Lesson Plan

B. Sc. Ist Year (Ist Semester)

Paper-II (CH-102) Physical Chemistry

Teacher name: Dr. Neha Aggarwal

October 2020

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| Kinetic Molecular Theory of Gases, Maxwell’s distribution of velocities and energies (derivation excluded) Calculation of root mean square velocity, average velocity and most probable velocity., |

November 2020

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| Collision diameter, collision number, collision frequency and mean free path (Derivations excluded), Deviation of Real gases fro m ideal behavior, Derivation of Van der Waal’s Equation of State, its application in the calculation of Boyle’s temperature (compression factor) Critical Phenomenon Critical temperature |

December 2020

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| critical pressure, critical volume and their determination. PV isotherms of real gases, continuity of states, the isotherms of Van der Waal’s equation, relationship between critical constants and Van der Waal’s constants. Critical compressibility factor. |

January2021

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| The Law of corresponding states. Section-B (22 Periods) Liquid States Structure of liquids, Properties of liquids – surface tension, refractive index, viscosity, vapour pressure and optical rotation. Solid State Classification of solids, Law of constancy of interfacial angles, law of rational indices, |

February 2021

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| Miller indices, elementary ideas of symmetry and symmetry elements, seven crystal systems and fourteen Bravais lattices; X-ray diffraction, Bragg’s law, a simple account of Laue method, rotating crystal method and powder pattern method. |