Lesson Plan

B. Sc. IIIrd Year (Vth Semester)

Paper-XVII (CH-303) Organic Chemistry

Teacher name: Dr. Neha Aggarwal

October 2020

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| NMR Spectroscopy Principle of nuclear magnetic resonance, the PMR spectrum,number of signals, peak areas, equivalent and nonequivalent protons positions of signals and chemical shift,shielding and deshielding of protons, proton counting,splitting of signals and coupling constants, magnetic equivalence of protons. |

November 2020

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| Discussion of PMR spectra of the molecules: ethyl bromide, n-propyl bromide, isopropyl bromide, 1,1-dibromoethane, ethanol, acetaldehyde, ethyl acetate, toluene, benzaldehyde and acetophenone. Simple problems on PMR spectroscopy for structure determination of organic compounds. Carbohydrates Classification and nomenclature of Monosaccharides |

December 2020

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| mechanism of osazone formation, interconversion of glucose and fructose, chain lengthening and chain shortening of aldoses. Configuration of monosaccharides. Erythro and threo diastereomers. Conversion of glucose into mannose. Formation of glycosides, Determination of ring size of glucose and fructose. Open chain and cyclic structure of D(+)-glucose & D(-) fructose. Mechanism of mutarotation. |

January2021

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| Structures of ribose and deoxyribose. An introduction to disaccharides (maltose, sucrose and lactose) and polysaccharides (starch and cellulose) without involving structure determination. Organometallic Compounds Organomagnesium compounds: the Grignard reagents-formation, structure and chemical reactions. |

February 2021

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| Organozinc compounds: formation and chemical reactions. Organolithium compounds: formation and chemical reactions |