

महाराणा प्रताप पी.जी. कालेज, जंगल धूसड़, गोरखपुर

कक्षा : बी.एस-सी. भाग-तीन			पाठ्यक्रम योजना : सत्र २०१५-२०१६		विषय : भौतिकी
दिनांक	व्याख्यान	प्राध्यापक का नाम	प्रश्नपत्र	अध्याय	शीर्षक
16.07.2015	1	Amit Mishra	I	Introduction	List of books
20.07.2015	2	Amit Mishra	I	Classical mechanics	Conservation theorem
21.07.2015	1	Maneeta Singh	II	Introduction	List of books
22.07.2015	2	Maneeta Singh	II	Schrodinger equation	Time independent equation
23.07.2015	1	Amit Mishra	IV	Introduction	List of books
24.07.2015		Amit Mishra		Class Teaching	
24.07.2015	1	Maneeta Singh	III	Introduction	List of books
25.07.2015	3	Amit Mishra	I	System of particle	Constraints & generalised coordinates
25.07.2015	2	Maneeta Singh	III	Statistical of thermodynamics	Phase space J M-space, r-space
27.07.2015	4	Amit Mishra	I	System of particle	D-alembert principle
28.07.2015	3	Maneeta Singh	II	Schrodinger equation	Time-depedent equation
29.07.2015	4	Maneeta Singh	II	Schrodinger equation	Postulate of Q.M. superposition principle
30.07.2015	2	Amit Mishra	IV	Atomic spectra of two systems	Coupling scheme
22.07.2015		M. Singh/A. Mishra		Class Teaching	
23.07.2015	3	Maneeta Singh	III	Statistical bases of	Ensemble, Ergodic Surface
				thermodynamics	
01.08.2015	5	Amit Mishra	I	System of particles	Langrange's equation
01.08.2015	4	Maneeta Singh	III	Statistical basis of	Ensemble Average, Density of states
				thermodynamics	
03.07.2015	6	Amit Mishra	I	System of particles	Generalised Momenta
04.07.2015	5	Maneeta Singh	II	Schrodin Equation	Physical Interpretation of wave function
05.07.2015	6	Maneeta Singh	II	Schrodin Equation	Normalization, orthogonality
06.07.2015	3	Amit Mishra	IV	Atomic Spectra of two	Spin or bit Interaction Energy
				System	
07.07.2015		Amit Mishra		Class Teaching	
07.08.2015	5	Maneeta Singh	III	Statistical basis of	Liouville's theorem
				thermodynamics	
08.08.2015	7	Amit Mishra	I	System of particle	Principle of least action
08.08.2015	6	Maneeta Singh	III	Statistical basis of	Liouville's theorem : 2 nd part
				thermodynamics	

