

(2019-20) Odd

GOVERNMENT COLLEGE BIROHAR (JHAJJAR)

NAME OF EMPLOYEE: RENU

SUBJECT: PHYSICS

ACADAMIC SESSION: 2019-20

SEMESTER:- (JULY 19 TO NOV. 19)

LESSON PLAN OF CLASS: B.Sc-Ist (NM)

WEEK AND DATE	TOPIC/CHAPTERS TO BE COVERED / EVENTS
26/08/2019 to 01/09/2019	Mechanics of Single and system of particles, Conservation of laws of linear momentum, angular momentum and mechanically energy. Centre of mass and eqn of motion.
02/09/2019 to 08/09/2019	Constrained motions, Degrees of freedom. Unit test Based on Basic Concepts of Classical Mechanics
09/09/2019 to 15/09/2019	Generalised Co-ordinates. Hamilton's variational Principle, Lagrange's eqn of motion from Hamilton's Principle.
16/09/2019 to 22/09/2019	Linear Harmonic oscillator, Simple pendulum, Atwood's machine. Rotation of Rigid body, moment of inertia, torque, angular momentum, K.E of rotation.
23/09/2019 to 29/09/2019	Theorems of perpendicular and parallel axes with proof. Moment of inertia of solid sphere, hollow sphere, spherical shell, solid cylinder, hollow cylinder.
30/09/2019 to 06/10/2019	Acceleration of a body rolling down on an inclined plane. Unit test-II Generalized co-ordinates and Dynamics of rigid body.
07/09/2019 to 13/10/2019	Mathematical Background (Vectors).
14/10/2019 to 20/10/2019	Electrostatic Field. Assignment-I Classical Mechanics.
21/10/2019 to 27/10/2019	Magnetostatics - Magnetic field. Theories of Magnetic Materials and Hysteresis.
28/10/2019 to 03/11/2019	Unit test - Based on Magnetostatics.
04/11/2019 to 10/11/2019	Maxwell's eqns and their derivation, Displacement current, vector and scalar potentials, Electromagnetic theory. Poynting Vector and Theorem.
11/11/2019 to 17/11/2019	Assignment-II Based on Theories of Magnetic material and Unit Test.
18/11/2019 to 24/11/2019	REVISION

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Anita

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GOVERNMENT COLLEGE BIROHAR (JHAJJAR)

NAME OF EMPLOYEE: Manju Kumari

SUBJECT: Physics

ACADAMIC SESSION: 2019-20

SEMESTER:- (JULY 19 TO NOV. 19)

LESSON PLAN OF CLASS: B.Sc. II (N.M)

WEEK AND DATE	TOPIC/CHAPTERS TO BE COVERED / EVENTS
26/08/2019 to 01/09/2019	Computer organisation, Binary representation, Algorithm development, Flow charts and their interpretations. Fortran Preliminaries, Integer and floating point arithmetic exp
02/09/2019 to 08/09/2019	built in functions executable and non executable statements input and output statements, formats i.e. DO and GO TO statements, Dimension arrays statement function and function subprogram.
09/09/2019 to 15/09/2019	Second law of thermodynamics, Carnot Thm, Absolute scale of temp, Absolute zero, Entropy show that $dQ/T = R, T-S$ diagram
16/09/2019 to 22/09/2019	Nernst heat law, Joule's free expansion Joule Thomson exp. Joule-Thomson effect, liquefaction of gases, Air pollution due to internal combustion engine
23/09/2019 to 29/09/2019	Thermodynamics - II Derivation of Clausius - Clapeyron latent heat eqn. Phase diagram and triple point of a substance Derivation of Maxwell thermodynamical
30/09/2019 to 06/10/2019	relation, Application of Maxwell relation in derivation of relation between entropy, specific heats and thermodynamic variable. Thermodynamic function Internal energy, Helmholtz
07/09/2019 to 13/10/2019	function Enthalpy, Gibbs function and relation between them U.T.-I (computer Programming) U.T.-2 Thermo. + Assignment
14/10/2019 to 20/10/2019	Paper-II Fourier series, speed of transverse wave on a uniform string. speed of longitudinal wave in a fluid, superposition of wave, Fourier analysis of complex waves
21/10/2019 to 27/10/2019	and its application for solution of triangular and rectangular waves, half and full wave rectifier output. Fourier transform and its properties
28/10/2019 to 03/11/2019	Geometrical optics - matrix method in paraxial optics, effect of translation and refraction, derivation of thin lens and thick lens formulae, unit plane, nodal plane, system
04/11/2019 to 10/11/2019	of thin lens, chromatic, spherical coma, astigmatism and distortion aberrations and their remedies
11/11/2019 to 17/11/2019	Interference - Interference by division of wavefront Fresnel Biprism and its application to determination of wavelength of sodium light and thickness of
18/11/2019 to 24/11/2019	a mica sheet, Lloyd mirror, phase change on reflection U.T.-1 (Fourier series) U.T.-2 Optics + Assignment

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GOVERNMENT COLLEGE BIROHAR (JHAJJAR)

NAME OF EMPLOYEE: Manju Kumari

SUBJECT: Physics

ACADAMIC SESSION: 2019-20

SEMESTER:- (JULY 19 TO NOV. 19)

LESSON PLAN OF CLASS: B.Sc-III (N.M.)

