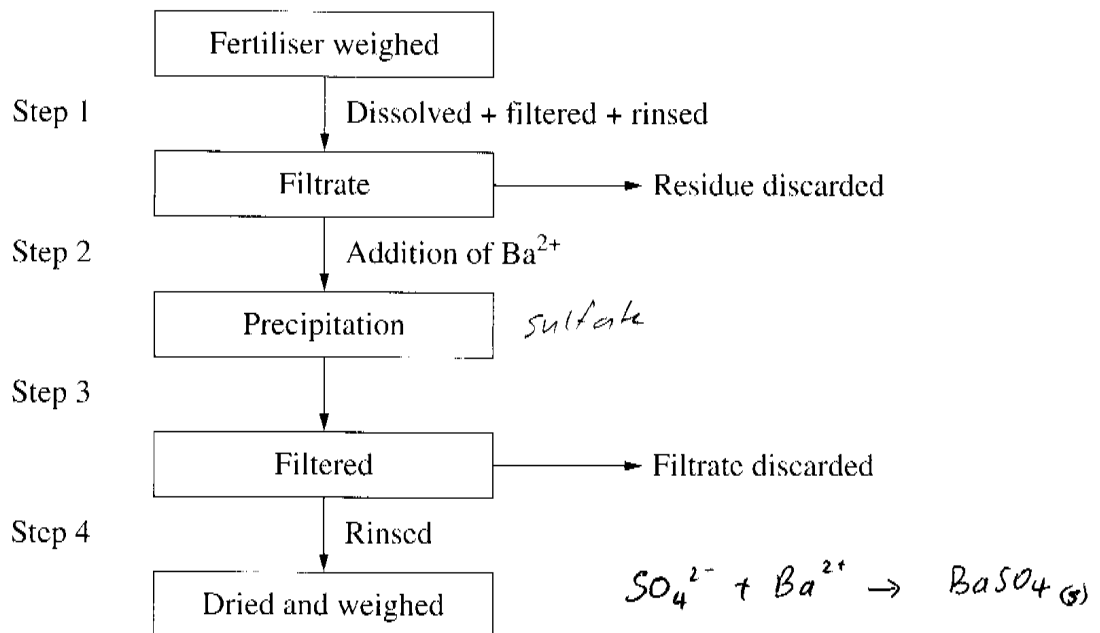


Question 29 (6 marks)

The flowchart shown outlines the process used to determine the amount of sulfate present in a sample of lawn fertiliser.



- (a) What assumptions were made and how do these affect the validity of this process? 3

Assumptions that were made is that the dissolved substance in step 1 is only sulfate ions, and that all sulfate ions precipitated with the Barium ion. These assumptions ∴ means the results are not accurate, and the validity is not correct as the outcomes are not only the amount of sulfate present in the sample of lawn fertiliser.

- (b) It was found that 4.25 g had a sulfate content of 35%. 3

What is the mass of the dried precipitate at Step 4? Include a chemical equation in your answer.

