Mansoura University
Faculty of Pharmacy
Organic Chemistry
Biomedical Engineering
Level 100 - Code: MTH121

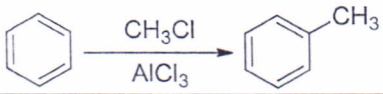
Midterm Exam 2018/2019 **
April 1, 2019 – Monday
Time: 30 min
Total marks: 20
Total pages: 2

Choose the correct answer and write your choice in the answer table: **(20 Marks).**

Answer Table:

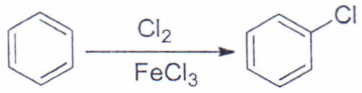
Q.	1	2	3	4	5	6	7	8	9	10
Answer										
Q.	11	12	13	14	15	16	17	18	19	20
Answer										

1 What is the role of $AlCl_3$ in the following reaction?



a) coupling reagent b) Lewis acid catalyst
c) oxidizing agent d) reducing agent

2 What is the name of the following reaction?



a) addition b) elimination
c) reduction d) substitution

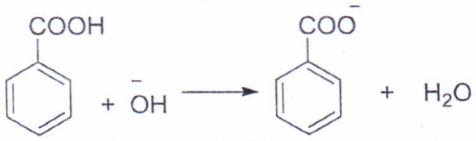
3 What is the chemical class of the following organic compound, $H_3C-O-CH_3$?
a) alcohol b) aldehyde c) ether d) ester

4 Which of the following compound has the highest boiling point?
a) b) c) d)

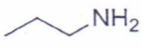
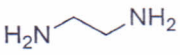
5 Which compound of the following has the name (*Z*)-pent-2-ene?
a) b) c) d)

6 Which of the following compound has least acidity?
a) chloroacetic acid (pKa = 2.86) b) 3-chlorobutanoic acid (pKa = 4.0)
c) acetic acid (pKa = 4.7) d) butanoic acid (pKa = 4.8)

7 What is the conjugate base in this reaction?

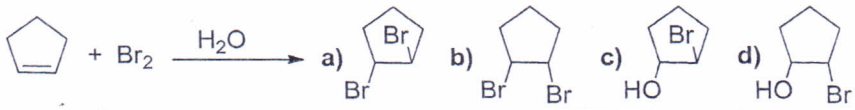
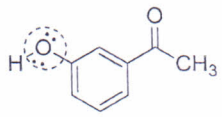
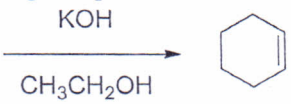
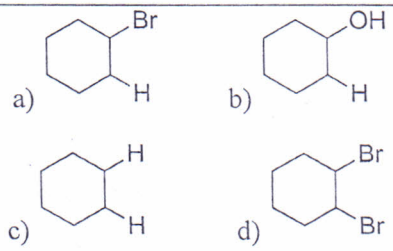
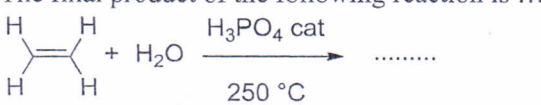
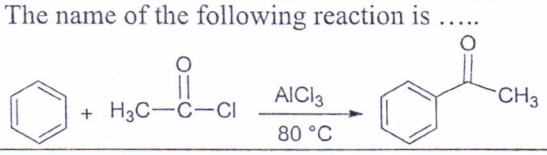
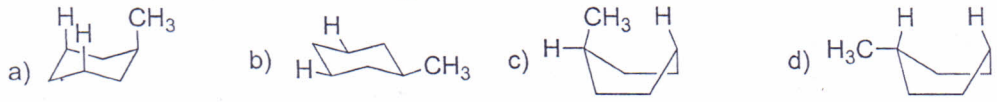


a) benzoic acid b) hydroxide anion
c) benzoate anion d) water

8 Which of the following compound has the highest boiling point?
a) **b)**  **c)** **d)** 

9 The type of the intermolecular forces between acetone molecules is ……
a) hydrogen bonding b) dipole-dipole c) ion-dipole d) Van der Walls

10 Which of the following is Bronsted-Lowry Acid?
a) Ph_3P b) BF_3 c) H_2SO_4 d) $AlCl_3$

11	What is the product in the following reaction? 
12	Which of the following compounds is high acidic compound?
13	Which of the following solvents would resemble water as a solvent? a) CCl_4 b) $CH_3)_2S{=}O$ c) CH_3OH d) CH_3OCH_3
14	In electrostatic potential maps of a molecule, the ..... color indicates the electron-rich region. a) blue b) orange c) green d) red
15	 The circled atom in the following compound is considered as ..... site. a) electrophilic b) nucleophilic c) neutral d) none of them
16	What is the major attraction between ethanol molecules? a) dispersion b) electrostatic interactions c) dipole-dipole interactions d) hydrogen-bonds
17	The starting compound in the following reaction is .....  
18	The final product of the following reaction is .....  a) Ethane b) Ethanol c) Propane d) Propanol
19	The name of the following reaction is .....  a) Friedel-Craft Acylation b) Friedel-Craft Alkylation c) Hydrolysis d) Amide coupling
20	Which conformer has the least energy? 

With my Best Wishes

Assoc. Prof. Khalid B. Selim