RPS Degree College, Balana (Mahendergarh)

Lesson Plan

2019-20 (Even Semester)

Class and Section: B. Sc NM 2nd Yrs 4th Semester Section A

Subject: Programming in C

Name of the Faculty : Ms Sapna

Week	Lecture	Date	Topics
1	2	16 Jan to 24 Jan	Programmer's model of a Computer, Algorithum, Flow Chart
2	2	27 Jan to 31 Jan	Introduction to C, C Tokens, Data Type
3	2	3 Feb to 7 Feb	Operator, Expression I/O Funtion
4	2	10 Feb to 14 Feb	Decision Control structure, Decision Statements
5	2	17 Feb to 21 Feb	Logical & Conditional Statement, Implementationof loops
6			1st sessional
7	2	24 Feb to 28 Feb	Switch Staement & Case Control Structures, Function preprocessors
8	2	2 Mar to 6 Mar	Arrays, strings: Character data type, Standard string handling functions
9	1	9 Mar to 13 Mar	Arrithmetic operations on characters, structure definition.
10	2	16 Mar to 20 Mar	Using structure, Use of structure in arrays and arrays in structure
11	2	23 Mar to 27 Mar	Pointers, pointer data type
12			2nd sessional
13	2	30 Mar to 3 April	Pointer & Arrays, Pointer & Function
14	2	6 Apr to 10 Apr	Revision
15	2	13 Apr to 17 Apr	Revision
16			Final sessional

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Class

Week	Lecture	Date
1	1	16-Jan-20
	2	17-Jan-20
	3	20-Jan-20
	4	21-Jan-20
	5	22-Jan-20
	6	23-Jan-20
	7	24-Jan-20
2	8	27-Jan-20
	9	28-Jan-20
	10	29-Jan-20
	11	30-Jan-20
	12	31-Jan-20
3	13	03-Feb-20
	14	4-Feb-20
	15	05-Feb-20
	16	6-Feb-20
	17	07-Feb-20
4	18	10-Feb-20
	19	11-Feb-20
	20	12-Feb-20
	21	13-Feb-20
	22	14-Feb-20
5	23	17-Feb-20
	24	18-Feb-20
	25	19-Feb-20
	26	20-Feb-20
6	27	24-Feb-20
	28	25-Feb-20
	29	26-Feb-20
	30	27-Feb-20
	31	28-Feb-20
7	32	02-Mar-20
	33	3-Mar-20
	34	04-Mar-20

7	35	5-Mar-20
	36	6-Mar-20
8	37	9-Mar-20
	38	11-Mar-20
	39	12-Mar-20
	40	13-Mar-20
9	41	16-Mar-20
	42	17-Mar-20
	43	18-Mar-20
	44	19-Mar-20
	45	20-Mar-20
10	46	23-Mar-20
	47	24-Mar-20
	48	25-Mar-20
	49	26-Mar-20
	50	27-Mar-20
11	51	30-Mar-20
	52	31-Mar-20
	53	01-Apr-20
	54	3-Apr-20
12	55	06-Apr-20
	56	07-Apr-20
	57	08-Apr-20
	58	09-Apr-20
	59	10-Apr-20
13	60	13-Apr-20
	61	14-Apr-20
	62	15-Apr-20
	63	16-Apr-20
	64	17-Apr-20
14	20-Apr-2020 to 24-Apr-2020	

)egree College, Balana (Mahendergarh)

Lesson Plan

2019-20 (Even Semester)

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

Subject: Inorganic Chemistry

Name of the Faculty : Ms. Sapna

Topics
Section A: Lanthanoids: electronic structure, oxidation states
Ionic radii and lanthanoid contraction
Complex formation
Occurrence and isolation of lanthanoid compounds
Section B: Actinoids: General features
Chemistry of actinoids
Chemistry of separation of Np, Pu and Am from U
Comparison of properties of lanthanoids and actinoids with transition elements
Section C: Chemistry of analysis of various acidic radicals
1st Class Test
Chemistry of analysis of various acidic radicals
Chemistry of identification of acidic radicals in typical combinations
Chemistry of identification of acidic radicals in typical combinations

Chemistry of interference of acidic radicals including their removal in the analysis of basic radicals
Chemistry of interference of acidic radicals including their removal in the analysis of basic radicals
Section D: Chemistry of analysis of various groups of basic radicals
Chemistry of analysis of various groups of basic radicals
Chemistry of analysis of various groups of basic radicals
2nd Class Test
Chemistry of analysis of various groups of basic radicals
Chemistry of analysis of various groups of basic radicals
Theory of precipitation
Co-precipitation and Post precipitation
Purification of precipitates
Revision
Revision
Final Sessional Exam

RPS Degree College, Balana (Mahendergarh)

Lesson Plan

2019-20 (Even Semester)

