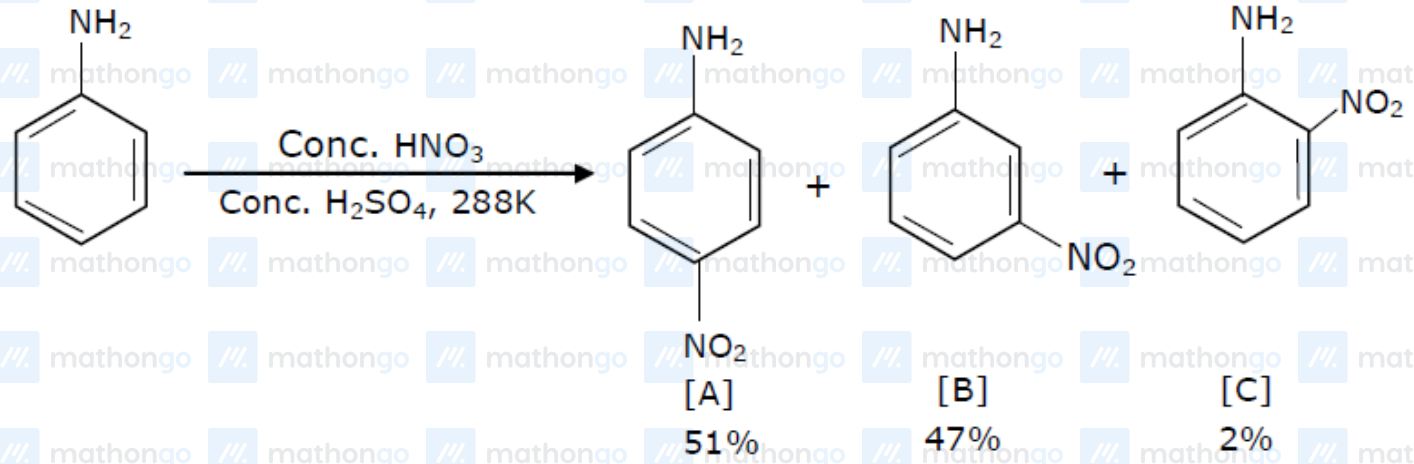
Q1: 24 Feb (Shift 1) - Single Correct

In the following reaction the reason why meta-nitro product also formed is:



(1) Formation of anilinium ion

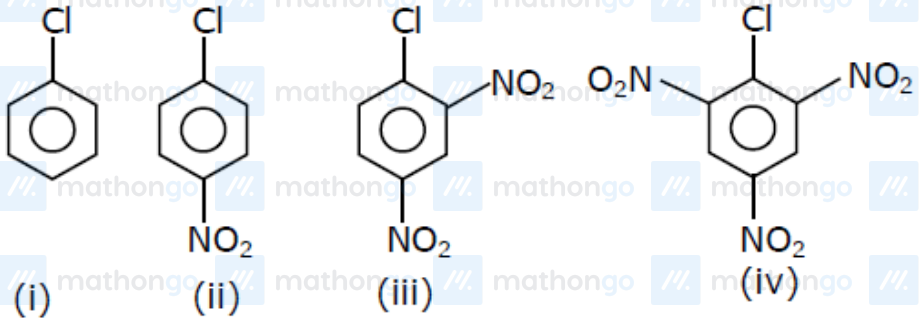
(2) $-NO_2$ substitution always takes place at meta-position

(3) low temperature

(4) $-NH_2$ group is highly meta-directive

Q2: 24 Feb (Shift 2) - Single Correct

The correct order of the following compounds showing increasing tendency towards nucleophilic substitution reaction is :



(1) $(iv) < (i) < (iii) < (ii)$

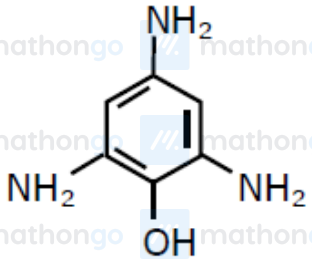
(2) (iv) < (i) < (ii) < (iii)

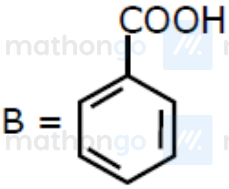
(3) $(i) < (ii) < (iii) < (iv)$

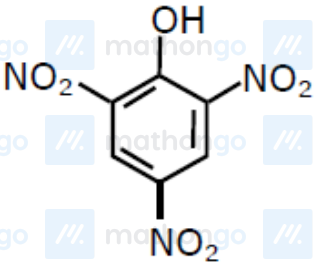
(4) (iv) < (iii) < (ii) < (i)

Q3: 25 Feb (Shift 1) - Single Correct

Compound(s) which will liberate carbon dioxide with sodium bicarbonate solution is/are:

A = 

B = 

C = 

(1) B and C only

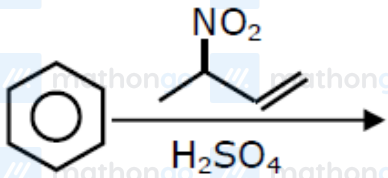
(2) B only

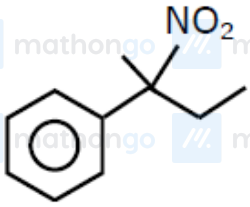
(3) *A* and *B* only

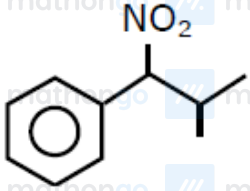
(4) *C* only

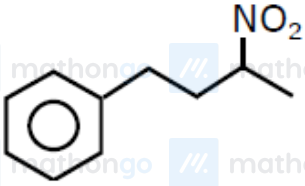
Q4: 25 Feb (Shift 2) - Single Correct

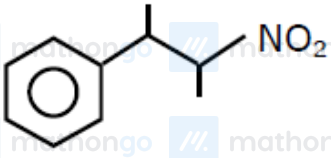
The major product of the following reaction is :



(1) 

(2) 

(3) 

(4) 

Q5: 25 Feb (Shift 2) - Single Correct

The correct sequence of reagents used in the preparation of 4 -bromo-2-nitroethyl benzene from benezene is :

(1) $CH_3COCl/AlCl_3, Br_2/AlBr_3, HNO_3/H_2SO_4, Zn/HCl$

(2) $CH_3COCl/AlCl_3, Zn-Hg/HCl, Br_2/AlBr_3, HNO_3/H_2SO_4$

(3) $Br_2/AlBr_3, CH_3COCl/AlCl_3, HNO_3/H_2SO_4, Zn/HCl$

(4) $HNO_3/H_2SO_4, Br_2/AlCl_3, CH_3COCl/AlCl_3, Zn-Hg/HCl$

Answer Key

Q1 (1) **Q2** (3) **Q3** (1) **Q4** (4)

Q5 (2)