

CLASS XII

SUBJECT: ENGLISH

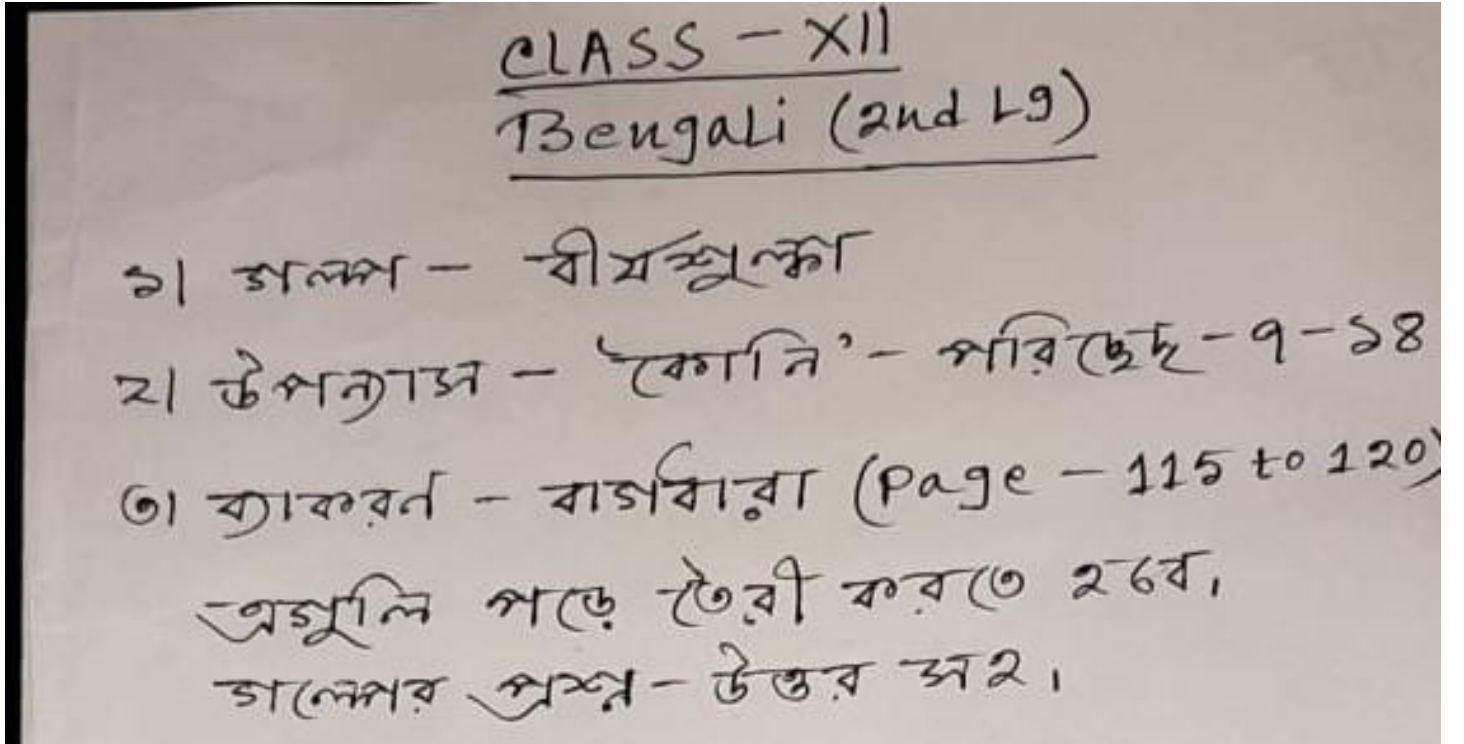
ENGLISH LANGUAGE

Practice the grammar

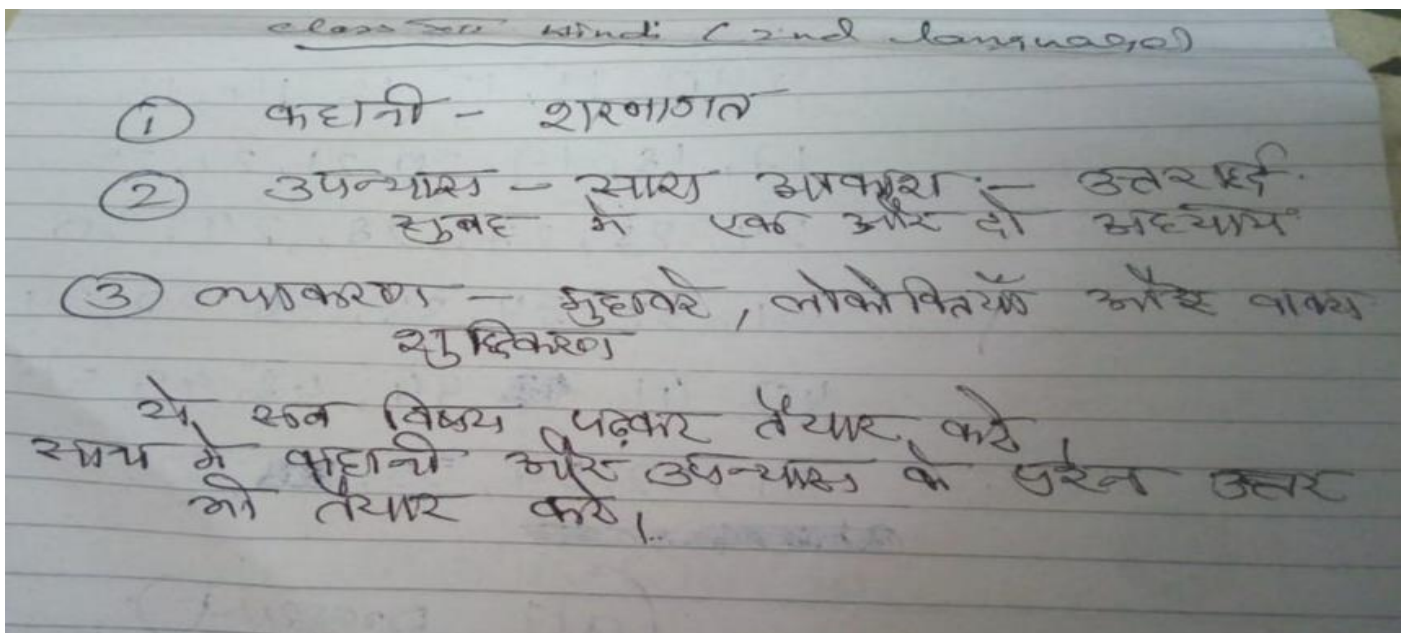
ENGLISH LITERATURE

Prose singing Lesson

Poetry crossing the bar



HINDI(2ND LANGUAGE)



MATHS

_ SIMPLE DERIVATIVES (ONLY 1ST ORDER)

PHYSICS:

Unit
1

ELECTROSTATICS

❖ ELECTRIC CHARGES AND COULOMB'S LAW

- Electric Charges
- Basic Properties of Charge

❖ Coulomb's Law

- Coulomb's law in vector form
- Relative permittivity or dielectric constant

❖ Principle of Superposition

- Statement

❖ Continuous Charge Distribution

- Linear charge density
- Surface charge density
- Volume charge density

❖ ELECTRIC FIELD

- Electric Field Lines
- Properties of Electric Field Lines

❖ Electric Dipole

- Electric dipole moment
- Electric field on axial line (end on position) of an electric dipole
- Electric field on equatorial line (board on position) of an electric dipole

❖ ELECTRIC FLUX AND GAUSS'S LAW

- Electric Flux
- Gauss's Law
- Applications of Gauss's Law
 - Electric field due to thin infinitely long straight wire of uniform linear charge density λ .



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❖ ELECTRIC FLUX AND GAUSS'S LAW

- Electric Flux
- Gauss's Law
- Applications of Gauss's Law
 - Electric field due to thin infinitely long straight wire of uniform linear charge density λ .
 - Electric field due to uniformly charged thin spherical shell of uniform surface charge density σ and radius R at a point distant r from the centre of the shell
 - Electric field due to a uniformly charged non conducting solid sphere of uniform volume charge density ρ and radius R at a point distant r from the centre of the sphere
 - Electric field due to a infinite thin plane sheet of uniformly charge surface density σ
 - Electric field due to two thin infinite parallel sheets

❖ Electric Potential

- Electric potential due a point charge q at a distance r from a charge
- Electric potential due to system of charge

❖ Equipotential Surface

- Properties of an Equipotential Surface

❖ Electric Potential Energy

- Electric potential energy of a system of two charges
- Electric potential energy of a system of n point charges
- Electric potential due to a uniformly charged spherical shell of uniform surface charge density σ and radius R at a point distant r from the centre of the shell
- Electric potential at any point due to an electric dipole