WEEK AND DATE	TOPIC/CHAPTERS TO BE COVERED / EVENTS
26/08/2019 to 01/09/2019	Crystalline and glassy forms, liquid crystal crystal structure, periodicity, lattice and basis crystal translational vectors and axes. Unit cell and primitive cell, wigner seitz primitive cell, symmetry operations for a two dimensional crystal, Bravais lattice in two and three dimensions.
02/09/2019 to 08/09/2019	Crystal planes and miller indices, interplanar spacing, crystal structures of zinc sulphide, sodium chloride and diamond, x-ray diffraction, Bragg's law and exp x-ray
09/09/2019 to 15/09/2019	diffraction method, k-space.
16/09/2019 to 22/09/2019	Reciprocal lattice and its physical significance, reciprocal lattice vectors, reciprocal lattice to a simple cubic lattice, b.c.c and f.c.c., specific heat: specific heat of solids, Einstein theory of specific heat, Debye model
23/09/2019 to 29/09/2019	of specific heat of solids.
30/09/2019 to 06/10/2019	U.T-1, U.T-2 assignment, Failure of E.M. Theory, quantum theory of radiation, photon, photoelectric effect and Einstein photoelectric equation, Compton effect Inadequacy of old quantum theory, de-Broglie hypothesis, Davisson and Germer experiment C.P. Thomson exp., phase velocity, group velocity Heisenberg uncertainty principle, Time-E
07/09/2019 to 13/10/2019	and angular momentum, position uncertainty, Uncertainty principle from de-Broglie wave, Gamma Ray microscope, Electron diffraction from a slit.
14/10/2019 to 20/10/2019	derivation of time dependent Schrodinger wave equation, eigen values, eigen functions, wave function and its significance, Normalization of wave function, concept of observable and operator, solutions of Schrodinger equations for harmonic oscillator ground state and excited states.
21/10/2019 to 27/10/2019	Application of Schrodinger equation in solution of one dimensional problem, Free particle in one dimensional box (solution of Schrodinger wave equation, eigen functions, eigen values, quantization of energy and momentum, nodes and antinodes, zero point energy (i) one dimensional potential barrier $E < V_0$, (ii) One dimensional
28/10/2019 to 03/11/2019	barrier $E > V_0$ U.T-I, U.T-2, Assignment
04/11/2019 to 10/11/2019	
11/11/2019 to 17/11/2019	
18/11/2019 to 24/11/2019	

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GOVERNMENT COLLEGE BIROHAR (JHAJJAR)

NAME OF EMPLOYEE: NISHA RANI

SUBJECT: Mathematics (Algebra)

ACADAMIC SESSION: 2019-20

SEMESTER:- (JULY 19 TO NOV. 19)

LESSON PLAN OF CLASS: B.Sc I

WEEK AND DATE	TOPIC/CHAPTERS TO BE COVERED / EVENTS
26/08/2019 to 01/09/2019	Eigen values, Eigen Vectors & characteristic equation of a Matrix. Minimal Polynomial of a Matrix. Cayley Hamilton theorem & its use in finding Inverse of a Matrix.
02/09/2019 to 08/09/2019	Application of Matrices to a system of linear (both homogeneous & Non-Homogeneous Equation) + Test - Unit I.
09/09/2019 to 15/09/2019	Theorem on Consistency of a system of linear Equations.
16/09/2019 to 22/09/2019	Unitary & orthogonal Matrices. + Test unit II
23/09/2019 to 29/09/2019	Bilinear & Quadratic forms + Assignment I.
30/09/2019 to 06/10/2019	Relation between the roots & coefficient of general polynomial equation in one variable.
07/10/2019 to 13/10/2019	Solution of polynomial equations having Condition on roots.
14/10/2019 to 20/10/2019	Common roots & Multiple roots. + Test (Unit 3)
21/10/2019 to 27/10/2019	Transformation of Equations
28/10/2019 to 03/11/2019	Nature of the roots of an equation + Test Unit IV
04/11/2019 to 10/11/2019	Descartes's rule of Signs. Solution of cubic equations (Cardan's Method) + Assignment-II
11/11/2019 to 17/11/2019	Biquadratic equations & their solutions
18/11/2019 to 24/11/2019	Revision

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Nisha

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GOVERNMENT COLLEGE BIROHAR (JHAJJAR)

NAME OF EMPLOYEE: Narada Singh

SUBJECT: mathematics
CALCULAS

ACADAMIC SESSION: 2019-20

SEMESTER:- (JULY 19 TO NOV. 19)

