RPS Degree College, Balana (Mahendergarh)

Lesson Plan

2019-20(Even Semester)

Class and Section: HC(BSc.) - 2nd Sem.
Subject: English
Name of the Faculty : Mr. Sushil Kumar

Week	Lecture	Date	Topics
	1	21-Jan-20	Test to Check the Learning Level of the Students
	2	22-Jan-20	Introduction to syllabus and scheme of examination
	3	28-Jan-20	Story 1 half complete
	4	29-Jan-20	Story 1 complete
	5	04-Feb-20	Story 2 half complete
	6	05-Feb-20	Story 2 complete
	7	11-Feb-20	Story 3 half complete and complete
	8	12-Feb-20	
	9	18-Feb-20	Doubt session and vocabulary 1
	10	19-Feb-20	**Test**
	11	25-Feb-20	Translation basics
	12	26-Feb-20	Story 4 half complete
	13	03-Mar-20	story 4 complete and vocabulary 2
	14	04-Mar-20	
	15	11-Mar-20	Story 5 half complete
	16	17-Mar-20	Story 5 complete
	17	18-Mar-20	Doubt session and vocabulary 3
	18	24-Mar-20	Letter writing
	19	25-Mar-20	**Test**
	20	31-Mar-20	Story 6 half complete and Summarising all
	21	01-Apr-20	
	22	07-Apr-20	Revision
	23	08-Apr-20	Revision
	24	14-Apr-20	Revision
	25	15-Apr-20	Revision
15	**20th - 24th April 20**		Final Sessional Test

RPS Degree College, Balana (Mahendergarh)

Lesson Plan

2019-20(Odd Semester)

Class and Section: B.Sc(Hons. Chemistry) 1st sem.

Subject: Mathematics (optional)

Name of the Faculty : Surender Kumar

Week	Lecture	Date	Topics
1	1	15-Jul-19	Introduction to Syllabus, Scheme of Exam & Learning Objectives/Outcomes
	2	16-Jul-19	Test to Check the Learning Level of the Students
	3	17-Jul-19	Sets
	4	18-Jul-19	Relations and functions
	5	19-Jul-19	Relation between the root an d coffiecients of polynomial
2	6	22-Jul-19	Nature of roots
	7	23-Jul-19	Definations
	8	24-Jul-19	Descarte rules of sign
	9	25-Jul-19	permutations
	10	26-Jul-19	combinations
	11	27-Jul-19	numerical practice
3	12	29-Jul-19	numerical practice
	13	30-Jul-19	Binomial theorem
	14	31-Jul-19	numerical practice
	15	1-Aug-19	Logarithms
	16	2-Aug-19	Examples
	17	3-Aug-19	Exponential series
4	18	5-Aug-19	Logarithmic series
	19	6-Aug-19	numerical practice
	20	7-Aug-19	Trignometric functions
	21	8-Aug-19	Importantant formulas
	22	9-Aug-19	Example practice
	23	10-Aug-19	Trignometric equations
5	24	12-Aug-19	Example practice
	25	13-Aug-19	Limit of functions
	26	14-Aug-19	Basic properties of limits
	27	16-Aug-19	Example practice
6 19th-23rd August 2019 **1st Class Test**	28	19-Aug-19	Test series
	29	20-Aug-19	Test Paper Queries
	30	21-Aug-19	Test Paper Queries
	31	22-Aug-19	**Test**
	32	23-Aug-19	Test Discussion
7	33	26-Aug-19	L'Hopitals rule
	34	27-Aug-19	Example practice
	35	28-Aug-19	Example practice
	36	29-Aug-19	Exercise questions
	37	30-Aug-19	Continuity of functions
	38	31-Aug-19	Example practice
8	39	2-Sep-19	Derivatives of functions
	40	3-Sep-19	Example
	41	4-Sep-19	Derivatives of implicit functions
	42	5-Sep-19	Logarithmic differentiation
	43	6-Sep-19	Example based on above concept
	44	7-Sep-19	Derivative of function in parametric forms
9	45	9-Sep-19	Stationary points
	46	10-Sep-19	Leibnitz rule
	47	11-Sep-19	Exercise
	48	12-Sep-19	Examples
	49	13-Sep-19	Maxima minima problems
	50	14-Sep-19	Inflexion points
10 16th-20th Sep. 2019 **2nd Class Test**	51	16-Sep-19	Test Paper Queries
	52	17-Sep-19	Test Paper Queries
	53	18-Sep-19	**Test**
	54	19-Sep-19	Test Discussion
	55	20-Sep-19	Bounded and unbounded metric space
11	56	23-Sep-19	Example of maxima minima problems
	57	24-Sep-19	question practise
	58	25-Sep-19	Example of inflexion
	59	26-Sep-19	Indefinite integrals
	60	27-Sep-19	Method of partial fraction
	61	28-Sep-19	Example practice
12	62	30-Sep-19	Integrals by subtitution
	63	1-Oct-19	question practice
	64	3-Oct-19	Evaluation of definite integrals
	65	4-Oct-19	Example practice
	66	5-Oct-19	Redution formula
13	67	7-Oct-19	Question practice
	68	9-Oct-19	Class test
	69	10-Oct-19	Test discussion
	70	11-Oct-19	Double integrals
	71	12-Oct-19	Question practice
14	72	14-Oct-19	Question practice
	73	15-Oct-19	Triple integrals
	74	16-Oct-19	Example practice
	75	18-Oct-19	Example practice
15 21st-25th Oct. 2019 **3rd Class Test**	76	21-Oct-19	Test Queries
	77	22-Oct-19	Test Queries
	78	23-Oct-19	**Test**
	79	24-Oct-19	Test Discussion
	80	25-Oct-19	Test
	81	30-Oct-19	Revision
	82	31-Oct-19	Revision
	83	1-Nov-19	Functions behaviour
	84	2-Nov-19	Type of discontinuity
17	85	4-Nov-19	example practise
	86	5-Nov-19	Revision
	87	6-Nov-19	Revision
	88	7-Nov-19	Revision
	89	8-Nov-19	Revision
	90	9-Nov-19	Revision
18	91	11-Nov-19	Revision
	92	12-Nov-19	Revision
18-19	**13th - 23rd November 19**		Final Sessional Test

