



ST. LAWRENCE HIGH SCHOOL

A JESUIT CHRISTIAN MINORITY INSTITUTION



Syllabus Planner for the academic year 2020

TERM: PRE-SELECTION

TEACHER'S NAME: MR. ARNAB PAUL CHOWDHURY

No. of working days: 20

No. of periods available: 02

Subject: CHEMISTRY

CLASS: 12

SECTION: A1 & A2

MONTH	NO. OF PERIODS	LESSONS	TOPICS COVERED	HOMEWORK	CLASS WORK
JANUARY					
FEBRUARY					
MARCH					
APRIL	02	Haloalkane, Haloarene, Alcohol, Phenol and Ether	Synthesis of halo alkane, halo arene, phenol and ether; properties of them and different chemical reactions, identification tests, distinguishing methods, conceptual Council based questions would be discussed thoroughly.	WBCHSE level conversions, mechanism based problems would be given for homework.	The marks distribution of the WBCHSE council for the relevant chapter and model question-answer would be discussed. Conversions, Road map problems and conceptual mechanism based questions would be solved. (Ref: Test papers and previous years WBCHSE question papers)

Teachers are requested to prepare a LESSON PLAN for each Topic to be taught. The Lesson plans are to be submitted along with the monthly planner.

Signature of the Teacher:

Arnab Paul Chowdhury 27.01.2020

Submitted on: 27.01.2020

PRINCIPAL

Academic Co-ordinator:

J. Sharpe 28/1/2020

VICE PRINCIPAL

Arnab Paul Chowdhury
28/2/2020



ST. LAWRENCE HIGH SCHOOL

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Syllabus Planner for the academic year 2020

No. of working days: 70

TERM: PRE-SELECTION and SELECTION

No. of periods available: 46

TEACHER'S NAME: MR. ARNAB PAUL CHOWDHURY

Subject: CHEMISTRY

CLASS: 12

SECTION: A1 & A2

MONTH	NO. OF PERIODS	LESSONS	TOPICS COVERED	HOMEWORK	CLASS WORK
MAY	08	Haloalkane, haloarene, Alcohol, Phenol and Ether (Continuation)	Synthesis of halo alkane, halo arene, phenol and ether; properties of them and different chemical reactions, identification tests, distinguishing methods, conceptual Council based questions would be discussed thoroughly.	WBCHSE level conversions, mechanism based problems would be given for homework. The Council based project would be given to the students before the summer vacation. Proper guidance would be shared in detail. PROJECT ASSIGNMENT WILL BE GIVEN BY <u>15TH MAY, 2020</u>	The marks distribution of the WBCHSE council for the relevant chapter and model question-answer would be discussed. Conversions, Road map problems and conceptual mechanism based questions would be solved. (Ref: Test papers and previous years WBCHSE question papers)
JUNE	07	Chemical Kinetics and Electrochemistry	Measurement of reaction rate, Law of mass action, experimental rate law, Order and molecularity, integrated rate expression for zero, 1 st , 2 nd and n th order reactions, variation of reaction rate with temperature, Arrhenius equation. Electrolysis and Faraday's law, Concept of electrode potential and Nernst equation, commercial cell, Concept of equivalent and molar conductance and their variations with concentration, Kohlrausch's law and determination of dissociation constants of weak acids.	Numerical, reasoning based questions and MCQ would be given as homework. (Question pattern in accordance to WBCHSE)	Problems on conductance measurement, determination of electrolysis products, calculation of cell potential based questions, numerical based of Faraday's Law would be discussed in accordance to WBCHSE. (Ref: Test papers and previous years WBCHSE question papers). THE LAST DATE FOR SUBMISSION OF WBCHSE LAB BASED SUBJECT PROJECT BY <u>30TH JUNE, 2020</u>
JULY	20	Solution, Aldehyde, Ketone, Carboxylic acid and P-Block elements, d and f Block elements	Solution chapter would be discussed with numerical, graphical explanation and conceptual question-answer. Synthesis, Physical properties, Chemical reactions and identification tests for carbonyl compounds, carboxylic acid, and amines would be discussed thoroughly. A comparative study based on inorganic group chemistry of group number 15/16/17/18 would be discussed along with structures, special features and conceptual questions would be discussed. A comparative study based on d and f block elements would be discussed thoroughly along with emphasis on special important topics.	WBCHSE level conversions, mechanism based problems would be given for homework assignment.	The marks distribution of the WBCHSE council for the relevant chapter and model question-answer would be discussed. Conversions, Road map problems and conceptual mechanism based questions would be solved. (Ref: Test papers and previous years WBCHSE question papers)
AUGUST	11	Pre-selection examination starts from <u>3RD AUGUST' 2020</u> <u>Syllabus: The topics covered up to July Organic compounds containing Nitrogen, Solid state and Coordination compounds</u>	Synthesis, Physical properties, Chemical reactions and identification tests for nitrogen compounds. Introduction to unit cell, Bravais lattice, different types of cells, Packing fraction for simple cubic cell, FCC, BCC, HCP, density calculation, crystal defects, Radius ratio, magnetic properties would be discussed. Coordination chemistry would be discussed with emphasis on all topics related to it.	Numerical, reasoning based questions and MCQ would be given as homework. (Question pattern in accordance to WBCHSE)	Conceptual question-answer based on unit cell formula calculation, density, void calculation, crystal defects would be discussed. Important structures, Warner's theory, VBT, Isomerism, IUPAC nomenclature, metal carbonyl compounds based of coordination compounds would be discussed. WBCHSE pattern question answer would be discussed. (Ref: Test papers and previous years WBCHSE question papers)

