

LESSON PLAN FOR EVEN SEM
SESSION 2017-18

NAME OF ASSISTANT PROFESSOR : VAISHALI DHAMIJA
CLASS/SECTION : MSC (FINAL)
SUBJECT : ORGANIC CHEMISTRY

UNIT IV(PAPER XX)	TOPIC: DRUGS DESIGN	
	THEORY	PRACTICAL
DAY1 DATE 1-1-18	Introduction to Drugs and Its Classification	-----
DAY1 DATE 6-1-18	-----	Organic Preparation
DAY2 DATE 8-1-18	Discovery of New Drugs	-----
DAY2 DATE 13-1-18	-----	Organic Preparation
DAY3 DATE 15-1-18	History and development of Chemotherapeutic agents.	-----
DAY3 DATE 20-1-18	-----	Organic Preparation
DAY4 DATE 22-1-18	HOLIDAY	
DAY 4 DATE 27-1-18	-----	Organic Preparation
DAY5 DATE 29-1-18	Elementary idea about drug action: Therapeutic index	-----
DAY5 DATE 3-2-18	-----	Organic Preparation
DAY6 DATE 5-2-18	LD 50 & ED 50 and Naming of New Drugs	-----
DAY6 DATE 10-2-18	HOLIDAY	
DAY7 DATE 12-2-18	The receptor role and Neurotransmitters.	-----
DAY7 DATE 17-2-18	-----	Organic Preparation
DAY8 DATE 19-2-18	Ion channels and their control, Membrane bound enzymes-activation/deactivation	-----
DAY8 DATE 24-2-18	-----	Organic Preparation
DAY9 DATE 26-2-18	POWER POINT PRESENTATION	-----
DAY9 DATE 3-3-18	HOLIDAY	
DAY10 DATE 5-3-18	Chemical basis of messenger induced change of shape by the receptor, design of agonists, antagonists and partial agonists	-----

DAY10 DATE 10-3-18	-----	Organic Preparation
DAY 11 DATE 12-3-18	Isosters and bioisosteres ,concept of lead compounds	-----
DAY11 DATE 17-3-18	-----	Organic Preparation
DAY12 DATE 19-3-18	structure-activity relationships	-----
DAY 12 DATE 24-3-18	-----	Organic Preparation
DAY13 DATE 26-3-18	TEST	-----
DAY13 DATE 31-3-18	-----	Organic Preparation
DAY14 DATE 2-4-18	Brief overview of pharmacokinetics and pharmacodynamics	-----
DAY14 DATE 7-4-18	-----	Organic Preparation
DAY15 DATE 9-4-18	concept of prodrugs and synergism	-----
DAY15 DATE 14-4-18	HOLIDAY	
DAY16 DATE 16-4-18	Revision	-----

NAME OF ASSISTANT PROFESSOR: VAISHALI DHAMIJA
CLASS/SECTION: MSC (PREVIOUS)
SUBJECT: ORGANIC CHEMISTRY

UNIT/PART I	TOPIC	
	THEORY	PRACTICAL
DAY1 DATE 6-1-18	Introduction to Reaction of Carbonyl Compounds	-----
DAY2 DATE13-1-18	Mannich Reaction	-----
DAY 3 DATE 20-1-18	Reformatsky reaction	-----
DAY4 DATE 27-1-18	Dieckmann reaction	-----
DAY5 DATE 3-2-18	Wittig reaction, Cannizzaro reaction	-----
DAY6 DATE 10-2-18	HOLIDAY	
DAY7 DATE 17-2-18	TEST	-----
DAY8 DATE 24-2-18	Claisen condensation and Aldol condensation	-----
DAY9 DATE 3-3-18	HOLIDAY	

DAY10 DATE 10-3-18	Benzoin condensation and Knoevenagal condensation	-----
DAY11 DATE 17-3-18	Perkin reaction, Reduction with Grignard Reagent	-----
DAY12 DATE 24-3-18	Reduction with lithium aluminium hydride	-----
DAY13 DATE 31-3-18	reduction of carbonyl compounds, acids , esters, nitriles.	-----
DAY14 DATE 7-4-18	Ester hydrolysis, aminolysis of esters, amide hydrolysis	-----
DAY15 DATE 14-4-18	HOLIDAY	
DAY16 DATE 21-4-18	Hydration and Addition of Alcohols to Aldehydes , Ketones and Acids.	-----

