学院

专业班

学号

姓名

密封线

密封线

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天津工业大学（2019—2020 学年第 二 学期）

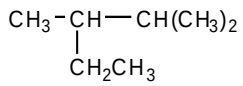
《有机化学》期末试卷 A 卷

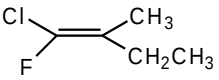
特别提示：请考生在密封线左侧的指定位置按照要求填写个人信息,若写在其它处视为作弊。本试卷共有五道大题,请认真核对后做答,若有疑问请与监考教师联系。

满分	12	40	12	20	16	总分	复核
题目	一	二	三	四	五		
得分							
评阅人							

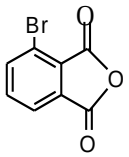
满分	12
得分	

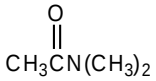
一. 命名或写出下列化合物的构造式：

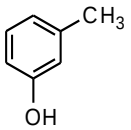
(1) 

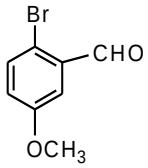
(2) 

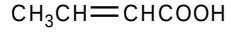
(3) 

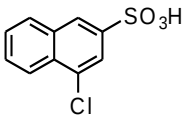
(4) 

(5) 

(6) 

(7) 

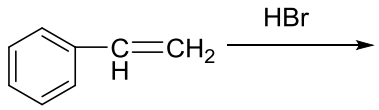
(8) 

(9) 

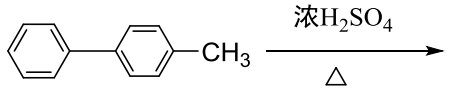
(10) 苯甲酸乙酯　　(11) 丙酰氯　　(12) 2-氯丁烷

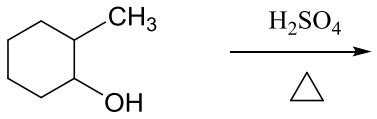
满分	40
得分	

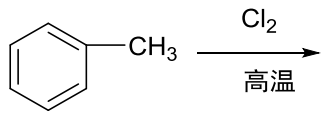
二．按要求完成下列反应方程式：

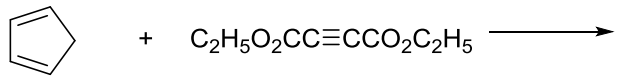
1 

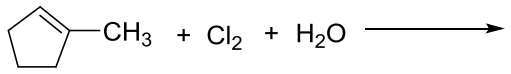
2 $HC{\equiv}CNa + CH_3CH_2CH_2Br \longrightarrow$