LESSON PLAN OF CLASS: B.Sc. I

WEEK AND DATE	TOPIC/CHAPTERS TO BE COVERED / EVENTS
26/08/2019 to 01/09/2019	Asymptotes in Cartesian coordinates
02/09/2019 to 08/09/2019	Intersection of curve and its asymptotes, asymptotes in polar coordinates, curvature, radius of curvature
09/09/2019 to 15/09/2019	Curvature in Cartesian, parametric and polar curves.
16/09/2019 to 22/09/2019	Newton's method: Radius of curvature for pedal curves.
23/09/2019 to 29/09/2019	Trajectories of curves in Cartesian form
30/09/2019 to 06/10/2019	Trajectories of curves in parametric and polar co-ordinates,
07/09/2019 to 13/10/2019	Reduction formulae, Rectification, intrinsic equations of curve.
14/10/2019 to 20/10/2019	Quadrature (area) Sectorial Area, Area bounded by closed curves.
21/10/2019 to 27/10/2019	Volumes and surfaces of solids of revolution
28/10/2019 to 03/11/2019	Theorems of Pappus and Guldinus
04/11/2019 to 10/11/2019	Revision
11/11/2019 to 17/11/2019	Revision
18/11/2019 to 24/11/2019	Revision

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@grendersingh

Narada
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GOVERNMENT COLLEGE BIROHAR (JHAJJAR)

NAME OF EMPLOYEE: Monika

SUBJECT: Mathematics (Solid Geometry)

ACADAMIC SESSION: 2019-20

SEMESTER:- (JULY 19 TO NOV. 19)

LESSON PLAN OF CLASS: B.Sc Ist

WEEK AND DATE	TOPIC/CHAPTERS TO BE COVERED / EVENTS
26/08/2019 to 01/09/2019	Tracing of Conics. Tangent at any point to the Conic,
02/09/2019 to 08/09/2019	Chord of Contact, pole of line to the Conic, director of Conic, system of Conics.
09/09/2019 to 15/09/2019	Sphere: Plane-section of a sphere. Intersection of two spheres, radical plane of two spheres.
16/09/2019 to 22/09/2019	Cones: Right Circular Cone, enveloping Cone and reciprocal Cone. Cylinder: Right Circular Cylinder
23/09/2019 to 29/09/2019	enveloping cylinder. Central Conicoids, Equation of tangent plane, Director sphere.
30/09/2019 to 06/10/2019	Test - I and II unit, Assignment. Normal to the Conicoids.
07/09/2019 to 13/10/2019	Polar plane of a point. Enveloping Cone of a Conicoid.
14/10/2019 to 20/10/2019	Enveloping cylinder of a Conicoid.
21/10/2019 to 27/10/2019	Paraboloids: Circular Section
28/10/2019 to 03/11/2019	Plane Sections of Conicoids.
04/11/2019 to 10/11/2019	Generating lines.
11/11/2019 to 17/11/2019	Confocal Conicoid, III unit Test
18/11/2019 to 24/11/2019	2. Assignment, Reduction of Second degree Equations.

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Monika

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GOVERNMENT COLLEGE BIROHAR (JHAJJAR)

NAME OF EMPLOYEE: Narendra Singh

SUBJECT: Mathematics
Advanced Calculus

ACADAMIC SESSION: 2019-20

SEMESTER:- (JULY 19 TO NOV. 19)

LESSON PLAN OF CLASS: B. SC. II

WEEK AND DATE	TOPIC/CHAPTERS TO BE COVERED / EVENTS
26/08/2019 to 01/09/2019	Limit and Continuity of real valued functions of two variables, Partial differentiation
02/09/2019 to 08/09/2019	Total Differentials; Composite Functions & implicit Functions. change of variables
09/09/2019 to 15/09/2019	Homogenous functions & Euler's theorem on homogenous functions.
16/09/2019 to 22/09/2019	Taylor's theorem for functions of two variables
23/09/2019 to 29/09/2019	Differentiability of real valued functions of two variables.
30/09/2019 to 06/10/2019	Schwarz and Young's theorem, Implicit function theorem
07/09/2019 to 13/10/2019	maxima, minima and saddle points of two variables.
14/10/2019 to 20/10/2019	Lagrange's method of multipliers
21/10/2019 to 27/10/2019	Curves, Tangents, principal moments
28/10/2019 to 03/11/2019	Binomials, Serret-Frenet formulae. focus of the curve of curvature
04/11/2019 to 10/11/2019	Spherical curvature & locus of centre of spherical curvature
11/11/2019 to 17/11/2019	Involutes, evolutes
18/11/2019 to 24/11/2019	Revision.

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Narendra Singh

Anita

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GOVERNMENT COLLEGE BIROHAR (JHAJJAR)

NAME OF EMPLOYEE: Nisha Rani

SUBJECT: Mathematics ^(Partial differential equations)

ACADAMIC SESSION: 2019-20

SEMESTER:- (JULY 19 TO NOV. 19)

