • Verbal Text • Activity Work • Unit Text

HARIHARANANDA BALSAHRAM, ARUA, KENDRAPARA, PEDAGOGICAL PLAN FOR THE SESSION-2019-20 (Class-XI)

			derstandinginsolvingapplicationproblems of parabola and ellipse.			
12	INTRODU CTION TO THREE- DIMENSI ONAL GEOMET RY	10	<p>Expected learning out comes:</p> <ol style="list-style-type: none"> Students are able to find out, where the given point lies in the space. They are able to identify the eight octants and the three coordinate planes (xy, yz, zx). They are able to solve the problems using distance formula. They are able to solve the problems using section formula. They are able to solve the co- linearity problems using distance formula. 	Black Board, Chalk, NCERT Book	<p>Activating prior knowledge by random questioning</p> <ul style="list-style-type: none"> ➤ Introducing the topic to be taught after getting the expected response from the students. ➤ Developing hypothesis by (a) Brain storming, (b) Lecture , (c) Discussion and (d) In Text Question Answer discussion 	<ul style="list-style-type: none"> • Class work • Home work • Group Discussion • MCQ Texts • Verbal Text • Activity Work • Unit Text
13	LIMITS AND DERIVAT IVES	30	<p>EXPECTED LEARNING OUTCOMES:</p> <ol style="list-style-type: none"> Students will imagine and observe the intuitive idea of limits through graphs. Students will comprehend one sided limits both graphically and through the definition. Students will apply the concept of one sided limits to find the existence of the limit. They observe the nature of the function involving the limit. They compare whether the function is a difference Quotient After understanding the derivative, they apply limit of Difference Quotient to obtain the derivative. They apply differentiation to find the slope of the tangent at any point on the curve. 	Black Board,Chalk, NCERT Book	<p>Activating prior knowledge by random questioning</p> <ul style="list-style-type: none"> ➤ Introducing the topic to be taught after getting the expected response from the students. ➤ Developing hypothesis by (a) Brain storming, (b) Lecture , (c) Discussion and (d) In Text Question Answer 	<ul style="list-style-type: none"> • Class work • Home work • Group Discussion • MCQ Texts • Verbal Text • Activity Work • Unit Text

HARIHARANANDA BALSABRAM, ARUA, KENDRAPARA, PEDAGOGICAL PLAN FOR THE SESSION-2019-20 (Class-XI)

					discussion	
14	MATHEMATICAL RESONING	10	<p>Expected learning outcomes</p> <ol style="list-style-type: none"> 1. Student will observe the difference between a sentence and a statement. 2. Student understands different types of statements. 3. They infer the validity of the statement through different methods. 4. The student applies the above concepts in the validity of many mathematical statements. 5. They will apply the above concepts in Boolean algebra and in digital electronics 	Black Board, Chalk, NCERT Book	<p>Activating prior knowledge by random questioning</p> <ul style="list-style-type: none"> ➤ Introducing the topic to be taught after getting the expected response from the students. ➤ Developing hypothesis by (a) Brain storming, (b) Lecture , (c) Discussion and (d) In Text Question Answer discussion 	<ul style="list-style-type: none"> • Class work • Home work • Group Discussion • MCQ Texts • Verbal Text • Activity Work • Unit Text
15	STATISTICS	15	<p>Expected learning outcomes</p> <ol style="list-style-type: none"> 1. Students will observe the dispersion of the raw data through Range. 2. Students will comprehend that there are also other types of measures of dispersion. 3. Students will understand the formulae of mean deviation and standard deviation. 4. They will start calculating mean deviation and standard deviation. 5. They apply the above concepts in comparing the variability of 2 series 	Black Board, Chalk, NCERT Book	<p>Activating prior knowledge by random questioning</p> <ul style="list-style-type: none"> ➤ Introducing the topic to be taught after getting the expected response from the students. ➤ Developing hypothesis by (a) Brain storming, (b) Lecture , (c) Discussion and (d) In Text Question Answer 	<ul style="list-style-type: none"> • Class work • Home work • Group Discussion • MCQ Texts • Verbal Text • Activity Work • Unit Text

HARIHARANANDA BALSABRAM, ARUA, KENDRAPARA, PEDAGOGICAL PLAN FOR THE SESSION-2019-20 (Class-XI)

					discussion	
16	PROBABILITY	15	<p>Expected learning outcomes</p> <ol style="list-style-type: none"> 1 Students will observe the outcomes of the random experiment. 2 They will relate the set of all possible outcomes to a set 'S' the sample space. 3 They are able to relate event E of S as the subset of S 4. They understand the measure of uncertainty through P(E). 5. They will apply the concept of P(E) in many day to day situations. 	Black Board, Chalk, NCERT Book	<p>Activating prior knowledge by random questioning</p> <ul style="list-style-type: none"> ➤ Introducing the topic to be taught after getting the expected response from the students. ➤ Developing hypothesis by (a) Brain storming, (b) Lecture , (c) Discussion and (d) In Text Question Answer discussion 	<ul style="list-style-type: none"> • Class work • Home work • Group Discussion • MCQ Texts • Verbal Text • Activity Work • Unit Text
	Total	240				

HARIHARANANDA BALSABRAM, ARUA, KENDRAPARA, PEDAGOGICAL PLAN FOR THE SESSION-2019-20 (Class-XI)

Subject: Biology						
Lesson no & Name	No of Periods	Objectives (Concepts and Skills)	Learning Outcomes	Teaching Aids	Pedagogy/Teaching Methodology	Assessment
Chapter-I The living world	3	Basic concept about – <ul style="list-style-type: none"> Biodiversity, Need for classification. Taxonomy and systematic Hierarchy of classification Taxonomical aids Skill <ul style="list-style-type: none"> Scientific Skill Thinking Skill Reasoning Skill Attentiveness skill Problem solving Skills 	It makes sure about- <ul style="list-style-type: none"> To get the idea of defining and non-defining characters of living Organisms. Need of classification of vast Biodiversity. Importance of Taxonomical aids. 	Text Book, Models, Flowchart, Graph, Pictures and other TLM if any	<ul style="list-style-type: none"> Question and Answer method Field trips Discussion methods Project method Lecture method Problem solving method Demonstration method 	<ul style="list-style-type: none"> ➤ Class work ➤ Home work ➤ Group Discussion ➤ MCQ Texts ➤ Verbal Text ➤ Project Work ➤ Unit Text
Chapter-2 Biological classification	5	Basic concept about – <ul style="list-style-type: none"> Basis of five Kingdom classification. Salient features of Monera, Protista and Fungi into major groups. Lichens, viruses and viroids. Skill <ul style="list-style-type: none"> Scientific Skill Thinking Skill Reasoning Skill Attentiveness Skill Problem solving Skills 	It makes sure about- <ul style="list-style-type: none"> To know the basis of five kingdom classification. Characteristics of monera protista and Fungi Characteristics of Lichens, Viruses and viroids 	Text Book, Models, Flowchart, Graph, Pictures and other TLM if any	<ul style="list-style-type: none"> Question and Answer method Field trips Discussion methods Project method Lecture method Problem solving method Demonstration method 	<ul style="list-style-type: none"> ➤ Class work ➤ Home work ➤ Group Discussion ➤ MCQ Texts ➤ Verbal Text ➤ Project Work ➤ Unit Text
Chapter-3 Plant kingdom	7	Basic concept about – <ul style="list-style-type: none"> Classification of plants into major groups. Gymnospermae and angiospermae. Angiosperms classification up to class, 	It makes sure about- <ul style="list-style-type: none"> Classification of plants into algae, bryophyte, pteridophyta, 	Text Book, Models, Flowchart, Graph, Pictures and	<ul style="list-style-type: none"> Question and Answer method Field trips Discussion methods 	<ul style="list-style-type: none"> ➤ Class work ➤ Home work ➤ Group Discussion ➤ MCQ Texts

