

2021
CHEMISTRY HONOURS
Physical Chemistry
Practical examinations
PAPER - CC-6-14-P

F.M = 30

1. What is Surface tension? what is surface excess?
Deduce unit of surface tension & what is
Parrachor. 1+1+2 = 5

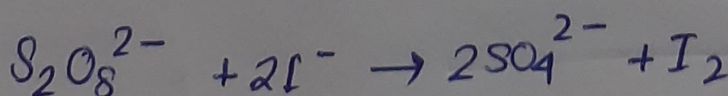
2. Write down Lambert's - Beer law. What is molar
extinction coefficient? Give the factors, which
depend on molar extinction coefficient. Give the
Limitations of Lambert's - Beer law. 1+1+1.5+1.5 = 5

3. What is Buffer solution? Deduce Henderson equation
for ~~Basic~~ Basic Buffer. Why Monosodium salt of H_3PO_4
and disodium salt of H_3PO_4 mixture act as a Buffer. 1+2+2 = 5

4. Determine σ of surface tension of CH_3COOH
Solution ~~of~~ by stalagmometer. 5

5. What is CMC? How will you determine CMC
of a micelle from surface tension measurement. 5

6. What is the equivalent weight of $K_2S_2O_8$.
Calculate amount of $K_2S_2O_8$ is required to prepare
100ml 0.1 (N) $K_2S_2O_8$. Show that for the reaction



1+1+3 = 5

$$b. \frac{1}{A_t} = \frac{1}{A_{oc}} + \frac{1}{AK A_{oc}} \cdot \frac{1}{t}$$