Class and Section: B.Sc. (Non Medical) 6th Sem. (C)

Subject: Inorganic Chemistry

Name of the Faculty : Ms. Sapna

Week	Lecture	Date	Topics
1	1	16-Jan-20	
	2	17-Jan-20	
	3	20-Jan-20	Organometallic Chemistry: Definition, classification of organometallic compounds.
	4	21-Jan-20	
	5	22-Jan-20	Nomenclature
	6	23-Jan-20	
	7	24-Jan-20	
2	8	27-Jan-20	Preparation, properties, and bonding of alkyls of Li
	9	28-Jan-20	
	10	29-Jan-20	Preparation, properties, and bonding of alkyls of Al
	11	30-Jan-20	
	12	31-Jan-20	
3	13	03-Feb-20	Preparation, properties, and bonding of alkyls of Hg, and Sn
	14	4-Feb-20	
	15	05-Feb-20	Metal-ethylenic complexes
	16	6-Feb-20	
	17	07-Feb-20	
4	18	10-Feb-20	Mononuclear carbonyls and the nature of bonding in metalcarbonyls.
	19	11-Feb-20	
	20	12-Feb-20	HSAB Concept: Arrhenius, Bronsted–Lowry, the Lux–Flood
	21	13-Feb-20	
	22	14-Feb-20	
5	23	17-Feb-20	Solvent system and Lewis concepts of acids & bases
	24	18-Feb-20	
	25	19-Feb-20	1st Class Test
	26	20-Feb-20	
6	27	24-Feb-20	Relative strength of acids & bases
	28	25-Feb-20	
	29	26-Feb-20	Concept of Hard and Soft Acids & Bases
	30	27-Feb-20	
	31	28-Feb-20	
7	32	02-Mar-20	Symbiosis, electronegativity and hardness and softness
	33	3-Mar-20	
	34	04-Mar-20	Bioinorganic Chemistry Essential and trace elements in biological processes, metalloporphyrins
	35	5-Mar-20	
	36	6-Mar-20	
8	37	9-Mar-20	Haemoglobin and myoglobin
	38	11-Mar-20	Biological role of alkali and alkaline earth metal ionswith special reference to Ca2+
	39	12-Mar-20	
	40	13-Mar-20	
9	41	16-Mar-20	Nitrogen fixation
	42	17-Mar-20	
	43	18-Mar-20	Silicones: preparation, properties
	44	19-Mar-20	
	45	20-Mar-20	
10	46	23-Mar-20	2nd Class Test
	47	24-Mar-20	
	48	25-Mar-20	Silicones: structure and uses
	49	26-Mar-20	
	50	27-Mar-20	
11	51	30-Mar-20	Phosphazenes:preparation, properties
	52	31-Mar-20	
	53	01-Apr-20	Phosphazenes: structure
	54	3-Apr-20	
12	55	06-Apr-20	Phosphazenes: uses
	56	07-Apr-20	
	57	08-Apr-20	Phosphazenes:properties
	58	09-Apr-20	
	59	10-Apr-20	
13	60	13-Apr-20	Revision
	61	14-Apr-20	
	62	15-Apr-20	Revision
	63	16-Apr-20	
	64	17-Apr-20	
14	20-Apr-2020 to 24-Apr-2020		**Final Sessional Exam**

RPS Degree College, Balana (Mahendergarh)

Lesson Plan

2020-21 (Even Semester)

Class and Section: B.Sc.(N.M)4th (A,C)

Subject: Numerical methods

Name of the Faculty : Anuradha Yadav

Week	Lecture	Date	Topics
1	7	16/01/20 to 24/01/20	Algebraic and transcendental equation, Descarte's rule of signs, Location of roots, bisection method
2	5	27/01/20 to 31/01/20	Regula- falsi method and its order of convergence.
3	5	03/02/20 to 07/02/20	Secant method and Newton- Raphson's method
4	5	10/02/20 to 14/02/20	Newton's iterative method for finding pth root of a number. order of convergence of Newton-Raphson method
5	5	17/02/20 to 21/02/20	Gauss- elimination method and Gauss Jordan method
6			1st Class Test
7	5	24/02/20 to 28/02/20	Triangularisation method
8	5	02/03/20 to 06/03/20	Crout's method
9	5	09/03/20 to 13/03/20	Cholesky decomposition method
10			2nd Class Test
11	5	16/03/20 to 20/03/20	Jacobi's method
12	5	23/03/20 to 27/03/20	Gauss- Seidal's method
13	5	30/03/20 to 03/04/20	Relaxation method
14	5	06/04/20 to 10/04/20	Revision
15	5	13/04/20 to 17/04/20	
16			Final Sessional Test

RPS Degree College, Balana (Mahendergarh)