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Signature of the Teacher:

Arnab Paul Chowdhury 27.01.2020

Submitted on: 27.01.2020

PRINCIPAL

Academic Co-ordinator:

J. Shetty 28/1/2020

VICE PRINCIPAL:

Z. Anis 28/1/2020



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Syllabus Planner for the academic year 2020

No. of working days: 58

TERM: SELECTION

No. of periods available: 42

TEACHER'S NAME: MR. ARNAB PAUL CHOWDHURY

Subject: CHEMISTRY

CLASS: 12

SECTION: A1 & A2

MONTH	NO. OF PERIODS	LESSONS	TOPICS COVERED	HOMEWORK	CLASS WORK
SEPTEMBER	19	Polymers, Biomolecules and Surface Chemistry, General Principles and processes of isolation of elements	Classification of polymers based on source, structure and the nature of intermolecular forces; monomeric units and polymeric structures of Nylon family, Polyester resins, Rubbers and polyolefin. Structures, nature and important chemical reactions (Ref: Isoelectric pH, Zwitterion, Mutarotation, Inversion of cane sugar, peptide linkage, formula and structure of essential amino acids etc.) of Carbohydrate and amino acids. Special properties of Vitamins, Enzyme, Nucleic acids along with structural orientation. Minerals, ores, extraction, purification and refining processes involved in metallurgy, Metallurgical study of Cu/Ag/Au/Al/Fe/Zn. Special topics on metallurgy.	Numerical, reasoning based questions and MCQ would be given as homework.(Question pattern in accordance to WBCHSE)	The marks distribution of the WBCHSE council for the relevant chapter and model question-answer would be discussed. Conversions, identification tests, Road map problems and conceptual mechanism based questions would be solved. (Ref: Test papers and previous years WBCHSE question papers)
OCTOBER	12	Chemistry in everyday life(Entire syllabus would be completed by 12 th October'2020) and Revision of the entire syllabus	Name and structures of common antibiotics, analgesics, tranquilisers, artificial sweeteners, food preservatives, anti-oxidants, soaps, disinfectants and antiseptics etc. and their application in our day to day life.	Reasoning based questions, flowchart, chemical reactions involved and MCQ would be given as homework.(Question pattern in accordance to WBCHSE) NOTE: Revision of the entire syllabus in accordance to WBCHSE for the selection examination.	The marks distribution of the WBCHSE council for the relevant chapter and model question-answer would be discussed. Road map problems and conceptual questions would be solved.(Ref: Test papers and previous years WBCHSE question papers)
NOVEMBER	11	Selection Examination begins from 18 th November' 2020	Revision	Reasoning based questions, flowchart, chemical reactions involved and MCQ would be given as homework.(Question pattern in accordance to WBCHSE) NOTE: Revision of the entire syllabus in accordance to WBCHSE for the selection examination. Model question-answers would be discussed, along with previous question papers.	The marks distribution of the WBCHSE council for the relevant chapter and model question-answer would be discussed. Road map problems and conceptual questions would be solved. (Ref: Test papers and previous years WBCHSE question papers)
DECEMBER		NA	NA	NA	NA

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