NAME OF ASSISTANT PROFESSOR : VAISHALI DHAMIJA
CLASS/SECTION : B.SC (III)/A
SUBJECT : PHYSICAL CHEMISTRY

UNIT/PART I	TOPIC: SOLUTIONS	
	THEORY	PRACTICAL
DAY1 DATE 3-1-18	Methods of expressing concentrations of solutions	-----
DAY2 DATE 4-1-18	Dilute solutions and Raoult's law	-----
DAY1 DATE 5-1-18	-----	Determination of Strength of given Acid Potentiometrically
DAY3 DATE 10-1-18	Ideal and non-idea solutions	-----
DAY4 DATE 11-1-18	Colligative property: Relative lowering of vapour pressure	-----
DAY2 DATE 12-1-18	-----	Qualitative analysis of inorganic mixture
DAY5 DATE 17-1-18	Elevation in boiling point	-----
DAY6 DATE 18-1-18	Depression in freezing point	-----
DAY3 DATE 19-1-18	-----	Qualitative analysis of inorganic mixture
DAY7 DATE 24-1-18	HOLIDAY	HOLIDAY
DAY8 DATE 25-1-18	Osmotic Pressure	-----
DAY4 DATE 26-1-18	HOLIDAY	HOLIDAY
DAY9 DATE 31-1-18	HOLIDAY	HOLIDAY

DAY10 DATE 1-2-18	Thermodynamic derivation of relation between amount of solute and elevation in boiling point.	-----
DAY5 DATE 2-2-18	-----	Qualitative analysis of inorganic mixture(Practical)
DAY11 DATE 7-2-18	Thermodynamic derivation of relation between amount of solute and depression in freezing point	-----
DAY12 DATE 8-2-18	Abnormal Mol. Mass and van't Hoff factor ASSIGNMENT 1	-----
DAY6 DATE 9-2-18	-----	Qualitative analysis of inorganic mixture(Practical)
DAY13 DATE 14-2-18	Applications in calculating molar masses of normal, dissociated and associated solutes in solution	-----
UNIT/PART	TOPIC	
	THEORY	PRACTICAL
DAY1 DATE 15-2-18	Introduction to Photochemistry	-----
DAY7 DATE 16-2-18	-----	Qualitative analysis of inorganic mixture(Practical)
DAY2 DATE 21-2-18	Interaction of radiation with matter, Difference between thermal and photochemical processes with examples	-----
DAY3 DATE 22-2-18	Laws of photochemistry: Grotthus-Draper law, Stark-Einstein law	-----
DAY8 DATE 23-2-18	-----	Qualitative analysis of inorganic mixture(Practical)
DAY4 DATE 28-2-18	HOLIDAY	HOLIDAY
DAY5 DATE 1-3-18	HOLIDAY	HOLIDAY
DAY9 DATE 2-3-18	HOLIDAY	HOLIDAY
DAY6 DATE 7-3-18	TEST	-----
DAY7 DATE 8-3-18	Lumeniscence, fluorescence and phosphorescence	-----
DAY10 DATE 9-3-18	-----	Qualitative analysis of inorganic mixture(Practical)
DAY8 DATE 14-3-18	ASSIGNMENT 2 , Jablonski diagram depicting various processes occurring in the excited state, qualitative description of fluorescence, phosphorescence, non-radiative processes (internal conversion, intersystem crossing)	-----
DAY9 DATE 15-3-18	Quantum yield and its calculation using suitable examples, Photosensitized reactions-energy transfer processes (simple examples)	-----