HARIHARANANDA BALSABRAM, ARUA, KENDRAPARA, PEDAGOGICAL PLAN FOR THE SESSION-2019-20 (Class-XI)

		<p>characteristics and examples.</p> <p>Skill</p> <ul style="list-style-type: none"> Scientific Skill Thinking Skill Reasoning Skill Attentiveness Skill Problem solving Skills 	<p>Gymnospermae and angiospermae.</p> <ul style="list-style-type: none"> Characteristics of monocot and dicot plants. 	other TLM if any.	<ul style="list-style-type: none"> Project method Lecture method Problem solving method Demonstration method 	<ul style="list-style-type: none"> ➤ Verbal Text ➤ Project Work ➤ Unit Text
Chapter-4 Animal kingdom	8	<p>Basic concept about –</p> <ul style="list-style-type: none"> Salient features and classification of Kingdom Animalia. Classification of Non-chordates up to phyla level. Chordates up to class level. <p>Skill</p> <ul style="list-style-type: none"> Scientific Skill Thinking Skill Reasoning Skill Attentiveness Skill Problem solving Skills 	<p>It makes sure about-</p> <ul style="list-style-type: none"> To know the characteristics of different phylum of non-chordates. To know the difference between protochordates and vertebrates. Characteristics of five classes of subphylum vertebrata. 		<ul style="list-style-type: none"> Question and Answer method Field trips Discussion methods Project method Lecture method Problem solving method Demonstration method 	<ul style="list-style-type: none"> ➤ Class work ➤ Home work ➤ Group Discussion ➤ MCQ Texts ➤ Verbal Text ➤ Project Work ➤ Unit Text
Chapter-5 Morphology of flowering plants	9	<p>Basic concept about –</p> <ul style="list-style-type: none"> Morphology and modifications. Internal morphology of different parts of flowering plants. <p>Skill</p> <ul style="list-style-type: none"> Scientific Skill Thinking Skill Reasoning Skill Attentiveness Skill 	<p>It makes sure about-</p> <ul style="list-style-type: none"> To know the parts and modification of root, stem, leaf, inflorescence, flower, fruit and seed. 	Text Book, Models, Flowchart, Graph, Pictures and other TLM if any	<ul style="list-style-type: none"> Question and Answer method Field trips Discussion methods Project method Lecture method Problem solving method Demonstration method 	<ul style="list-style-type: none"> ➤ Class work ➤ Home work ➤ Group Discussion ➤ MCQ Texts ➤ Verbal Text ➤ Project Work ➤ Unit Text

HARIHARANANDA BALSABRAM, ARUA, KENDRAPARA, PEDAGOGICAL PLAN FOR THE SESSION-2019-20 (Class-XI)

Chapter-6 Anatomy of flowering plants	7	<ul style="list-style-type: none"> • Problem solving Skills • Basic concept about – • Function of different plant tissue. • Skill • Scientific Skill • Thinking Skill • Reasoning Skill • Attentiveness Skill • Problem solving Skills 	<p>It makes sure about-</p> <ul style="list-style-type: none"> • To know the characteristics of meristematic and permanent tissue. • Three types of Tissue System. 	Text Book, Models, Flowchart, Graph, Pictures and other TLM if any	<ul style="list-style-type: none"> • Question and Answer method • Field trips • Discussion methods • Project method • Lecture method • Problem solving method • Demonstration method 	<ul style="list-style-type: none"> ➤ Class work ➤ Home work ➤ Group Discussion ➤ MCQ Texts ➤ Verbal Text ➤ Project Work ➤ Unit Text
Chapter-7 Structural organization in animals	6	<ul style="list-style-type: none"> • Basic concept about – • Animal Tissue • Morphology and anatomy of cockroach • Morphology and anatomy of Earth worm • Skill • Scientific Skill • Thinking Skill • Reasoning Skill • Attentiveness Skill • Problem solving Skills 	<p>It makes sure about-</p> <ul style="list-style-type: none"> • Animal Tissue and its function. • Morphology and anatomy of cockroach • Morphology and anatomy of Earth worm 	Text Book, Models, Flowchart, Graph, Pictures and other TLM if any	<ul style="list-style-type: none"> • Question and Answer method • Field trips • Discussion methods • Project method • Lecture method • Problem solving method • Demonstration method 	<ul style="list-style-type: none"> ➤ Class work ➤ Home work ➤ Group Discussion ➤ MCQ Texts ➤ Verbal Text ➤ Project Work ➤ Unit Text
Chapter-8 Cell: The unit of life	5	<ul style="list-style-type: none"> • Basic concept about – • Cell Theory and cell has basic unit of Life. • Plant Cell and Animal Cell. • Structure and Function of Cell and cell Organelles. • Skill 	<p>It makes sure about-</p> <ul style="list-style-type: none"> • To know about comparison of plant and animal cell. • Structure and composition of Cell wall and cell Membrane. 	Text Book, Models, Flowchart, Graph, Pictures and other TLM if any	<ul style="list-style-type: none"> • Question and Answer method • Field trips • Discussion methods • Project method • Lecture method 	<ul style="list-style-type: none"> ➤ Class work ➤ Home work ➤ Group Discussion ➤ MCQ Texts ➤ Verbal Text ➤ Project Work

HARIHARANANDA BALSABRAM, ARUA, KENDRAPARA, PEDAGOGICAL PLAN FOR THE SESSION-2019-20 (Class-XI)

