PYQSide PYQSide.com — free PYQs with solutions Powered by PrepBlink

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. $[Ag(NH_3)_2][Ag(CN)_2]$
B. $[Co(NH_3)_6][Cr(CN)_6]$
C. $[Co(NH_3)_6][Co(CN)_6]$
D. $[Fe(NH_3)_6][Co(CN)_6]$
E. $[Co(NH_3)_6][Fe(CN)_6]$

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 $[Co(NH_3)_5SO_4]Br$ and 0.4 mol of $[Co(NH_3)_5Br]SO_4$ 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 $Co{\cdot}5NH_3{\cdot}Cl{\cdot}SO_4$ 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								