LESSON PLAN OF CLASS: B.Sc II

WEEK AND DATE	TOPIC/CHAPTERS TO BE COVERED / EVENTS
26/08/2019 to 01/09/2019	Linear partial differential equations of second & higher orders. + Test Unit-I.
02/09/2019 to 08/09/2019	Linear & Non-linear homogeneous equations with constant coefficients.
09/09/2019 to 15/09/2019	Linear & Non-linear Non-homogeneous equations with constant coefficients; their C.I. & P.I. + Test-unit-II
16/09/2019 to 22/09/2019	Partial differential equations with variable coefficients reducible to equations with constant coefficients; their C.I. & P.I.
23/09/2019 to 29/09/2019	Equations reducible to linear equations with constant coefficients. + Assignment -I.
30/09/2019 to 06/10/2019	Classification of linear partial differential equation of second order, Hyperbolic, parabolic & elliptic types.
07/10/2019 to 13/10/2019	Reduction of second order linear partial differential equations to Canonical forms & their solutions.
14/10/2019 to 20/10/2019	Solution of linear hyperbolic equations. + Test unit III
21/10/2019 to 27/10/2019	Cauchy's problem for second order partial differential equations.
28/10/2019 to 03/11/2019	Characteristic equations & characteristic curves of 2nd order linear p.d.e. + Assignment -II
04/11/2019 to 10/11/2019	Method of Separation of Variables:- Solution of Laplace equation.
11/11/2019 to 17/11/2019	Wave equation, Heat equation (one & 2 dimens in Cartesian Co-ordinate system) + Test-Unit
18/11/2019 to 24/11/2019	Revision

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Nisha

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GOVERNMENT COLLEGE BIROHAR (JHAJJAR)

NAME OF EMPLOYEE: Monica

SUBJECT: Statics

ACADAMIC SESSION: 2019-20

SEMESTER:- (JULY 19 TO NOV. 19)

LESSON PLAN OF CLASS: B.S.C II

WEEK AND DATE	TOPIC/CHAPTERS TO BE COVERED / EVENTS
26/08/2019 to 01/09/2019	Composition and resolution of forces.
02/09/2019 to 08/09/2019	Parallel forces.
09/09/2019 to 15/09/2019	Moments and Couples
16/09/2019 to 22/09/2019	Analytical Conditions of Equilibrium of Coplanar forces.
23/09/2019 to 29/09/2019	Friction. Centre of Gravity.
30/09/2019 to 06/10/2019	I & II unit Unit Test + 1st Assignment.
07/09/2019 to 13/10/2019	virtual work. Forces in three dimensions
14/10/2019 to 20/10/2019	Poinsots Central Axis.
21/10/2019 to 27/10/2019	wrenches.
28/10/2019 to 03/11/2019	Null lines and planes
04/11/2019 to 10/11/2019	Revision I and II Unit.
11/11/2019 to 17/11/2019	stable and unstable equilibrium
18/11/2019 to 24/11/2019	III & IV unit test + 2nd Assignment

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Monica

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GOVERNMENT COLLEGE BIRDHAR (JHARKHAND)

NAME OF EMPLOYEE: Niravdeep Singh

SUBJECT: Mathematics

ACADEMIC SESSION: 2019-20

SEMESTER: 1st SEMESTER

LESSON PLAN OF CLASS: 11th

WEEK AND DATE	TOPIC/CHAPTERS TO BE COVERED / EVENTS
26/08/2019 to 01/09/2019	Purpose for Biological and Social Sciences
02/09/2019 to 08/09/2019	Comparison of cells, growth and development of life, evolution to Biology
09/09/2019 to 15/09/2019	Biology as a function of environment
16/09/2019 to 22/09/2019	History, significance and development of the subject of a function of a parameter
23/09/2019 to 29/09/2019	Definition and Examples of various types of neighbourhoods
30/09/2019 to 06/10/2019	Class and various boundary points, analysis of various cases, continued analysis
07/09/2019 to 13/10/2019	Cauchy sequences, completeness, metric spaces, norm, inner product, category, power.
14/10/2019 to 20/10/2019	Continuity principles.
21/10/2019 to 27/10/2019	Continuous functions, uniform continuity, applications for metric spaces, equivalent metrics.
28/10/2019 to 03/11/2019	First derivative property, continuity in relation with applications, connectedness.
04/11/2019 to 10/11/2019	Continuity in relation with connectedness
11/11/2019 to 17/11/2019	Review
18/11/2019 to 24/11/2019	Revision

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Niravdeep Singh

Niravdeep Singh
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 BIRDHAR, JHARKHAND

GOVERNMENT COLLEGE BIROHAR (JHAJJAR)

NAME OF EMPLOYEE: Narendra Singh

SUBJECT: Mathematics

ACADAMIC SESSION: 2019-20

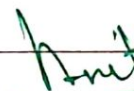
SEMESTER:- (JULY 19 TO NOV. 19)

LESSON PLAN OF CLASS: B.Sc-III

WEEK AND DATE	TOPIC/CHAPTERS TO BE COVERED / EVENTS
26/08/2019 to 01/09/2019	Improper Integral and their Convergence.
02/09/2019 to 08/09/2019	Comparison tests, Abel's and Dirichlet's tests, Fubini's Integral
09/09/2019 to 15/09/2019	Integral as a function of parameter
16/09/2019 to 22/09/2019	Continuity, Differentiability and integrability of an integral of a function of s parameter.
23/09/2019 to 29/09/2019	Definition and Examples of metric spaces, neighbourhood, limit point, interior points, open and closed sets
30/09/2019 to 06/10/2019	Closure and interior, boundary points, subspace of metric space, equivalent metrics
07/09/2019 to 13/10/2019	Cauchy sequence, Completeness, Cantor's intersection theorem, Baire's Category theorem,
14/10/2019 to 20/10/2019	Contraction principle.
21/10/2019 to 27/10/2019	Continuous Function, uniform continuity, Comparison for metric spaces, equivalent metrics.
28/10/2019 to 03/11/2019	Finite intersection property, Continuity in relation with compactness, Connectedness,
04/11/2019 to 10/11/2019	Continuity in relation with Connectedness
11/11/2019 to 17/11/2019	Revision
18/11/2019 to 24/11/2019	Revision