		<ul style="list-style-type: none"> Scientific Skill Thinking Skill Reasoning Skill Attentiveness Skill Problem solving Skills 	<ul style="list-style-type: none"> Endomembrane System. Nucleus as master Organelle. Eukaryotic and prokaryotic cell. 		<ul style="list-style-type: none"> Problem solving method Demonstration method 	➤ Unit Text
Chapter-9 Biomolecules	5	<p>Basic concept about –</p> <ul style="list-style-type: none"> Chemical constituents of living cells. Biomolecules-Structure and Functions. Carbohydrate, protein, lipid, enzyme. <p>Skill</p> <ul style="list-style-type: none"> Scientific Skill Thinking Skill Reasoning Skill Attentiveness Skill Problem solving Skills 	<p>It makes sure about-</p> <ul style="list-style-type: none"> To know about Structure of Protein and types of Amino acid. Polysaccharides and its types. Nucleotides. Enzymes. Nature of bond linking monomers in a polymer. 	Text Book, Models, Flowchart, Graph, Pictures and other TLM if any	<ul style="list-style-type: none"> Question and Answer method Field trips Discussion methods Project method Lecture method Problem solving method Demonstration method 	➤ Class work ➤ Home work ➤ Group Discussion ➤ MCQ Texts ➤ Verbal Text ➤ Project Work ➤ Unit Text
Chapter-10 Cell cycle and cell division	5	<p>Basic concept about –</p> <ul style="list-style-type: none"> Cell Cycle. Mitosis and meiotic cell division and their significance. <p>Skill</p> <ul style="list-style-type: none"> Scientific Skill Thinking Skill Reasoning Skill Attentiveness Skill Problem solving Skills 	<p>It makes sure about-</p> <ul style="list-style-type: none"> To know phases of cell cycle. Process of Mitotic cell division and its significance. Process of Meiotic cell division and its significance. 	Text Book, Models, Flowchart, Graph, Pictures and other TLM if any	<ul style="list-style-type: none"> Question and Answer method Field trips Discussion methods Project method Lecture method Problem solving method Demonstration method 	➤ Class work ➤ Home work ➤ Group Discussion ➤ MCQ Texts ➤ Verbal Text ➤ Project Work ➤ Unit Text
Chapter -11 Transport in plants	8	<p>Basic concept about –</p> <ul style="list-style-type: none"> Means of transport in plant. Water potential. 	<p>It makes sure about-</p> <ul style="list-style-type: none"> To know about movement of water, gases and nutrients in 	Text Book, Models, Flowchart, Graph,	<ul style="list-style-type: none"> Question and Answer method Field trips 	➤ Class work ➤ Home work ➤ Group Discussion

HARIHARANANDA BALSABRAM, ARUA, KENDRAPARA, PEDAGOGICAL PLAN FOR THE SESSION-2019-20 (Class-XI)

		<ul style="list-style-type: none"> Long distance transport of water. Transpiration. Translocation of mineral nutrient. <p>Skill</p> <ul style="list-style-type: none"> Scientific Skill Thinking Skill Reasoning Skill Attentiveness Skill Problem solving Skills 	<p>plant body.</p> <ul style="list-style-type: none"> Active and passive transport. Plant-water relations. Theories of long distance transport of water. Phloem transport. 	Pictures and other TLM if any	<ul style="list-style-type: none"> Discussion methods Project method Lecture method Problem solving method Demonstration method 	<ul style="list-style-type: none"> ➤ MCQ Texts ➤ Verbal Text ➤ Project Work ➤ Unit Text
Chapter-12 Mineral nutrition	8	<p>Basic concept about –</p> <ul style="list-style-type: none"> Essential minerals. Macro and micro nutrients and their role. Mineral toxicity. Deficiency Symptoms. Nitrogen Cycle and biological nitrogen fixation <p>Skill</p> <ul style="list-style-type: none"> Scientific Skill Thinking Skill Reasoning Skill Attentiveness Skill Problem solving Skills 	<p>It makes sure about-</p> <ul style="list-style-type: none"> To know role of nutrients and deficiency symptoms. Biological nitrogen fixation and nitrogen cycle. 	Text Book, Models, Flowchart, Graph, Pictures and other TLM if any	<ul style="list-style-type: none"> Question and Answer method Field trips Discussion methods Project method Lecture method Problem solving method Demonstration method 	<ul style="list-style-type: none"> ➤ Class work ➤ Home work ➤ Group Discussion ➤ MCQ Texts ➤ Verbal Text ➤ Project Work ➤ Unit Text
Chapter-13 Photosynthesis in higher plants	8	<p>Basic concept about –</p> <ul style="list-style-type: none"> Photosynthesis as means of autotrophic nutrition. Site of photosynthesis. Photosynthetic pigments. Photochemical and biosynthetic phases of photosynthesis. 	<p>It makes sure about-</p> <ul style="list-style-type: none"> Light and dark phases of photosynthesis. Factors affecting photosynthesis. Photosynthetic pigments and their role. 	Text Book, Models, Flowchart, Graph, Pictures and other TLM if any	<ul style="list-style-type: none"> Question and Answer method Field trips Discussion methods Project method Lecture method 	<ul style="list-style-type: none"> ➤ Class work ➤ Home work ➤ Group Discussion ➤ MCQ Texts ➤ Verbal Text ➤ Project Work

HARIHARANANDA BALSABRAM, ARUA, KENDRAPARA, PEDAGOGICAL PLAN FOR THE SESSION-2019-20 (Class-XI)

		<ul style="list-style-type: none"> • Cyclic and non-cyclic photophosphorylation. • Chemiosmotic hypothesis. • Photorespiration . • C3 and C4 pathways. <p>Skill</p> <ul style="list-style-type: none"> • Scientific Skill • Thinking Skill • Reasoning Skill • Attentiveness Skill • Problem solving Skills 	<ul style="list-style-type: none"> • Process of Cyclic and non-cyclic photophosphorylation. 		<ul style="list-style-type: none"> • Problem solving method • Demonstration method 	➤ Unit Text
Chapter-14 Respiration in plants	8	<p>Basic concept about –</p> <ul style="list-style-type: none"> • Exchange of gases in Plant • Cellular respiration and its types. • TCA Cycle and electron Transport System • Amphibolic pathways • Respiratory Quotient. <p>Skill</p> <ul style="list-style-type: none"> • Scientific Skill • Thinking Skill • Reasoning Skill • Attentiveness Skill • Problem solving Skills 	<p>It makes sure about-</p> <ul style="list-style-type: none"> • To know the process of glycolysis and kreb's cycle. • Process of an aerobic respiration. • Energy Production and Generation of ATP Molecules. 	Text Book, Models, Flowchart, Graph, Pictures and other TLM if any	<ul style="list-style-type: none"> • Question and Answer method • Field trips • Discussion methods • Project method • Lecture method • Problem solving method • Demonstration method 	➤ Class work ➤ Home work ➤ Group Discussion ➤ MCQ Texts ➤ Verbal Text ➤ Project Work ➤ Unit Text
Chapter-15 Growth and development	8	<p>Basic concept about –</p> <ul style="list-style-type: none"> • Phases of growth and growth rate. • Condition of Growth and development. • Sequence of developmental process in a plant cell. • Phytohormones as plant growth 	<p>It makes sure about-</p> <ul style="list-style-type: none"> • Seed germination • Conditions and rate of growth. • Function of phytohormones • Seed dormancy, 	Text Book, Models, Flowchart, Graph, Pictures and other TLM if any	<ul style="list-style-type: none"> • Question and Answer method • Field trips • Discussion methods • Project method • Lecture method 	➤ Class work ➤ Home work ➤ Group Discussion ➤ MCQ Texts ➤ Verbal Text ➤ Project Work

HARIHARANANDA BALSABRAM, ARUA, KENDRAPARA, PEDAGOGICAL PLAN FOR THE SESSION-2019-20 (Class-XI)