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10.08.2015	8	Amit Mishra	I	System of particle	Principle of least action
11.08.2015	7	Maneeta Singh	II	Schrodinger equation	Probability current density
12.08.2015	8	Maneeta Singh	II	Schrodinger equation	Expectation Value
13.08.2015	4	Amit Mishra	IV	Atomic spectra of two	Zeeman effect
				particle system	
14.08.2015		Amit Mishra		Class Teaching	
14.08.2015	7	Maneeta Singh	III	Thermodynamic equilibrium	Statistical equilibrium, Probability & entropy
17.08.2015	9	Amit Mishra	I	System of particle	Langrangian for a free particle
18.08.2015	10	Amit Mishra	I	System of particle	Remaining portion & discussion
20.08.2015	9	Maneeta Singh	II	Schrodinger Equation	Ehrenfest's theorem
21.08.2015	10	Maneeta Singh	II	Schrodinger Equation	Ehrenfest's theorem
21.08.2015	8	Maneeta Singh	III	Thermodynamic equilibrium	Boltzman Entropy Relation
22.08.2015	5	Amit Mishra	IV	Two valance system	Paschen back effect
22.08.2015	9	Maneeta Singh	III	Thermodynamic equilibrium	2nd Law of thermodynamics
23.08.2015		A. Mishra / M. Singh		Evaluation	
24.08.2015	11	Amit Mishra	I	Two body problem	Reduction to one body problem
25.08.2015	12	Amit Mishra	I	Two body problem	Centre of Mass, kepler's Law
26.08.2015	11	Maneeta Singh	II	Schrodinger equation	Degeneracy & parity
27.08.2015	12	Maneeta Singh	II	Operator	Linear operator, production of two operator
31.08.2015	6	Amit Mishra	IV	Two Valence System	Spectra of alkali earth element
01.09.2015		Amit Mishra		Class Teaching	
03.09.2015	13	Amit Mishra	I	Two body problem	Kepler's problem
03.09.2015	14	Amit Mishra	I	Canonical form ulation	Hamilton's equation
04.09.2015	10	Maneeta Singh	III	Thermodynamic equilibrium	M.B. distribution
07.09.2015	13	Maneeta Singh	II	Operator	Simultaneous egin function
08.09.2015	14	Maneeta Singh	II	Operator	Hermitian operator
09.09.2015	7	Amit Mishra	IV	Atomic spectra of one	Atomic spectra of alkali metals
				valence system	
10.09.2015		Amit Mishra		Class Teaching	
11.09.2015	15	Amit Mishra	I	Canonical formulation	Canonical transformation

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11.09.2015	11	Maneeta Singh	III	Thermodynamic equilibrium	M.B. distribution of speed in an ideal gas
12.09.2015	16	Amit Mishra	I	Canonical formulation	Poisson's bracket, angular momentum
12.09.2015	12	Maneeta Singh	III	Quantum statistics	M. B. distribution
14.09.2015	15	Maneeta Singh	II	Operator	Angular momentum operator
15.09.2015	16	Maneeta Singh	II	Simple one-D problem	Particle in a box
16.09.2015	8	Amit Mishra	IV	Atomic spectra of one	Zeeman effect
				valence system	
18.09.2015		Amit Mishra		Class Teaching	
18.09.2015	13	Maneeta Singh	III	Quantum statistics	B.E. distribution
19.09.2015	17	Amit Mishra	I	Canonical formulation	Hamilton principle function & hamilton jacobi
					equation
19.09.2015	14	Maneeta Singh	III	Quantum Statistics	Planck's Law
21.09.2015	21	Amit Mishra	I	Canonical formulation	Harmonic oscillator problem
22.09.2015	17	Maneeta Singh	II	Simple one-D problem	Step potential
23.09.2015	18	Maneeta Singh	II	Simple one-D problem	Rectangular barrier
24.09.2015	9	Amit Mishra	IV	Atomic spectra of one	Paschen-Back effect
				valence of system	
26.09.2015		Amit Mishra		Monthly Evaluation	
26.09.2015	15	Maneeta Singh	III	Quantum Statistics	R-D equation
28.09.2015	19	Amit Mishra	I	Motion of rigid bodies	Angular momentum
29.09.2015	20	Amit Mishra	I	Motion of rigid bodies	Torque free motion of a rigid body
01.10.2015	19	Maneeta Singh	II	Simple one-D problem	Rectangular barrier
03.10.2015	20	Maneeta Singh	II	Simple one-D problem	Finite Potential well
03.10.2015	16	Maneeta Singh	III	Laser & Maser	Einstein coefficient
05.10.2015	10	Amit Mishra	IV	Atomic spectra of one	Spin orbital Interaction
				valence & system	
06.10.2015		Amit Mishra		Class Teaching	
07.10.2015	21	Amit Mishra	I	Motion of rigid bodies	Symmetrical top precession
08.10.2015	22	Amit Mishra	I	Curvi linear coordinates	Tangent basis vectors, scale factor
09.10.2015	21	Maneeta Singh	II	One D-Harmonic Oscillator	Linear Harmonic Oscillator