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GOVERNMENT COLLEGE BIROHAR (JHAJJAR)

NAME OF EMPLOYEE: Nisha Rani

SUBJECT: Mathematics (Groups & Rings)

ACADAMIC SESSION: 2019-20

SEMESTER:- (JULY 19 TO NOV. 19)

LESSON PLAN OF CLASS: B.Sc III

WEEK AND DATE	TOPIC/CHAPTERS TO BE COVERED / EVENTS
26/08/2019 to 31/09/2019	Homomorphisms
02/09/2019 to 08/09/2019	Isomorphisms, Automorphisms + Test unit - I.
09/09/2019 to 05/09/2019	Inner Automorphisms of a group.
06/09/2019 to 02/09/2019	Automorphisms of cyclic group + Assignment - I.
03/09/2019 to 09/09/2019	Permutation Groups. Even & odd permutations Alternating Groups.
00/09/2019 to 06/10/2019	Cayley's Theorem, Centre of a group & Derived group of a group. + Test unit - II
07/09/2019 to 03/10/2019	Introduction to rings, Subrings
04/10/2019 to 00/10/2019	Integral domain & field. Characteristic of Ring + Test unit - III
01/10/2019 to 07/10/2019	Ring homomorphism, Ideals & Quotient Rings
03/10/2019 to 03/11/2019	Field of Quotients of an Integral domain.
04/11/2019 to 00/11/2019	Euclidean rings + Assignment - II
07/11/2019 to 07/11/2019	Eisenstein Criterion of Irreducibility, Polynomials ring over commutative rings.
07/11/2019 to 07/11/2019	Unique factorization domain & Revision. + Test unit - IV

nature of employee Nisha

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GOVERNMENT COLLEGE BIROHAR (JHAJJAR)

NAME OF EMPLOYEE: Monika

SUBJECT: Numerical Analysis

ACADAMIC SESSION: 2019-20

SEMESTER:- (JULY 19 TO NOV. 19)

LESSON PLAN OF CLASS: B.Sc III

WEEK AND DATE	TOPIC/CHAPTERS TO BE COVERED / EVENTS
26/08/2019 to 01/09/2019	Lagrange's Interpolation formulae,
02/09/2019 to 08/09/2019	Hermite formula, Central Differences, Gauss forward and Gauss's backward Interpolation
09/09/2019 to 15/09/2019	Probability distribution of random variables, Binomial distribution, Poisson's distribution
16/09/2019 to 22/09/2019	Normal distribution, Mean variance and fitting
23/09/2019 to 29/09/2019	Numerical Differentiation, derivative of a function using interpolation formulae ^{as stated} I & II
30/09/2019 to 06/10/2019	I and II unit Test + I Assignment
07/09/2019 to 13/10/2019	Eigen value problems, power Method, Jacobi's Method, Given Method
14/10/2019 to 20/10/2019	House Holder's Method, QR Method, Lanezo's Method, Newton-Cote's Quadrature
21/10/2019 to 27/10/2019	Trapezoidal rule, Simpson's one-third, and three eighth rule, Chebyshev formula,
28/10/2019 to 03/11/2019	Numerical Solution of ordinary differential Equations, Single step Method - Picard's Method
04/11/2019 to 10/11/2019	Taylor's series Method, Euler Method,
11/11/2019 to 17/11/2019	Runge-Kutta Methods, Multiple Step Methods, Predictor-Corrector Method
18/11/2019 to 24/11/2019	III unit Test + 2 Assignment, Modified Method, Milne-Simpson's Method

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Monika

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GOVERNMENT COLLEGE BIROHAR (JHAJJAR)

NAME OF EMPLOYEE: Monika

SUBJECT: Business Mathematics

ACADAMIC SESSION: 2019-20

SEMESTER:- (JULY 19 TO NOV. 19)

LESSON PLAN OF CLASS: B.Com Ist

WEEK AND DATE	TOPIC/CHAPTERS TO BE COVERED / EVENTS
26/08/2019 to 01/09/2019	Union of sets, Intersection, Complement
02/09/2019 to 08/09/2019	Difference of sets, Venn Diagram,
09/09/2019 to 15/09/2019	Cartesian Product of two sets,
16/09/2019 to 22/09/2019	Applications of set theory,
23/09/2019 to 29/09/2019	Indices and logarithms
30/09/2019 to 06/10/2019	Test Ist Unit + Assignment + Revision
07/09/2019 to 13/10/2019	Elementary idea of Permutations and Combinations.
14/10/2019 to 20/10/2019	Sequences and Series A.P
21/10/2019 to 27/10/2019	Sequences and Series G.P
28/10/2019 to 03/11/2019	Data Interpretation, Introduction,
04/11/2019 to 10/11/2019	Approaches to data Interpretation,
11/11/2019 to 17/11/2019	Tabulation, Bar graphs, Pie Charts
18/11/2019 to 24/11/2019	II & IV Unit Test + Assignment, Line graphs Mix graphs

