

Lesson Plan

Name of the Assistant/ Associate Professor: MRS. SANTOSH KURRA
 Class and Section: B.Sc. III, S.K. A. (1-3) (Monday, Tuesday and Wednesday)
 Subject: Solid State and Nano Physics

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

(Signature)

Lesson Plan

Name of the Assistant/ Associate Professor.....Mrs. SANTOSH KWARA

Class and Section:.....

Subject:.....

Week	Date	Topics
1	1-Feb-18	
	2-Feb-18	
	3-Feb-18	
	4-Feb-18	Sunday
2	5-Feb-18	Physical significance of k-space and Reciprocal space
	6-Feb-18	Reciprocal lattice vectors
	7-Feb-18	Reciprocal lattice to simple cubic
	8-Feb-18	
	9-Feb-18	
	10-Feb-18	Maharshi Dayanand Saraswati Jayanti
	11-Feb-18	Sunday
3	12-Feb-18	Reciprocal lattice to b.c.c and f.c.c.
	13-Feb-18	Maha Shivratri
	14-Feb-18	Doubts and Numerical Problems
	15-Feb-18	
	16-Feb-18	
	17-Feb-18	
	18-Feb-18	Sunday
4	19-Feb-18	Test of Unit II
	20-Feb-18	Historical Introduction and survey of superconductivity.
	21-Feb-18	Superconducting systems, High T_c superconductors.
	22-Feb-18	
	23-Feb-18	Test
	24-Feb-18	
	25-Feb-18	Sunday
5	26-Feb-18	Isotopic Effect, Critical magnetic field
	27-Feb-18	Meissner effect and London Theory
	28-Feb-18	

UNIT II

18/2

Lesson Plan

Name of the Assistant/ Associate Professor: Mrs. SANTOSH KURRA

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	London Equation and Pippard's equation.
	6-Mar-18	Classification of superconductors (Type I and Type II)
	7-Mar-18	BCS Theory of superconductivity, Flux quantization.
	8-Mar-18	
	9-Mar-18	
	10-Mar-18	
	11-Mar-18	Sunday
3	12-Mar-18	Josephson Effect (AC and DC)
	13-Mar-18	Practical applications of superconductivity and Limitations.
	14-Mar-18	Power applications of superconductors.
	15-Mar-18	
	16-Mar-18	
	17-Mar-18	
	18-Mar-18	Sunday
4	19-Mar-18	Doubts and numericals.
	20-Mar-18	Test of Unit III
	21-Mar-18	Definition and length scale (1nm).
	22-Mar-18	
	23-Mar-18	Shaheedi Diwas of Bhagat Singh, Rajguru & Sukhdev
	24-Mar-18	
	25-Mar-18	Sunday/ Ram Navami
5	26-Mar-18	Importance of Nano scale and Technology.
	27-Mar-18	History of Nano Technology, Molecular assembler concept.
	28-Mar-18	Benefits and challenges in molecular manufacturing.
	29-Mar-18	Mahavir Jayanti
	30-Mar-18	
	31-Mar-18	

UNIT IV

S
SANTOSH KURRA

Lesson Plan

Name of the Assistant/ Associate Professor: MRS. SANTOSH KURAP

Class and Section:

Subject:

Week	Date	Topics
1	1-Apr-18	Sunday
	2-Apr-18	Understanding advanced capabilities
	3-Apr-18	Vision and objective of Nano-technology.
	4-Apr-18	Nanotechnology in different fields, Automobiles, Electronics
	5-Apr-18	
	6-Apr-18	
	7-Apr-18	
	8-Apr-18	Sunday
2	9-Apr-18	Nanotechnology in Medicine, biotech materials.
	10-Apr-18	Doubts and others. practical problems.
	11-Apr-18	Test of Unit IV
	12-Apr-18	
	13-Apr-18	
	14-Apr-18	Dr Ambedkar Jayanti / Vaisakhi
	15-Apr-18	Sunday
3	16-Apr-18	Revision of Unit I + II
	17-Apr-18	Revision of Unit III and IV
	18-Apr-18	Parathurama Jayanti
	19-Apr-18	
	20-Apr-18	Test
	21-Apr-18	
	22-Apr-18	Sunday
4	23-Apr-18	Revision
	24-Apr-18	Revision
	25-Apr-18	Revision
	26-Apr-18	
	27-Apr-18	
	28-Apr-18	


 SANTOSH KURAP