

Practice MCQ For Govt Pharmacist Exam, in this article we will solve, Practice MCQ on the topic precipitation titrations under the subject Pharmaceutical inorganic chemistry of first semester. Read following article for your reference.

[Precipitation Titrations » PHARMACAREERS](#)

1. What is the principle of precipitation titrations?

- a) Reaction between an analyte and a titrant to form a gas
- b) Reaction between an analyte and a titrant to form a precipitate
- c) Reaction between an analyte and a titrant to form a complex
- d) Reaction between an analyte and a titrant to form a solution

2. Which method in precipitation titration is used to determine the concentration of chloride ions in a solution?

- a) Fajan's method
- b) Mohr's method
- c) Volhard's method
- d) All of the above

3. In the Mohr's method of precipitation titration, what is used as the indicator?

- a) Potassium chromate
- b) Ferric alum
- c) Dichlorofluorescein
- d) Methyl orange

4. In which method is the end point detected by the formation of a red-colored complex due to the reaction of iron (III) with thiocyanate?

- a) Fajan's method
- b) Mohr's method
- c) Modified Volhard's method
- d) Volhard's method

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5. Precipitation titrations are commonly used in the analysis of:

- a) Halides and pseudohalides
- b) Certain metal ions
- c) Organic compounds
- d) All of the above

6. In the Fajan's method of precipitation titration, what happens when all the chloride ions have reacted with the silver ions?

- a) The solution turns colorless
- b) The solution turns red
- c) The solution turns yellow
- d) The solution turns blue

7. Why is Volhard's method carried out in an acidic solution?

- a) To prevent the hydrolysis of Fe^{3+}
- b) To prevent the hydrolysis of Ag^+
- c) To prevent the hydrolysis of Cl^-
- d) To prevent the hydrolysis of SCN^-

8. In the Modified Volhard's method, why is back titration used?

- a) To determine the concentration of halide ions in a solution
- b) To determine the concentration of silver ions in a solution
- c) To determine the concentration of thiocyanate ions in a solution
- d) To determine the concentration of ferric ions in a solution

9. Which of the following is not a true statement about precipitation titrations?

- a) The reaction must occur in a solution that is saturated with the precipitate
- b) The precipitate formed should be of high solubility
- c) The amount of precipitate formed is directly proportional to the amount of analyte in the solution
- d) Precipitation titrations are commonly used in the analysis of halides and pseudohalides

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10. In a precipitation titration, what is the significance of the end point?

- a) It indicates the start of the titration
- b) It indicates the maximum amount of titrant that can be added
- c) It indicates that all of the analyte has reacted with the titrant
- d) It indicates the minimum amount of titrant that can be added

11. In the Fajan's method, which indicator is commonly used?

- a) Potassium chromate
- b) Ferric alum
- c) Dichlorofluorescein
- d) Methyl orange

12. In a precipitation titration, what does the end point indicate?

- a) The start of the reaction
- b) The maximum amount of titrant that can be added
- c) The point at which all of the analyte has reacted with the titrant
- d) The minimum amount of titrant that can be added

13. Which of the following is not a true statement about the Modified Volhard's method?

- a) It is a type of back titration
- b) It is used to determine the concentration of halide ions in a solution
- c) It uses silver nitrate as the titrant
- d) It uses ferric alum as the indicator

14. Which method in precipitation titration is carried out in an acidic solution?

- a) Fajan's method
- b) Mohr's method
- c) Volhard's method
- d) Modified Volhard's method

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15. Precipitation titrations are commonly used in the analysis of:

- a) Halides and pseudohalides
- b) Certain metal ions and organic compounds
- c) Both a and b
- d) None of the above

Answers

1. The principle of precipitation titrations is the reaction between an analyte and a titrant to form a precipitate. So, the correct answer is **b) Reaction between an analyte and a titrant to form a precipitate.**
2. The method used in precipitation titration to determine the concentration of chloride ions in a solution includes all the listed methods. Therefore, the correct answer is **d) All of the above.**
3. In the Mohr's method of precipitation titration, potassium chromate is used as the indicator. So, the correct answer is **a) Potassium chromate.**
4. The method in which the end point is detected by the formation of a red-colored complex due to the reaction of iron (III) with thiocyanate is the Volhard's method. Therefore, the correct answer is **d) Volhard's method.**
5. Precipitation titrations are commonly used in the analysis of halides, pseudohalides, certain metal ions, and organic compounds. Thus, the correct answer is **d) All of the above.**
6. In the Fajan's method of precipitation titration, when all the chloride ions have reacted with the silver ions, the solution turns colorless. Therefore, the correct answer is **a) The solution turns colorless.**
7. Volhard's method is carried out in an acidic solution to prevent the hydrolysis of Fe^{3+} . So, the correct answer is **a) To prevent the hydrolysis of Fe^{3+} .**
8. In the Modified Volhard's method, back titration is used to determine the concentration of halide ions in a solution. Therefore, the correct answer is **a) To determine the concentration of halide ions in a solution.**
9. The statement that is not true about precipitation titrations is that the precipitate formed should be of high solubility. Therefore, the correct answer is **b) The precipitate formed should be of high solubility.**

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10. In a precipitation titration, the significance of the end point is that it indicates that all of the analyte has reacted with the titrant. So, the correct answer is **c) It indicates that all of the analyte has reacted with the titrant.**
11. In the Fajan's method, the commonly used indicator is dichlorofluorescein. Therefore, the correct answer is **c) Dichlorofluorescein.**
12. In a precipitation titration, the end point indicates the point at which all of the analyte has reacted with the titrant. So, the correct answer is **c) The point at which all of the analyte has reacted with the titrant.**
13. The statement that is not true about the Modified Volhard's method is that it uses ferric alum as the indicator. Therefore, the correct answer is **d) It uses ferric alum as the indicator.**
14. The method in precipitation titration that is carried out in an acidic solution is the Volhard's method. So, the correct answer is **c) Volhard's method.**
15. Precipitation titrations are commonly used in the analysis of halides, pseudohalides, certain metal ions, and organic compounds. Therefore, the correct answer is **c) Both a and b.**