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School of Basic Sciences

Bachelor of Science in General
Semester End Examination - Nov 2023

Duration : 180 Minutes
Max Marks : 100

Sem V - C1UB502T - Rearrangements and Chemistry of Group ElementsGeneral Instructions

Answer to the specific question asked

Draw neat, labelled diagrams wherever necessary

Approved data hand books are allowed subject to verification by the Invigilator

- 1) What are the molecular structures of interhalogens? K1 (2)
- 2) Illustrate the uses of metal carbonyls. K2 (4)
- 3) Explain the important characteristics of the transition series element. K2 (6)
- 4) Apply the concept of calculating the metal-metal bond, find the no of metal-metal bond in $Fe_3(CO)_{12}$ and $Ir_4(CO)_{12}$. K3 (9)
- 5) Apply the Ion exchange method for separation of Actinides. K3 (9)
- 6) Conclude the essential and trace elements in biological processes. K5 (10)
- 7) Analyze the biological role of Ca^{2+} and Mg^{2+} in details. K4 (12)
- 8) Justify the diagonal relationship in s-block elements. K5 (15)
- 9) Justify the diagonal relationship for p-block elements. K5 (15)
- 10) Elaborate the reactivity and applications of interhalogens. K6 (18)