

First Year B.Sc Optometry Degree supplementary Examinations –
November 2015

(2010 Scheme)
CHEMISTRY

Time : 3 hrs**Max marks : 80**

- **Answer all questions**
- **Draw diagram wherever necessary**

Essay:**(2x15=30)**

1. What are electron displacement effects in organic molecules. Explain how electron displacements in molecules affect the properties of the compound
2. What are vitamins and how they are classified. Explain importance of vitamins with the help of example

Short notes**(5x5=25)**

3. Importance of colloid chemistry in the present day world
4. Biochemical method and chemical method for the resolution of racemic mixture
5. Various steps in the mechanism of dehydration of 2-methyl –2-pentanol
6. Mechanism of nitration and halogenation of benzene
7. Amadorri rearrangement of fructose

Answer briefly**(10x2=20)**

8. What are hormone and why they are called chemical messengers
9. Tyndal effect
10. Explain the stability of benzene
11. How will you convert glucose to fructose
12. What is the necessary and essential condition for a molecule to show optical activity
13. What are protective colloids with an example
14. Explain how the electrophilic species in sulphonation of benzene is formed
15. What is meant by a buffer action and explain with suitable example
16. What are enantiomers.
17. Uses of starch

Fill in the blanks**(5x1=5)**

18. The random erratic zigzag motion of colloidal particles is called
19. The d form and mesoform of tartaric acid are
20. The carbohydrate present in blood is".
21. The structure of sp^2 hybridized orbital is
22. In RNA the sugar unit present is