Class and Section:B.Sc(N.M) 4th semester section A and D

Subject: Sequences and series

Name of the Faculty :Ms. Ananta Thakur

Week	Lecture	Date	Topics
1	7	16/01/20 to 24/01/20	Basic definations related to closed set and open set and their important result
2	5	27/01/20 to 31/01/20	Bolzano-Weierstrauss Theorem,Heine Borel Property
3	5	03/02/20 to 07/02/20	Some theorems on closure of a set,Converse of Heine Borel Theorem
4	5	10/02/20 to 14/02/20	Introduction to infinite series
5	5	17/02/20 to 21/02/20	Comparision tests for positive term series
6			1st Class Test
7	5	24/02/20 to 28/02/20	Root test , Raabe's test ,Logarithmic Test and related numericals
8	5	02/03/20 to 06/03/20	Demorgan's and Bertrand's test, Gauss test
9	5	09/03/20 to 13/03/20	Alternating series and related results(Abel's test, lebnitz test)
10			2nd Class Test
11	5	16/03/20 to 20/03/20	Numerical practice for Alternating series
12	5	23/03/20 to 27/03/20	Arbitary series and Infinite products
13	5	06/04/20 to 10/04/20	Introduction to sequences
14	5	30/03/20 to 03/04/20	Some results on convergent series and related numerical practice
15	5	13/04/20 to 17/04/20	Cauchy theorems, Squeeze principle and test for converging limit of the sequence
16			Final Sessional Test

RPS Degree College, Balana (Mahendergarh)

Lesson Plan

2020-21 (Even Semester)

Class and Section: Non medical 4th B &c

Subject: sequence and series

Name of the Faculty : Yash Giri

Week	Lecture	Date	Topics
1	7	16/01/20 to 24/01/20	Boundedness of the set of real numbers,least upper bound,greatest lower bound of a set
2	5	27/01/20 to 31/01/20	neighborhood, interior point, isolated points,limit points,open sets,closed sets
3	5	03/02/20 to 07/02/20	interior of a set,closure of a set in real numbers and properties, Bolzano weirstrass theorem,open cover,
4	5	10/02/20 to 14/02/20	compact sets and Heine boral theorem sequence,theorems on limitaof sequence bounded and monotonic sequence
5	5	17/02/20 to 21/02/20	Cauchy sequence, Cauchy general principle of convergence,subsequences subsequential limits , infinite series, comparison tests of positive terms infinite series,
6			1st Class Test
7	5	24/02/20 to 28/02/20	Cauchy general principle of convergence of series, convergence and divergence of geometric series,hyper harmonic series
8	5	02/03/20 to 06/03/20	infinite series:DAlembert's ratio test,raabe's test, logarithmic test,demorgan and Bertrand test
9	5	09/03/20 to 13/03/20	Cauchy nth root test,gauess test,Cauchy integral test,Cauchy condensation test,Alternating series: Leibniz test
10			2nd Class Test
11	5	16/03/20 to 20/03/20	Cauchy nth root test,gauess test,Cauchy integral test,Cauchy condensation test,Alternating series: Leibniz test
12	5	23/03/20 to 27/03/20	absolute and conditional convergence.Arbitrary series:Abel's lemma,Abel's test
13	5	06/04/20 to 10/04/20	drichlet test, insertion and removal of paranthesis, rearrangement of terms of series
14	5	30/03/20 to 03/04/20	Drichlet theorem,reimann rearrangement theorem,pringsheim theorem, multiplication of series
15	5	13/04/20 to 17/04/20	Cauchy product of series, convergence and absolute convergence of infinite products
16			Final Sessional Test

RPS Degree College, Balana (Mahendergarh)

Class and Section:B.Sc(N.M) 4th semester section B+D

Subject: Special functions and integral transforms

Name of the Faculty :Mr. Surender Kumar

Week	Lecture	Date	Topics
1	7	16/01/20 to 24/01/20	Basic concept related to power series
2	5	27/01/20 to 31/01/20	power series solution of differential equation
3	5	03/02/20 to 07/02/20	series solution of differential equation around singularity
4	5	10/02/20 to 14/02/20	Laplace transforms numerical practice
5	5	17/02/20 to 21/02/20	Theorems and results of laplace
6			1st Class Test
7	5	24/02/20 to 28/02/20	Inverse laplace transforms
8	5	02/03/20 to 06/03/20	Use of laplace transform in integral equations
9	5	09/03/20 to 13/03/20	Fourier transforms
10			2nd Class Test
11	5	16/03/20 to 20/03/20	Solution of differential equations by fourier transform
12	5	23/03/20 to 27/03/20	Hermite Equation and numerical practice
13	5	06/04/20 to 10/04/20	Bessel's equation and function
14	5	30/03/20 to 03/04/20	Legendre's Equation
15	5	13/04/20 to 17/04/20	Doubt session
16			Final Sessional Test

