



CHEMISTRY

BOOKS - TS EAMCET PREVIOUS YEAR PAPERS

TS EAMCET 2015

Chemistry

1. When one mole of A and one mole of B were heated in a one litre flask at T(K), 0.5 moles of C were formed at equilibrium



The equilibrium constant K_C is

A. 0.25

B. 0.5

C. 1

D. 2

Answer:



[Watch Video Solution](#)

2. If the solubility of $Ca_3(PO_4)_2$ in water is 'X' mol L^{-1} , its solubility product in $mol^5 L^{-5}$ is

A. $6x^5$

B. $36x^5$

C. $64x^5$

D. $108x^5$

Answer:



[Watch Video Solution](#)

3. Which one of the following is not a method to remove permanent hardness of water

- A. Clark's method
- B. Calgon method
- C. Ion - exchange method
- D. Synthetic resins method

Answer:



[Watch Video Solution](#)

4. White metal is an alloy of

- A. Na and Mg
- B. Na and Pb
- C. Li and Mg

D. Li and Pb

Answer:

 [Watch Video Solution](#)

5. Which one of the following elements does not form triiodide on reacting with iodine?

A. B

B. Tl

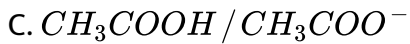
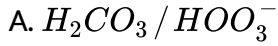
C. Al

D. Ga

Answer:

 [Watch Video Solution](#)

6. The buffer system which helps to maintain the pH of blood between 7.26 to 7.42, is



Answer:



Watch Video Solution

7. Municipal sewage BOD values (ppm) are_

A. 43835

B. 100 - 4000

C. 50 - 90

Answer:

 [Watch Video Solution](#)

8. The two bonds N=O and N-O in H_3CNO_2 are of same bond length due to

- A. inductive effect
- B. hyperconjugation
- C. electromeric effect
- D. resonance effect

Answer:

 [Watch Video Solution](#)

9. Assertion (A) Reaction of 1 - butene with HBr gives 1 - bromobutane as major product.

Reason (R) Addition of hydrogen halides to alkenes proceeds according to Markownikoff's rule.

The correct answer is

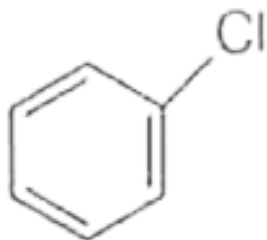
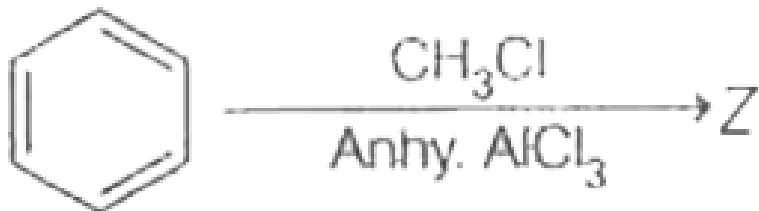
- A. A and R correct and R is the correct explanation of A
- B. A and R are correct but R is not the correct explanation of A
- C. A is correct but R is not correct
- D. A is not correct but R is correct

Answer:

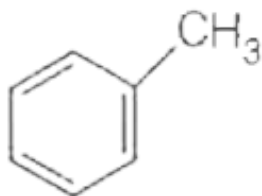


[Watch Video Solution](#)

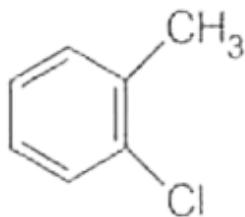
10. The product (Z) of the following reacting is



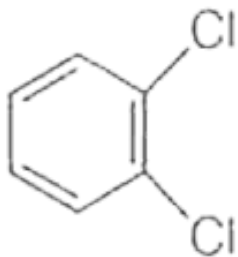
A.



B.



C.



Answer:

[▶ Watch Video Solution](#)

11. An example of covalent solid is

A. MgO

B. Mg

C. SiC

D. CaF_2

Answer:

[▶ Watch Video Solution](#)

12. What is the weight (in g) of Na_2CO_3 (molar mass= 106) present in 250 mL of its 0.2 M solution?

A. 0.53

B. 5.3

C. 1.06

D. 10.6

Answer:



[Watch Video Solution](#)

13. An aqueous dilute solution containing non-volatile solute boils at $100.052^\circ C$. What is the molality of solution? ($K_b = 0.52 \text{ kg. mol}^{-1} K$, boiling temperature of water = $100^\circ C$)

A. 0.1 m

B. 0.01 m

C. 0.001 m

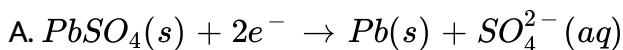
D. 1.0 m

Answer:

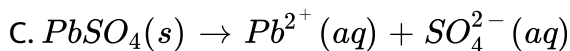
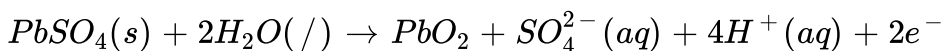


Watch Video Solution

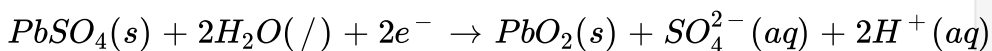
14. A lead storage battery is discharged. During the charging of this battery, the reaction that occurs at anode is



B.



D.

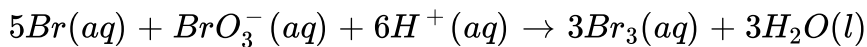


Answer:



Watch Video Solution

15. For the reaction



If, $-\frac{\Delta[Br]}{\Delta t} = 0.05 \text{ molL}^{-1} \text{ min}^{-1}$, $-\frac{\Delta[BrO_3]}{\Delta t} \in \text{molL}^{-1} \text{ min}^{-1}$ is

A. 0.005

B. 0.05

C. 0.5

D. 0.01

Answer:



Watch Video Solution

16. Which of the following use in hardening of leather?

A. Light sensitive silver bromide in gelatin

B. Sodium lauryl sulphate

C. Alum

D. Tannin

Answer:

 [Watch Video Solution](#)

17. German silver contains which of the following metals?

A. Cu , Zn

B. Fe, Zn

C. Ze, Fe, Ni

D. Cu, Zn, Ni

Answer:

 [Watch Video Solution](#)

18. The key step in the manufacturing of H_2SO_4 by contact process is

- A. absorption of SO_3 in H_2SO_4 to give oleum
- B. dilution of oleum with water
- C. burning of sulphur in air to generate SO_2
- D. catalytic oxidation of $SO - (2)$ with O_2 to give SO_3

Answer:

 [Watch Video Solution](#)

19. Ammonia on reaction with chlorine forms an explosive NCl_3 . What is the mole ratio of NH_3 and Cl_2 required for this reaction?

- A. 0.33541666666667
- B. 0.042361111111111
- C. 0.04375

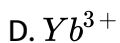
D. 0.41736111111111

Answer:



[Watch Video Solution](#)

20. Which one of the following lanthanic ions does not exhibit paramagnetism ?

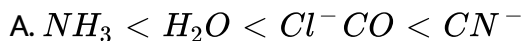


Answer:



[Watch Video Solution](#)

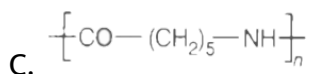
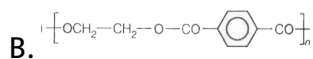
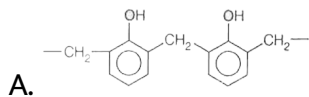
21. The increasing order of field strength of ligands is




Answer:

 [Watch Video Solution](#)

22. Identify condensation homopolymer from the following:

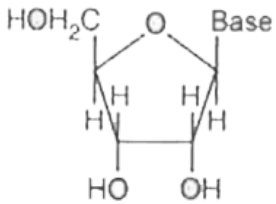


D. 