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09.10.2015	17	Maneeta Singh	III	Laser & Maser	Eienstein coefficient, Population inversion
10.10.2015	22	Maneeta Singh	II	One D-Harmonic Oscillator	Ground & excited states, zero point energy
10.10.2015	18	Maneeta Singh	III	Laser & maser	Three level laser, Ruby Laser
14.10.2015	11	Amit Mishra	IV	Atomic Spectra of One	Stark's effect
				Valence System	
15.10.2015		Amit Mishra		Class Teaching	
16.10.2015	23	Amit Mishra	I	Curvilinear coordinates	Spherical coordinate system
16.10.2015	19	Maneeta Singh	III	Laser & Maser	He-Ne Laser, Maser
17.10.2015	24	Amit Mishra	I	Curvilinear coordinates	Polar & Cylindrial Coordinate System
17.10.2015	20	Maneeta Singh	III	Nuclearenstnuments	Cyclotraon
19.10.2015	23	Maneeta Singh	II	Matter and radiation	Photoelectric effect
28.10.2015	12	Amit Mishra	IV	Atomic Spectra of one	Electron Spin & fine structure
				valance system	
29.10.2015	13	Amit Mishra	IV	Atomic Model	Sommer fields Model
30.10.2015		A. Mishra /M. Singh		Evaluation	
30.10.2015	21	Maneeta Singh	III	Nuclear Instrument	Synchrotron
31.10.2015	27	Amit Mishra	I	Curuitlinear coordinates	Gradient of Scale, Curl divergent
31.10.2015	22	Maneeta Singh	III	Nuclear Instrument	Betatron
02.11.2015	28	Amit Mishra	I	Curvilinear coordinates	Laplace equ in splerical polar & cylidrical
03.11.2015	24	Maneeta Singh	II	Matter & Radiation	Compton Effect
04.11.2015	14	Amit Mishra	IV	Atomic Model	Vector Atom Model
05.11.2015	15	Amit Mishra	IV	Atomic Model	Pauli's Exclusion Principle
06.11.2015		Amit Mishra		Class Teaching	
06.11.2015	23	Maneeta Singh	III	Nuclear Instrument	G. M. Counter
07.11.2015	29	Amit Mishra	I	Special function	Legendra generationy Function
07.11.2015	24	Maneeta Singh	III	Elementry Particle	Classification
14.11.2015	30	Amit Mishra	I	Special Function	Legendra different equation
14.11.2015	25	Maneeta Singh	III	Elementry Particle	Elementry ideas of Electro magnate
					Interaction
16.11.2015	25	Maneeta Singh	II	Matter & Radiation	De- Broglie's Hypothesis

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18.11.2015	16	Amit Mishra	IV	Atomic Model	Fine Structure of H α Line
19.11.2015	17	Amit Mishra	IV	Atomic Model	Electronic Configuration of Atom
20.11.2015				Class Teaching	
20.11.2015	26	Maneeta Singh	III	Elementary Particle	Quark Model
21.11.2015	31	Amit Mishra	I	Special functions	Recurrence relations
21.11.2015	27	Maneeta Singh	III	Nuclear & Nuclear Model	Rutherford Scattering
23.11.2015	32	Amit Mishra	I	Special Function	Rodrigue's formula & orthogonality
24.11.2015	26	Maneeta Singh	II	Matter & Radiation	Davison-germer Experiment
25.11.2015	18	Amit Mishra	IV	M.S. of diatomic molecules	Near & Far Infrared Spectra
26.11.2015	19	Amit Mishra	IV	M.S. of diatomic molecules	Rotation-Vibration Spectra Electronic Spectra
27.11.2015		A. Mishra/M.Singh		Evaluation	
27.11.2015	28	Maneeta Singh	III	Nuclear & Nuclear Model	Liquid drop Model
28.11.2015	33	Amit Mishra	I	Special function	Legendre Polynomial & Generating function
					of Laguerre
28.11.2015	29	Maneeta Singh	III	Nuclear & Nuclear Model	Static Properties of Nucleas
30.11.2015	34	Amit Mishra	I	Special function	Recurrence relation for Laguerre
01.12.2015	20	Maneeta Singh	II	Matter & radiation	Uncertainty & Complementry Principle,
					Stern-Gerlach experiment
03.12.2015	20	Amit Mishra	IV	M.S. of Diatomic Molecules	P, Q, R- branches
07.12.2015	21	Amit Mishra	IV	M.S. of Diatomic Molecules	Coupling of rotation
08.12.2015		Amit Mishra		Class Teaching	
09.12.2015	35	Amit Mishra	I	Special functions	orthogonality of laguerre
11.12.2015	36	Amit Mishra	I	Special functions	Rodrigues formula for laguerre
11.12.2015	23	Maneeta Singh	III	Nucleas and Nuclear Model	Semi-empirical Mass formula
12.12.2015	27	Maneeta Singh	II	Matter & radiation	Bohr Magneton, Angular Momentum
12.12.2015	31	Maneeta Singh	III	Matter & radiation	Bohr- Wheeler Theory
14.12.2015	22	Amit Mishra	IV	M.S. of diatomic molecule	Electronic band system
15.12.2015	23	Amit Mishra	IV	M.S. of diatomic molecule	Symmetric properties of electronic eigen function
16.12.2015		Amit Mishra		Class Teaching/Test	
17.12.2015	37	Amit Mishra	I	Special functions	Laguerre's Associated Polynomial