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Class and Section: B.Sc IV Sem
Subject- Organic Chemistry
Name of the Faculty : Dr. K.C. Rout

Week	Lecture	Date	Topics
1	1	20-Jan-20	Introduction of syllabus.
	2	21-Jan-20	Ir spectroscopy
2	3	27-Jan-20	Basics of Spectroscopy
3	4	28-Jan-20	Hookes law
	5	03-Feb-20	factors affecting Ir spectroscopy
4	6	04-Feb-20	finger print region
	7	10-Feb-20	problems on IR spectroscopy
5	8	11-Feb-20	Amines
	9	17-Feb-20	separation of primary sec and tert amine
6	**10.**	**18-Feb-20**	1st Class Test
7	11	24-Feb-20	basicity of amines
	12	25-Feb-20	synthesis of amines
8	13	02-Mar-20	electrophilic substitution reaction of amines
	14	03-Mar-20	reaction of amines with nitrous acid
9	15	09-Mar-20	diazonium salt, mechanism of replacement
	16	10-Mar-20	Holiday.
10	**17.**	**16-Mar-20**	2nd Class Test
11	18	17-Mar-20	nitro compounds
	19	23-Mar-20	aldehydes and ketones
12	20	24-Mar-20	synthesisof aldehydes and ketones
	21	30-Mar-20	chemical reactions
13	22	31-Mar-20	progesterone and non steroidal hormones,
	23	06-Apr-20	revision
14			revisin of syllabus.
15			
16			Final Sessional Test
17			

RPS Degree College, Balana (Mahendergarh)

Lesson Plan for even semester(2019-2020).

Class and section: B.Sc. Non medical 4th sem ,sec-A
Subject: Physical chemistry
Name of the Faculty : Ms. Vandana

Week	Lecture	Date	Topics
1	1	23-Jan-20	Introduction of syllabus.
	2	24-Jan-20	second law of thermodynamics and need for the law
2	3,4	30/1/20-31/1/20	different statements of second law and carnot cycle
3	5	06-Feb-20	efficiency of carnot cycle and carnot theorem and thermodynamic scale of temperature
	6	07-Feb-20	concept ofentropy, entropy as a function of volume and temperature
4	7	13-Feb-20	entropy as a function of pressure and temperature and entropy change in physical change
	8	14-Feb-20	entropy as a criteria of spontaneity and equilibrium
5	9	20-Feb-20	entropy change in ideal gases and mixing of gases
	10	21-Feb-20	HOLIDAY.
6	**24/2/20-28/2/20**		1st Class Test and third law of thermodynamics
7	13	05-Mar-20	Nernst heat theorem and statement of concept of residual entropy
	14	06-Mar-20	evaluation of absolute entropy from heat capacity data
8	15	12-Mar-20	Gibbs and helmholtz functions thermodynamic quantities and as Thermodynamic Equilibrium and spontaneity criteria
	16	13-Mar-20	HOLIDAY.
9	17	19-Mar-20	variation of Gibbs helmholtz function with pressure volume and temperature
	18	20-Jan-00	electrolytic and Galvanic cells and potentiometric titrations
10	**23/3/20- 27/3/20**		2nd Class Test and reversible and Irreversible cells and representation of electrochemical cells
11	21	02-Apr-20	HOLIDAY.
	22	03-Apr-20	EMF of cell and its measurement and Weston standard cell
12	23	09-Apr-20	activity and activity coefficients and calculation of delta g delta H and K
	24	10-Apr-20	types of reversible electrodes
13	25	16-Apr-20	Nernst equation and electrochemical series and its applications
	26	17-Apr-20	concentration cells with and without transference and liquid junction potential and application of EMF measurement and determination ofpH
			Final Sessional Test

Lesson Plan

Name of the Asstt. / Associate Professor- Mr. Somveer

Class and Section: B.sc N.M. 4th Sem. (A&B)

Subject: Statistical Mechanics Subject code- PHY-401

Week	Date	Topics
1	Day1	Introduction
	Day2	Probability, some probability considerations
	Day3	combinations possessing maximum probability
2	Day4	combinations possessing minimum probability,
	Day5	Distribution of molecules in two boxes.
	Day6	Case with weight age (general). Phase space,
3	Day7	microstates and macro states, statistical fluctuations constraints and accessible States
	Day8	Thermo dynamical probability.
	Day9	Numerical problems & assignment 1
4	Day10	doubts
	Day11	Postulates of Statistical Physics, Division of Phase space into cells
5	Day12	Condition of equilibrium between two system in thermal contact
	Day13	b-Parameter ,Entropy
	Day14	Boltzmann's distribution law
6	Day15	Evaluation of A and b.,
	Day16	Bose-Einstein statistics, assignment 2
	Day17	Application of B.E. Statistics to Planck's radiation law

