17UCHCT2004

B.SC. DEGREE EXAMINATION, APRIL 2018
I YEAR - II SEMESTER
Major Paper IV-GENERAL CHEMISTRY- IV

Time : 3 Hours **Max.marks :60**

Section A $(10 \times 1 = 10 marks)$

Answer any **TEN** questions

1. What is chirality?
2. Give the meaning of (+) and (-) acids.
3. Define viscosity.
4. What is critical pressure?
5. Give an example for liquid crystal.
6. What do you mean by heat of vaporization?
7. Give any one ore of lithium.
8. Compare beryllium oxide and magnesium oxide.
9. Give an example for weak acid.
10. What are triprotic acids?
11. What is collision diameter?
12. Give the unit of Vanderwaal s constants.

Section B $(5 \times 4 = 20 marks)$

Answer any **FIVE** questions

13. Discuss the optical isomerism exhibited by tartaric acid.
14. Derive Vanderwaals equation.
15. How is surface tension determined by capillary rise method?
16. Enumerate the exceptional properties of Lithium
17. Explain common ion effect with suitable example.

P.T.O.

18. With neat sketch explain any one method of liquefaction of gases.
19. Discuss the effect of temperature and pressure on viscosity

Section C $(3 \times 10 = 30 marks)$

Answer any **THREE** questions

20. Discuss the various methods of determining geometrical isomerism .
21. Explain the following transport properties of gases a. thermal conductivity b. diffusion
22. How is viscosity of a liquid determined using Ostwalds viscometer.
23. Give a comparative account of alkaline earth metals.
24. A. Write note on ionic product of water B. Discuss the factors affecting degree of ionization. C. dissociation constant