14. Which of the following equations represents the HPO<sub>4</sub><sup>2-</sup> ion acting as a Brønsted-Lowry acid?

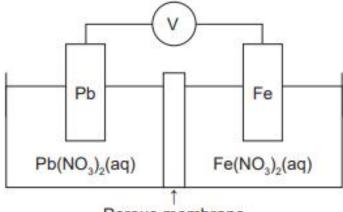
(a) 
$$HPO_4^{2-}(aq) + H_3O^+(aq) \rightleftharpoons H_2PO_4^-(aq) + H_2O(\ell)$$

(b) 
$$HPO_4^{2-}(aq) + H_2O(\ell) \rightleftharpoons H_2PO_4^{-}(aq) + OH^{-}(aq)$$

(c) 
$$HPO_4^{2-}(aq) \rightleftharpoons H^+(aq) + PO_4^{3-}(aq)$$

(d) 
$$HPO_4^{2-}(aq) + H_2O(\ell) \rightleftharpoons PO_4^{3-}(aq) + H_3O^{+}(aq)$$

Questions 15 to 17 refer to the electrochemical cell below.



Porous membrane