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Monika

Monika
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GOVERNMENT COLLEGE BIROHAR (JHAJJAR)

NAME OF EMPLOYEE: Seetu Singh

ACADAMIC SESSION: 2019-20

SUBJECT: Inorganic Chemistry

SEMESTER:- (JULY 19 TO NOV. 19)

LESSON PLAN OF CLASS: B.Sc. Sem 5th

WEEK AND DATE	TOPIC/CHAPTERS TO BE COVERED / EVENTS
26/08/2019 to 01/09/2019	General Introduction of Metal Ligand bonding
02/09/2019 to 08/09/2019	Metal Ligand Bonding in Transition Metal Complex. Limitations of Valence bond theory, An elementary idea of Crystal-field theory
09/09/2019 to 15/09/2019	Crystal field splitting in Octahedral, tetrahedral and Square Planar Complexes,
16/09/2019 to 22/09/2019	Affecting the crystal field Parameters, Text
23/09/2019 to 29/09/2019	Thermodynamic and Kinetic Aspects of Metal Complexes - Basic, A brief outline of thermodynamic stability of Metal complexes
30/09/2019 to 06/10/2019	and factors affecting the stability, Substituted reaction of square planar complexes of Pt
07/09/2019 to 13/10/2019	Magnetic Properties of Transition Metal, Measurement of Magnetic Properties Spin-only formula, Types of Magnetic behaviour, L-S coupling
14/10/2019 to 20/10/2019	Method of determining magnetic susceptibility, Correlation of μ_B and μ_{eff} values, Orbital contribution to magnetic moments
21/10/2019 to 27/10/2019	Application of Magnetic moment data for 3d-metal complexes, Basics of Electron Absorption Spectroscopy, Term Symbols and Coupling Scheme
28/10/2019 to 03/11/2019	Types of electronic transitions, selection rules for d-d transitions, Spectroscopic ground states
04/11/2019 to 10/11/2019	Orbital-energy level diagram for d^1 & d^9 states, Discussion of the electronic spectrum of $[Ti(H_2O)_6]^{3+}$ complex is Spectrochemical Series, Hule formulation,
11/11/2019 to 17/11/2019	Calculation of Number of Microstates, Text, Assignment
18/11/2019 to 24/11/2019	Revision of complete syllabus + Test.

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Seetu Singh
31/08/19

Principa

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GOVERNMENT COLLEGE BIROHAR (JHAJJAR)

NAME OF EMPLOYEE: Seedu Singh

SUBJECT: Physical Chemistry

ACADEMIC SESSION: 2019-20

SEMESTER:- (JULY 19 TO NOV. 19)

LESSON PLAN OF CLASS: B.Sc. Sem 5th

WEEK AND DATE	TOPIC/CHAPTERS TO BE COVERED / EVENTS
5/08/2019 to 1/09/2019	Introduction of Spectroscopy + Degree of freedom, width and intensity of spectral lines + Signal to Noise Ratio
2/09/2019 to 8/09/2019	Introduction of Rotational Spectra, Type of molecules exhibiting R.R. Rotational Spectra of rigid rotator.
9/09/2019 to 5/09/2019	Rotational Spectra of Non-rigid rotator + Isotopic effects.
6/09/2019 to 2/09/2019	Applications of rotational spectroscopy, Vibrational Spectra of S.H.O, Test of Spectroscopy for Internal A.
3/09/2019 to 9/09/2019	Vibrational spectra of Anharmonomic oscillator. Isotope Effect, Normal Mode of Vibration
10/09/2019 to 16/10/2019	Vib. freq. of different functional group, Vibrational Rotational Spectra of diatomic molecules, Numerical on Rotational & Vibrational Spectroscopy
17/09/2019 to 13/10/2019	Raman Spectroscopy + Test
14/10/2019 to 20/10/2019	Introduction of Quantum Mechanics + Black body Radiation + Photoelectric Effect
21/10/2019 to 27/10/2019	Heat Capacity of solids, Postulates of Quantum Mechanics
28/10/2019 to 03/11/2019	Quantum Mechanical operators, Test of Quantum Mechanics.
04/11/2019 to 10/11/2019	Particle in One-D Box, optical activity.
11/11/2019 to 17/11/2019	Polarization, Dipole Moment, Magnetic Permeability,
18/11/2019 to 24/11/2019	Susceptibility and its determination Application of Magnetic Susceptibilities
	Magnetic Properties - Paramagnetism, diamagnetism and ferromagnetism, Test + Assignment

Signature of employee

Seedu Singh
31/08/19

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GOVT COLLEGE
Birohar, Jharkhand

GOVERNMENT COLLEGE BIROHAR (JHAJJAR)

NAME OF EMPLOYEE: Seetu Singh

ACADAMIC SESSION: 2019-20

SUBJECT: Physical Chemistry

SEMESTER:- (JULY 19 TO NOV. 19)