Physics Projects for XII Science

The main content of your project must contain at least 30 pages and 10 diagrams/images

1. Geostationary Satellite

[Roll No. 1 - 10]

Points to be covered: What is a satellite, why do we need them, what are the different types of satellites, what is geostationary satellite, reason of such naming, details of the orbit with approximate calculation, Application, difference with other satellites, geo stationary satellites launched by different countries and India

2. Cyclotron

[Roll No. 11 - 20]

Points to be covered: What is a particle accelerator, why do we need them, what are the different types of accelerator, what is cyclotron, discoverer of cyclotron, principle of operation with necessary calculations and formulae, significance of cyclotron frequency and resonance, particle energy, Usage, Advantage and limitation, Notable example in different countries and India

3. Musical Instruments and production of sound wave

[Roll No. 21 - 30]

Points to be covered: Waves and sound, waves, sound, and the ear, types of waves, how is sound produced, pitch of sound, details about decibels, frequency response over the audible range, flow of longitudinal sound waves, how do musical instruments produce sound, how higher and lower notes are produced - but how are louder and softer notes made, resonance, standing waves, and musical instruments, types of instrument, modes, overtones, and harmonics, sound production in different instruments

4. Nuclear Fuel of Stars – Sun

[Roll No. 31 - 40]

Points to be covered: What is a star, birth of a star, Stars and Their Properties, Temperature and Spectrum, Brightness, Luminosity and Radius, Stefan-Boltzmann law, Classifying Stars, The Life of a Star, Nuclear reaction inside Stars Like the Sun, stellar nucleosynthesis, Amount of energy liberated per second

5. Solar Cell

[Roll No. 41 - 50]

Points to be covered: What is photovoltaic cell, basic principles of p-n junction solar cell, V-I Characteristics of a Photovoltaic Cell, Materials used, Criteria for Materials to be Used in Solar Cell, Construction of Solar Cell, Efficiency, applications, Advantages and disadvantages, Usage history of different countries and India

6. Cosmic Rays

[Roll No. 51 - 60]

Points to be covered: What Are Cosmic Rays, Types, History, Discovery and Early Research, Cosmic Ray Energies and Acceleration, Cosmic Ray Composition, Cosmic Rays in the Galaxy, Very High Energy Cosmic Rays, Cosmic Rays in the Solar System, Cosmic accelerators, Smashing into our atmosphere, Detection program, laboratories around the globe and India

7. Communication through Internet

[Roll No. 61 - 70]

Points to be covered: What is communication system, Basic Communication channel, Necessary components for communications and their working principles, Different types of communications, their bandwidth, What is internet, What is Internet-based Communication, Various forms of communication over the Internet, Peripherals used for communication, Advantage and Disadvantages

[Note: Above mentioned Roll Numbers are according to class XI]

CHEMISTRY

** Haloalkanes and Haloarenes

#Preparation

#Physical and chemical properties

SN₁ SN₂ mechanism

Saytzeff's rule

Grignard reagent

wurtz – fitting reaction

fitting reaction

ISC PROJECT 2021

- (a) How plastics have changed the World, both socially and economically
- (b) Chemical and chemical process in forensic studies
- (c) Ancient Indian medicines and medicinal studies
- (d) Chemicals in medicines : antiseptics, antibiotics, antacids etc and their uses
- (e) Preparation of soap, nail polish, boot polish, varnish, nail polish remover, shampoo, and perfumes
- (f) Types of Dyes – methods of preparation, characteristics, and use
- (g) Organic chemistry in Nutrition, food science and biotechnology

BIOLOGY

ISC Project topics----- Prepare a project on any one of the following topics

- i) drug addiction and community
 - ii) DNA fingerprinting and its application
 - iii) Biology of Corona Virus and its effects on human civilization
 - iv) Biology of a street dog
- (For guideline follow scope of syllabus)

Learn the topic Environmental issues and microbes in human welfare at home
Attempt Question and Answers from exercise

COMPUTER

CHAPTER TO REVISE:

- 1. Boolean Algebra
- 2. Object and classes
- 3. Primitive Values, Types casting
- 4. Statements, Control Structures
- 5. Functions
- 6. array
- 7. String

PROJECT:

Solve ISC practice paper 2016 to 2020

Write Algorithm, Program, Variable, Description, Input output

Copy the above in pen drive