		<p>regulator.</p> <p>Skill</p> <ul style="list-style-type: none"> Scientific Skill Thinking Skill Reasoning Skill Attentiveness Skill Problem solving Skills 	<p>vernalisation, photoperiodism.</p>		<ul style="list-style-type: none"> Problem solving method Demonstration method 	<p>➤ Unit Text</p>
Chapter-16 Digestion and absorption	6	<p>Basic concept about –</p> <ul style="list-style-type: none"> Human Digestive System Alimentary canal and its parts. Associate digestive plants Mechanism of Digestion, absorption, assimilation, egestion. Regulation of digestion Digestive and nutritional disorders. <p>Skill</p> <ul style="list-style-type: none"> Scientific Skill Thinking Skill Reasoning Skill Attentiveness Skill Problem solving Skills 	<p>It makes sure about-</p> <ul style="list-style-type: none"> Parts and function of human alimentary canal Digestive glands, their secretion and function Carbohydrate, fat, protein metabolism. T.S of gut Digestive Disorder and its prevention. 	Text Book, Models, Flowchart, Graph, Pictures and other TLM if any	<ul style="list-style-type: none"> Question and Answer method Field trips Discussion methods Project method Lecture method Problem solving method Demonstration method 	<p>➤ Class work</p> <p>➤ Home work</p> <p>➤ Group Discussion</p> <p>➤ MCQ Texts</p> <p>➤ Verbal Text</p> <p>➤ Project Work</p> <p>➤ Unit Text</p>
Chapter-17 Breathing and exchange of gas	6	<p>Basic concept about –</p> <ul style="list-style-type: none"> Respiratory organs in animals. Human Respiratory System Exchange and transport of Gases. Regulation of Respiration Respiratory volume and capacities. Respiratory Disorder 	<ul style="list-style-type: none"> It makes sure about- Parts and function s of Human Respiratory System. Mechanism of Breathing Factors affecting exchange and transport of gases. Respiratory disorders 	Text Book, Models, Flowchart, Graph, Pictures and other TLM if any	<ul style="list-style-type: none"> Question and Answer method Field trips Discussion methods Project method Lecture method Problem solving method 	<p>➤ Class work</p> <p>➤ Home work</p> <p>➤ Group Discussion</p> <p>➤ MCQ Texts</p> <p>➤ Verbal Text</p> <p>➤ Project Work</p> <p>➤ Unit Text</p>

HARIHARANANDA BALSABRAM, ARUA, KENDRAPARA, PEDAGOGICAL PLAN FOR THE SESSION-2019-20 (Class-XI)

		Skill <ul style="list-style-type: none"> Scientific Skill Thinking Skill Reasoning Skill Attentiveness Skill Problem solving Skills 	and its prevention.		<ul style="list-style-type: none"> Demonstration method 	
Chapter-18 Body fluid and its circulation	6	Basic concept about – <ul style="list-style-type: none"> Composition of blood and lymph Human circulatory System and its parts. Cardiac cycle and cardiac output Regulation of cardiac activity Lymphatic system. Circulatory Disorders Skill <ul style="list-style-type: none"> Scientific Skill Thinking Skill Reasoning Skill Attentiveness Skill Problem solving Skills 	It makes sure about- <ul style="list-style-type: none"> Blood groups and its incompatibility Mechanism of blood clotting Function of blood and lymph Structure and function of Human Heart Mechanism of cardiac cycle. Double circulation, incomplete double circulation and single circulation. Circulatory disorder and its prevention 	Text Book, Models, Flowchart, Graph, Pictures and other TLM if any	<ul style="list-style-type: none"> Question and Answer method Field trips Discussion methods Project method Lecture method Problem solving method Demonstration method 	<ul style="list-style-type: none"> ➤ Class work ➤ Home work ➤ Group Discussion ➤ MCQ Texts ➤ Verbal Text ➤ Project Work ➤ Unit Text
Chapter-19 Excretory products and their elimination	6	Basic concept about – <ul style="list-style-type: none"> Mode of excretion and excretory organs of animals Human Excretory system and its parts. Structure and Function of Nephron. Regulation of Excretion Other excretory organs Excretory disorders. 	It makes sure about- <ul style="list-style-type: none"> Different parts of human excretory system and its function Mechanism of urine formation Regulation of kidney Function. Excretory disorder 	Text Book, Models, Flowchart, Graph, Pictures and other TLM if any	<ul style="list-style-type: none"> Question and Answer method Field trips Discussion methods Project method Lecture method Problem solving method Demonstration method 	<ul style="list-style-type: none"> ➤ Class work ➤ Home work ➤ Group Discussion ➤ MCQ Texts ➤ Verbal Text ➤ Project Work ➤ Unit Text

HARIHARANANDA BALSABRAM, ARUA, KENDRAPARA, PEDAGOGICAL PLAN FOR THE SESSION-2019-20 (Class-XI)

		<p>Skill</p> <ul style="list-style-type: none"> Scientific Skill Thinking Skill Reasoning Skill Attentiveness Skill Problem solving Skills 	and its Function.		n method	
Chapter-20 Locomotion and movement	6	<p>Basic concept about –</p> <ul style="list-style-type: none"> Types of movement Structure of muscle cells and contractile proteins Skeletal system and its parts Axial and appendicular skeleton. Disorders of muscular and skeletal system. <p>Skill</p> <ul style="list-style-type: none"> Scientific Skill Thinking Skill Reasoning Skill Attentiveness Skill Problem solving Skills 	<p>It makes sure about-</p> <ul style="list-style-type: none"> Structure and function of muscle cell Mechanism of muscle contraction. Parts and function of skeletal system Joint and its type 	Text Book, Models, Flowchart, Graph, Pictures and other TLM if any	<ul style="list-style-type: none"> Question and Answer method Field trips Discussion methods Project method Lecture method Problem solving method Demonstration method 	<ul style="list-style-type: none"> ➤ Class work ➤ Home work ➤ Group Discussion ➤ MCQ Texts ➤ Verbal Text ➤ Project Work ➤ Unit Text
Chapter-21 Neural control and coordination	6	<p>Basic concept about –</p> <ul style="list-style-type: none"> Neuron and nerves Human nervous system CNS and PNS Nerve impulses Reflex action and reflex arc. Brain and spinal cord Sensory reception by eye, ear and other sense organs 	<p>It makes sure about-</p> <ul style="list-style-type: none"> Structure and function of neuron. Parts of human nervous system and its function Generation and conduction of nerve impulses Parts of human brain and spinal cord and 	Text Book, Models, Flowchart, Graph, Pictures and other TLM if any	<ul style="list-style-type: none"> Question and Answer method Field trips Discussion methods Project method Lecture method Problem solving method Demonstration method 	<ul style="list-style-type: none"> ➤ Class work ➤ Home work ➤ Group Discussion ➤ MCQ Texts ➤ Verbal Text ➤ Project Work ➤ Unit Text

HARIHARANANDA BALSABRAM, ARUA, KENDRAPARA, PEDAGOGICAL PLAN FOR THE SESSION-2019-20 (Class-XI)