LESSON PLAN OF CLASS: B.Sc. Sem Ist

WEEK AND DATE	TOPIC/CHAPTERS TO BE COVERED / EVENTS
26/08/2019 to 01/09/2019	Liquid states - General Introduction, Basic of Liquid states, structure of Liquid, theories of Liquid state.
02/09/2019 to 08/09/2019	Str. differences between solids, liquids and gases. Properties of liquids - Surface tension, viscosity
09/09/2019 to 15/09/2019	Effect of Temp. on viscosity. Vapour Pressure, Optical rotations, and their determination, Ex. Ours and Numerical.
16/09/2019 to 22/09/2019	Solid states - Basics, classification of solids, Differences between crystalline and Amorphous solid.
23/09/2019 to 29/09/2019	Types of crystalline solids, Laws of Crystallography Basic Terms used in Crystallography Law of constancy of interfacial angles, Law of rationality of indices.
30/09/2019 to 06/10/2019	Law of Symmetry, Definition of unit cell & space lattice, Crystal system, x-ray diffraction by crystals. Derivation of Bragg's eq.
07/09/2019 to 13/10/2019	Determination of crystal str. of NaCl, KCl, Liquid Crystals - Difference between solids, and liquid crystals, Types of liquid crystal.
14/10/2019 to 20/10/2019	Applications of liquid crystal, Gaseous state - Maxwell's distribution of velocities and energies. Calculation of root mean square velocity.
21/10/2019 to 27/10/2019	Collision diameter, Collision number, Collision frequency and mean free path, Derivation of Vander waal's
28/10/2019 to 03/11/2019	Equation of states, Average velocity and most probable velocity, Derivation of Real gases to ideal behaviour.
04/11/2019 to 10/11/2019	Its application in the Calculation of Boyle temperature Numericals, Text Critical temperature
11/11/2019 to 17/11/2019	Critical Pressure, Critical volume and their determination, Continuity of states, P-T isotherms, real gases, Relationship b/w Critical constant and Vander waal's Constants.
18/11/2019 to 24/11/2019	Real gases using Vander waal's eq. Critical compressibility factor. The law of corresponding states. Equation of gases. Text.

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Seetu Singh
31/08/19

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Birohar Jhajjar:

GOVERNMENT COLLEGE BIROHAR (JHAJJAR)

NAME OF EMPLOYEE: Shivani

SUBJECT: Inorganic Chemistry

ACADAMIC SESSION: 2019-2020

SEMESTER:- (JULY 19 TO NOV. 19)

LESSON PLAN OF CLASS: BSc. Ist Semester

WEEK AND DATE	TOPIC/CHAPTERS TO BE COVERED / EVENTS
26/08/2019 to 01/09/2019	Idea of de-Broglie matter waves + Heisenberg's uncertainty principle, Atomic orbitals, Quantum Numbers, Wave functions, Probability Distribution
02/09/2019 to 08/09/2019	orbital shape, Aufbau, Pauli's exclusion principle, Electronic configuration, Hund's rule, effective Nuclear charge
09/09/2019 to 15/09/2019	Slater's Rule, Hyperconjugation, Resonance, Inductive effect, Electromeric effect, Periodic table
16/09/2019 to 22/09/2019	Atomic and ionic radii, Ionization energy, electron affinity and electronegativity.
23/09/2019 to 29/09/2019	Methods of determination of electronegativity, Trend in periodic table
30/09/2019 to 06/10/2019	Presentation on Atomic orbitals + Quantum No.s + orbital shape + trend in I.E, Electronegativity, Electron Affinity + Test of Atomic Size
07/10/2019 to 13/10/2019	VBT + VSEPR theory and Applications to molecules + MO (N_2, O_2, CO, NO), Hybridization and applications
14/10/2019 to 20/10/2019	Presentation on Geometry and shape determination from VSEPR and Hybridization + Test of Covalent Bond
21/10/2019 to 27/10/2019	Bond Energy, Bond length, Dipole moment, % ionic character from Dipole moment and electronegativity, Ionic Structure, Size
28/10/2019 to 03/11/2019	Radius ratio, Effects in Crystal System + Test of Ionic + Assignments Submission
04/11/2019 to 10/11/2019	Lattice Energy + Born Haber Cycle + Solvation energy and its relation with solubility
11/11/2019 to 17/11/2019	Revision and discussion + Doubts session
18/11/2019 to 24/11/2019	Discussion on important Questions for exams

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Shivani
31/08/19

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GOVERNMENT COLLEGE BIROHAR (JHAJJAR)

NAME OF EMPLOYEE: Shivani

SUBJECT: Organic Chemistry

ACADAMIC SESSION: 2019-2020

SEMESTER:- (JULY 19 TO NOV. 19)

