



CHEMISTRY

BOOKS - UNITED BOOK HOUSE

SET-4



1. Relation between radis (r) and side length(a)

of-face centred cubic lattice.

A. a=2r

B.
$$a=2\sqrt{2}r$$

C.
$$3\sqrt{3}r$$

D.
$$4\sqrt{3}r$$

Answer:

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2. For Galvanic cell which one is correct?

A.
$$E=E_R-E_L$$

$$\mathsf{B.}\, E=E_L-E_R$$

$$\mathsf{C}.\, E = E_R + E_L$$

D.
$$E = E_{anode} - E_{cathode}$$

Answer:

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3. Cause of peptization is.

A. Selective absorption

B. selective adsorption

C. non selective absorption

D. non selective

Answer:



4. What is the oxidation state of Xe in XeO_3F_2 :

A. + 8

B. + 6

C.+4

D.+2

Answer:



5. Which one is a perfect complex:

A.
$$Cd{(CN)}_4^{2\,-}$$

$$\mathsf{B.}\left[Cu(NH_3)_4 \right]^2 +$$

C. $\left[Cr(CN)_4\right]^{3-}$

D. $\left[Fe(CN)_6\right]^{4-}$

Answer:

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6. Which one is used in Gattermann reaction:

A. CuCl/HCl

B. `CI_2//Fe dust

C. HCI//Cu dust

D. $CI_2 \,/ \, sunlight$





7. Zeisel process is done to estimate:

- A. Structure of ether
- B. Position of OH in alcohol
- C. Quantity of alkoxy group in ether
- D. Phenolic-OH

Answer:



Answer:



9. Aniline when treated with phosgene produces.

A. Phenyl cryanide

B. Phenyl isocyanide

C. Phenyl isociyanate

D. Chloro-benzene

Answer:

10. Only *Alpha*-amino acid which is optically inactive:

A. Glycine

B. Valine

C. Leucine

D. tryptophan

Answer:

11. Cellulose is a bio polymer of:

A. *Alpha*-amino acid

- B. `Alpha-D clucose
- C. $B\eta$ -D Glucose
- D. $B\eta-L$ glucose

Answer:



12. Omeprazol is used to treate.

A. Fever

B. Cencer

C. Pain

D. hyperacidity

Answer:

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13. Heroin is:

A. Analgesic

B. Antacid

C. Antipyratic

D. Anti oxidant

Answer:

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14. Express standard hydrogen electrode.

What is transport number?

15. What is transport number?



18. Which transition metal has highest melting

point?



20. Calculate the freezing point of water when

50 gm urea is dissolved example.



22. Two solution having gold number 75 and

125 which one has more protective power and

why?

23. Between white & red phosphorus which

one is more reactive & why?



25. What is crystal field stabilisation energy? If

the energy of Bary centre be Δ_0 How much a



28. What is p-type semiconductor? Define antiferromagnetic substance? Give example.
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29. An urea solution at $50^{\circ}C$ has osmotic pressure of 400 mm of Hg at what temperature the osmotic pressure will be 760 mm of Hg ?

30. Show that relative lowering of vapour pressure is a colligative property.

31. Shall copper sulphate solution be stored in

Ag container? What is faraday?

32. If the equivalent wt of one metal be 35. Then calculate the current flow-required to deposite 3.5gm in 10 minutes.



33. What is matte? What is the utility of

cryolyte in the extraction of AI?



34. State the process in which sulphide ores

(are) concentrated. What is pyrometallurgy?

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35. What transition metal shos catalytic nature. What acts as catalyst in the reduction of sulphate by lodide?

36. Why the actinides has lower ionisation potential as compare to lanthanoid. What do you mean by transurenium element?



37. What will form when an alkyl halide is treated with AgCN solution. Arrange the alkyl halide as per increasing SN^{2+} reactivity. CH₃Cl, C(CH₃)₃Cl, O-CH₂-Cl



38. Why phenol acts as an acid? What will happen if $FeCI_3$ solution is added to phenol?





40. What is anomer? What is isoelectric point

of an amino acid give example.



41. $N_2(g) + 3H_2(g) = 2NH_3(g)$ What is the rate of disappearance of N_2 and H_2 is the rate of formation be 0.56 mol L^{-1} s^-1. Show that infinite time required for completion of 1st order reaction.



42. State one fractional order reaction.



43. What is molecularity of a chemical reaction. If the specific reaction rate for a reaction be 4.24×10^{-5} and 6.32×10^{-5} min at $30^{\circ}C$ and $43^{\circ}C$ find energy of activation value for that reaction.



44. What will happen when: PCI_3 is heated

with $LiAIH_4$ in ether.



45. What will happen when: XeF_6 is hydrolysed.

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46. What is interhalogen compound? Give example why the covalent halaides are less





47. How would you synthesise: Malonic acid

from acetic acid.

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48. How would you synthesise: Methanol from

acetic acid. Give example of HVZ reaction.

