Grade <u>10</u> of 10 points

Points

(6) 1. Draw the structures of the following: 1.5 pts each

The **hemiacetal** formed between **phenol** and **propanal**:

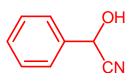
OH

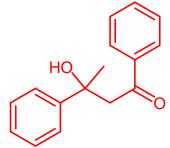
The **ketal** formed between **ethanol** and **butanone**:

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The **cyanohydrin product** formed between HCN and **benzaldehyde:** 

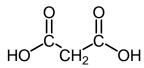
The **aldol** (**self-condensation**) product formed between two molecules of **methyl phenyl ketone**.





(2) 2. Give the IUPAC name and the common name for the following carboxylic acids: 0.5 pts each

H<sub>3</sub>C CH<sub>2</sub> OF CH C I II CI O



IUPAC name <u>3-chlorobutanoic acid</u>

IUPAC name <u>propanedioic acid</u>

Common name β-chlorobutyric acid

Common name <u>malonic acid</u>

(2) Draw the structure of the following carboxylic acids:

succinic acid

3-bromoheptanoic acid

1 pt each