7	Day18	B.E. gas.
	Day19	Numerical problems
8	Day20	Doubts & assignment-3
	Day21	Numerical
	Day22	Fermi-Dirac statistics
9	Day23	M.B. Law as limiting case of B.E. Degeneracy
	Day24	B.E., Condensation
	Day25	F.D. Gas
10	Day26	F.D. Gas
	Day27	Numerical problems & assignment 4
	Day28	electron gas in metals
11	Day29	Numerical problems
	Day30	Zero point energy
	Day31	Specific heat of metals and its solution.
12	Day32	Specific heat of metals and its solution.
	Day33	Doubts
	Day34	Doubts
13	Day35	Numerical problems & assignment 5
	Day36	Syllabus complete
	Day37	Previous year question paper

Lesson Plan

Name of the Asstt. / Associate Professor- Ms.Deepika

Class and Section: B.sc N.M. 4th Sem. (C&D)

Subject: Statistical Mechanics Subject code- PHY-401

Week	Date	Topics
1	Day1	Introduction
	Day2	Probability, some probability considerations
	Day3	combinations possessing maximum probability
2	Day4	combinations possessing minimum probability,
	Day5	Distribution of molecules in two boxes.
	Day6	Case with weight age (general). Phase space,
3	Day7	microstates and macro states, statistical fluctuations constraints and accessible States
	Day8	Thermo dynamical probability.
	Day9	Numerical problems & assignment 1
4	Day10	doubts
	Day11	Postulates of Statistical Physics, Division of Phase space into cells
5	Day12	Condition of equilibrium between two system in thermal contact
	Day13	b-Parameter ,Entropy
	Day14	Boltzmann's distribution law
6	Day15	Evaluation of A and b.,
	Day16	Bose-Einstein statistics, assignment 2
	Day17	Application of B.E. Statistics to Planck's radiation law

7	Day18	B.E. gas.
	Day19	Numerical problems
8	Day20	Doubts & assignment-3
	Day21	Numerical
	Day22	Fermi-Dirac statistics
9	Day23	M.B. Law as limiting case of B.E. Degeneracy
	Day24	B.E., Condensation
	Day25	F.D. Gas
10	Day26	F.D. Gas
	Day27	Numerical problems & assignment 4
	Day28	electron gas in metals
11	Day29	Numerical problems
	Day30	Zero point energy
	Day31	Specific heat of metals and its solution.
12	Day32	Specific heat of metals and its solution.
	Day33	Doubts
	Day34	Doubts
13	Day35	Numerical problems & assignment 5
	Day36	Syllabus complete
	Day37	Previous year question paper

Lesson plan

Name of the Assistant Professor: BALRAM

Class and Section: B.Sc Physics, Semester IV (A,B)

Subject: Paper II Optics-II (PHY-402)

Week	Day No.	Topics	Remarks
1	Day 1	**Basic Introduction of optics (I unit)**	
	Day 2	Interference by division of amplitude	
	Day 3	Interference in thin film by reflected beam	
2	Day 4	Interference in thin film by transmitted beam	
	Day 5	Color of thin films, Wedge shape film	
	Day 6	Newton Rings	
3	Day 7	Refractive index of liquid using Newton Rings	
	Day 8	Michelson's interferometer	
	Day 9	Types of fringes in Michelson interferometer	
4	Day 10	Wavelength determination of light by Michelson interferometer	
	Day 11	Standardization of meter by Michelson interferometer	
	Day 12	Test	
5	Day 13	Diffraction and two types of Diffraction, Fresnel theory of Diffraction	
	Day 14	Fresnel theory of half period zone	
	Day 15	Zone plate	
6	Day 16	Diffraction at a straight edges	
	Day 17	Diffraction at rectangular slit	
	Day 18	Continue… , Diffraction at circular aperture	
7	Day 19	Major revision and assignment	
	Day 20	**Basic Introduction (II unit) Fraunhoffer diffraction,** Fraunhoffer diffraction in one slit	
	Day 21	Continue…	
8	Day 22	Fraunhoffer diffraction in double slit,	

		Difference between single slit and double slit	
	Day 22	Continue…	
	Day 23	Plane Diffraction grating, Fraunhoffer diffraction at N slit	
	Day 24		
9	Day 25	Continue…., Wavelength determination by diffraction grating	
	Day 26	Dispersive power of Diffraction grating	
	Day 27	Rayleigh criterion, Limit of resolution	
10	Day 28	Test	
	Day 29	Resolving power of telescope	
	Day 30	Resolving power of grating	
11	Day 31	**Basic Introduction of Polarization (III unit),** Polarization by reflection	
	Day 32	Polarization by scattering	
	Day 33	Double Diffraction, Huygen's Theory of Double diffraction	
12	Day 34	Law of Malus, Nicol Prism	
	Day 35	Plane and circular polarized light	
	Day 36	Elliptical polarized light	
13	Day 37	Fresnel theory of rotation	
	Day 38	Polarimeters	
	Day 39	Test	
14	Day 40	Test distribution and discussion	
	Day 41	(Revision)& discussion of previous paper (Unit I)	
	Day 42	(Revision)& discussion of previous paper (Unit II)	

