

**Marks**  
**2**

- Calculate the pH of a solution that is prepared by mixing 750 mL of 1.0 M potassium dihydrogenphosphate with 250 mL of 1.0 M potassium hydrogenphosphate.

For  $\text{H}_3\text{PO}_4$ ,  $\text{p}K_{\text{a}1} = 2.15$ ,  $\text{p}K_{\text{a}2} = 7.20$ ,  $\text{p}K_{\text{a}3} = 12.38$

Answer: