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Total No. of Pages : 02

Total No. of Questions : 09

B.Sc. (Non Medical) (2018 Batch) (Sem.-3)

ORGANIC CHEMISTRY-II

Subject Code : BSNM-301-18

M.Code : 76900

Time : 3 Hrs.

Max. Marks : 50

INSTRUCTIONS TO CANDIDATES :

1. SECTION-A is COMPULSORY consisting of TEN questions carrying ONE marks each.
2. SECTION-B contains FIVE questions carrying FIVE marks each and students have to attempt any FOUR questions.
3. SECTION-C contains THREE questions carrying TEN marks each and students have to attempt any TWO questions.

SECTION-A**1. Write briefly :**

- (a) Define Huckel rule with example.
- (b) Why is o-nitrophenol more volatile compared to p-nitrophenol?
- (c) Write IUPAC name of glycerol.
- (d) Give one equation to distinguish between aldehyde and ketone.
- (e) Write the order of boiling point of alkyl halide, alcohol and aldehyde of comparable molar mass.
- (f) What is Tollen's reagent?
- (g) Give IUPAC name of sec-butyl chloride.
- (h) Write down the reaction of preparation of phenol from cumene.
- (i) Why alcohols are generally soluble in water?
- (j) Which has higher dipole moment: Phenol or Ethanol?

SECTION-B

2. (a) What conditions are to be satisfied for a compound to be aromatic? State which of the following are aromatic and why?
(b) Why are polyhydric alcohols generally viscous liquids?

3. Why phenols are more acidic than alcohols? Explain in detail
4. (a) Differentiate between the following :
 - (i) Halogenation and Sulphonation of benzene
 - (ii) Perkin and Knoevenagel condensation
5. (a) Write a short note on elimination addition mechanism for nucleophilic substitution reaction of aryl halides.
(b) Give difference between S_N1 and S_N2 reaction of alkyl halide.
6. (a) Write short notes on the following :
 - (i) Pinacol-Pinacolone rearrangement
 - (ii) Reimer-Tiemann Reaction

SECTION-C

7. (a) Explain the order of reactivity of primary, secondary and tertiary alcohols with sodium metal.
(b) Explain Claisen rearrangement with mechanism.
8. Write short note on the following :
 - (a) Fries Rearrangement
 - (b) Wittig reaction
 - (c) Friedel-Crafts reaction
 - (d) Acidic strength of alcohols and phenols
 - (e) Acetal as protecting group
9. (a) Write a short note on preparation of aldehyde from acid chloride.
(b) Explain the mechanism of following reaction :
 - (i) Mannich reaction
 - (ii) Aldol Condensation

NOTE : Disclosure of Identity by writing Mobile No. or Making of passing request on any page of Answer Sheet will lead to UMC against the Student.