QUESTION 1
MC32n

For the following reactions indicated as 1, 2 and 3, which is the correct order of INCREASING rate of electrophilic aromatic substitution?

1. \( \text{NO}_2 + \text{Cl}_2 / \text{AlCl}_3 \)
2. \( \text{NH}_2 + \text{Cl}_2 / \text{AlCl}_3 \)
3. \( \text{Cl}^- + \text{Cl}_2 / \text{AlCl}_3 \)

A) 1 (slowest) < 2 < 3 (fastest)
B) 2 (slowest) < 3 < 1 (fastest)
C) 1 (slowest) < 3 < 2 (fastest)
D) 3 (slowest) < 2 < 1 (fastest)

QUESTION 2
MC32o

give the product of the following electrophilic aromatic substitution reaction

\( \text{CN} + \text{HNO}_3 / \text{H}_2\text{SO}_4 \)

A) \( \text{CN} \)
B) \( \text{O}_2\text{N} \)
C) \( \text{O}_2\text{N} \)

Do not give the answer D
QUESTION 3
MC321

Which of the following structures would undergo electrophilic aromatic substitution fastest?

A

B

C

D

QUESTION 4
MC32a

Which of the following is a possible (not necessarily most probable) product of the following reaction sequence?

1. H₂CCOCl/AlCl₃
2. HNO₃/H₂SO₄
3. Zn/Hg/HCl/H₂O
4. Br₂/AlCl₃

A

B

C

D
QUESTION 5

MC32e

Which of the following is a possible (not necessarily most probable) product of the following reaction sequence?

1. CH₃CH₂COCl/FeBr₃
2. SO₃/H₂SO₄
3. Zn/Hg/HCl/H₂O
4. HNO₃/H₂O₄
5. Br₂/FeBr₃

QUESTION 6

MC32b

Which of the following is a possible (not necessarily most probable) product of the following reaction sequence?

1. H₂CCOCl/AlCl₃
2. Zn/Hg/HCl/H₂O
3. NBS/hv
4. Mg.THF
5. H₂O⁺
QUESTION 7
MC32k

For the following reactions indicated as 1, 2 and 3, which is the correct order of INCREASING rate of electrophilic aromatic substitution?

1

\[ \text{O} \xrightarrow{\text{Cl}_2 / \text{AlCl}_3} \]

2

\[ \text{O} \xrightarrow{\text{Cl}_2 / \text{AlCl}_3} \]

3

\[ \text{O} \xrightarrow{\text{Cl}_2 / \text{AlCl}_3} \]

A  1 (slowest) < 2 < 3 (fastest)
B  2 (slowest) < 3 < 1 (fastest)
C  1 (slowest) < 3 < 2 (fastest)
D  3 (slowest) < 2 < 1 (fastest)

QUESTION 8
MC32q

Which is the correct IUPAC name for the following structure?

\[ \text{NO}_2 \text{CH}_3 \text{F} \]

A  1-methyl-2-fluoro-6-nitrobenzene
B  2-fluoro-6-nitrotoluene
C  2-nitro-6-fluorotoluene
D  1-nitro-3-fluoro-2-methylbenzene
QUESTION 9
There are NO INCORRECT answers to this question, ALL answers to this question will be considered correct for grading purposes
What overall final grade do you expect to earn in this class?
A  B  C  D

QUESTION 10
There are NO INCORRECT answers to this question, ALL answers to this question will be considered correct for grading purposes
How hard did you work on organic chemistry this week (not including watching/attending lectures)
A  Very Hard  B  Hard  C  Somewhat Hard  D  Not very Hard this week