

JEE MAIN COORDINATION COMPOUNDS — WERNER'S THEORY — PYQS
Max. Marks: 16
Questions: 4
Section A (MCQ) — 1 question
Q.1 Match **List - I** with **List - II**.

List - I Complex		List - II Primary valency and Secondary valency	
A.	$[\text{Co}(\text{en})_2\text{Cl}_2]\text{Cl}$	I.	3, 6
B.	$[\text{Pt}(\text{NH}_3)_2\text{Cl}(\text{NO}_2)]$	II.	3, 4
C.	$\text{Hg}[\text{Co}(\text{SCN})_4]$	III.	2, 6
D.	$[\text{Mg}(\text{EDTA})]^{2-}$	IV.	2, 4

 Choose the **correct** answer from the options given below : [JEE Main 2025 (Online) 7th April Evening Shift]

- (1) A-I, B-III, C-II, D-IV
 (2) A-II, B-III, C-IV, D-I
 (3) A-I, B-IV, C-IV, D-III
 (4) A-III, B-I, C-II, D-IV

 Scan or tap for the
full solution

Section B (Numerical) — 3 questions

Q.2 An excess of AgNO_3 is added to 100 mL of a 0.05 M solution of tetraaquadichloridochromium (III) chloride. The number of moles of AgCl precipitated will be $\text{_____} \times 10^{-3}$. (Nearest integer)

[JEE Main 2026 (Online) 6th April Evening Shift]

 Scan or tap for the
full solution


Q.3 5.33 g of $\text{CrCl}_3 \cdot 6\text{H}_2\text{O}$, which is a 1 : 3 electrolyte, is dissolved in water and is passed through a cation exchanger. The chloride ions in the eluted solution, on treatment with AgNO_3 results in 8.61 g of AgCl . The ratio of moles of complex reacted and moles of AgCl formed is $\text{_____} \times 10^{-2}$. (Nearest integer)
 [Molar mass in g mol^{-1} Cr : 52, Ag : 108, Cl : 35.5, H : 1, O : 16]

[JEE Main 2026 (Online) 2nd April Morning Shift]

 Scan or tap for the
full solution


Q.4 A chromium complex with a formula $\text{CrCl}_3 \cdot 6\text{H}_2\text{O}$ has a spin only magnetic moment value of 3.87 BM and its solution conductivity corresponds to 1:2 electrolyte. 2.75 g of the complex solution was initially passed through a cation exchanger. The solution obtained after the process was reacted with excess of AgNO_3 . The amount of AgCl formed in the above process is _____ g . (Nearest integer)
 [Given: Molar mass in g mol^{-1} Cr : 52, Cl : 35.5, Ag : 108, O : 16, H : 1]

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

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full solution

ANSWER KEY
Section A (MCQ) — 1 question

Ques.	1													
Ans.	3													

Section B (Numerical) — 3 questions

Ques.	2	3	4											
Ans.	5	33	3											