

**B. Sc. DEGREE END SEMESTER EXAMINATION MARCH 2018****SEMESTER – 4: CHEMISTRY (CORE COURSE)****COURSE: 15U4CRCHE04 – ORGANIC CHEMISTRY II**

Common for Regular (2016 Admission) &amp; Supplementary (2015 Admissions)

Time: Three Hours

Max. Marks: 60

**SECTION A***Answer all the questions. 1 mark each*

1. Structure of picric acid is .....
2. Ziesel method is used for the estimation of .....
3. Chemically Borsches reagent is .....
4. Give two examples for organo metallic compounds.
5. .... is formed when malonic acid is heated.
6. .... is an example for vicinal diol.
7. Sulphonation of naphthalene at 160° C gives .....
8. What is biuret? (1 × 8 = 8)

**SECTION B***Answer any Six questions. 2 marks each*

9. What is the specific use of NaBH<sub>4</sub>?
10. What are enamines?
11. Which one is more acidic? Phenol or nitrophenol. Justify
12. Give the structure and use of urotropine.
13. What are epoxides? Give the product when methyl magnesium bromide reacts ethylene oxide.
14. What is malaprade reaction?
15. What is Gilman reagent? What is its synthetic use?
16. How is guanidine prepared? Give the structure also. (2 × 6 = 12)

**SECTION C***Answer any Four questions. 5 marks each*

17. Discuss the synthetic applications of cyanoacetic ester.
18. Write a note on (i) HVZ reaction and (ii) Knoevenagel reaction
19. How will you convert naphthalene to phenanthrene? Write the various oxidation products of phenanthrene.
20. What is Reformatsky reaction? Discuss its applications.
21. Explain Benzoin condensation with mechanism.
22. How will you distinguish primary, secondary and tertiary alcohol using Lucas test? (5 × 4 = 20)

**SECTION D**

Answer **any Two** questions. **10** marks each

23. Discuss the following reactions with mechanism  
(a) Wittig reaction (b) Mannich reaction
24. How will you convert  
(a) Acetaldehyde to crotonaldehyde (b) Malic acid in to Maleic acid  
(c) Acetic acid to propanoic acid (d) benzaldehyde to cinnamic acid?
25. Write a note on  
(a) Effects of substituents on acid strength of aliphatic carboxylic acids  
(b) Use of acetal as protecting group
26. (a) Give any four synthetic applications of methyl lithium  
(b) Discuss the preparation and chemical properties of oxalic acid. (10 × 2 = 20)

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