

PHYSICS

Chapter-Gravitation

After the completion of the chapter, students will be able to understand-

- 1) concept of gravitation, gravity, acceleration due to gravity, universal law of gravitation.
- 2) variation of acceleration due to gravity with height and depth.
- 3) concept of gravitational potential, gravitational potential energy.
- 4) concept of escape velocity, orbital velocity of satellite.
- 5) Kepler's law of planetary motion.

Chapter-properties of bulk matter Properties of bulk matter.

Student will be able to understand-

- 1) practicalities of different types of elastic moduli and relation between stress and strain.
- 2) practicality of fluid dynamics in real life(Pascal law, Bernoulli's theorem, Magnus effect)
- 3) concept of surface tension and surface energy and will be able to relate it with daily life.
- 4) different methods of heat transfer, concept of thermal expansion and Newton law of cooling.

Chapter-thermodynamics

Students will be able to understand-

- 1) concept of heat, work and internal energy of the system.
- 2) concept of isothermal process, adiabatic process, isochoric and isobaric process.
- 3) work done by the gas in isothermal and adiabatic process.

Chapter-kinetic theory of gases.

Students will be able to understand-

- 1) pressure exerted by an ideal gas on the walls of the container.
- 2) concept of relation between different specific heat capacities.
- 3) specific heat capacities value for monoatomic diatomic, triatomic gas molecules.

Chapter -waves and oscillation

Students will be able to understand-

- 1) basic concepts of generation of waves along with its classification and mathematical analysis and SHM.
- 2) different forms of the energy possessed by a body executing SHM with its mathematical analysis.
- 3) concept of resonance, free oscillation and forced oscillation.
- 4) mathematical analysis of the waves along its basic parameters(amplitude, frequency and phase)
- 5) concept of reflection of wave along with concept of harmonic.
- 6) stationary waves and the concept of node and antinode.

MATHS

1) straight lines

To make the students to understand

- a) slope of a line
- b) relationship between slopes of two lines when lines are parallel or perpendicular

- C) to find the angle between two lines
- d) equation of straight lines in different forms
- e) to find the equation of straight lines by using its different forms
- f) to find the equation of perpendicular bisector of a line
- g) to find the equation of median of a triangle II
- h) convert equation in different form of equation of line as in point slope form, intercept form, normal form
- I) to find the image of a point in a line

Conic sections-after the topic the students will able to understand

- a) section of a cone
- b) equation of circle in standard and general form
- c) to find the equation of circle when its centre and radius is given
- d) parabola, its focus, latus rectum, equation of directrix etc
- e) equation of ellipse, its foci, equation of directrix, length of latus rectum, eccentricity, vertices
- f) equation of hyperbola, its foci, equation of directrix, length of latus rectum, eccentricity, vertices

Limits and derivatives- At the end of the topic the students will able to understand

- a) limits of a function
- b) to find the limit of a function by using its properties
- c) to find the left hand limit and right hand limit of a function
- d) derivative of a function
- e) formulas of differentiation
- f) to apply the product rule division rule and chain rule of differentiation

Probability -At the end of the topic students will able to you understand about

- a) sample space of an experiment
- b) events of an experiment
- c) types of events as simple event ,compound events ,mutually exclusive events mutually ,exhaustive events
- d) to find the probability of an event
- e) to apply the permutations and combinations to find the probability of an event

ENGLISH

Hornbill:

- I) (Landscape Of the soul)
 - i) Knowledge of different kinds of art form
 - ii) Enhancement in vocabulary
- 2) (The Aling Planet)
 - I) Students will learn to conserve natural resources
 - II) Enhancement in belongingness
 - III) Analysing theme and subtheme
 - IV) Acquire the ability to listen and respond orally
(3The Browning version)
 - I) Enhancement in morality
 - II) Inculcation of values like obedience, discipline
 - iii) Vocabulary enrichment
 - iv) Conceptual understanding
(Silk Road)
 - I) Knowledge about “Kora”
 - II) Reading with proper intonation

- III) Creative expression of Central idea
- IV) Using integrated structures with accuracy and fluency

(Mother's Day)

- I) Learning about importance of motherhood
 - II) Knowledge about women empowerment
 - III) Fulfilling duties and up keeping the responsibilities
 - IV) Improvement in sentence structure and vocabulary enrichment
- (Birth)
- I) Knowledge of difference between textbook medicine and practising physician
 - II) Role and importance of doctor in our life
 - III) Conceptual understanding
 - IV) Extracting relevant information

PHYSICAL EDUCATION

Learning outcomes

- . Students have knowledge about the physical education , career, national and international competition
- . Students have sufficient knowledge about Olympic
- . Have complete knowledge about how physical fitness and Wellness can be improved
- . What tournaments are held for the handicapped peoples
- . Sufficient knowledge of how disease can be overcome through yoga
- . Deeply knowledge about the leadership qualities and adventure sports

Term 2

Chapter 7 test measurement and evaluation

Chapter 8 Fundamental of anatomy and physiology and kinesiology in sports

Chapter 9 psychology and sports

Chapter 10 training and doping in sports

Learning outcomes

- : Children learned about BMI waist hip ratio and body types through the test measurement and evaluation chapter and how it can be maintained
- : Students learned fundamental of anatomy physiology and kinesiology And learned about their functions
- : In psychology and Sports students learned how to growth and development and which age should be exercise and learned about adolescence problems
- : training in sports students learned about warming up limbering down and they also practically performed
- : Children learned about doping side effect and how we can keep our society away from it.

