

LESSON PLAN FOR EVEN SEM[SESSION 2017-18]

Name of the Assistant Professor

:MS.SHIWANI SAINI

CLASS/SECTION

:M.SC.(II Sem)

Subject

:Physical Chemistry Th.(D-5, 6) & Pr.(D-1,3)

UNIT/PART I	TOPIC	
	THEORY	PRACTICAL
DAY1 DATE 1-1-18	.....	Practical*
DAY2 DATE 3-1-18	.....	Practical*
DAY3 DATE 5-1-18	The postulates of quantum mechanics	.....
DAY4 DATE 6-1-18	Linear and hermitian operators	.....
DAY5 DATE 8-1-18	.....	Practical*
DAY6 DATE 10-1-18	.....	Practical*
DAY7 DATE 12-1-18	Communication operators	.....
DAY8 DATE 13-1-18	Uncertainty principle	.....
DAY9 DATE 15-1-18	.....	Practical*
DAY10 DATE 17-1-18	.....	Practical*
DAY11 DATE 19-1-18	Schrodinger equation	.....
DAY12 DATE 20-1-18	Eigen functions	.....
DAY13 DATE 22-1-18	HOLIDAY	HOLIDAY
DAY14 DATE 23-1-18	SPORTS DAY	SPORTS DAY
DAY15 DATE 24-1-18	HOLIDAY	HOLIDAY
DAY16 DATE 26-1-18	HOLIDAY	HOLIDAY
DAY 17 DATE 27-1-18	Eigen values.	.....
UNIT/PART II	TOPIC	
	THEORY	PRACTICAL
DAY1	.....	Practical*

DATE 29-1-18		
DAY2 DATE 31-1-18	HOLIDAY	HOLIDAY
DAY3 DATE 2-2-18	Free particle in one dimensional box.	.....
DAY4 DATE 3-2-18	Schrodinger equation for a particle in a box .	.....
DAY5 DATE 5-2-18	.....	Practical*
DAY6 DATE 7-2-18	.....	Practical*
DAY7 DATE 9-2-18	ASSIGNMENT 1 , The Degeneracy	.....
DAY8 DATE 10-2-18	HOLIDAY	HOLIDAY
DAY9 DATE 12-2-18	.....	Practical*
DAY10 DATE 13-2-18	HOLIDAY	HOLIDAY
DAY11 DATE 14-2-18	.....	Practical*
DAY12 DATE 16-2-18	Particle in a box with a finite barrier	.....
DAY13 DATE 17-2-18	TEST	.....
DAY14 DATE 19-2-18	TEST	Practical*
DAY15 DATE 21-2-18	.....	Practical*
DAY16 DATE 23-2-18	Schrodinger equation for linear harmonic and its solution ,Zero point energy	.....
UNIT/PART III	TOPIC	
	THEORY	PRACTICAL
DAY1 DATE 24-2-18	Tunneling problem through a rectangular barrier	.....
DAY2 DATE 26-2-18	.....	Practical*
DAY3 DATE 27-2-18	TEST & SEMINAR (PG CLASSES)	.....
DAY4 DATE 28-2-18	HOLIDAY	HOLIDAY
DAY5 DATE 1-3-18	HOLIDAY	HOLIDAY
DAY6 DATE 2-3-18	HOLIDAY	HOLIDAY

DAY7 DATE 3-3-18	HOLIDAY	HOLIDAY
DAY8 DATE 5-3-18	.....	Practical*
DAY9 DATE 7-3-18	.....	Practical*
DAY10 DATE 9-3-18	Energy level and wave functional of rigid rotator	.....
DAY11 DATE 10-3-18	Assignment 2 ,basics of hydrogen atom.	.....
DAY 12 DATE 12-3-18	.....	Practical*
DAY13 DATE 14-3-18	.....	Practical*
DAY14 DATE 16-3-18	Hydrogen atom complete solution	.....
DAY15 DATE 17-3-18	Radial distributions	.....
DAY16 DATE 19-3-18	.....	Practical*
DAY17 DATE 21-3-18	.....	Practical*
DAY 18 DATE 23-3-18	HOLIDAY	HOLIDAY
DAY 19 DATE 24-3-18	Angular momentum and its directional quantization	.....
UNIT/PART IV	TOPIC	
	THEORY	PRACTICAL
DAY1 DATE 26-3-18	.....	Practical*
DAY2 DATE 28-3-18	.....	Practical*
DAY3 DATE 30-3-18	Angular momentum oprators	.....
DAY4 DATE 31-3-18	Commutation relation	.....
DAY5 DATE 2-4-18	.....	Practical*
DAY6 DATE 4-4-18	.....	Practical*
DAY7 DATE 6-4-18	Shape of atomic orbitals –S, Discussion of s-orbital	.....
DAY8 DATE 7-4-18	Shape of atomic orbital –p, Discussion of p-orbital	.....
DAY9	.....	Practical*

