

CBSE -2004 CLASS XII CHEMISTRY (Set-2)

General Instructions:

1. All questions are compulsory.
2. Marks for each question are indicated against it.
3. Question numbers 1 to 5 are very short-answer questions, carrying 1 mark each. Answer these in one word or about one sentence each.
4. Question numbers 6 to 12 are short-answer questions, carrying 2 marks each. Answer these in about 30 words each.
5. Question numbers 13 to 24 are short-answer questions of 3 marks each. Answer these in about 40 words each.
6. Question numbers 25 to 27 are long-answer questions of 5 marks each. Answer these in about 70 words each.
7. Use Log Tables, if necessary Use of calculators is not permitted.

Except for the following questions, all the remaining questions have been asked in [Set I](#).

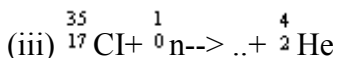
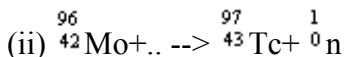
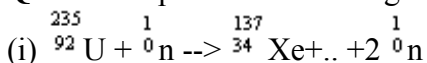
Q. 9. Identify and indicate the presence of chirality, if any, in the following molecules. How many stereoisomers are possible for those containing chiral centres?

(i) 3-bromo-pent-1-ene

(ii) $\text{H}_3\text{C}-\text{C}(\text{OH})-\text{CH}_2-\text{C}(\text{OH})-\text{CH}_3$



Q. 17. Complete the following nuclear reactions: **3**



(Note: Put 'X' for the symbol of element where name of the element is not known)

Q. 19. (a) Give the IUPAC name of $[\text{PtCl}(\text{NH}_2\text{CH}_3)(\text{NH}_3)_2]\text{Cl}$.

(b) Compare the magnetic behaviour of the complex entities $[\text{Fe}(\text{CN})_6]^{4-}$ and $[\text{FeF}_6]^{3-}$.
(Fe=26) **3**

Q. 20. Describe the following with suitable examples: **3**

- (i) Preservatives
- (ii) Tranquilizers
- (iii) Hybrid propellants

Q. 25. (a) How would you account for the following:

- (i) Cobalt (II) is stable in aqueous solution but In the presence of strong ligands it is easily oxidised. (Co=27)
 - (ii) The transition metals form interstitial compounds.
 - (iii) Silver halides find use in photography.
- (b) What is lanthanoid contraction? Mention its main consequence. **5**

Q. 27. (a) What is mutarotation? Explain occurrence of mutarotation in D-glucose.

(b) How are lipids classified? Give one example of each class. **5**

Or

How does DNA replicate? Describe the mechanism of replication. How is the process responsible for preservation of heredity?