

B.SC. PART-III HONOURS
FINAL INTERNAL ASSESSMENT

SUB:CHEMISTRY (PHYSICAL PRACTICAL)

PAPER-XIV, FULL MARKS -20,

DATE-20/07/2020, TIME- 7PM TO 7:45 PM

ANSWER ALL QUESTIONS :

1. What is surface tension? At 25⁰c γ of water is 73 dyne cm⁻¹ but for most organic and inorganic liquids ranges from 15 to 50 dyne cm⁻¹ Explain. (1+2)
2. Mention the name of the apparatus used to determine the surface tension of liquid by drop weight method and give the working formula also. (2)
3. Define viscosity coefficient. What is dimension of viscosity coefficient? (2)
4. Give the expression of Poiseuille's equation. The viscosity of mercury by Ostwald's method cannot be determined, Explain. (1+1)
5. Give the equation which expresses the temperature dependence of reaction rate, and explain the terms involved in it. (1+2)
6. "Hydrolysis of ester in presence of acid is pseudofirst order reaction" - Explain. (1)
7. Explain the advantages of conductometric titration. (2)
8. What is buffer solution? Give an example. (1+1)
9. State Lambert Beer's law. (2)
10. Name the adsorbate which you use in your adsorption experiment. (1)