RPS Degree College, Balana (Mahendergarh)

Lesson Plan

2019-20 (Even Semester)

Class and Section: B.Sc HC 2nd Sem

Subject: Basic Computer-I

Name of the Faculty : Ms Sapna

Week	Lecture	Date	Topics
1	1	16 Jan to 24 Jan	Computer Definition, Characterstics, Application, Components of computers, Systen I/O devices
2	1	27 Jan to 31 Jan	Concept of M/M, Magnetic & Optical storage devices
3	1	3 Feb to 7 Feb	Operating System Windows, Defination & function of OS,
4	1	10 Feb to 14 Feb	Basic Component of widows
5			1st sessional
6	1	24 Feb to 28 Feb	(LAB) Exploring Computer, Icons, taskbar, Desktop, managing files and folders, Control panel, Display properties,
7	1	2 Mar to 6 Mar	(LAB) Word Processing , introduction to word processing, Meuns, Creating, editing & formatting document
8	1	9 Mar to 13 Mar	(LAB) Add/Remove S/W & H/W setting, Date & time, Screen Saver & Appearance
9	1	16 Mar to 20 Mar	(LAB) Spell Checking, Printing, Views, Table, Word Art (LAB) Mail merge Macros
10	1	23 Mar to 27 Mar	Computer Communcation, Internet & its application.
11			2nd sessional
12	1	30 Mar to 3 April	(LAB) Surfing the internet using web browser
13	1	6 Apr to 10 Apr	(LAB) Creating Email ID, Viewing an e-mail, Sending an E-Mail to single and Multiple, Sending a file as an attachment
14	1	13 Apr to 17 Apr	Revision
15			Final sessional

RPS Degree College, Balana (Mahendergarh)

Lesson Plan

2019-20 (Even Semester)

Class and Section: B.Sc. (Medical) 4th Sem. (A)