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17.12.2015	37	Amit Mishra	I	Special functions	Hermite differential equation $H_n(x)$
					Generating function for $H_n(x)$
18.12.2015	32	Maneeta Singh	III	Nuclear and Nuclear Model	Beethe's Theory and Nuclear Fusion
19.12.2015	24	Amit Mishra	IV	M.S. of diatomic molecules	Franck-condon principle
19.12.2015	33	Maneeta Singh	III	Nuclear and nuclear Model	Shell Model and Magic Number
21.12.2015	25	Amit Mishra	IV	M.S. of diatomic molecules	Sequences & Progression
22.12.2015	26	Amit Mishra	IV	M.S. of diatomic molecules	Remaining portion
28.12.2015		A. Mishra/M.Singh		Evaluation	
29.12.2015	39	Amit Mishra	I	Special function	Recurrence relation for $H_n(x)$ Orthogonality for
					$H_n(x)$
30.12.2015	40	Amit Mishra	I	Special function	Remaining Portion of Special function
31.12.2015	28	Maneeta Singh	II	H-atom	Rigid Rotator, H-atom
01.01.2016	27	Amit Mishra	IV	Fluorescence & raman spectra	Fluorescence
01.01.2016	34	Maneeta Singh	III	Magnetism	Diamagnetism, Paramagnetism
02.01.2016	28	Amit Mishra	IV	Fluorescence & raman spectra	Raman Spectra
02.01.2016	35	Maneeta Singh	III	Magnetism	Curie's Law
04.01.2016		Maneeta Singh		Class Teaching	
06.01.2016	41	Amit Mishra	I	Proper & improper rotation	Proper & improper rotation
07.01.2016	42	Amit Mishra	I	Euler's angle	Euler's angles, Notation of goldstein
08.01.2016	29	Maneeta Singh	II	H-atom	H-atom, Value of L^2 & L_z
08.01.2016	36	Maneeta Singh	III	Magnetism	FerroMagnetism, domain
09.01.2016	37	Maneeta Singh	III	Magnetism	Hysteresis Loop
09.01.2016	38	Maneeta Singh	III	Magnetism	Remaining portion
11.01.2016	29	Amit Mishra	IV	Fluorescence & raman spectra	Kinds of Raman spectra
12.01.2016		Amit Mishra		Class Teaching	
13.01.2016	43	Amit Mishra	I	Orthogonal Transformation	Transformation of Matrix
16.01.2016	44	Amit Mishra	I	Orthogonal Transformation	Numerical & Questions
16.01.2016	39	Maneeta Singh	III	Revision	Revision
18.01.2016	40	Maneeta Singh	III	Revision	Revision
19.01.2016	30	Maneeta Singh	II	H-atom	Remaining portion

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