DAY11 DATE 16-3-18	-----	Qualitative analysis of inorganic mixture(Practical)
DAY10 DATE 21-3-18	CONDITIONAL TEST	-----
UNITII/PART IV	TOPIC	
	THEORY	PRACTICAL
DAY1 DATE 22-3-18	Statement and meaning of the terms – phase, component and degree of freedom	-----
DAY 2 DATE 23-3-18	HOLIDAY	HOLIDAY
DAY3 DATE 28-3-18	Phase Rule & thermodynamic derivation of Gibbs phase rule	-----
DAY4 DATE 29-3-18	HOLIDAY	HOLIDAY
DAY5 DATE 30-3-18	-----	Qualitative analysis of inorganic mixture(Practical)
DAY6 DATE 4-4-18	Phase equilibria of one component system – Example – water system	-----
DAY7 DATE 5-4-18	Phase equilibria of two component systems solid-liquid equilibria, simple eutectic Example Pb-Ag system, Desilverisation of Pb	-----
DAY08 DATE 6-4-18	-----	Viva of Qualitative analysis of inorganic mixture(Practical)
UNIT-I/PART-I	TOPIC	
	THEORY	PRACTICAL
DAY1 DATE 11-4-18	Introduction and need of statistical mechanics, Thermodynamic probability	-----
DAY2 DATE 12-4-18	Maxwell-Boltzmann distribution statistics ,Born oppenheimer approximation.	-----
DAY3 DATE 13-4-18	-----	Test of Organic Preparations
DAY4 DATE 18-4-18	HOLIDAY	HOLIDAY
DAY5 DATE 19-4-18	Partition function and its physical significance, Factorization of partition function	-----
DAY6 DATE 20-4-18	-----	REVISION AND DISCUSSION OF DOUBTS.

NAME OF ASSISTANT PROFESSOR : VAISHALI DHAMIJA
CLASS/SECTION : B.SC (II)
SUBJECT : CHEMISTRY

UNIT/PART I	PRACTICALS.	
	THEORY	PRACTICAL
DAY1 DATE 3-1-18	-----	Determination of CST of Phenol-Water System

DAY2 DATE 4-1-18	-----	Determination of Solubility of Benzoic Acid and its enthalpy change.
DAY3 DATE 10-1-18	-----	Analysis of Organic compound (Explanation)
DAY4 DATE 11-1-18	-----	Analysis of Organic compound(Preparation of L.E) and Test of Extra element)
DAY5 DATE 17-1-18	-----	Analysis of Organic compound(Preparation of L.E) and Test of Extra element)
DAY6 DATE 18-1-18	-----	Analysis of Organic compound.
DAY7 DATE 24-1-18	HOLIDAY	HOLIDAY
DAY8 DATE 25-1-18	-----	Analysis of Organic compound.
DAY9 DATE 31-1-18	HOLIDAY	HOLIDAY
DAY10 DATE 1-2-18	-----	Analysis of Organic compound.
DAY11 DATE 7-2-18	-----	Analysis of Organic compound.
DAY12 DATE 8-2-18	-----	Analysis of Organic compound.
DAY13 DATE 14-2-18	-----	Analysis of Organic compound.
DAY14 DATE 15-2-18	-----	Analysis of Organic compound.
DAY15 DATE 21-2-18	-----	Analysis of Organic compound.
DAY16 DATE 22-2-18	-----	Analysis of Organic compound.
DAY17 DATE 28-2-18	HOLIDAY	HOLIDAY
DAY18 DATE 1-3-18	HOLIDAY	HOLIDAY
DAY19 DATE 7-3-18	-----	Analysis of Organic compound.
DAY20 DATE 8-3-18	-----	Analysis of Organic compound.
DAY21 DATE 14-3-18	-----	Analysis of Organic compound.
DAY22 DATE 15-3-18	-----	Analysis of Organic compound.

DAY23 DATE 21-3-18	-----	Analysis of Organic compound.
DAY24 DATE 22-3-18	-----	Test of Analysis of Organic compound.
DAY25 DATE 28-3-18	-----	Test of Analysis of Organic compound.
DAY26 DATE 29-3-18	HOLIDAY	HOLIDAY
DAY27 DATE 4-4-18	-----	Viva
DAY28 DATE 5-4-18	-----	Test of Inorganic Preparations and Viva
DAY29 DATE 11-4-18	-----	Test of Physical Practicals.
DAY30 DATE 12-4-18	-----	Viva of Physical Practicals.
DAY31 DATE 18-4-18	HOLIDAY	HOLIDAY
DAY32 DATE 19-4-18	-----	Revision of Full syllabus and Discussion of Doubts.