		<p>Skill</p> <ul style="list-style-type: none"> Scientific Skill Thinking Skill Reasoning Skill Attentiveness Skill Problem solving Skills 	<p>its function.</p> <ul style="list-style-type: none"> Mechanism of hearing Sensory reception by eye and other sense organs 		n method	
Chapter-22 Chemical coordination and integration	6	<p>Basic concept about –</p> <ul style="list-style-type: none"> Exocrine, Endocrine and heterocrine glands and hormones. Human endocrine system Mechanism of hormone action Role of hormones as messengers and regulators Hypo and hyper activity of hormones and related disorders. <p>Skill</p> <ul style="list-style-type: none"> Scientific Skill Thinking Skill Reasoning Skill Attentiveness Skill Problem solving Skills 	<p>It makes sure about-</p> <ul style="list-style-type: none"> Position, number and secretion of endocrine glands and their function Hypothalamus the supreme commander Pituitary the master gland. Hormones of heart, kidney and gastrointestinal tract. Mechanism of hormone action for quick acting and slow acting hormone. Diseases related to hormonal disorders and its prevention. 	Text Book, Models, Flowchart, Graph, Pictures and other TLM if any	<ul style="list-style-type: none"> Question and Answer method Field trips Discussion methods Project method Lecture method Problem solving method Demonstration method 	<ul style="list-style-type: none"> ➤ Class work ➤ Home work ➤ Group Discussion ➤ MCQ Texts ➤ Verbal Text ➤ Project Work ➤ Unit Text

HARIHARANANDA BALSABRAM, ARUA, KENDRAPARA, PEDAGOGICAL PLAN FOR THE SESSION-2019-20 (Class-XI)

Subject- Computer Science					
Lesson No & Name	No of Period	Objective (Concepts and skills)	Learning Outcomes	TLM/Instructional Tool	Pedagogy
Chapter:1 Computer System Overview		Concepts: <ul style="list-style-type: none"> ❖ This chapter gives idea about total computer system concept. ❖ In this chapter we have to read all the functional unit of computer system.(Input unit, output unit, control unit, storage unit). ❖ Then we have to focus on Memory concept of the Computer (Primary Memory, Secondary Memory). <p>Then we have to focus on Software concept.Skills:</p> <p>The teacher will keep the following skills in view:</p> <ul style="list-style-type: none"> ❖ Understanding skill. ❖ Presentation skill. 	<p>Make it sure that the student learns the concepts given:</p> <ul style="list-style-type: none"> ❖ The learning objective of this chapter is the student should learn the fundamental concept of computer like all the functional unit, memory ,and software concept. ❖ The chapter helps the student to learn the next fundamental chapter in their syllabus. 	<p>In addition to general teaching tools including blackboard and chalk, I use Some Reference Book. Computer Science with python By sumita Arora</p>	<ul style="list-style-type: none"> ❖ The learning objective of this chapter is the student should learn the fundamental concept of computer like all the functional unit, memory ,and software concept. ❖ The chapter helps the student to learn the next fundamental chapter in their syllabus.
Chapter:2 Data Representation		Concepts: <ul style="list-style-type: none"> ❖ In this chapter we have to learn all the digital number system and their conversion.(Binary No.system, Decimal No.System, Octal No.system, Hexadecimal No.system) ❖ Representation of Unsigned integers in Binary. ❖ Binary Addition. ❖ Character /String Representation (ASCII Code, ISCII Code, Unicode. Skills: <ul style="list-style-type: none"> ❖ Numerical Skill. ❖ Calculation Skill. 	<ul style="list-style-type: none"> ❖ In this chapter the learning outcomes is student should learn the number system concept in computer and their conversion. ❖ That number system will help them in the three subject like Mathematics, Physics, and Computer science. 	<p>In addition to general teaching tools including blackboard and chalk, etc, the teacher will use</p> <p>Reference Book. Computer Science with python By sumita Arora</p>	<ul style="list-style-type: none"> ❖ In this chapter the teaching methodology is quiet different from all the chapter because in this chapter I use some tricks to solve the number system easily . ❖ In the entrance exam like jeemain, ojee the number system question may arise ,so in that situation we have to apply the trick to solve the question within one minute.

HARIHARANANDA BALSABRAM, ARUA, KENDRAPARA, PEDAGOGICAL PLAN FOR THE SESSION-2019-20 (Class-XI)

<p><i>Chapter:3</i></p> <p>Boolean Logic</p>		<p>Concepts:</p> <ul style="list-style-type: none"> ❖ In this chapter we learn the concept of Boolean value and their operation. ❖ We use different gate to prove the Boolean logic in different way(AND gate,OR gate,NOR gate,NOT gate,NAND gate,XOR gate,XNOR gate). ❖ Also we read different postulates of Boolean logic. ❖ In this chapter the student should learn different operation on Boolean logic by using different states. ❖ They learn that in computer every machine working on Binary Values or by using Boolean Logic (0 and 1 ,or on and off). 	<ul style="list-style-type: none"> ❖ In this chapter the student should learn different operation on Boolean logic by using different states . ❖ They learn that in computer every machine working on Binary Values or by using Boolean Logic (0 and 1 ,or on and off). 	<p>In addition to general teaching tools like black board and chalk, etc, the teacher will use</p> <p>Reference Book. Computer Science with python By sumita Arora</p>	<ul style="list-style-type: none"> ❖ In this chapter we give some real life example where the Boolean logic will apply and how it works
<p><i>Chapter:4</i></p> <p>Insight into program execution.</p>		<p>Concepts:</p> <ul style="list-style-type: none"> ❖ In this chapter we learn the basic flow of compilation in a Programme. ❖ The translation process of a program <ol style="list-style-type: none"> 1. The compilation process. 2. The interpretation process. ❖ Role of an operating system in Running a Program. ❖ Introduction to parallel computing. ❖ Discuss about cloud computing. <p>Skills:</p> <ul style="list-style-type: none"> ❖ Thinking skills ❖ Reasoning Skills 	<p>Make sure that the students learn</p> <ul style="list-style-type: none"> ❖ In this chapter the student should learn before going to write a program what is the phases they might have to face to run a program. ❖ They also learn the concept of parallel computing and cloud computing. ❖ Now a day's most of the company uses cloud to store their data. 	<p>In addition to general teaching tools like black board and chalk, etc, the teacher will use</p> <p>Reference Book. Computer Science with python By sumita Arora</p>	<ul style="list-style-type: none"> ❖ In this chapter I give the idea about compilation process and interpretation process. ❖ Then give the example of some company name and also teach how the company uses cloud to store their data.

