From page 33, 36 and 37 of lecture notes

Question without answers: Calculate the pH of the following three solutions:

i) 0.001 M HNO_3

ii) 0.001 M NaOH

iii) The solution resulting from mixing 400 mL of 0.05 M HCl with 600 mL of 0.05 M NaOH.

iv) What is the $[H^+]$ of a solution with a pH of 4.5 ?

v) What is the $[OH^-]$ of a solution with a pH of 12.2 ?

Question: Indicate with a √ or X which of the following acid – base reactions will occur.

	Base			
Acid		NH_2^- (pK_a = 25)	OH^- (pK_a = 15.7)	HCO_3^- (pK_a = 6.35)
	Carboxylic acid (pK_a ~ 5)			
	Phenol (pK_a ~ 10)			
	Alcohol (pK_a ~ 17)			

Question: Benzoic acid (structure below, pK_a = 4.19) is found in mouth wash preparations. What will its structure be at pH = 7 and at pH = 2?