

JAYPEE UNIVERSITY OF INFORMATION TECHNOLOGY, WAKNAGHAT

TEST-II EXAMINATION- October 2019

B.Tech III Semester (Civil)

COURSE CODE: 18B11CE311

MAX. MARKS: 25

COURSE NAME: Chemistry

COURSE CREDITS: 3

MAX. TIME: 1:30Hrs

Note: All questions are compulsory. Carrying of mobile phone during examinations will be treated as case of unfair means

1. (a). Why phenolphthalein and methyl orange are being used in acid base titrations according to the strength of acid and bases? 2
(b). Commercially available sample of sulphuric acid is 15% H_2SO_4 by weight (density = 1.10gml^{-1}). Calculate (i) molarity (ii) normality (iii) Molality of the solution. 3
2. (a) Why does corrosion occur in steel pipe connected to copper plumbing? 2
(b). Describe different method of application of metal coatings. 2
3. (a). Elucidate the process of Galvanization with the help of diagram. 2
(b). Explain electrochemical corrosion by giving example. 2
4. Why coating of Zinc is preferred as compared to tin? 2
5. Write a note on metallic bond. 2
6. (a). What are the factors that affect reaction rate? 2
(b). A first order reaction is 25% completed in 30 min. Determine the time of 50% completion of the reaction. 2
7. (a). What are colloids? Mention the properties of colloids. 2
(b) Define: Multimolecular colloids and Associated colloids 2