

**D.K.M. COLLEGE FOR WOMEN (AUTONOMOUS), VELLORE-1****SEMESTER EXAMINATIONS****APRIL - 2019****15CCH4A****GENERAL CHEMISTRY - IV****Time : 3 Hours****Max. Marks : 75****SECTION – A (10 x 2 = 20)****Answer ALL the questions.**

1. What are the applications of SiC?
2. Mention the oxyacids of Sulphur.
3. Write the coupling reaction of aniline.
4. What is Liebermann's nitroso reaction?
5. Write Rosenmund's reaction.
6. What is Cannizzaro reaction?
7. State Henry's law.
8. What are azeotropic mixtures?
9. Define Van't Hoff factor.
10. State Nernst Distribution Law.

**SECTION – B (5 x 5 = 25)****Answer any FIVE of the following questions.**

11. Explain the preparation and properties of hydrazine.
12. Write in detail about carbides.
13. Describe Gabriel's phthalimide reaction and Hofmann's bromamide reaction.
14. Differentiate between primary, secondary and tertiary amines based on chemical reactions.
15. Write shortly on
  - a) Reformatsky reaction.
  - b) Wittig reaction.
16. Outline the following
  - a) Benzoin condensation.
  - b) Perkin's reaction.
17. Brief out the thermodynamics of vapour pressures of real and non - ideal solutions.
18. What is CST? Explain the effect of impurities on CST.

**SECTION – C (3 x 10 = 30)****Answer ALL the questions.**

19. (a) Elaborate on Interhalogen compounds.

(Or)

- (b) Write notes on
  - i) Mannich reaction.
  - ii) Carbylamine reaction.
  - iii) Basic nature of aniline.

(3+3+4)

20. (a) Explain the following i) Aldol condensation. (5)  
ii) Preparation of acetic acid. (5)  
(Or)

(b) State and explain Raoult's Law.

21. (a) Derive the thermodynamic expression of elevation in boiling point.

(Or)

(b) Write elaborately on i) Action of heat on dicarboxylic acids. (6)

ii) Claisen reaction. (4)

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