DATE 9-4-18		
DAY10 DATE 11-4-18	.....	Practical*
DAY11 DATE 13-4-18	TEST	.....
DAY12 DATE 14-4-18	HOLIDAY	HOLIDAY
DAY13 DATE 16-4-18	TEST	.....
DAY14 DATE 18-4-18	HOLIDAY	HOLIDAY
DAY15 DATE 20-4-18	Shape of d-orbitals ,Discussion of d-orbitals.	.....

**All practical are performed at a time by sub groups on rotation basis.*

NAME OF THE ASSISTANT PROFESSOR : MS.SHIWANI SAINI

CLASS/SECTION : B.SC.(IV SEM)Th.&Pr.Th.d-3,4(Sec-C) & Pr.days 2,4.(gp.S1&S7)

SUBJECT : PHYSICAL CHEMISTRY THEORY AND PRACTICAL

UNIT/PART I	TOPIC	
	THEORY	PRACTICAL
DAY1 DATE 2-1-18	.....	Systematic Identification of Organic Compound
DAY2 DATE 3-1-18	Second law of thermodynamics,need for the law, different statement for the law.	.....
DAY3 DATE 4-1-18	Carnot cycle and its efficiency.Carnot theorem,thermodynamic scale of temp.	Systematic Identification of Organic Compound
DAY4 DATE 9-1-18	.....	Systematic Identification of Organic Compound
DAY5 DATE 10-1-18	Concept of entropy and entropy as a state function, Entropy as a function of V&T ,Entropy as a function of P&T.	.....
DAY6 DATE 11-1-18	Entropy change in physical change,entropy as a criteria of spontaneity&equilibrium,entropy change in ideal gases and mixing of gases.	Systematic Identification of Organic Compound
DAY 7 DATE 16-1-18	.....	Systematic Identification of Organic Compound
DAY8 DATE 17-1-18	Third law of thermodynamic Nernst heat theorem	.....

DAY9 DATE 18-1-18	Statement of concept of residual entropy evaluation of absolute	Systematic Identification of Organic Compound
DAY10 DATE 23-1-18	SPORTS DAY	SPORTS DAY
DAY11 DATE 24-1-18	HOLIDAY	HOLIDAY
DAY12 DATE 25-1-18	Entropy of heat capacity data,gibbs and Helmholtz functions	Systematic Identification of Organic Compound
DAY13 DATE 26-1-18	HOLIDAY	HOLIDAY
UNIT/PART II	TOPIC	
	THEORY	PRACTICAL
DAY1 DATE 30-1-18	.....	Systematic Identification of Organic Compound
DAY2 DATE 31-1-18	HOLIDAY	HOLIDAY
DAY3 DATE 1-2-18	Gibbs function and Helmholtz function as a thermodynamic quantities	Systematic Identification of Organic Compound
DAY4 DATE 6-2-18	.....	Systematic Identification of Organic Compound
DAY5 DATE 7-2-18	A&G as criteria for thermodynamic equilibrium and spontaneity,their advantages over entropy change	.....
DAY6 DATE 8-2-18	variation of G&Awith P,V&T Electrolytic and galvanic cells,reversible and irreversible cell	Systematic Identification of Organic Compound
DAY14 DATE 13-2-18	HOLIDAY	HOLIDAY
DAY15 DATE 14-2-18	Emf of the cell and its measurement,Weston std.cell activity and activity coefficien ASSIGNMENT-1.	.....
DAY16 DATE 15-2-18	Calculation of thermodynamic quantity of cell rexn G,H&K.	Systematic Identification of Organic Compound
DAY17 DATE 20-2-18	.....	Systematic Identification of Organic Compound
DAY18 DATE 21-2-18	Types of reversible electrodes,metal M – ion electrode	.....