HARIHARANANDA BALSABRAM, ARUA, KENDRAPARA, PEDAGOGICAL PLAN FOR THE SESSION-2019-20 (Class-XI)

<p><i>Chapter:5</i> Computational Thinking and Getting started with Python.</p>		<p>Concepts:</p> <ul style="list-style-type: none"> ❖ In this chapter the main concept is how to start python programming by using some of the application or IDE like(Annaconda,pychram). ❖ Then the first program on python. <p>Skills:</p> <ul style="list-style-type: none"> ❖ Attentiveness ❖ Listening Skills 	<p>Make sure that the students learn</p> <ul style="list-style-type: none"> ❖ In this chapter the student should learn what is python and why we use python. 	<p>In addition to general teaching tools like black board and chalk, etc, the teacher will use</p> <p>Reference Book. Computer Science with python By sumita Arora</p>	<ul style="list-style-type: none"> ❖ In this chapter we give some real world problem to understand why python came into market and what is the use of python.
<p><i>Chapter:6</i> Python Fundamentals</p>	<p>Theory = 09 Practical = 04</p>	<p>Concepts:</p> <ul style="list-style-type: none"> ❖ Introduction to python character set. ❖ Tokens used in python.(Keywords,Identifiers,Literals,operators,punctuation). ❖ Discuss the variable concept and how to create a variable in python. <p>Discuss about some input output operation on python</p> <p>Skills:</p> <ul style="list-style-type: none"> ❖ Thinking skills ❖ Reasoning Skills 	<p>Make sure that the students learn</p> <ul style="list-style-type: none"> ❖ In this chapter the student should learn the fundamental concept of python that is required to write a program in python. 	<p>In addition to general teaching tools like black board and chalk, etc, the teacher will use</p> <p>Reference Book. Computer Science with python By sumita Arora</p>	<ul style="list-style-type: none"> ❖ In this chapter we give different example of variable and constant and to know their role to signify who is variable and how to declare a variable in the program.

HARIHARANANDA BALSABRAM, ARUA, KENDRAPARA, PEDAGOGICAL PLAN FOR THE SESSION-2019-20 (Class-XI)

<p><i>Chapter:7</i> Data Handling</p>	<p>Theory= 07 Practical= 03</p>	<p>Concepts:</p> <ul style="list-style-type: none"> ❖ Discuss about different data Types used in python and their functionality. ❖ Discuss what is Mutable types and what is immutable types. ❖ Discuss different operator used in it to do some operation in program. ❖ Discuss about some type casting concept. ❖ Discuss about some standard library used in python. <p>Skills:</p> <ul style="list-style-type: none"> ❖ Thinking skills ❖ Practical skill. 	<p>Make sure that the students learn</p> <ul style="list-style-type: none"> ❖ In this chapter the student should learn different operator and data types and their functionality. ❖ It is the two most important fundamental concepts in python also we focus on it. 	<p>In addition to general teaching tools like black board and chalk, etc, the teacher will use Reference Book. Computer Science with python By sumita Arora</p>	<ul style="list-style-type: none"> ❖ In this chapter we do different operation for individual operator that the student should understand clearly about this concept.
<p><i>Chapter:8</i> Conditional and Iterative statements</p>	<p>Theory= 09 Practical= 05</p>	<p>Concepts:</p> <ul style="list-style-type: none"> ❖ Discuss different types of statement in python. ❖ Discuss the logic development tools like Flowchart. ❖ Discuss different types of looping statement. <p>Skills:</p> <ul style="list-style-type: none"> ❖ Thinking skills ❖ Logical skills. 	<p>Make sure that the students learn</p> <ul style="list-style-type: none"> ❖ In this chapter we learn how to apply different conditional statement and looping statement. ❖ This chapter is very important chapter for doing a programme because condition is necessary for every programme. 	<p>In addition to general teaching tools like black board and chalk, etc, the teacher will use Reference Book. Computer Science with python By sumita Arora</p>	<ul style="list-style-type: none"> ❖ In this chapter I give different conditional statement how we apply this conditional statement in programme. ❖ How to apply multiple conditions in a single programme.

HARIHARANANDA BALSABRAM, ARUA, KENDRAPARA, PEDAGOGICAL PLAN FOR THE SESSION-2019-20 (Class-XI)

<p><i>Chapter:9</i> String Manipulation</p>	<p>Theory= 09 Practical= 05</p>	<p>Concepts:</p> <ul style="list-style-type: none"> ❖ Discuss about what is string and what is the need of string in the programme. ❖ Discuss about how to perform different operation on string. ❖ Discuss about different string functions and method used in string. <p>Skills:</p> <ul style="list-style-type: none"> ❖ Thinking skills ❖ Practical skills. 	<p>Make sure that the students learn</p> <ul style="list-style-type: none"> ❖ In this chapter the student should learn different functions and methods used in string that will help to perform different operation through string. 	<p>In addition to general teaching tools like black board and chalk, etc, the teacher will use Reference Book. Computer Science with python By sumita Arora</p>	<ul style="list-style-type: none"> ❖ In this chapter I give all the example of different function used in string and their operation that the student should learn clearly.
<p><i>Chapter:10</i> <i>Simple Queries In SQL</i></p>	<p>Theory= 09 Practical= 05</p>	<p>Concepts:</p> <ul style="list-style-type: none"> ❖ Introduction ❖ Some My Sql Elements. ❖ Literals. ❖ Datatypes ❖ Null Values ❖ Comments <p>Making Simple Queries</p> <ul style="list-style-type: none"> ❖ Accessing database ❖ The select Command ❖ Selecting all columns. ❖ Relational operator ❖ Using column alias. <p>My Sql Functions.</p> <ul style="list-style-type: none"> ❖ String Functions. 	<p>Make sure that the students learn</p> <ul style="list-style-type: none"> ❖ In this chapter the student learn how to use different sql queries and their functionality. ❖ By using that sql queries the student know how to use the queries and store the data in a database. 	<p>In addition to general teaching tools like black board and chalk, etc, the teacher will use Reference Book. Computer Science with python By sumita Arora</p>	<ul style="list-style-type: none"> ❖ In this chapter the pedagogical learning the all concepts related to database, so the

HARIHARANANDA BALSABRAM, ARUA, KENDRAPARA, PEDAGOGICAL PLAN FOR THE SESSION-2019-20 (Class-XI)

		<ul style="list-style-type: none"> ❖ Numeric Functions. ❖ Date and Time Functions. <p>Skills:</p> <ul style="list-style-type: none"> ❖ Thinking skills ❖ Reasoning Skills 			
Chapter:11 Cyber Safety	Theory= 09 Practical= 05	<p>Concepts:</p> <ul style="list-style-type: none"> ❖ Introduction ❖ Cyber safety ❖ safely browsing the tab. ❖ Identify protection while using internet. ❖ Cybercrime ❖ Common social networking sites. ❖ Appropriate use of social networks <p>Skills:</p> <ul style="list-style-type: none"> ❖ Thinking skills ❖ Logical skill. 	<p>Make sure that the students learn</p> <ul style="list-style-type: none"> ❖ In this chapter the student learn about different cyber crime and how to stop that cyber crime by using different technology. 	<p>In addition to general teaching tools like black board and chalk, etc, the teacher will use</p> <p>Reference Book. Computer Science with python By sumita Arora</p>	<ul style="list-style-type: none"> ❖ In this chapter the pedagogical learning is what is actually cyber crime and why the cyber crime will increase day by day and how to stop that cybercrime by using different technology.

