Smart Classroom Lesson Plan – Chemistry (Physical Science)
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Week	Class	Topic Covered
Week 1	B.Sc. 3rd year 5th semester	Section-A NMR Spectroscopy-I Principle of nuclear magnetic resonance, PMR spectrum,number of signals,
Week 2	B.Sc. 3rd year 5th semester	peak areas, equivalent and nonequivalent protons positions of signals and chemical shift, Shielding and deshielding of protons, proton counting,splitting of signals
Week 3	Semester — III Fundamental Chemistry – III	Unit–I Chemistry of Transition series elements General characteristics of transition metals, brief discussion of differences between the first, second and third transition series
Week 4	Semester — III Fundamental Chemistry – III	Stability of various oxidation states, magnetic and spectral properties. Binary compounds and complexes illustrating relative stability of their oxidation states. Chemistry of Ti, V, Cr, Mn, Fe, Co, Mo and W in various oxidation states,
Week 5	Semester — III Fundamental Chemistry – III	some important compounds as laboratory reagents: 34 potassium dichromate, potassium permanganate, potassium ferrocyanide, potassium ferricyanide, sodium nitroprusside and sodium cobaltinitrite
Week 6	B.A. 2nd year 3rd semester MDC	Unit–I Chemical Bonding Types of chemical bonding- ionic bond, covalent bond, coordinate bond hydrogen bonding, Van der Waals interactions
Week 7	B.A. 2nd year 3rd semester MDC	Valence bond theory, concept of hybridization and shapes of simple molecules, VSEPR theory, Molecular orbital theory
Week 8	B.Sc. 3rd year 5th semester	Section-B NMR Spectroscopy-II Discuss ion of PMR spectra of the molecules: ethyl bromide, npropyl bromide, isopropyl bromide, 1,1-dibromoethane, 1,1,2-tribromoethane

Week 9	B.Sc. 3rd year 5th semester	ethanol, acetaldehyde, ethyl acetate, toluene, benzaldehyde and acetophenone.
Week 10	B.A. 2nd year 3rd semester MDC	Unit–III Corrosion Introduction and causes of corrosion, types of corrosion
Week 11	B.A. 2nd year 3rd semester MDC	Homolytic and heterolytic fission of a covalent bond, inductive effect
Week 12	B.A. 2nd year 3rd semester MDC	Electromeric effect and resonance effect.
Week 13	B.A. 2nd year 3rd semester MDC	Unit–III Corrosion Introduction and causes of corrosion, types of corrosion, dry and wet corrosion, factors affecting corrosion
Week 15	B.A. 2nd year 3rd semester MDC	methods to prevent corrosion TEST OF ABOVE UNIT
Week 16	B.A. 2nd year 3rd semester MDC	Unit–IV Biomolecules Carbohydrates- Classification of carbohydrates, structure and importance of monosaccharides, Importance of disaccharides and polysaccharides.
Week 17	B.A. 2nd year 3rd semester MDC	Proteins- Amino acids, peptide linkage primary, secondary, tertiary and quaternary structure of proteins
Week 18	B.A. 2nd year 3rd semester MDC	importance of proteins, denaturation of proteins Nucleic Acids- Structure and function of DNA and RNA.
Week 19	ALL CLASSES	Online quizzes