

Govt. Degree College Basohli

Internal Assignment Test of Semester IV (Session 2019-20) for Promotion to Semester V

Subject: Chemistry

MM: 30

Note: All questions are compulsory. The answer should be in detail covering diagrams/ figures/ etc. if required. A medium size notebook (separate for each subject) shall be used for writing the assignment test and all the assignments shall be **submitted together in the college in one visit** latest by 31/08/2020. (Students shall strictly follow the COVID-19 guidelines issued by the Govt. during your visit to the college such as maintaining social distance and wearing the face mask)

Section A: Long Answer Questions (7 marks each)

- Q1.** Write reason for deviation of real gases from ideal behaviour.
- Q2.** What are lanthanoids and actinoids and what is the difference between them.
- Q3.** Write variable oxidation states of 3d series.

Section B: Long Answer Questions (3 marks each)

- Q4.** What is lanthanide contraction? What are the causes of lanthanide contraction? Explain consequences of lanthanide contraction.
- Q5.** What is Latimer diagram? Draw this diagram for Mn and discuss stability of various oxidation states of Mn.
- Q6.** What are postulates of kinetic theory of gases? Derive kinetic gas equation.

Practical (5 Marks each)

- Q1** determine the surface tension of the liquid acetone at room temperature by using stalagmometer.
- Q2** determine the coefficient of viscosity of the liquid benzene at room temperature by using Ostwald viscometer.