HARIHARANANDA BALSABRAM, ARUA, KENDRAPARA, PEDAGOGICAL PLAN FOR THE SESSION-2019-20 (Class-XI)

Subject- Health and Physical Education

Month	No of period	content	Activities and Objectives	Tools	Pedagogy
April to June	16 each class	Human body Conditioning Games Drill/Marching Yoga	<ul style="list-style-type: none"> • Illness and diseases. • System of human body. • Growth and development. • To achieve and maintain a level of physical fitness. • Kabaddi • Kho-Kho • Football • Mass PT-Table-1 1 to 5 exercise. • Attention, stand at easy, left turn, right turn, about turn. • Birabhadrasana • Paschimouttanasana • Vastrika • Kapalabhati 	<ul style="list-style-type: none"> ○ Reference books ○ Charts ○ Models ○ Benches of different heights ○ Stair climbing ○ Playground ○ Cone ○ Lime powder ○ Medicine ball ○ Skipping ○ Whistle ○ Football ○ Pole ○ Drum ○ Whistle ○ Mat 	<ul style="list-style-type: none"> ❖ Health consciousness. ❖ To know about diseases and its causes. ❖ Know about the process of growing up hormonal changes. ❖ To develop muscular strength, flexibility cardio respiratory endurance. ❖ To know the rules and regulations of the game. ❖ Development of motor skill. ❖ Physically and mentally healthy and possess strength speed and stamina. ❖ They develop neuromuscular skills that promote the ability to perform work with ease and grace. ❖ Helps the student to relieve the symptoms of menopause and menstrual discomfort. ❖ Calms the brain and helps relieve stress and mild depression.
July & August	16 each class	Physical education and sports education. Athletic Game Drill/Marching Yoga	<ul style="list-style-type: none"> • What is physical education? • Physical fitness • Sports training • Fatigue • Tournament • Throw 	<ul style="list-style-type: none"> ○ Lime powder ○ Whistle ○ Short put ○ Discus ○ Javelin ○ Volleyball ○ Rugby 	<ul style="list-style-type: none"> ❖ To develop awareness regarding the importance of physical fitness in individual and social life including life skills. ❖ To bring the overall awareness of values with regard to personal

HARIHARANANDA BALSABRAM, ARUA, KENDRAPARA, PEDAGOGICAL PLAN FOR THE SESSION-2019-20 (Class-XI)

			<ul style="list-style-type: none"> • Volleyball • Rugby • Mass PT-Team-1 <p>6 to 10 exercises, open order march.</p> <ul style="list-style-type: none"> • Suranamaskar • Halasana • Naukasana • Sinhasana • Ekapada Hastasana 	<ul style="list-style-type: none"> ○ Drum ○ Mat 	<p>health and fitness and to inculcate among students the desired habits and attitudes towards health to raise their health status.</p> <ul style="list-style-type: none"> ❖ To participate in events that require students to further higher and faster. ❖ To enable an individual to enhance inner qualities- self-mastery, discipline, courage confidence and efficiency. ❖ To co-operate with others individual and team skill and strategic to overcome the opposition. ❖ To develop physical flexibility, mental balance and I increase the attention span. ❖ To promote self-control, concentration, peace and relaxation to avoid the ill effects of stress, strain and fatigue of routine everyday life.
--	--	--	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

HARIHARANANDA BALSABRAM, ARUA, KENDRAPARA, PEDAGOGICAL PLAN FOR THE SESSION-2019-20 (Class-XI)

Sept.& Octo.	12 each class	<p>We and Environment</p> <p>Athletic</p> <p>Game</p> <p>Drill/Marching</p> <p>Yoga</p>	<ul style="list-style-type: none"> • Waste segregation and management. • Healthy community living. • Jumping • High jump • Long jump • Triple jump • Hand ball • Throw ball • Mass PT-Table-2 <p>1 to 5 exercises</p> <ul style="list-style-type: none"> • Open order march. • Sasakasana • Mandukasana • Uttana Padasana • Suptabajrasana • Surya Namaskar • Trataka 	<ul style="list-style-type: none"> ○ School compost pit. ○ Outing. ○ Jumping apparatus. ○ Whistle. ○ Hand ball ○ Throw ball ○ Whistle ○ Drum ○ Mat 	<ul style="list-style-type: none"> ❖ Environmental conditions in villages, towns and slums in relation to the health status of people, waste disposal practices, measures, to prevent pollution, compost pits, soaking pits, sanitary latrines, sources of life drinking water, municipal water supply system, housing. ❖ To enable an individual to display a sense of responsibility, patriotism self-sacrifice and service to the community in a better way. ❖ To enable an individual to enhance inner qualities, self-mastery, discipline courage, confidence and efficiency. ❖ To develop interest in exercise sports and games for self-satisfaction and make it a part of life. ❖ Development of concentration power. ❖ Increase memory. ❖ To help release of emotional stress, anxiety and tension, leading to a reduced risk of depression.
-----------------	------------------	-----------------------------------------------------------------------------------------	-----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	----------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

HARIHARANANDA BALSABRAM, ARUA, KENDRAPARA, PEDAGOGICAL PLAN FOR THE SESSION-2019-20 (Class-XI)

Nov.& Dec.	12 each class	Food & Nutrition. Sports Diet. Mal Nutrition. Athletic Game Drill/Marching Yoga	<ul style="list-style-type: none"> • Students will develop an attitude to be selective about their food habits and also develop awareness about their right as a consumer in order to lead a healthy life. • Annual sports practise. • Basket ball • Table Tennis • Swimming • Mass PT-Table-2 6 to 10 exercise. • Suryanamaskar • Bhramari • Kapalabhati 	<ul style="list-style-type: none"> ○ Lime powder. ○ Clapper ○ Whistle ○ Throwing event apparatus. ○ Jumping event apparatus. ○ Net ○ Thais board ○ Basket ball ○ Drum ○ Whistle ○ Mat 	<ul style="list-style-type: none"> ❖ Nutrition can be defined as the procurement of substance through food, necessary for growth, development, maintenance and activities of ❖ To develop more positive attitude towards challenges, winning & losing, thus preparing students for life and for the workplace. ❖ Swimming is an individual or team sport that requires the use of one's arms and legs to move the body through water. ❖ To develop cardiovascular endurance. ❖ To develop organic fitness, formal sense organs and efficient organic systems. ❖ Students learn to stay peaceful and promoting health and vitality and treating many diseases.
January & February	14 each class	Safety security and social health. Athletic Games Drill/Marching Yoga Sana	<ul style="list-style-type: none"> • Protection of self and others. • Sexual harassment. • First Aid • Running • Huddles • Long run • Foot ball • Rugby • Volley ball • Mass PT-Table-3 	<ul style="list-style-type: none"> ○ Chart posture ○ First Aid box ○ Foot ball ○ Rugby ball ○ Volley ball ○ Drum ○ Mat 	<ul style="list-style-type: none"> ❖ To train the students to evacuate the building in case of fire, flood or earthquake. ❖ To developing a sense of discipline and urgency during emergency. ❖ Students know the endurance. ❖ The learners develop a scientific point of view of health and physical education.