LESSON PLAN OF CLASS: BSc. Ist Semester

WEEK AND DATE	TOPIC/CHAPTERS TO BE COVERED / EVENTS
26/08/2019 to 01/09/2019	Localised and Delocalised Bond + Inductive effect, Van der Waals Interaction + Hyperconjugation, Resonance and Electromeric effect and comparison
02/09/2019 to 08/09/2019	Introduction to Stereo isomerism And its type, optical Isomerism, specific rotation + Elements of Symmetry.
09/09/2019 to 15/09/2019	Enantiomerism, Racemic mixture and Resolution + Representation of Stereoisomers and their interconversion. Diastereomers & meso compound + No. of isomers
16/09/2019 to 22/09/2019	D/L, E/Z, R/S system of Nomenclature, Geometrical Isomerism, Conformational Analysis of n-Butane & Cyclohexane.
23/09/2019 to 29/09/2019	Mechanism of organic Reactions + Carbocation Intermediate + Test of Resonance and Hyperconjugation + Presentation on 3-D representation
30/09/2019 to 06/10/2019	Test of stereochemistry for Internal Assessment. Mechanism of organic Reactions + Carbocation Intermediate
07/10/2019 to 13/10/2019	Carbanion, Free radical Carbene.
14/10/2019 to 20/10/2019	Nitrene, Benzene, Type of organic reactions. Type of reagents
21/10/2019 to 27/10/2019	Energy profile diagrams + IUPAC Name of alkanes + Classification + Preparation
28/10/2019 to 03/11/2019	Physical and chemical properties of Alkane and their chemical reactions
04/11/2019 to 10/11/2019	Halogenation of Alkane, cycloalkane preparation and Nomenclature
11/11/2019 to 17/11/2019	Bayer's Strain Theory + Theory of strained Ring Limitations.
18/11/2019 to 24/11/2019	Test of alkanes & cycloalkanes + Questions Discussion

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Shivani
31/05/19

Anita
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GOVERNMENT COLLEGE BIROHAR (JHAJJAR)

NAME OF EMPLOYEE: Shivani

SUBJECT: Organic chemistry

ACADAMIC SESSION: 2019-2020

SEMESTER:- (JULY 19 TO NOV. 19)

LESSON PLAN OF CLASS: BSc. Sem 5th

WEEK AND DATE	TOPIC/CHAPTERS TO BE COVERED / EVENTS
26/08/2019 to 01/09/2019	Classification and Nomenclature of Monosaccharides, mechanism of osazone formation, interconversion of glucose & fructose, Configuration, Chain lengthening
02/09/2019 to 08/09/2019	Chain shortening of aldoses, Formation of glucosides, Determination of ring size of glucose, open chain &
09/09/2019 to 15/09/2019	cyclic structure, Mechanism of mutarotation, structure of ribose & deoxyribose, Introduction to disaccharides &
16/09/2019 to 22/09/2019	anhydrides, Organometallic compounds, Grignard reagent - formation, structure & chemical reactions.
23/09/2019 to 29/09/2019	organozinc compounds, formation & chemical reactions, organolithium compounds. + Assignment
30/09/2019 to 06/10/2019	formation & chemical reactions & applications of organometallic compounds. + Class Test
07/09/2019 to 13/10/2019	Principle of NMR, PMR spectrum, number of signals, peak areas, equivalent & non equivalent protons, position of
14/10/2019 to 20/10/2019	signals and chemical shift, shielding & deshielding of protons, proton counting, splitting of signals and coupling constants
21/10/2019 to 27/10/2019	Magnetic equivalence of protons, Discussion of PMR spectra of molecules - ethyl bromide, n-propyl bromide
28/10/2019 to 03/11/2019	isopropyl bromide, 1,1-dibromoethane, ethanol, acetaldehyde, ethyl acetate, toluene, benzaldehyde, acetophenone
04/11/2019 to 10/11/2019	Simple problems on PMR Spectroscopy for structure determination of organic compounds.
11/11/2019 to 17/11/2019	More structure determination problems on NMR
18/11/2019 to 24/11/2019	Doubt Session + Revision + Class Tests

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Shivani
31/08/19

Anita
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GOVERNMENT COLLEGE BIROHAR (JHAJJAR)

NAME OF EMPLOYEE: Dr. Pardeep Kumar

SUBJECT: Phy. Edu.

ACADEMIC SESSION: 2019-20

SEMESTER:- (JULY 19 TO NOV. 19)

LESSON PLAN OF CLASS: All Students

WEEK AND DATE	TOPIC/CHAPTERS TO BE COVERED / EVENTS
26/08/2019 to 01/09/2019	Practice of games for participate in tournaments as per schedule of tournament.
02/09/2019 to 08/09/2019	Practice of games for participate in various tournaments as per tournament schedule.
09/09/2019 to 15/09/2019	Practice of games for participate in various tournaments as per tournament schedule.
16/09/2019 to 22/09/2019	Practice of games for participate in various tournaments as per tournament schedule.
23/09/2019 to 29/09/2019	Practice of games for participate in various tournaments as per tournament schedule.
30/09/2019 to 06/10/2019	Practice of games for participate in various tournaments as per tournament schedule.
07/09/2019 to 13/10/2019	Practice of games for participate in various tournaments. Planning to org. College Annual Athletic Meet.
14/10/2019 to 20/10/2019	Practice of games for participate in various tournaments. Planning to org. College Annual Athletic Meet.
21/10/2019 to 27/10/2019	Practice of games for participate in various tournaments as per tournament schedule.
28/10/2019 to 03/11/2019	Practice of games for participate in various tournaments as per tournament schedule.
04/11/2019 to 10/11/2019	Practice of games for participate in various tournaments as per tournament schedule.
11/11/2019 to 17/11/2019	Practice of games for participate in various tournaments as per tournament schedule.
18/11/2019 to 24/11/2019	Practice of games for participate in various tournaments as per tournament schedule.

Signature of employee

Dr. Pardeep Kumar

Dr. Pardeep Kumar
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