Subject: Inorganic Chemistry

Name of the Faculty : Ms. Sapna

Week	Lecture	Date	Topics
1	1	16-Jan-20	
	2	17-Jan-20	Section A: Lanthanoids: electronic structure, oxidation states
	3	20-Jan-20	
	4	21-Jan-20	Ionic radii and lanthanoid contraction
	5	22-Jan-20	
	6	23-Jan-20	
	7	24-Jan-20	Complex formation
2	8	27-Jan-20	
	9	28-Jan-20	Occurrence and isolation of lanthanoid compounds
	10	29-Jan-20	
	11	30-Jan-20	
	12	31-Jan-20	Section B: Actinoids: General features
3	13	03-Feb-20	
	14	4-Feb-20	Chemistry of actinoids
	15	05-Feb-20	
	16	6-Feb-20	
	17	07-Feb-20	Chemistry of separation of Np, Pu and Am from U
4	18	10-Feb-20	
	19	11-Feb-20	Comparison of properties of lanthanoids and actinoids with transition elements
	20	12-Feb-20	
	21	13-Feb-20	
	22	14-Feb-20	Section C: Chemistry of analysis of various acidic radicals
5	23	17-Feb-20	
	24	18-Feb-20	1st Class Test
	25	19-Feb-20	
	26	20-Feb-20	
6	27	24-Feb-20	
	28	25-Feb-20	Chemistry of analysis of various acidic radicals
	29	26-Feb-20	
	30	27-Feb-20	
	31	28-Feb-20	Chemistry of identification of acidic radicals in typical combinations
7	32	02-Mar-20	
	33	3-Mar-20	Chemistry of identification of acidic radicals in typical combinations
	34	04-Mar-20	
	35	5-Mar-20	
	36	6-Mar-20	Chemistry of interference of acidic radicals including their removal in the analysis of basic radicals
8	37	9-Mar-20	
	38	11-Mar-20	
	39	12-Mar-20	
	40	13-Mar-20	Section D: Chemistry of analysis of various groups of basic radicals
9	41	16-Mar-20	
	42	17-Mar-20	Chemistry of analysis of various groups of basic radicals
	43	18-Mar-20	
	44	19-Mar-20	
	45	20-Mar-20	Chemistry of analysis of various groups of basic radicals
10	46	23-Mar-20	
	47	24-Mar-20	2nd Class Test
	48	25-Mar-20	
	49	26-Mar-20	
	50	27-Mar-20	Chemistry of analysis of various groups of basic radicals
11	51	30-Mar-20	
	52	31-Mar-20	Chemistry of analysis of various groups of basic radicals
	53	01-Apr-20	
	54	3-Apr-20	Theory of precipitation
	55	06-Apr-20	
12	56	07-Apr-20	Co-precipitation and Post precipitation
	57	08-Apr-20	
	58	09-Apr-20	
	59	10-Apr-20	Purification of precipitates
	60	13-Apr-20	
13	61	14-Apr-20	Revision
	62	15-Apr-20	
	63	16-Apr-20	
	64	17-Apr-20	Revision
14	20-Apr-2020 to 24-Apr-2020		**Final Sessional Exam**

RPS Degree College, Balana (Mahendergarh)

Lesson Plan
2019-20 (Even Semester)

Class and Section: B.Sc.(Hons.) Chemistry 2nd Sem
Subject: Organic Chemistry
Name of the Faculty : Narender Saini

