



CHEMISTRY

BOOKS - SAI CHEMISTRY (TELUGU ENGLISH)

EAMCET-2019 (TS) SHIFT-1

Chemistry

1. In which group of the periodic table the element with $Z = 120$ be placed ?

A. 2

B. 1

C. 14

D. 15

Answer: A



Watch Video Solution

2. Common oxidation state of f-block elements is III. The other stable oxidation state of ${}^{63}\text{Eu}$ and ${}^{65}\text{Tb}$ are respectively

A. II,IV

B. IV,II

C. II,V

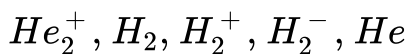
D. V,II

Answer: A



Watch Video Solution

3. How many of the following species are diamagnetic ?



A. 1

B. 2

C. 3

D. 0

Answer: B



Watch Video Solution

4. In which of the following hydrogen bonding is strongest ?

A. O-H...N

B. O-H...O

C. O-H...F

D. F-H...F

Answer: D



Watch Video Solution

5. What is the correction terms in the pressure for real gas in comparison to the ideal gas ?

A. $\frac{n^2}{V^2}$

B. $\frac{aV^2}{n^2}$

C. $\frac{an^2}{V^2}$

D. $\frac{an^2}{V} - nb$

Answer: C



Watch Video Solution

6. In a 1 L vessel , 10 moles of methane and 50 moles of O_2 are present . The number of moles of O_2 , water and CO_2 present in the vessel are respectively after the vessel was heated to burn methane completely .

A. 30,20,20

B. 30,20,10

C. 20,30,10

D. 20,10,30

Answer: B



Watch Video Solution

7. Identify the oxidation states of Mn when MnO_3^{3-} ion undergoes disproportionation reaction under acidic medium

A. +2, +7

B. +2, +5

C. +4, +4

D. +7, +4

Answer: D



Watch Video Solution

8. What is the solubility product (K_{sp}) of calcium phosphate in pure water ? [S=molar solubility]

A. $108S^5$

B. $72S^3$

C. $6S^5$

D. $121S^2$

Answer: A



Watch Video Solution

9. What is the approximate volume (in mL) of 10 vol H_2O_2 solution that will react completely with 1 L of 0.02 M $KMnO_4$ solution in acid medium ?

A. 56.05

B. 113.5

C. 90.8

D. 75.75

Answer: A



Watch Video Solution

10. Which of the following products are formed on hydrolysis of NaO_2 ?

(a) $NaOH$, (b) H_2O_2 , (c) O_2 , (d) H_2O

A. a,d

B. a,c,d

C. a,b,d

D. a,b,c

Answer: D



Watch Video Solution

11. The oxidation state (n) and coordination number (C.N.) of Al and number of valence electrons around Al(N) in Al_2Cl_6 are respectively

- A. 3,3,6
- B. 3,4,8
- C. 4,4,8
- D. 3,4,6

Answer: B



Watch Video Solution

12. ΔH_f° values (in kJ mol^{-1}) for graphite, diamond and C_{60} are respectively

A. 0,1.9, 38.1

B. 1.8,1.9,38.1

C. 0,0,21.4

D. 1.8,1.9,2.0

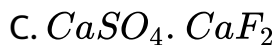
Answer: A



Watch Video Solution

13. What is the formula of the product formed when F^- reacts with enamel on teeth?

A. $CaSO_4 \cdot CaF_2$



Answer: D



Watch Video Solution

14. Which one of the following methods can be used to find out the percentage composition of halogen present in an organic compound ?

A. Kjeldahl method

B. Dumas method

C. Lassaigne's method

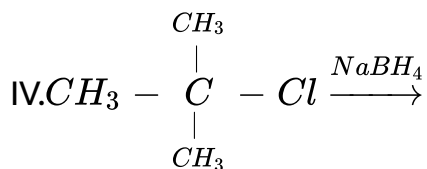
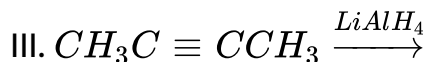
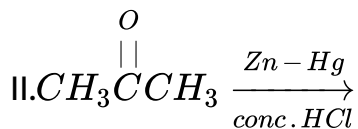
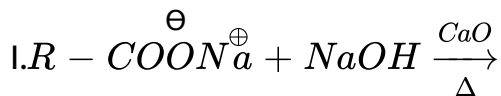
D. Carius method

Answer: D



Watch Video Solution

15. Which of the following reactions produce alkane as the product ?



A. I,II,III

B. I,III,IV

C. I,II,IV

D. II,III,IV

Answer: C

 [Watch Video Solution](#)

16. How many of the following compounds show ferrimagnetism ?

FeO_4 , $MgFe_2O_2$, $NiFe_2O_4$, MnO , CrO_2

A. 1

B. 2

C. 3

D. 4

Answer: C

 [Watch Video Solution](#)

17. The molality (in mol kg^{-1}) of 1 mole of solute in 50 g of solvent is :

A. 10

B. 20

C. 30

D. 40

Answer: B

 [Watch Video Solution](#)

18. The freezing point of solution containing 10 mL of non-volatile and non-electrolyte liquid "A" in 500 g of water is

$-0.413^{\circ}C$. If K_f of water is $1.86\text{ K kg mol}^{-1}$ and the molecular weight of $A = 60\text{ gmol}^{-1}$, what is the density of the solution in g mL^{-1} ?