CHEMISTRY

Unit test 3

Chapter:--p block elements

After the completion of chapter students will be able to understand

1) Properties of group 13 elements like ionization energy,, atomic radii oxidation States and there are variations, 2)anomalous behaviour of the first element that is boron and its physical and chemical properties,

3) Properties of group 14 elements that is physical and chemical properties

4 Anomalous behaviour of the first element that is carbon and its properties like catenation, allotropic form and its physical and chemical properties

Chapter--some basic concepts of organic Chemistry

after the completion of chapter students will be able to understand

IUPAC nomenclature of organic compounds

Electronic displacement effects like inductive effect, hyperconjugation effect, electromeric effect and resonance effect

Homolytic and heterolytic fission, concept of free radical carbocation and carbanion

Types of organic reactions

Chapter-hydrogen

After the completion of chapter students will be able to understand

1) position of hydrogen in the periodic table

2) hydrides like ionic covalent and interstitial

3) physical and chemical properties of water, heavy water and hydrogen as a fuel

Unit test 4

Chapter--hydrocarbons

after the completion of chapter students will be able to understand

1)Alkanes--

Nomenclature, isomerism and confirmation, physical and chemical properties

2)Alkenes--nomenclature, geometrical isomerism, physical properties, methods of preparation,

3) Chemical reactions-with hydrogen, halogen, water, halogen halides, markovnikov addition, ozonolysis

4) Nomenclature, physical properties, methods of preparation, chemical reactions with hydrogen, halogen, water, halogen acids, acidic nature of alkynes

5) Aromatic hydrocarbons-IUPAC nomenclature, resonance, aromaticity, chemical properties, mechanism of electrophilic substitution-halogenation, sulphonation, nitration, Friedel-Craft alkylation, acylation,

6) Directive influence of groups in monosubstituted benzene, carcinogenicity and toxicity

Chapter ----Thermodynamics

After completion of chapter students will be able to understand

1) Concepts of System and types of systems, surroundings, work, heat, energy, extensive and

2) Intensive properties, state functions.

First law of thermodynamics -internal energy and enthalpy, measurement of ΔU and ΔH , Hess's law of constant heat summation,

3) Enthalpy of bond dissociation, combustion, formation,

atomization, sublimation, phase transition, ionization, solution and dilution.

4) Second law of Thermodynamics (brief introduction)

5) Introduction of entropy as a state function, Gibb's energy change for spontaneous and non-spontaneous processes.

6) Third law of thermodynamics (brief introduction).

Chapter--- equilibrium

After the completion of chapter students will be able to understand

1) Equilibrium in physical and chemical processes, dynamic nature of equilibrium,

2) Law of mass action, equilibrium constant, factors affecting equilibrium - Le Chatelier's principle,

3) Ionic equilibrium- ionization of acids and bases, strong and weak electrolytes, 4) degree of ionization, ionization of poly basic acids, acid strength, concept of pH, buffer solution, solubility product, common ion effect (with illustrative examples).

BIOLOGY

POST TERM

UNIT IV: PLANT PHYSIOLOGY

Chapter – 1 Photosynthesis in higher plants

- Student will be able to understand about cyclic and noncyclic photophosphorylation, ATP & NADPH, Calvin cycle and C₄ pathway.
- Student will be able to know about factors affecting photosynthesis

Chapter – 2 Respiration in plants

- Student will be able to understand about glycolysis, fermentation, aerobic respiration and tricarboxylic acid cycle
- Student will be able to know Electron transport chain, amphibolic pathway, respiratory quotient.

Chapter – 3 Plant growth and development

- Student will be able to understand that what are the phases of growth, growth rates
- Student will be able to understand about differentiation, dedifferentiation and redifferentiation
- Student will be able to learn about plant growth regulators, photoperiodism, vernalisation and seed dormancy.

UNIT V: HUMAN PHYSIOLOGY

Chapter – 1 Breathing and exchange of gases

- Student will know about respiratory organ in animal and respiratory system in human beings.
- Student will learn that what are the mechanism of breathing and its regulation
- Student will understand about disorder related to respiration.

Chapter – 2 Body fluids and circulation

- Student will know about the composition of blood, blood groups, coagulation of blood, composition of lymph and its function.
- Student will be able to understand about double fertilization, cardiac cycle, cardiac output.
- Student would be learn about the coronary arteries diseases.

Chapter – 3 Excretory products and their elimination

- Students will be able to understand modes of excretion, excretory system their structure and function
- Student will be able to understand about regulation of kidney and role of other organs in excretion and their disorders

Chapter – 4 Locomotion and movement

- Student will be able to understand about types of movements, skeletal muscles, contractile proteins and their function
- Student will be able to understand about disorders of skeletal and muscular system

Chapter – 5 Neural control and coordination

- Student will be able to know about neurons and nerves, nervous system in human beings
- Student will be able to learn about conduction of nerve impulse, reflex action and sensory perception
- Student will be able to understand about elementary structure and functions of eye and ear.

Chapter – 6 Chemical coordination and integration

- Student will be able to know about different kinds of endocrine glands and hormones and their action.
- Student will be able to know about role of hormones as messengers and regulators
- Students will be able to know about disorders related to hypo and hyper secretion of hormones