DAY19 DATE 22-2-18	Metal insoluble salt-anoin and redox electrodes	Systematic Identification of Organic Compound
UNIT/PART III	TOPIC	
	THEORY	PRACTICAL
DAY1 DATE 27-2-18	.....	Systematic Identification of Organic Compound
DAY2 DATE 28-2-18	HOLIDAY	HOLIDAY
DAY3 DATE 1-3-18	HOLIDAY	HOLIDAY
DAY4 DATE 6-3-18	.....	Systematic Identification of Organic Compound
DAY5 DATE 7-3-18	Electrode rexn ,Nernst equation	.....
DAY6 DATE 8-3-18	Derivation of cell EMF and single electrode potential	Systematic Identification of Organic Compound
DAY7 DATE 13-3-18	.....	Systematic Identification of Organic Compound
DAY8 DATE 14-3-18	Standard hydrogen electrode,reference electrode.	.....
DAY9 DATE 15-3-18	Standard electrode potential,sign conventions	Systematic Identification of Organic Compound
DAY10 DATE 20-3-18	.....	Systematic Identification of Organic Compound
DAY11 DATE 21-3-18	CONDITIONAL TEST	.....
DAY12 DATE 22-3-18	Electrochemical series and its applications	Systematic Identification of Organic Compound
UNIT/PART IV	TOPIC	
	THEORY	PRACTICAL
DAY1 DATE 27-3-18	.....	Systematic Identification of Organic Compound
DAY2 DATE 28-3-18	Electrochemical series and its applications Problem discussion.	.....
DAY3 DATE 29-3-18	HOLIDAY	HOLIDAY

DAY4 DATE 3-4-18	.....	Systematic Identification of Organic Compound
DAY5 DATE 4-4-18	Concentration cells with and without transferenc	.....
DAY6 DATE 5-4-18	Liquid junction potential ,application of EMF ,valency of free ion.	Systematic Identification of Organic Compound
DAY7 DATE 10-4-18	.....	Systematic Identification of Organic Compound
DAY8 DATE 11-4-18	Solubility product ,activity coefficient,potentiometric titration,	.....
DAY9 DATE 12-4-18	determination of ph using hydrogen electrode.	Systematic Identification of Organic Compound
DAY10 DATE 17-4-18	.....	Systematic Identification of Organic Compound
DAY11 DATE 18-4-18	HOLIDAY	HOLIDAY
DAY12 DATE 19-4-18	Quinhydrone electrode and glass electrode by potentiometric method.	Systematic Identification of Organic Compound

Name of assistant professor: shiwani saini

CLASS/SECTION :B.SC.(VI SEM)gp.T1

SUBJECT :PRACTICALS

	THEORY	PRACTICAL
DAY1 DATE 2-1-18	Rast method.
DAY2 DATE 9-1-18	Thin layer chromatography.
DAY 3 DATE 16-1-18	qualitative analysis of mixture
DAY4 DATE 23-1-18	qualitative analysis of mixture
DAY1 DATE 30-1-18	qualitative analysis of mixture
DAY2 DATE 6-2-18	qualitative analysis of mixture
DAY3 DATE 13-2-18	HOLIDAY	HOLIDAY
DAY4	qualitative analysis of mixture

DATE 20-2-18		
DAY1 DATE 27-2-18	.....	qualitative analysis of mixture
DAY2 DATE 6-3-18	.....	qualitative analysis of mixture
DAY3 DATE 13-3-18	.....	qualitative analysis of mixture
DAY4 DATE 20-3-18	.....	qualitative analysis of mixture
DAY1 DATE 27-3-18	.....	qualitative analysis of mixture
DAY2 DATE 3-4-18	.....	qualitative analysis of mixture
DAY3 DATE 10-4-18		qualitative analysis of mixture
DAY4 DATE 17-4-18		qualitative analysis of mixture