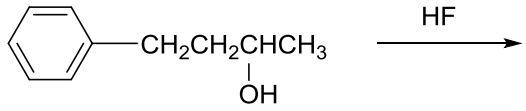
3 

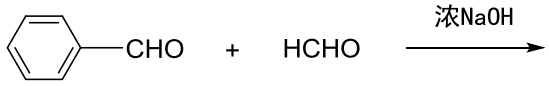
4 

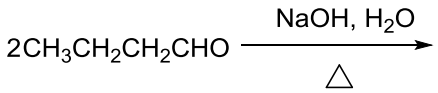
5 

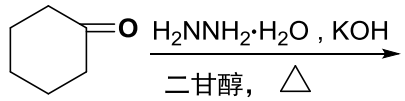
6 

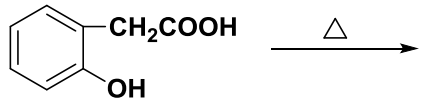
7 

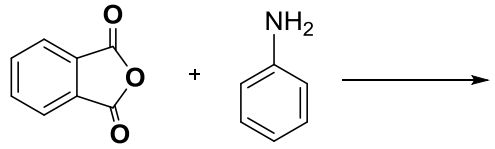
8 

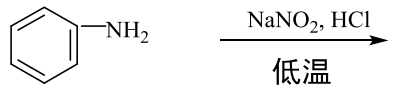
9 

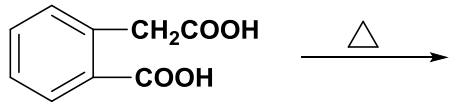
10 

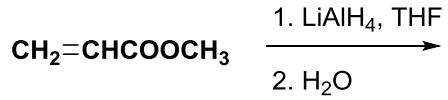
11 

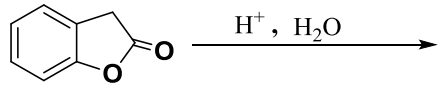
12 

13 

14 

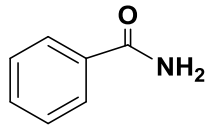
15 

16 

17 

18 $CH_3CH_2CH_2OCH_3 \xrightarrow{HI}$

19 $CH_3CH_2CH_2COOH \xrightarrow[Br_2]{P}$

20  $\xrightarrow[H_2O,\ \triangle]{Br_2,\ NaOH}$

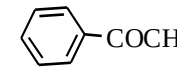
满分	12
得分	

三．选择题：

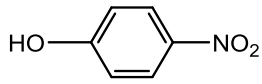
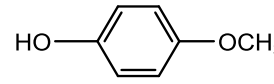
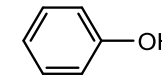
1．下列化合物按 SN_2 进行反应活性最大的是（　　）

A　2-甲基-2-溴丁烷　　B　3-甲基-1-溴丁烷　　C　2-甲基-3-溴丁烷

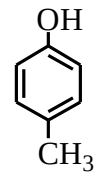
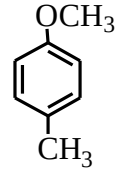
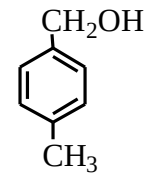
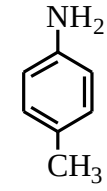
2.下列化合物中哪个不能发生碘仿反应（　　）

A　ICH_2CHO　　B　CH_3CH_2CHO　　C　$CH_3CH_2\underset{OH}{\underset{|}{C}}HCH_3$　　D　 

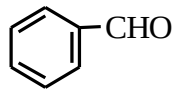
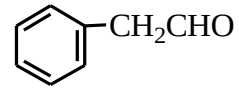
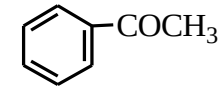
3．下列化合物酸性最强的是(　　)

(A)　  　　(B)　  　　(C)　 

4. 下列化合物能与 $FeCl_3$ 溶液发生显色反应的是（　　）

(A)　  　　(B)　  　　(C)　  　　(D)　 

5. 下列化合物能与费林试剂发生反应的是（　）

(A)  (B)  (C) 

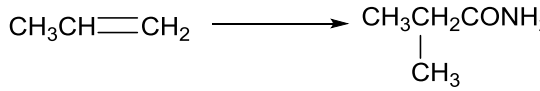
6. 鉴别四个碳以下的一元伯、仲、叔醇所用试剂可以是（　　）。

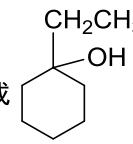
A　Tollens 试剂　　B　Lucas 试剂　C　$AgNO_3$ 醇溶液

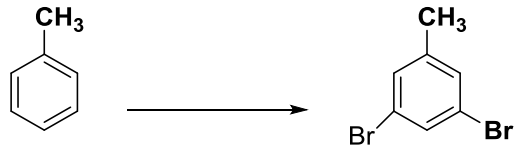
D　Grignard 试剂

四. 由指定的化合物为起始原料，合成下列化合物（三个碳以下的有机物和无机物任选）：

满分	20
得分	

1. 

2. 以环己醇和乙醇为原料（无机试剂任选）合成 

3. 

4. $H_2C{=}\mathbf{CH_2} \longrightarrow \mathbf{CH_3CH}{=}CHCHO$

5. $CH_3CH_2CH_2COOH \longrightarrow CH_3CH_2COOH$

满分	16
得分	

五. 按题意，推测结构：

1、化合物 **A**、**B**、**C** 的分子式均为 $C_3H_6O_2$, **A** 可与碳酸钠作用放出气体，而 **B** 和 **C** 无此性质， **B** 和 **C** 在氢氧化钠水溶液中加热可发生水解反应，且 **B** 的水解产物 **D** 可发生碘仿反应。写出 **A**、**B**、**C**、**D** 的结构式。

2 化合物 A ($C_{10}H_{12}O$)与 Br_2+ NaOH 作用、酸化得到 B($C_9H_{10}O_2$); A 经克莱门森还原得到 C($C_{10}H_{14}$); 在稀碱溶液中，A 与苯甲醛作用生成 D($C_{17}H_{16}O$), A、B、C 和 D 经强烈氧化都得到邻苯二甲酸，试写出 A、B、C 和 D 的构造式。