

GOVERNMENT GENERAL DEGREE COLLEGE, CHAPRA

U.G. INTERNAL ASSESSMENT (2021-22)

SEMESTER-I

SUBJECT- CHEMISTRY (CHEMGT-1)

FULL MARKS – 15

Time: 1 Hour

A. Answer any seven questions from the following: [7x2=14]

1. Why ionisation energy of Fe^{2+} is lower than that of Fe^{3+} ? 2
2. Arrange the following in order of increasing acid strength, give reason. 2
 HClO_4 , HClO_3 , HClO_2
3. Explain why 2d orbital is not possible? 2
4. Write the electronic configuration of Cu & Mn^{2+} . 2
5. What do you mean by standard electrode potential and formal potential? 2
6. Compare the stability order of the following cations. Give reason. 2
 CH_3CH_2^+ , $(\text{CH}_3)_2\text{CH}^+$, $(\text{CH}_3)_3\text{C}^+$
7. Write differences between E1 and E2 reaction. 2
8. What are the conditions for a molecule to be optically active? Give example. 2
9. Give example of each 2
 - i. Saytzeff elimination
 - ii. Hofmann elimination
10. How will you prepare acetic acid from methanol? 2

B. Answer any one question from the following: [1x1=1]

1. Which reagent is used for the conversion of alkyne to cis-alkene? 1
2. How do you distinguish between but-2-yne and but-1-yne by a chemical test? Write the reaction. 1