Practice Question Set For A-Level
Subject : Chemistry
Paper-2 Topic: Amines

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Name of the Student:_____
Max. Marks : 22 Marks **Time : 22 Minutes**

Mark Schemes

Q1.

Acidified potassium dichromate(VI) **1**

Turns green with propan-2-ol and propanal **1**

No reaction with hexene and 1-bromopropane **1**

Tollens with propan-2-ol and propanal **1**

only propanal gives silver mirror **1**

Bromine water **1**

Decolourised by hexane **1**

No reaction with 1-bromopropane **1**

Warm NaOH followed by acidified $AgNO_3$ **1**

White ppt with 1-bromopropane **1**

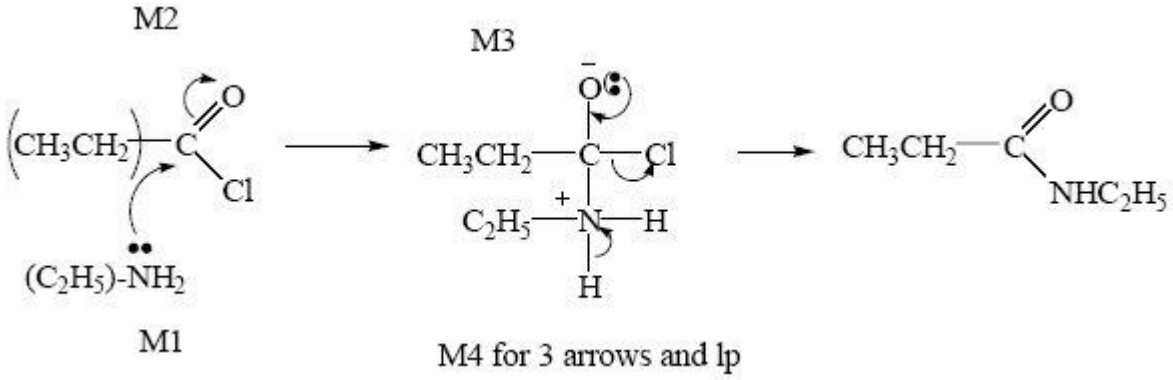
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Q2.

(a) (nucleophilic) addition-elimination

1



4

N-ethylpropanamide

minus on NH_2 loses M1
M2 not allowed independent of M1, but allow M1 for correct attack on C+
+C=O loses M2
only allow M4 after correct or very close M3
lose M4 for Cl^- removing H^+ in mechanism, but ignore HCl as a product
Not N-ethylpropaneamide

1

(b) CH_3CN or ethan(e)nitrile or ethanonitrile

not ethanitrile
but allow correct formula with ethanitrile

1

for each step wrong or no reagent loses condition mark

contradiction loses mark

1

Step 1 Cl_2

uv or above 300 °C

wrong or no reagent loses condition mark

1

Step 2 KCN

1

aq and alcoholic (both needed)

allow uv light/(sun)light/uv radiation

1

Step 3 H_2/Ni or $LiAlH_4$ or Na/C_2H_5OH

not CN^- but mark on
NOT HCN or KCN + acid, and this loses condition mark
NOT $NaBH_4$
Sn/HCl (forms aldehyde!)
ignore conditions

1

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