

JEE MAIN COORDINATION COMPOUNDS — STRUCTURAL ISOMERISM IN COORDINATION COMPOUNDS — PYQS

Max. Marks: 12
Questions: 3

Section A (MCQ) — 3 questions

Q.1 Which of the following complexes will show coordination isomerism?

- A. $[\text{Ag}(\text{NH}_3)_2][\text{Ag}(\text{CN})_2]$
- B. $[\text{Co}(\text{NH}_3)_6][\text{Cr}(\text{CN})_6]$
- C. $[\text{Co}(\text{NH}_3)_6][\text{Co}(\text{CN})_6]$
- D. $[\text{Fe}(\text{NH}_3)_6][\text{Co}(\text{CN})_6]$
- E. $[\text{Co}(\text{NH}_3)_6][\text{Fe}(\text{CN})_6]$

Choose the **correct** answer from the options given below: [JEE Main 2026 (Online) 2nd April Evening Shift]

- (1) B, C and D Only (2) B, D and E Only
- (3) A, C and D Only (4) C, D and E Only

Scan or tap for the full solution



Q.2 Consider a mixture 'X' which is made by dissolving 0.4 mol of $[\text{Co}(\text{NH}_3)_5\text{SO}_4]\text{Br}$ and 0.4 mol of $[\text{Co}(\text{NH}_3)_5\text{Br}]\text{SO}_4$ in water to make 4 L of solution. When 2 L of mixture 'X' is allowed to react with excess of AgNO_3 , it forms precipitate 'Y'. The rest 2 L of mixture 'X' reacts with excess BaCl_2 to form precipitate 'Z'. Which of the following statements is CORRECT?

[JEE Main 2026 (Online) 24th January Morning Shift]

- (1) 0.1 mol of 'Y' is formed.
- (2) 0.4 mol of 'Z' is formed.
- (3) 0.2 mol of 'Z' is formed.
- (4) 'Y' is BaSO_4 and 'Z' is AgBr .

Scan or tap for the full solution



Q.3 An octahedral complex having molecular composition $\text{Co} \cdot 5\text{NH}_3 \cdot \text{Cl} \cdot \text{SO}_4$ has two isomers A and B. The solution of A gives a white precipitate with AgNO_3 solution and the solution of B gives white precipitate with BaCl_2 solution. The type of isomerism exhibited by the complex is,

[JEE Main 2025 (Online) 7th April Morning Shift]

- (1) Co-ordinate isomerism
- (2) Ionisation isomerism
- (3) Geometrical isomerism
- (4) Linkage isomerism

Scan or tap for the full solution



ANSWER KEY

Ques.	1	2	3										
Ans.	2	3	2										