

**CHEMISTRY****(2010 Scheme)****Time: 3 hrs****Max marks : 80**

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

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

1. Explain the importance of vitamin A in vision.
2. Explain the various methods used for the resolution of a racemic mixture. Discuss geometrical isomerism in maleic and fumaric acid.

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

3. Bring out the importance of colloid chemistry in present day world.
4. What are carbohydrates. How are they classified. Give examples.
5. Explain  $SN^1$  reaction.
6. Give the mechanism for Friedel craft's acylation.
7. Explain geometry of benzene with the help of hybridization.

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

8. Explain +I effect.
9. Why sucrose is known as invert sugar.
10. Explain the function of an emulsifier.
11. Explain why formic acid is stronger than acetic acid.
12. Give the chemical names of vitamin A, B<sub>1</sub>, B<sub>12</sub>, C.
13. Mark asymmetric carbon atoms in glucose molecule and fructose molecule.
14. What are products obtained in dehydrohalogenation of 2-bromo 3-methyl butane.
15. Explain why an aqueous solution of ammonium carbonate is almost neutral.
16. Any two reactions of glucose.
17. Draw the resonating structures of nitro benzene.

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

18. Tyndall effect is due to ..... of light by colloidal particles
19. Rayon is regenerated form of .....
20. Stereo isomers that are non-super imposable mirror images are called .....
21. Beriberi is caused due to the deficiency of .....
22. The electrophile in sulphonation reaction is .....

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