



SECTION - C

13. Explain the mechanism of Cannizzaro reaction.
14. Give an account of sulphadiazine.
15. How do you distinguish between primary, secondary and tertiary nitroalkanes?
16. Write notes on synthetic uses of Grignard reagent.
17. Compare the basicity of pyrrole, pyridine and piperidine.
18. Draw the Fischer projection and Haworth structure of glucose and fructose.

(Weightage : 4×2=8)

SECTION - D

19. Write the mechanism of the following reactions.
 - i) Wolf rearrangement
 - ii) Benzoin condensation
 - iii) Beckmann rearrangement.
20. Illustrate the Killiani-Fischer synthesis for lengthening of the carbon chain in aldoses.
21. Describe any two methods for the synthesis of amino acids. (Weightage 2×4=8)



Reg. No. :

Name :

VI Semester B.Sc. Degree (CCSS – Reg./Supple./Improv.)

Examination, May 2015

CORE COURSE IN CHEMISTRY
6B14 CHE : Organic Chemistry – II

Time: 3 Hours

Max. Weightage : 25

- Instructions :**
- 1) Section A : Answer **all** questions. Choose the correct answer. **Each** question carries a weightage of 1.
 - 2) Section B : Answer **any five**. **Each** question carries a weightage of 1.
 - 3) Section C : Answer **any four**. **Each** question carries a weightage of 2.
 - 4) Section D : Answer **any two**. **Each** question carries a weightage of 4.

SECTION - A

1. i) Reaction of Grignard reagent with acetaldehyde gives

a) 1° alcohol	b) 2° alcohol
c) 3° alcohol	d) acid
- ii) In Stephen's reaction for the preparation of aldehyde the starting material is

a) Alcohol	b) Ketone
c) Acid	d) Nitrile
- iii) The Oppenauer oxidation of n-propanol provides

a) Acetaldehyde	b) Propanaldehyde
c) Acetic acid	d) Propionic acid
- iv) Reduction of but-2-enal with sodium borohydride produces

a) But-2-ene-1-ol	b) Butanol
c) Butane	d) Butene



2. i) Ozonolysis of acrylic acid results in the formation of
- a) Oxalic acid b) Formic acid
c) Glyoxallic acid d) Acetic acid
- ii) Partial reduction of tartaric acid with conc. HI furnishes
- a) Malic acid b) Fumaric acid
c) Maleic acid d) Succinic acid
- iii) Which among the following is optically inactive ?
- a) Alanine b) Glycine
c) Phenyl alanine d) Histidine
- iv) The reaction of diethyl malonate with urea results in the formation of
- a) Barbituric acid b) Uric acid
c) Barbitone d) Phenobarbital
3. i) The primary amine reacts with diethyl oxalate to give
- a) Oxamic ester b) Oxamide
c) Acetic acid d) Oxalic acid
- ii) The reduction of nitro benzene with Sn/HCl produces
- a) Hydrazobenzene b) Azoxybenzene
c) Azobenzene d) Aniline
- iii) The structure of biuret is
- a) $\text{H}_2\text{N}-\text{CO}-\text{NH}_2$ b) $\text{H}_2\text{N}-\text{NH}-\text{CO}-\text{NH}_2$
c) $\text{H}_2\text{N}-\text{CONH}-\text{CO}-\text{NH}_2$ d) $\text{H}_2\text{N}-\text{CS}-\text{NH}_2$
- iv) Zinc dust distillation of succinamide provides
- a) Pyridine b) Quinoline
c) Pyrimidine d) Pyrrole



4. i) Which among the following is not a disaccharide ?
- a) Starch b) Lactose
c) Maltose d) Sucrose
- ii) D-glucose and D-mannose are
- a) C_2 epimers b) C_4 epimers
c) C_3 epimers d) C_5 epimers
- iii) An example for anthraquinone dye
- a) Eosin b) Crystal violet
c) Alizarin d) Indigo
- iv) Which among the following is a monomer of orlon ?
- a) Vinyl acetate b) Tetrafluoroethene
c) Acrylonitrile d) Vinyl chloride

(Weightage : 4x1=4)

SECTION - B

5. Write a method to prepare phenol from isopropyl benzene.
6. Why is alpha hydrogen in aldehydes and ketones acidic in nature ?
7. Draw the structures of tryptophan and glutamic acid.
8. What happens when indole is treated with formaldehyde and dimethylamine ?
9. What is a chromophore ? Give two examples.
10. How do you prepare crotonaldehyde from acetaldehyde ?
11. Mention any two industrial uses of cellulose.
12. What are elastomers ?

(Weightage : 5x1=5)