**Organic Chemistry (Sub) (Group – B)**

1. a) What are Carbohydrates?

b) How are they classified?

c) What are monosaccharids? How are they classified?

1. a) Establish the open chain structure of glucose.

b) Discuss the pyranose structure of glucose.

c) Write the Conversion of glucose into fructose and vice versa.

1. a) What happens when glucose is treated with Br2 water?

b) What happen when fructose is treated with HCN?

c) Write the distinction between glucose and fructose.

1. a) What is meant by Meta rotation?

b) How does glucose react with phenyl hydrazine?

c) Glucose and fructose both form the same osazone explain?

1. Convert the following:

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| --- | --- | --- |
| 1. Nitrobenzene to benzoic acid
 | 1. Baryonic acid to aniline
 | 1. Benzamide to toluene
 |
| 1. Aniline to benzyl alcohol
 | 1. Aniline to 2, 4, 6, - tribromoflouro benyene
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1. a) Write the preparation of phenol from cummene

b) Why phenol is more acidic than alcohol

c) How will you convert phenol into

 i) picric acid ii) Aniline

1. a) Write the conversion of the following
2. Benzene to Benzyl aldehyde
3. Phenol to salicylic acid

 b) i) What is diazotisation

 ii) How benzene diazonium chloride is prepared?

1. Write short notes on
2. Perkin reaction
3. Friedel craft reaction
4. Reimer Tiemann reaction
5. Kolbe’s reaction
6. a) How is lactic acid prepared from acetaldehyde and cane sugar?

 b) How does lactic acid react with?

 i) H2SO4 ii) HI iii) Fenton’s reagent

1. a) How is Citric acid synthesized from glycerol

 b) How does citric acid react with?

 i) Acetyl chloride ii) Fuming H2SO4