Lesson plan

Name of the Assistant Professor: Dr. Jitendra Kumar

Class and Section: B.Sc Physics, Semester IV (C,D)

Subject: Paper II Optics-II (PHY-402)

Week	Day No.	Topics	Remarks
1	Day 1	**Basic Introduction of optics (I unit)**	
	Day 2	Interference by division of amplitude	
	Day 3	Interference in thin film by reflected beam	
2	Day 4	Interference in thin film by transmitted beam	
	Day 5	Color of thin films, Wedge shape film	
	Day 6	Newton Rings	
3	Day 7	Refractive index of liquid using Newton Rings	
	Day 8	Michelson's interferometer	
	Day 9	Types of fringes in Michelson interferometer	
4	Day 10	Wavelength determination of light by Michelson interferometer	
	Day 11	Standardization of meter by Michelson interferometer	
	Day 12	Test	
5	Day 13	Diffraction and two types of Diffraction, Fresnel theory of Diffraction	
	Day 14	Fresnel theory of half period zone	
	Day 15	Zone plate	
6	Day 16	Diffraction at a straight edges	
	Day 17	Diffraction at rectangular slit	
	Day 18	Continue… , Diffraction at circular aperture	
7	Day 19	Major revision and assignment	
	Day 20	**Basic Introduction (II unit) Fraunhoffer diffraction,** Fraunhoffer diffraction in one slit	
	Day 21	Continue…	
8	Day 22	Fraunhoffer diffraction in double slit,	

		Difference between single slit and double slit	
	Day 22	Continue…	
	Day 23	Plane Diffraction grating, Fraunhoffer diffraction at N slit	
	Day 24		
9	Day 25	Continue…., Wavelength determination by diffraction grating	
	Day 26	Dispersive power of Diffraction grating	
	Day 27	Rayleigh criterion, Limit of resolution	
10	Day 28	Test	
	Day 29	Resolving power of telescope	
	Day 30	Resolving power of grating	
11	Day 31	**Basic Introduction of Polarization (III unit),** Polarization by reflection	
	Day 32	Polarization by scattering	
	Day 33	Double Diffraction, Huygen's Theory of Double diffraction	
12	Day 34	Law of Malus, Nicol Prism	
	Day 35	Plane and circular polarized light	
	Day 36	Elliptical polarized light	
13	Day 37	Fresnel theory of rotation	
	Day 38	Polarimeters	
	Day 39	Test	
14	Day 40	Test distribution and discussion	
	Day 41	(Revision)& discussion of previous paper (Unit I)	
	Day 42	(Revision)& discussion of previous paper (Unit II)	

RPS Degree College, Balana (Mahendergarh)

Lesson Plan

2019-20 (Even Semester)

Class and Section: B. Sc NM 2nd Yrs 4th Semester Section B

Subject: Programming in C

Name of the Faculty : Ms Sapna

Week	Lecture	Date	Topics
1	2	16 Jan to 24 Jan	Programmer's model of a Computer, Algorithum, Flow Chart
2	2	27 Jan to 31 Jan	Introduction to C, C Tokens, Data Type
3	2	3 Feb to 7 Feb	Operator, Expression I/O Funtion
4	2	10 Feb to 14 Feb	Decision Control structure, Decision Statements
5	2	17 Feb to 21 Feb	Logical & Conditional Statement, Implementationof loops
6			1st sessional
7	2	24 Feb to 28 Feb	Switch Staement & Case Control Structures, Function preprocessors
8	2	2 Mar to 6 Mar	Arrays, strings: Character data type, Standard string handling functions
9	2	9 Mar to 13 Mar	Arrithmetic operations on characters, Structure definition, Using structure
10	2	16 Mar to 20 Mar	Arrays in structure, Use of structure in arrays
11	2	23 Mar to 27 Mar	Pointer, Pointer Data Type, Pointer & Arrays
12			2nd sessional
13	1	30 Mar to 3 April	Pointer & Function
14	2	6 Apr to 10 Apr	Revision
15	2	13 Apr to 17 Apr	Revision
16			Final sessional

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Class and Section: B.Sc IV Sem
Subject- Organic Chemistry
Name of the Faculty : Dr. K.C. Rout