HARIHARANANDA BALSABRAM, ARUA, KENDRAPARA, PEDAGOGICAL PLAN FOR THE SESSION-2019-20 (Class-XI)

			<p>1 to 5 exercise</p> <ul style="list-style-type: none"> • March past • Suryanamaskar • Kukutasana • Mayarasana • Bakasana • Suptabajasana 		<ul style="list-style-type: none"> ❖ To help strengthen peer relationships, social bonding, buddy mentorship and team camaraderie. ❖ The game develop motor planning skills, helping children to create and carry out ideas, motor actions and activities. ❖ To bring the overall awareness of value with regard to personal health and fitness and to inculcate among students the desired habits and attitudes to aware health to rise their health status. ❖ Strengthen the wrists, abdomen pelvic region, arm, leg muscles.
--	--	--	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------	--	---------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------

HARIHARANANDA BALSAHRAM, ARUA, KENDRAPARA, PEDAGOGICAL PLAN FOR THE SESSION-2019-20 (Class-XI)

Subject-Dance (1 st Paper)						
LESSION NO. & NAME ^e I aòhd	NO. OF PERIOD	OBJECTIVE CONCEPT & SKILL CùYgý	LEARNING OUTCOMES ù^÷ZòK K'Y gòLòùf	INSTRUCTIONAL TOOLS & REFERENCES K'Y áyájúe Kùf	PEDAGOGY ùgâYú Kle Kù~ðýúakú	ACTIVITY/ASIGNMENT, PROJECT/ASSESSMENT _eòù~ùR^û
1. @bò^d _âKùe ùb\	ZlýcòK - 6	@bò^de aòbò^Ü @ög	@w, aP^, ùagbìhù I icÉ _âKùe gòlù	iwúZ, ajò, Kkù_Uù I PKp	iwúZ \ßùeù ^éZýe gòlù I ZlýúcòK ùfLù	@bò^de @býúi
2. _ùùb\		_ùl áyájúe aòbò^ÜZù	_ùle P-kZù gòlù	cÝðke CKêUKê I aùYúe áyájúe Keù~ùG	Zùke @^êiùùe aòbò^Ü _ùùble gòlù	_ùùb\ @býúi
3. cŠk ùb\		^éZýùe aòbò^Ü _lPùk^ùe ùg÷kú @^êKeY Keòau	cŠkùble áyájúe \ßùeù ^éZý Zò@ùeò Keòau ZeòKù	cÝðke CKêUKê I aùYúe áyájúe Keù~ùG	Zùke @^êiùùe aòbò^Ü _ùùble gòlù	cŠkùble @býúi
4. IWògú ^éZýe ùagbìhù		eì_iRùe fIY RùYòau	iciÜù^ùe i'ù^e eì_e _eò_ùUò RùYòau	iRùjaùe iùcMâú	aòbò^Ü ^éZýùe aòbò^Ü iReì_e gòlù	eì_iRe @býúi
5. aòbò^Ü jÉ cêlàù	KàòùcòK - 6	^éZý Zò@ùeò Keòau Kù~ðý	g±e aòbò^ÜZùe Kù~ðýKùeòZù	^òR geúee @wêkò MêWòKe áyájúe	cêlàù gòlùe _âKùe	jÉcêlàù @býúi
6. ùaYêJe ùMù_ùk Ké¾u eP^ùùe @bò^d		_êeùZ^ gùÈe aòhdaÊê RùYòau	bMaù^u fIY a%ò^ù Keòau	iòMùZ I aùly ~^e áyájúe	icÉ Kaòcù^ue iòMùZ \ßùeù @bò^de gòlù	@bò^d MêWòKe @býúi
7. IWògú eùMeùMòYú C_ùe mù^		iòMùZe iùcêjòK mù^	aòbò^Ü eùMe fIY RùYòau	iòMùZe ajò	Zùk \ßùeù aòbò^Ü eùMeù @býúi	gòlù lò@ù~ùA[òau iòMùZe @býúi
8. _làð _ùVýKâce @ùùfùP^ù		gòlù lò@ù~ùA[òau ^éZý MêWòKe mù^ @ùjeY Keòau	^éZý gòlù ùlàù _ùAñ mù^ @ùjeY Keòau	gòlùe áyájúe ùjC[òau icÉ làay	_làð _ùVe @ùùfùP^ù	@býùieZ ejòau

HARIHARANANDA BALSABRAM, ARUA, KENDRAPARA, PEDAGOGICAL PLAN FOR THE SESSION-2019-20 (Class-XI)

Subject-Dance (2 nd Paper)						
LESSION NO. & NAME ^e l aòhd	NO. OF PERIOD	OBJECTIVE CONCEPT & SKILL CùYgy	LEARNING OUTCOMES ù^÷ZòK K'Y gòLòuf	INSTRUCTIONAL TOOLS & REFERENCES K'Y áyájue Kùf	PEDAGOGY ùgâYú Kle Kù~ðýúakú	ACTIVITY/ASIGNMENT, PROJECT/ASSESSMENT _eòù~ùR^ù
1. ^éZýùe aùly _âùdùM	ZlýcòK - 6	Q! ùZùkòau	Zùke gòlù	cYðke áyájue	cYðke aùYú \Bùeù ^éZýeê _\Pùk^ù	@býùì
2. iõMúZe Zù_ò~ðý		^éZýùe iùjú~ý	aòbò^ÜZù cøùe ^éZýe gòlù	iõMúZ l Zùkaùly	iõMúZùe Q! ùZùkò aòbò^Ü ùaùf cøùe ^éZý gòlù	iõMúZe @býùì
3. ^éZý _eòùahYe gêj ^òdc		cùMðlgð^	aòbùR^e gòlù	icÉ aùly ~^a l iõMúZe áyájue	^òdcaj bùaùe Zùk l Q! \Bùeù ^éZý gòlù	^éZý MêWòKe @býùì
4. KkùKùe MêY		^òÂù, ijò¾êZù, ù]÷~ðý _âZýj iù]^ù l iõ~c	iù]^ùe cìk ùlZâ	ijò¾êZùe fly _ùAñ ajòe áyájue	KkùKùe MêY MêWòKe iõmù	@býùì
5. ^éZý Zò@ùeò Keòau ùg÷kú	KàòùcòK - 6	gòhð iÚù^ue _j-òau	Rúa^ue Kù~ðýeZ icdùe ^éZýe _âùdùM	iõMúZ, ùU_p ùeKWe, ù_^p WâùAbp, cYðk	iõMúZ @^èiùue Zùk cù^ue ùaùf aù Q! \Bùeù cèlàue _âùdùMùe ^éZý gòlù	^éZý MêWòKe @býùì
6. 4Uò @bò^d l 5Uò bùMe gòlù		@õg Êèì_e Kù~ðýKùeòZù	^éZýe icÉ bùMe gòlù	iõMúZ, cYðk, Zùk aùWòe _âùdùM	cwkùPeY, aUê, _fâaù, @bò^d l ùcùle gòlù	^éZý MêWòKe @býùì
7. _iað _ùVýKâc		gòlù \ò@ù~ùA[òau ^éZý MêWòKe mù^ @ùjeY Keòau	^éZý gòlù ùlàù _ùAñ mù^ @ùjeY Keòau	gòlùe áyájue ùjC[òau aù icÉ làay	_iað _ùVe @ùùfùP^ù	@býùìeZ ejòau

HARIHARANANDA BALSABRAM, ARUA, KENDRAPARA, PEDAGOGICAL PLAN FOR THE SESSION-2019-20 (Class-XI)