

B.E/B.TECH DEGREE EXAMINATIONS, December 2020

Third Semester

BT16302 – BIOORGANIC CHEMISTRY**(Regulation 2016)**

Time: Three Hours

Maximum : 80 Marks

Answer **ALL** questions**PART A - (8 X 2 = 16 Marks)**

- Method used to estimate the structure lithium enolate
 - X ray crystallography
 - spectrophotometer
 - polarimeter
 - pH Meter
- Saponification is process of Ester hydrolysis in _____
 - acid
 - base
 - alkyl
 - acyl
- Sanger Method of DNA Sequencing is also called as Dideoxynucleotide _____
 - chain initiation
 - chain elongation
 - chain termination
 - None of the above
- Nucleophilic substitution is an example of _____ catalysis
 - Coordinate covalent
 - Ionic
 - Electrovalent
 - Covalent
- Assess the generation of ionization potential produced by reaction among the reactants
- Examine the reaction of amine with carbonyl group
- Select the methods used to estimate ΔH , ΔS and ΔG
- Distinguish Lewisite and BAL with respect to catalysis reaction.

PART B - (4 X16 = 64 Marks)

9. (a) Explain Arrhenius Theories of Acid Base equilibria and Bronsted Lowry Theories of Acid Base equilibria. (16)

(OR)

- (b) Evaluate the stability of structure based on cis-trans isomerism and conformation of the peptide bond. (16)

10. (a) Inference on inversion and retention of configuration in substitution nucleophilic reaction of uni and bimolecular reactions. (16)

(OR)

- (b) Simplify amide ester hydrolysis by Saponification and reactions of carbonyl group with amines. (16)

11. (a) Experiment with sequence of reaction with kinetics of Trapping of intermediates. (16)

(OR)

- (b) Organize the estimation of rate constant by Arrhenius equation and Eyring equation. (16)

12. (a) Examine covalent catalysis and solid liquid interaction among the phases in Catalysis by organized aggregates and phases. (16)

(OR)

- (b) Assume carrying out peptide synthesis in invitro condition based on Merrifield method. (16)