Week	Lecture	Date	Topics
1	1	20-Jan-20	Introduction of syllabus.
	2	21-Jan-20	Ir spectroscopy
2	3	27-Jan-20	Basics of Spectroscopy
3	4	28-Jan-20	Hookes law
	5	03-Feb-20	factors affecting Ir spectroscopy
4	6	04-Feb-20	finger print region
	7	10-Feb-20	problems on IR spectroscopy
5	8	11-Feb-20	Amines
	9	17-Feb-20	separation of primary sec and tert amine
6	**10.**	**18-Feb-20**	1st Class Test
7	11	24-Feb-20	basicity of amines
	12	25-Feb-20	synthesis of amines
8	13	02-Mar-20	electrophilic substitution reaction of amines
	14	03-Mar-20	reaction of amines with nitrous acid
9	15	09-Mar-20	diazonium salt, mechanism of replacement
	16	10-Mar-20	Holiday.
10	**17.**	**16-Mar-20**	2nd Class Test
11	18	17-Mar-20	nitro compounds
	19	23-Mar-20	aldehydes and ketones
12	20	24-Mar-20	synthesisof aldehydes and ketones
	21	30-Mar-20	chemical reactions
13	22	31-Mar-20	progesterone and non steroidal hormones,
	23	06-Apr-20	revision
14			revisin of syllabus.
15			
16			Final Sessional Test
17			

RPS Degree College, Balana (Mahendergarh)

Lesson Plan

2019-20 (Even Semester)

Class and Section: B. Sc NM 2nd Yrs 4th Semester Section C

Subject: Programming in C

Name of the Faculty : Ms Sapna

Week	Lecture	Date	Topics
1	2	16 Jan to 24 Jan	Programmer's model of a Computer, Algorithum, Flow Chart
2	2	27 Jan to 31 Jan	Introduction to C, C Tokens, Data Type
3	2	3 Feb to 7 Feb	Operator, Expression I/O Funtion
4	2	10 Feb to 14 Feb	Decision Control structure, Decision Statements
5	1	17 Feb to 21 Feb	Logical & Conditional Statement
6			1st sessional
7	2	24 Feb to 28 Feb	Implementationof loops, Switch Staement & Case Control Structures, Function preprocessors
8	2	2 Mar to 6 Mar	Arrays, strings: Character data type, Standard string handling functions
9	1	9 Mar to 13 Mar	Arrithmetic operations on characters, structure definition.
10	2	16 Mar to 20 Mar	Using structure, Use of structure in arrays and arrays in structure
11	2	23 Mar to 27 Mar	Pointers, pointer data type
12			2nd sessional
13	2	30 Mar to 3 April	Pointer & Arrays, Pointer & Function
14	2	6 Apr to 10 Apr	Revision
15	2	13 Apr to 17 Apr	Revision
16			Final sessional

RPS Degree College, Balana (Mahendergarh)

Lesson Plan

2019-20 (Even Semester)

Class and Section: B.Sc.(NM) 4th C

Subject: Organic chemistry

Name of the Faculty : Hitesh Yadav

Week	Lecture	Date	Topics
1	1	20-Jan-20	. Amines Structure and nomenclatu re of amines, phys ical properties
	2	22-Jan-20	Separation of a mixture of primary, secondary and tertiary amines.Structural featu res affecting basicity of amines
2	3	27-Jan-20	Prepa ration ofalkyl and aryl amines.
	4	29-Jan-20	(reduction of nitro compounds, nitriles, reductive amination ofaldehydic and ketonic compounds
3	5	03-Feb-20	.Gabrielphthalimide reaction, Hofmann bromamide reaction.
	6	05-Feb-20	electrophilic aromatic substitution in aryl amines, reactions ofamines with nitrous acid.
4	7	10-Feb-20	1. Diazonium Salts Mechanism of diazotisation,
	8	12-Feb-20	structure of benzene diazoniumchloride, Replacement of diazo group by H, OH, F, Cl, Br, I, NO2and CN groups,
5	9	17-Feb-20	, reduction of diazonium salts to hyrazines,
	10	19-Feb-20	couplingreaction and its synthetic application
6	**11,12**		1st Class Test
7	13	02-Mar-20	chemicalreactio
	14	04-Mar-20	. Mechanism of electrophilic substitution reactions in nitro arenes and their reductions in acidic, neutral and alkaline medium.
8	15	09-Mar-20	. Aldehydes and Ketones Nomenclature and structure of the carbonyl group. Synthesis of aldehydes and ketones with particular reference to the synthesis of aldehydes from acid chlorides,
9	17	16-Mar-20	advantage of oxidation of alcohols with chromium trioxide (Sarett reagent) pyridinium chlorochromate (PCC) and pyridinium dichromate., Physical properties. Comparison of reactivities of aldehydes and ketones. Mechanism of nucleophilic additions to carbonyl group with particular emphasis on benzoin,
	18	18-Mar-20	aldol, Perkin and Knoevenagel condensations. Condensation with ammonia and its derivatives. Wittig reaction. Mannich reaction.Oxidation of aldehydes, Baeyer–Villiger oxidation of ketones,
10	**19,20**		2nd Class Test
11	21	30-Mar-20	NaBH4reductions.
	22	01-Apr-20	
12	23	06-Apr-20	
	24	08-Apr-20	
13	25	13-Apr-20	revision of section A
	26	15-Apr-20	revision of section B
14			Final Sessional Test
15			Special Class
			Special Class
16			Final Exam
17			