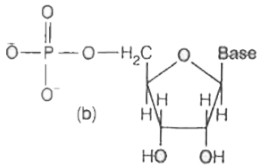
Answer:

 Watch Video Solution

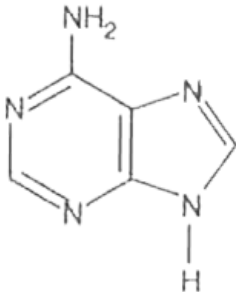
23. Identify the nucleoside form the following.



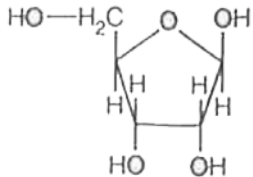
A.



B.



C.

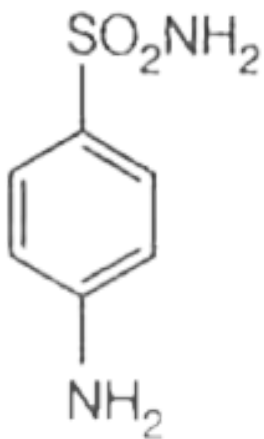


D.

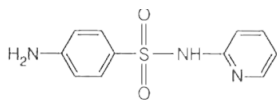
Answer:

[▶ Watch Video Solution](#)

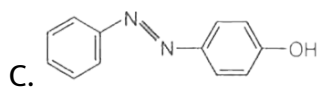
24. Which one of the following is the correct structure of sulphapyridine?



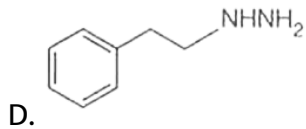
A.



B.



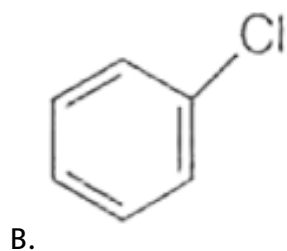
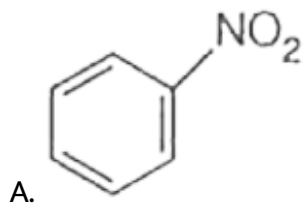
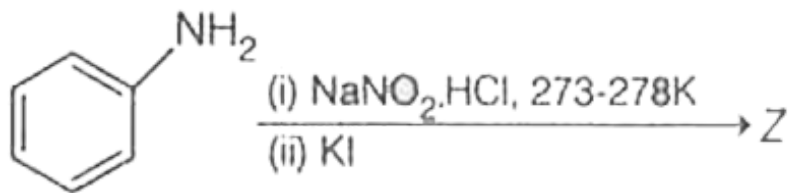
C.

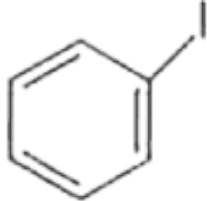


Answer:

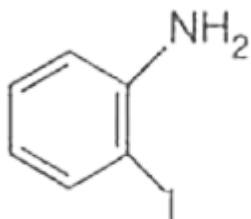
 [Watch Video Solution](#)

25. Identify Z in the following reaction:





C.



D.

Answer:

[▶ Watch Video Solution](#)

26. Which intermediate is formed in the Reimer-Tiemann reaction?

A. Aldehyde

B. Carbocation

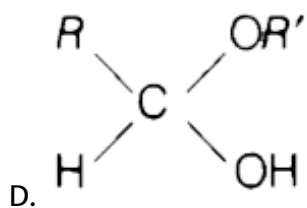
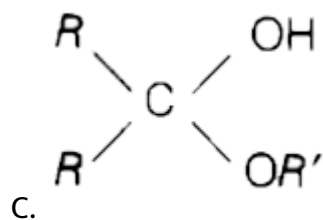
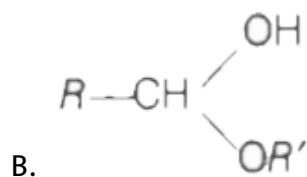
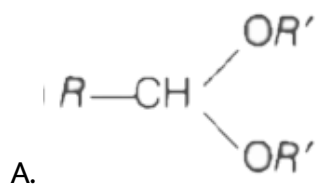
C. Carbanion

