

Problem 4 Construct a spreadsheet similar to the one presented in class for hydrocyanic acid to the per cent ionized and unionized amounts in the dissociation reaction for hydrocyanic acid into the hydrogen and cyanide ions ( $\text{H}^+$  and  $\text{CN}^-$ ). The value of  $\text{pK}_a$  at  $25^\circ\text{C}$  is 4.8.