(Assume $\Delta_{mix} V=0$)

A. 1.13

B. 1.3

C. 0.9

D. 0.993

Answer: D



Watch Video Solution

19. A current of 19296 C is passed through an aqueous solution of copper sulphate using copper electrodes. What is the mass

(in g) of copper deposited at the cathode ?

(molar mass of Cu = 63.5 g mol^{-1})

A. 3.17

B. 1.58

C. 6.35

D. 0.79

Answer: C



Watch Video Solution

20. For a zero order reaction , the correct expression for rate constant (k) at half-life time ($t_{1/2}$) is $R_0 =$ initial concentration of reactant)

$$\text{A. } k = \frac{2.303}{t_{1/2}} \log \frac{[R_0]}{[R_0]/2}$$

$$\text{B. } k = \frac{2.303}{t} \log \frac{[R_0]}{[R_0]}$$

$$\text{C. } k = \frac{[R_0] - \frac{1}{2}[R_0]}{t} (1/2)$$

$$\text{D. } k = \frac{2.303}{(t_2 - t_1)} \log [R_0]$$

Answer: C



Watch Video Solution

21. Which one of the following is used as an eye lotion ?

A. Milk of magnesia

B. Silver sol

C. Colloidal antimony

D. Chromium salt sol

Answer: B



Watch Video Solution

22. Statement(A): Sulphur vapour is paramagnetic .

Statement (B): Reaction of dil. HCl with finely divided forms $FeCl_3$ and H_2 gas.

- A. Statement (A) is correct , but (B) is wrong
- B. Both the statements are correct
- C. Statement (A) is wrong , but (B) is correct
- D. Both the statements are wrong .

Answer: A



Watch Video Solution

23. The reason for the noble gases to have low boiling and low melting point is

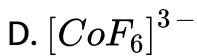
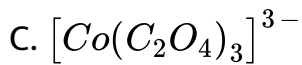
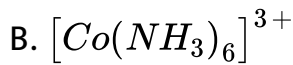
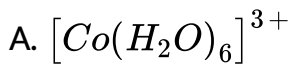
- A. Atoms of the noble gases have weak covalent interaction
- B. Atoms of the noble gases have weak dipole interaction
- C. Atoms of the noble gases have weak van der Waals interaction
- D. Atoms of the noble gases have weak dispersion forces.

Answer: C::D



[Watch Video Solution](#)

24. Which one of the following complex has the highest magnitude of Crystal Field Splitting Energy (Δ_0) ?



Answer: B



Watch Video Solution

25. A polymer contains 50 molecules with molecular mass 5000, 100 molecules with molecular mass 10,000 and 50 molecules with molecular mass 15,000. Calculate number average molecular mass ?

A. 5000

B. 75000

C. 10000

D. 20000

Answer: C



Watch Video Solution

26. Which of the following are reducing sugars ?

Sucrose Maltose Lactose Fructose

(A) (B) (C) (D)

A. A,B,C

B. A,B,D

C. A,C,D

D. B,C,D

Answer: D



[Watch Video Solution](#)

27. Identify opiates from the following

Codeine	Thymine	Epinehrine	Morphine	Thiamine	Heroin
(A)	(B)	(C)	(D)	(E)	(F)

A. A,D,F

B. C,D,E

C. B,E,F

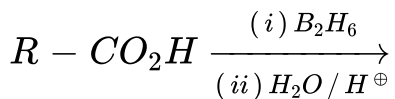
D. A,B,C

Answer: A



[Watch Video Solution](#)

28. Find the suitable product for the following reaction .



A. R-CHO

B. 

C. $R - CO_2R$

D. 

Answer: B

 [Watch Video Solution](#)

29. The decreasing order of acidic strength for following acids

is

(a) CH_3COOH , (b) $CH_3CHClCH_2COOH$, (c)
 $ClCH_2COOH$, (d) $Cl_2CHCOOH$

A. (b) gt (c) gt (a) gt (d)

B. (d) gt (c) gt (b) gt (a)

C. (d) gt (b) gt (c) gt (a)

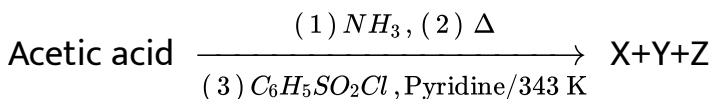
D. (c) gt (d) gt (b) gt (a)

Answer: B

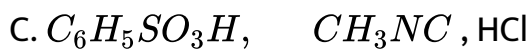
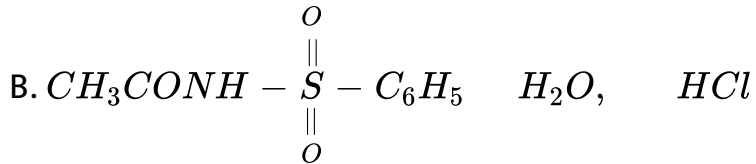


Watch Video Solution

30. Identify X,Y and Z respectively in the following reaction sequence



A. $C_6H_5SO_3H$, CH_3NC , HCl



Answer: C



Watch Video Solution