Lesson Plan

Name of the Assistant/ Associate Professor..... MRS SANTOSH KURRA

Class and Section:.... B.Sc. III (B.) (4-6) (Thursday, Friday and Saturday)

Subject:.... Solid State and Nano Physics

Week	Date	Topics
1	1-Jan-18	
	2-Jan-18	
	3-Jan-18	
UNIT I	4-Jan-18	Crystalline and glassy forms, Liquid crystals.
	5-Jan-18	Crystalline structure, Periodicity, Lattice, Basis, translational vectors.
	6-Jan-18	Unit cell, Primitive cell, Wigner Seitz Primitive cell.
	7-Jan-18	Sunday
2	8-Jan-18	
	9-Jan-18	
	10-Jan-18	
	11-Jan-18	Symmetry operations for a two dimensional crystal.
	12-Jan-18	Bravais lattices in two and three dimensions
	13-Jan-18	Crystal planes and Miller indices, Interplanar spacing.
	14-Jan-18	Sunday
3	15-Jan-18	
	16-Jan-18	
	17-Jan-18	
	18-Jan-18	Crystal structure of ZnS, NaCl
	19-Jan-18	Crystal structure of Diamond
	20-Jan-18	Numerical problems and doubts.
	21-Jan-18	Sunday
4	22-Jan-18	Vasant Panchami
	23-Jan-18	
	24-Jan-18	Sir Chhotu Ram Jayanti
	25-Jan-18	Test of Unit I
	26-Jan-18	Republic Day
II	27-Jan-18	X-Ray Diffraction (Basic) & Bragg's law.
	28-Jan-18	Sunday
5	29-Jan-18	
	30-Jan-18	Test
	31-Jan-18	

Lesson Plan

Name of the Assistant/ Associate Professor.....MRS. SANTOSH KUMAR.....

Class and Section:.....

Subject:.....

Week	Date	Topics
1	1-Feb-18	Experimental X-ray diffraction methods
	2-Feb-18	K-space and Reciprocal space.
	3-Feb-18	Physical significance of K-space and Reciprocal space.
	4-Feb-18	Sunday
2	5-Feb-18	
	6-Feb-18	
	7-Feb-18	
	8-Feb-18	Reciprocal lattice vector.
	9-Feb-18	Reciprocal lattice to simple cubic
	10-Feb-18	Maharshi Dayanand Saraswati Jayanti
	11-Feb-18	Sunday
3	12-Feb-18	
	13-Feb-18	Maha Shivratri
	14-Feb-18	
	15-Feb-18	Reciprocal lattice to bcc and f.cc
	16-Feb-18	Bragg's and numerical problems.
	17-Feb-18	Test of Unit II
	18-Feb-18	Sunday
4	19-Feb-18	
	20-Feb-18	
	21-Feb-18	
III	22-Feb-18	Historical introduction and survey of superconductivity
	23-Feb-18	Superconducting systems, High Tc superconductors.
	24-Feb-18	Isotope effects, Critical Magnetic field
	25-Feb-18	Sunday
5	26-Feb-18	
	27-Feb-18	
	28-Feb-18	

Lesson Plan

Name of the Assistant/ Associate Professor..... MRS. SANTOSH KUMARI

Class and Section:.....

Subject:.....

Week	Date	Topics
1	1-Mar-18	Guru Ravidas Birthday
	2-Mar-18	Holi
	3-Mar-18	
	4-Mar-18	Sunday
2	5-Mar-18	
	6-Mar-18	
	7-Mar-18	
	8-Mar-18	Meissner effect and London theory
	9-Mar-18	London Equation and Pippards eqhation
	10-Mar-18	Classification of superconductors (Type I and type II)
	11-Mar-18	Sunday
3	12-Mar-18	
	13-Mar-18	
	14-Mar-18	
	15-Mar-18	BCS Theory of superconductivity, Flux quantization
	16-Mar-18	Josephson Effect (AC and DC)
	17-Mar-18	Practical applications of superconductivity and limitations
	18-Mar-18	Sunday
4	19-Mar-18	
	20-Mar-18	
	21-Mar-18	
	22-Mar-18	Power applications of superconductors.
	23-Mar-18	Shaheedi Diwas of Bhagat Singh, Rajguru & Sukhdev
	24-Mar-18	Doubts and numericals.
	25-Mar-18	Sunday/ Ram Navami
5	26-Mar-18	
	27-Mar-18	Test
	28-Mar-18	
	29-Mar-18	Mahavir Jayanti
IV	30-Mar-18	Definition and length (Nano) scale
	31-Mar-18	Importance of Nano scale and technology.

Lesson Plan

Name of the Assistant/ Associate Professor..... MRS. SANTOSH KUMARI

Class and Section:.....

Subject:.....

Week	Date	Topics
1	1-Apr-18	Sunday
	2-Apr-18	
	3-Apr-18	
	4-Apr-18	
	5-Apr-18	History of Nano technology. Molecular assembler concept.
	6-Apr-18	Benefits and challenges in molecular manufacturing.
	7-Apr-18	Understanding advanced capabilities
	8-Apr-18	Sunday
2	9-Apr-18	
	10-Apr-18	
	11-Apr-18	
	12-Apr-18	Vision and objective of nanotechnology
	13-Apr-18	Nanotechnology in different fields, Automobiles, Electronics
	14-Apr-18	Dr Ambedkar Jayanti / Vaisakhi
	15-Apr-18	Sunday
3	16-Apr-18	
	17-Apr-18	
	18-Apr-18	Parashurama Jayanti
	19-Apr-18	Nanotechnology in medicine, biotech materials
	20-Apr-18	Robots and other practical problems
	21-Apr-18	Test of Unit IV
	22-Apr-18	Sunday
4	23-Apr-18	
	24-Apr-18	
	25-Apr-18	
	26-Apr-18	Revision
	27-Apr-18	Revision
	28-Apr-18	Revision

SANTOSH KUMARI