NAME OF ASSISTANT PROFESSOR : VAISHALI DHAMIJA
CLASS/SECTION : BSC (I)/ B
SUBJECT : PHYSICAL CHEMISTRY

UNIT I	TOPIC	
	THEORY	PRACTICAL
DAY1 DATE 1-1-18	Introduction to Chemical Kinetics , Rate of Reaction, expressing rate of Reaction	Redox Titration of Determination of Oxalate ions using Pot. Dichromate.
DAY2 DATE 2-1-18	Measurement of Rate of Reaction & Factors Affecting Rate of Reaction(Nature of Reactant)	Redox Titration of Determination of Ferrous ions using Pot. Dichromate.
DAY3 DATE 8-1-18	Factors Affecting Rate of Reaction(Concentration and temperature	Det. Of Surface tension by Drop No. Method.(theory)
DAY4 DATE 9-1-18	Factors Affecting Rate of Reaction(Temperature)	Det. Of Surface tension by Drop No. Method.
DAY5 DATE 15-1-18	Factors Affecting Rate of Reaction(Catalyst and Nature of solvent)	Det. Of Surface tension by Drop No.Method
DAY 6 DATE 16-1-18	Order of Reaction, Units And Numericals.	Det. Of Surface tension by Drop weight Method .
DAY7 DATE 22-1-18	HOLIDAY	

DAY8 DATE 23-1-18	SPORTS DAY	
DAY9 DATE 29-1-18	Integrated Rate Expression for Zero Order and Numericals.	Det. Of Surface tension by Drop weight Method
DAY10 DATE 30-1-18	Integrated Rate Expression for First Order and Numericals	Determination of Viscosity of Given Liquid
DAY11 DATE 5-2-18	Integrated Rate Expression for 2 nd Order and Numericals.	Determination of Viscosity of Given Liquid
DAY12 DATE 6-2-18	Integrated Rate Expression for 3 rd Order and Numericals ASSIGNMENT 1	To determine the specific refractivity of given organic compound.
DAY13 DATE 12-2-18	Half life period of a reaction. Effect of temperature on the rate of reaction – Arrhenius equation.	To determine the specific refractivity of given organic compound.
DAY14 DATE 13-2-18	HOLIDAY	
DAY15 DATE 19-2-18	Theories of reaction rate: Simple collision theory for unimolecular collision and Transition State theory.	Det. Of Surface tension of surfactant solution.
UNIT II	TOPIC	
	THEORY	PRACTICAL
DAY1 DATE 20-2-18	Electrolytic conduction, factors affecting electrolytic conduction, specific conductance, molar conductance, equivalent conductance.	Det. Of Surface tension of surfactant solution.
DAY2 DATE 26-2-18	CLASS TEST	
DAY3 DATE 27-2-18	Variation of Conductance with concentration and Arrhenius theory of ionization.	Determination of Zn ²⁺ by EDTA
DAY4 DATE 5-3-18	Ostwald's Dilution Law, Debye- Huckel – Onsager's equation for strong electrolytes	Test of preparation of organic compounds
DAY5 DATE 6-3-18	Kohlrausch's Law and its Application of in calculation of conductance of weak electrolytes at infinite dilution and its Numericals	Purification of Organic compound
DAY 6 DATE 12-3-18	ASSIGNMENT 2 ,Applications of conductivity measurements: determination of degree of dissociation, determination of Ka of acids & Its Numericals	Purification of Organic compound
DAY7 DATE 13-3-18	Determination of solubility product of sparingly soluble salts and Numerical.	Revision of Physical Practicals
DAY8 DATE 19-3-18	CONDITIONAL TEST	
DAY9 DATE 20-3-18	CONDITIONAL TEST	
DAY10 DATE 26-3-18	Conductometric titrations	Viva
DA11	Concepts of pH and pKa	Viva

DATE 27-3-18		
DAY12 DATE 2-4-18	Buffer solution and buffer action	Revision of Volumetric Analysis
DAY13 DATE 3-4-18	NUMERICALS	Revision of Volumetric Analysis
DAY14 DATE 9-4-18	Henderson – Hazel equation	Paper Chromatography
DAY15 DATE 10-4-18	NUMERICALS	Paper Chromatography
DAY16 DATE 16-4-18	CLASS TEST	Revision of full Syllabus
DAY17 DATE 17-4-18	REVISION OF FULL SYLLABUS AND DISCUSSION OF DOUBTS.	Discussion of Doubts

VAISHALI DHAMIJA

(NAME OF TEACHER)