Week	Lecture	Date	Topics
1	1	17-Jan-20	Nomenclature of alkenes, methods of formation, mechanisms of dehydration of alcohols and dehydrohalogenation of alkyl halides,
	2	17-Jan-20	regioselectivity in alcohol dehydration. The Saytzeff rule,
2	3	20-Jan-20	Hofmann elimination, physical properties and relativ e stabilities of alkenes.
	4	21-Jan-20	Chemical reactions of alkenes – mechanisms involved in hydrogenation,
	5	22-Jan-20	electrophilic and free radical additions, Markownikoff's rule,
	6	24-Jan-20	hydroboration-oxidation, oxymercuration-reduction Epoxidation, ozonolysis,
3	7	24-Jan-20	hydration, hydroxylat ion and oxidation with KMn O 4 , polymerization of alkenes,
	8	27-Jan-20	substitution at the allylic and vinylic positions of alkenes.
	9	28-Jan-20	Industrial applications of ethylene and propene.
	10	29-Jan-20	Coal tar distillation and coal tar chemicals, petroleum origin ,
4	11	31-Jan-20	fractionation cracking, reforming and aromatisation,
	12	31-Jan-20	petrochemicals, synthetic fuels, octane
	13	03-Feb-20	and cetane numbers, antiknock additives.
	14	04-Feb-20	Methods of formation, conformation and chemical r eactions of cycloalkenes.
5	15	05-Feb-20	Nomenclature and classification of dienes: isolated, conjugated and cumulated
	16	07-Feb-20	methods of formation, polymerization. Chemical reactions – 1 , 2 and 1 , 4 additions, Diels- Alder
	17	07-Feb-20	Nomenclature, structure and bonding in alkynes. Methods of formation.
	18	10-Feb-20	Chemical reactions of alkynes, acidity of alkynes.
	19	11-Feb-20	Mechanism of electrophilic and nucleophilic addition reactions, hydroboration- oxidation,
	20	12-Feb-20	metal- ammonia reductions, oxidation and polymerization.
	21	14-Feb-20	Chemical reactions – 1 , 2 and 1 , 4 additions,
	22	14-Feb-20	Diels- Alder reaction.
6			1st Class Test
7	23	24-Feb-20	Nomenclature, structure and bonding in alkynes.
	24	25-Feb-20	**Methods of formation Of alkynes**
	25	26-Feb-20	Chemical reactions of alkynes,
	26	28-Feb-20	acidity of alkynes. Mechanism of electrophilic and nucleophilic addition reactions,
8	27	28-Feb-20	hydroboration- oxidation, metal- ammonia reductions,
	28	02-Mar-20	metal- ammonia reductions, oxidation and polymerization.
	29	03-Mar-20	Poly Nuclear Hydrocarbons Haworth synthesis of naphthalene and phenanthene,
	30	04-Mar-20	pschorr synthesis of phenanthrene, synthesis of anthracene involving
	31	06-Mar-20	Diels Alder reaction between 1 , 3 - butadiene and 1 , 4 - naphthaquinone
	32	06-Mar-20	reaction of naphthalene, anthracene
	33	10-Mar-20	Holi
	34	11-Mar-20	mechanism of electrophilic substitution reactions in naphthalene, anthracene and phenanthrene
	35	13-Mar-20	Arenes and Aromaticity Nomenclature of benzene derivatives. The aryl group. Aromatic
	36	13-Mar-20	Aromatic nucleus and side chain. Structure of benzene: molecular formula
10			2nd Class Test
11	37	23-Mar-20	and Kekule structure. Stability and carbon - carbon bond lengths of benzene,
	38	24-Mar-20	resonance structure, MO picture.
	39	25-Mar-20	Aromaticity: the Huckel rule, aromatic ions, annulenes up to 10 carbon atoms,
	40	27-Mar-20	**aromatic, anti - aromatic and non - aromatic compounds.**
12	41	27-Mar-20	Aromatic electrophilic substitution – general pattern of the mechanism,
	42	30-Mar-20	role of • - and • - complexes, mechansim of nitration, halogenation,
	43	31-Mar-20	sulphonation, mercuration and Friedel - Crafts reaction.
13	44	01-Apr-20	Energy profile diagrams. Activating and deactivating substituents,
	45	03-Apr-20	orientation and ortho/ para ratio. Side chain reactions of benzene derivatives,
	46	03-Apr-20	Birch reduction. Methods of formation
	47	06-Apr-20	chemical reactions of alkylbenzenes, alkynylbenzenes and biphenyl.
14	48	07-Apr-20	Nomenclature and classes of alkyl halides, methods of formation, chemical reactions.
	49	08-Apr-20	Mechanisms and stereochemistry of nucleophilic substitution reactions of alkyl halides, SN 2 and SN 1
	50	10-Apr-20	energy profile diagrams. Study of elimination reactions in alkyl halides
	51	10-Apr-20	E 1 . and E 2 mechanism, substitution vs. elimination, factors affecting substitution/ elimination.
	52	13-Apr-20	chloroform, carbon tetrachloride. Methods of formation of aryl halides, nuclear and side chain
	53	14-Apr-20	The addition- elimination and the elimination- addition mechanisms of nucleophilic aromatic substitution reactions.
	54	15-Apr-20	Relative reactivities of alkyl halides vs all yl, vinyl and aryl halides. Synthesis and uses of DDT and BHC.
16			Final Sessional Test

RPS Degree College, Balana (Mahendergarh)

Lesson Plan

2019-20 (Even Semester)

