

**School of University Polytechnic**

**Diploma in Civil Engineering  
Semester End Examination - Jul 2024**

**Duration : 180 Minutes  
Max Marks : 100**

**Sem I - N1DF105C - Basic Chemistry**General 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*

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|-----|---|--------|
| 1)  | Explain Chemical bonding with examples.   | K1(2)  |
| 2)  | Summarize the various types of corrosion.   | K2(4)  |
| 3)  | Explain why reactive metals get oxidise easily.   | K2(6)  |
| 4)  | Utilize all four quantum numbes to find the values for 5d orbital.  | K3(9)  |
| 5)  | Identify the Physical properties of lubricants in detail.   | K3(9)  |
| 6)  | Explain Wet Corrosion or Electrochemical Corrosion in detail.   | K5(10) |
| 7)  | Compare dry theory & acid theory of corrosion.  | K4(12) |
| 8)  | Explain , Nitrogen exists as molecule or not & find bond order with the help of Molecular Orbital theory (MOT). | K5(15) |
| 9)  | Analyze about Oil paint, Vehicle, modified oils.  | K5(15) |
| 10) | Discuss Metallic bonding with the help of electron gas (sea) model.   | K6(18) |