

Reg. No..... Name.....

B. Sc. DEGREE END SEMESTER EXAMINATION MARCH 2017

SEMESTER - 4 : BSc CHEMISTRY (CORE COURSE)

COURSE : 15U4CRCHE4 - ORGANIC CHEMISTRY II

(For Regular - 2015 Admission)

Time: Three Hours

Max. Marks: 60

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

1. Lucas reagent is
2. Give the structure of 1,4-Naphthaquinone.
3. Benzoin condensation takes place in presence of
4. Maleic and Fumaric acid are
5. What is the product formed when malonic ester is heated with urea ?
6. Ozonolysis of phenanthrene gives
7. Name the dye which can be prepared from anthranilic acid.
8. Grignard reagent reacts with to form tertiary alcohol.

 $(1 \times 8 = 8)$ **SECTION B***(Answer any Six questions. 2 marks each)*

9. Give one method for synthesis of anthracene.
10. How will you prepare succinic acid using diethyl malonate ?
11. What happens when ethylene glycol is treated with lead tetra acetate ?
12. What is Claisen rearrangement ?
13. Give the structure and use of coumarin.
14. What is Baeyer Villiger oxidation ?
15. Give the preparation of urea. Name the product formed when urea reacts with formaldehyde.
16. How will you distinguish 1-propanol and 2-propanol using iodoform test ?

 $(6 \times 2 = 12)$

SECTION C

(Answer any **four** questions. **5 marks** each)

17. Explain pinacol-pinacolone rearrangement with mechanism.
18. Give the oxidation and reduction products of naphthalene under different conditions.
19. Explain (i) Cannizzaro reaction. (ii) Fries rearrangement.
20. Explain any two methods to convert carbonyl group to methylene group.
21. Discuss Perkin reaction with the mechanism
22. Write a note on synthetic applications of alkyl lithium compounds.

(5 × 4 = 20)

SECTION D

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

23. Discuss the following reactions with mechanism
 - (i) Meerwein- Ponderf- Verley reaction
 - (ii) Claisen-Schmidt reaction.
24. Give the method of preparation and use of the following compounds
 - (i) Picric acid
 - (ii) Quinol
 - (iii) Adipic acid
 - (iv) Resorcinol
25. How will you convert
 - (i) Oxalic acid in to allyl alcohol
 - (ii) acetylene to acrylic acid
 - (iii) Acetaldehyde to crotonaldehyde
 - (iv) benzaldehyde to cinnamic acid
26. (a) Give any four synthetic applications of Grignard reagent.
(b) How will you synthesize phenanthrene from naphthalene?

(10 × 2 = 20)
