Q.P.Code 104013 **Reg.** No.:.....

First B.Sc Optometry Degree Supplementary Examinations - August 2012

CHEMISTRY

Time: 3 hrs Max marks: 80

- Answer all questions
- Draw diagram wherever necessary

Essay: (2x15=30)

1. Differentiate between SN1 and SN2 mechanism. Which of these will result in inversion of configuration. Explain the mechanism followed in the hydrolysis of tertiary butyl chloride.
2. Classify vitamins. Mention the structure and biological importance of one vitamin in each class.

Short notes (5x5=25)

3. Explain the terms racemization and asymmetric synthesis
4. Explain the different types of electron displacement effects in organic molecules..
5. Mention the mechanism for halogenation and sulphonation of benzene.
6. Explain the colorimetric and electromeric methods for the determination of pH.
7. How will you manufacture glucose and fructose.

Answer briefly (10x2=20)

8. What is meant by optical activity and which types of compounds exhibit this property.
9. The structure and use of chloromycetin.
10. Epimerization.
11. Bring out the importance of colloid chemistry in the present day world.
12. What are diastereomers and explain with an example.
13. Explain how hormones are classified.
14. Arrange methyl amine, dimethyl amine and tri methyl amine in the increasing order of basicity. How will you explain the order.
15. Write a note on electro osmosis with regard to sols.
16. $CH_3\_CH=CH_2 + HBr \rightarrow$
    $CH_3CH_2CH_2Br$ +ale.KOH- >.
17. Aniline+Br_2/H_20- >.
    Chlorobenzene+$HN0_3+H_2S0_4$-> .

Fill in the blanks (5X1=5)

18. Sulpha drugs are used as_____
19. _____ is the disease caused by the deficiency of vitamin C
20. Geometrical isomerism arises due to restricted rotation about _____ bonds.
21. .The electrophilic species in sulphonation of benzene is_____
22. Optical property of colloid is called_____

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