RPS Degree College, Balana (Mahendergarh)

Lesson Plan

2019-20 (Even Semester)

Class and Section: B. Sc NM 2nd Yrs 4th Semester Section D

Subject: Programming in C

Name of the Faculty : Ms Sapna

Week	Lecture	Date	Topics
1	2	16 Jan to 24 Jan	Programmer's model of a Computer, Algorithum, Flow Chart
2	2	27 Jan to 31 Jan	Introduction to C, C Tokens, Data Type
3	2	3 Feb to 7 Feb	Operator, Expression I/O Funtion
4	2	10 Feb to 14 Feb	Decision Control structure, Decision Statements
5	1	17 Feb to 21 Feb	Logical & Conditional Statement
6			1st sessional
7	2	24 Feb to 28 Feb	Implementationof loops, Switch Staement & Case Control Structures
8	2	2 Mar to 6 Mar	Function preprocessors, Arrays, strings: Character data type
9	2	9 Mar to 13 Mar	Standard string handling functions, Arithmetic operations on characters, structure definition, Using structure, Use of structure in arrays
10	2	16 Mar to 20 Mar	Arrays in structure
11	2	23 Mar to 27 Mar	Pointers, Pointer data type
12			2nd sessional
13	1	30 Mar to 3 April	Pointer & Arrays
14	2	6 Apr to 10 Apr	Pointer & Function, Revision
15	2	13 Apr to 17 Apr	Revision
16			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.(NM) 4th D

Subject: Organic chemistry

Name of the Faculty : Hitesh Yadav

Week	Lecture	Date	Topics
1	1	16-Jan-20	. Amines Structure and nomenclatu re of amines, phys ical properties
	2	16-Jan-20	Separation of a mixture of primary, secondary and tertiary amines.Structural featu res affecting basicity of amines
2	3	22-Jan-20	Prepa ration ofalkyl and aryl amines.
	4	23-Jan-20	(reduction of nitro compounds, nitriles, reductive amination ofaldehydic and ketonic compounds
3	5	29-Jan-20	.Gabrielphthalimide reaction, Hofmann bromamide reaction.
	6	30-Jan-20	electrophilic aromatic substitution in aryl amines, reactions ofamines with nitrous acid.
4	7	05-Feb-20	1. Diazonium Salts Mechanism of diazotisation,
	8	06-Feb-20	structure of benzene diazoniumchloride, Replacement of diazo group by H, OH, F, Cl, Br, I, NO2and CN groups,
5	9	12-Feb-20	, reduction of diazonium salts to hyrazines,
	10	13-Feb-20	couplingreaction and its synthetic application
6	**11,12**		1st Class Test
7	13	26-Feb-20	2. Nitro Compounds Preparation of nitro alkanes and nitro arenes and their chemicalreactio
	14	27-Feb-20	arenes and their reductions in acidic, neutral and alkaline medium.
8	15	04-Mar-20	carbonyl group. Synthesis of aldehydes and ketones with particular reference to the synthesis of aldehydes from acid chlorides,
9	17	11-Mar-20	(Sarett reagent) pyridinium chlorochromate (PCC) and pyridinium dichromate., Physical properties. Comparison of
	18	12-Mar-20	aldol, Perkin and Knoevenagel condensations. Condensation with ammonia and its derivatives. Wittig reaction. Mannich reaction.Oxidation of aldehydes, Baeyer–Villiger oxidation of ketones,
10	**19,20**		2nd Class Test
11	21	25-Mar-20	Cannizzaro reaction. MPV, Clemmensen, Wolff-Kishner, LiAlH4and NaBH4reductions.
	22	26-Apr-20	Infrared (IR) absorption spectroscopy Molecular vibrations, Hooke's law, selection rules, intensity and position of IR bandss.
12	23	01-Apr-20	fingerprint region, characteristic absorptions of various functional groups andinterpretation of IR spectra of simple organic compounds..
	24	02-Apr-20	
13	25	08-Apr-20	revision of section A
	26	09-Apr-20	revision of section B
14			Final Sessional Test
15			Special Class
			Special Class
16			Final Exam
17			