Class and Section: B.Sc.(Hons.) Chemistry 2nd Sem

Subject: Physical Chemistry

Name of the Faculty : Rao Shamsher

Week	Lecture	Date	Topics
1	1	16-Jan-20	Introduction to syllabus, Scheme of exam and Learning
	2	17-Jan-20	Chemical kinetics and its scope, Rate of reaction, factors
2	3	21-Jan-20	Concentration, temperature, pressure, solvent, light, catalyst,
	4	22-Jan-20	Concentration, temperature, pressure, solvent, light, catalyst,
	5	23-Jan-20	Mathematical characteristics of simple chemical reactions,
	6	24-Jan-20	Zero order reaction and mathematical derivations for rate
3	7	28-Jan-20	Zero order reaction and mathematical derivations for rate
	8	29-Jan-20	First order reaction and mathematical derivations for rate
	9	30-Jan-20	First order reaction and mathematical derivations for rate
	10	31-Jan-20	Second order reaction and mathematical derivations for rate
4	11	4-Feb-20	Second order reaction and mathematical derivations for rate
	12	5-Feb-20	Third order reaction and mathematical derivations for rate
	13	6-Feb-20	Half-life period, average life period, determination of order
	14	7-Feb-20	Half-life period, average life period, determination of order
5	15	11-Feb-20	Differential method, method of integration
	16	12-Feb-20	Method of half life period and isolation method. Pseudo
	17	13-Feb-20	Electrical transport conduction in metal and in electrolyte
	18	14-Feb-20	Electrical transport conduction in metal and in electrolyte solutions, specific conductance and equivalent conductance
6			1st Class Test
7	23	25-Feb-20	Kohlrausch's law
	24	26-Feb-20	**1st Assignment** / Arhenious theory of electrolyte dissolution
	25	27-Feb-20	Weak and strong electrolytes.
	26	28-Feb-20	Ostwold's dilution law and its uses and limitation
8	27	3-Mar-20	Debye-Huckelonsager equation for strong electrolytes
	28	4-Mar-20	transport number and its determination by Hittorf and moving
	29	5-Mar-20	transport number and its determination by Hittorf and moving
	30	6-Mar-20	Application of conductivity measurements
9	31	11-Mar-20	determination of solubility product of spraningly soluble salts
	32	12-Mar-20	Determination of degree of dissolution ,Ka for weak acids
	33	13-Mar-20	Determination of degree of dissolution ,Ka for weak acids
10			2nd Class Test

11	39	25-Mar-20	Enthalpy of formation, combustion, neutralisation, solution,
	40	26-Mar-20	Enthalpy of formation, combustion, neutralisation, solution,
	41	27-Mar-20	**2nd Assignment/** Bond energy and its calculation
12	42	31-Mar-20	Hess's law of heat summation and its application for the
	43	1-Apr-20	Kirchhoff's equation, Spontaneous processes
	44	3-Apr-20	Criteria of spontaneity., entropy and free energy
13	45	7-Apr-20	Why crisis of energy if conserved in nature.
	46	8-Apr-20	Revision of Section A
	47	9-Apr-20	Revision of Section A
	48	10-Apr-20	Revision of Section B
14	49	14-Apr-20	Revision of Section B
	50	15-Apr-20	Revision of Section C
16			Final Sessional Test
17			

Lesson plan

Name of the Assistant Professor: Dr. Rajni Bansal

Class and Section: B.Sc Honors Chemistry 2nd sem

Subject: Optional Paper-II **Sub. Code- CH (H) -205**

Week	Day No.	Topics	Remarks
1	Day 1	**Introduction**	
	Day 2	Energy bands in solid	
	Day 3	Intrinsic & Extrinsic semiconductor	
2	Day 4	Hall Effect	
	Day 5	P-N junction diode & characteristics	
	Day 6	Zener Diode	
3	Day 7	LED & photodiode	
	Day 8	Solar Cell	
	Day 9	Half Wave Rectifier	
4	Day 10	Full Wave Rectifier	
	Day 11	Types of Filter Circuits	
	Day 12	Types of Filter Circuits	
5	Day 13	class test	
	Day 14	Test distribution and test solution	
	Day 15	Zener Diode as Voltage Regular	
6	Day 16	Simple Regulated Power Supply	
	Day 17	Junction Transistor, Bipolar Transistor-1	
	Day 18	Transistor in C-B	
7	Day 19	Transistor in C-E, Transistor in C-C	
	Day 20	Advantage of CB Configuration	
	Day 21	CRO-1	
8	Day 22	Common Base Transistor	
	Day 23	Transistor Biasing	
	Day 24	Methods of Transistor Biasing & Stabilisation	
9	Day 25	D.C Load line	
	Day 26	Common Emitter Transistor	
	Day 27	Common Base Amplifier, Common Emitter Transistor	
10	Day 28	Classification of Amplifier, R-C coupled Amplifier	
	Day 29	Feedback in Amplifier, Advantage of Negative Feedback	
	Day 30	**Emitter Follower,** Oscillator, Classification of Oscillator	
11	Day 31	Condition for salt Sustained oscillaton	
	Day 32	**Hartleyt oscillator**	
	Day 33	Class Test	
12	Day 34	Main Features of Laser, Direction ability, Intensity	
	Day 35	High degree of coherence, Spacial & Temporal Coherence	

	Day 36	Einstein's Coefficient, Amplification, Momentum Transfer	
13	Day 37	Life time of a level, Kinetics of optical obsorption, Threshold condition for Laser Emission	
	Day 38	Laser Pumping, He-Ne Laser,	
	Day 39	RUBY Laser-1, RUBY Laser-2, Application of Laser	
14	Day 40	Sessional Test	
	Day 41	(Revision)& discussion of previous paper (Unit I)	
	Day 42	(Revision)& discussion of previous paper (Unit II)	