

Q.P.Code 104013

Reg. No.:.....

First B.Sc Optometry Degree Examinations - September 2012

CHEMISTRY

Time: 3 hrs

Max marks : 80

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

Essay:

(2x15=30)

1. Explain inductive effect, hyper conjugation effect and electrometric effect.
2. Explain the biological functions and deficiency disease caused by vitamin A and vitamin C

Short notes

(5x5=25)

3. Geometrical isomerism
4. Explain substitution, addition, elimination and rearrangement reactions.
5. Explain mutarotation using glucose as an example.
6. Paper chromatography .
7. What is a buffer solution. Mention one example of an acidic buffer and explain its buffer action.

Answer briefly

(10x2=20)

8. Discuss the shape of methane using hybridisation
9. What are electrophiles and mention two examples.
10. What are enantiomers.
11. Discuss briefly keto_enol tautomerism in aldehydes and ketones
12. What happens when benzene is treated with Cl₂ in the presence of ultraviolet light.
13. Friedel_Crafts acylation
14. Classify the following into monosaccharide, disaccharides and polysaccharides (glucose , ribose , sucrose , starch)
15. Preparation of sulphacetamide
16. How glucose does reacts with phenyl hydrazine .
17. What are emulsions and mention their different types. Mention one example for each.

Fill in the blanks

(5x1=5)

18. Heterolytic fission of covalent bond between carbon atom will produce_____and _____
19. Complete hydrolysis of cellulose gives_____
20. The co_enzyme form of thiamine is _____
21. A carbon atom which is linked to four different atoms or group of atoms is called_____
22. The principal sugar in blood is_____
