

Unit 3 - Week 1

Assignment 1

The due date for submitting this assignment has passed.
As per our records you have not submitted this assignment.

Due on 2019-08-14, 23:59 IST.

- 1) What will be the coordination number and oxidation state of FeCl_2 in water? 1 point
- A. 2, +2
B. 6, +2
C. 6, 0
D. 8, +2
- a
 b
 c
 d
- No, the answer is incorrect.
Score: 0
Accepted Answers:
b
- 2) In ammonium solution of CoCl_3 , the first sphere of attraction and second sphere of attraction are observed by 1 point
- A. NH_3 molecules and Cl^- ions respectively
B. Cl^- ions and NH_3 molecules respectively
C. H_2O molecules and Cl^- ions respectively
D. only NH_3 molecules
- a
 b
 c
 d
- No, the answer is incorrect.
Score: 0
Accepted Answers:
a
- 3) In hemoglobin the metal ion present is 1 point
- A. Mn
B. Cu
C. Fe
D. I
- a
 b
 c
 d
- No, the answer is incorrect.
Score: 0
Accepted Answers:
c
- 4) What is the final product of hydrolysis of FeCl_3 ? 1 point
- A. $[\text{Fe}(\text{OH})_3(\text{H}_2\text{O})_3]$
B. $[\text{Fe}(\text{H}_2\text{O})_6]\text{Cl}_3$
C. $[\text{Fe}(\text{OH})_6]^{3-}$
D. $[\text{Fe}(\text{OH})(\text{H}_2\text{O})_5]\text{Cl}_2$
- a
 b
 c
 d
- No, the answer is incorrect.
Score: 0
Accepted Answers:
a
- 5) In the coordination complexes, the ligands are 0 points
- A. positively charged
B. negatively charged or neutral
C. radicals
D. all of these
- a
 b
 c
 d
- No, the answer is incorrect.
Score: 0
Accepted Answers:
b
- 6) The oxidation state of metal ions in VO_4^{3-} and $\text{Cr}_2\text{O}_7^{2-}$ are 1 point
- A. +5, +7
B. +5, +6
C. +4, +5
D. +3, +2
- a
 b
 c
 d
- No, the answer is incorrect.
Score: 0
Accepted Answers:
b
- 7) TiO_2 and Sc_2O_3 are white, because 1 point
- A. they (Ti and Sc) are not included in the transition element series
B. energy level splitting is high for transition to occur
C. both are having d^0 electron system, hence no transition occurs
D. emissional frequency of light fall outside of the visible range
- a
 b
 c
 d
- No, the answer is incorrect.
Score: 0
Accepted Answers:
c
- 8) Between the two tetrahedral units of dichromate ion the angle is 1 point
- A. 90°
B. 140°
C. 126°
D. 60°
- a
 b
 c
 d
- No, the answer is incorrect.
Score: 0
Accepted Answers:
c
- 9) Tolman's cone angle is a measure of 1 point
- A. bulk of transition metal ion
B. steric bulk of ligand
C. steric bulk of coordination sphere
D. angle between Carbon-Phosphorus-Metal
- a
 b
 c
 d
- No, the answer is incorrect.
Score: 0
Accepted Answers:
b
- 10) Which of the following group of ligands are considered as bidentated ligand? 1 point
- A. NO_2^- , SCN^- , CN^-
B. CH_3NH_2 , EDTA, H_2O
C. py, NO, NCS^-
D. en, ox, bipy
- a
 b
 c
 d
- No, the answer is incorrect.
Score: 0
Accepted Answers:
d
- 11) Which of the following complex is formed in solution to give blood red coloration? 1 point
- A. $[\text{Fe}(\text{NCS})_3\text{Cl}_3]^{3-}$
B. $[\text{Fe}(\text{NCS})(\text{H}_2\text{O})_5]^{2+}$
C. $\text{K}_3\text{Fe}(\text{SCN})_6$
D. $[\text{Fe}(\text{CN})(\text{H}_2\text{O})_5]^{2+}$
- a
 b
 c
 d
- No, the answer is incorrect.
Score: 0
Accepted Answers:
b
- 12) The geometry of $\text{Mn}(\text{acac})_3$ and $\text{VO}(\text{acac})_2$ are 1 point
- A. both are octahedral
B. triangular and pyramidal
C. octahedral and square pyramidal
D. trigonal bipyramidal and tetrahedral
- a
 b
 c
 d
- No, the answer is incorrect.
Score: 0
Accepted Answers:
c
- 13) What are the colors of the solutions of KMnO_4 and K_2MnO_4 ? 1 point
- A. purple and green
B. purple and orange
C. green and purple
D. purple and pink
- a
 b
 c
 d
- No, the answer is incorrect.
Score: 0
Accepted Answers:
a
- 14) The primary valence and secondary valence of the metal ion in the co-ordination compound $[\text{Co}(\text{NH}_3)_5\text{Cl}]\text{Cl}_2$ is 1 point
- A. 2, 6
B. 3, 6
C. 3, 5
D. 6, 3
- a
 b
 c
 d
- No, the answer is incorrect.
Score: 0
Accepted Answers:
b

Course outline

How to access the portal

Week 0 : Assignment 0

Week 1

- Lecture 1 : Introduction
- Lecture 2 : Definition
- Lecture 3 : Classification of Ligands - I
- Quiz : Assignment 1
- Feedback for Week 1

Week 2

Week 3

Week 4

Week 5

Week 6

Week 7

Week 8

Week 9

Week 10

Week 11

Week 12

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Assignment Solution