D. Substituted benzene chloride

Answer:

 Watch Video Solution

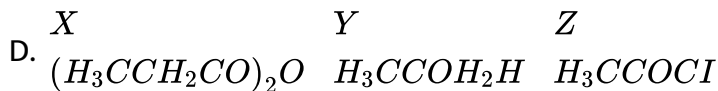
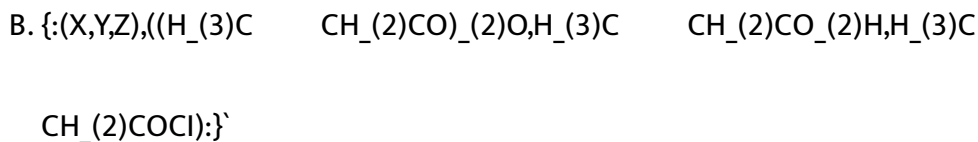
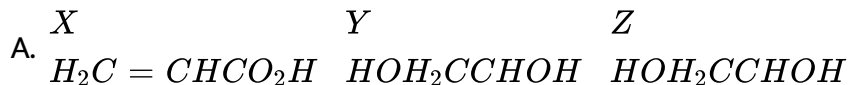
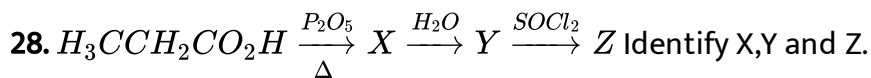
27. Which one of the following is an acetal?



Answer:



Watch Video Solution

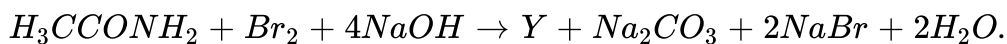


Answer:

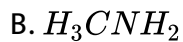


Watch Video Solution

29.



What is Y in the reaction?



Answer:

 [Watch Video Solution](#)

30. The number of radial nodes present in 3 P orbital is

A. 0

B. 1

C. 2

D. 3

Answer:

 [Watch Video Solution](#)

31. The radiation with maximum frequency is

A. X - rays

B. radio waves

C. UV rays

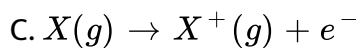
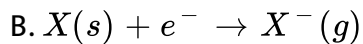
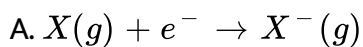
D. IR rays

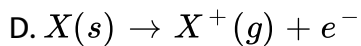
Answer:



Watch Video Solution

32. The equation used to represent the electron gain enthalpy is





Answer:

 [Watch Video Solution](#)

33. An element in +2 oxidation state has 24 electrons. The atomic number of the element and the number of unpaired electrons in it respectively are

- A. 24 and 4
- B. 26 and 4
- C. 24 and 2
- D. 26 and 5

Answer:

 [Watch Video Solution](#)

34. Number of bonding electron pairs and number of lone pairs of electrons in ClF_3 , SF_4 , BrF_5 respectively are

A. 3,2,4,2,5,2

B. 3,1,4,1,5,2

C. 3,1,4,2,5,1

D. 3,2,4,1,5,1

Answer:

 [Watch Video Solution](#)

35. The bond order in N_2 molecule is _____.

 [Watch Video Solution](#)

36. Match the following :

List I

- (A) Viscosity
- (B) Ideal gas behaviour
- (C) Liquefaction of gases
- (D) Charles' law

List II

- (I) Critical temperature
- (II) Isobar
- (III) Compressibility factor
- (V) Kinetin
- (T) $kgm^{-1}s^{-1}$

The correct answer is

A. A-IV, B-III, C-1, D-II

B. A-V, B-III, C-1, D-II

C. A-V, B-III, C-II, D-I

D. A-IV, B-III, C-II, D-I

Answer:



Watch Video Solution

37. The most probable speed of O_2 molecules at T(K) is

A. $\sqrt{\frac{RT}{4\pi}}$

B. $\sqrt{\frac{RT}{16\pi}}$

C. $\sqrt{\frac{RT}{16}}$

D. $\sqrt{\frac{3RT}{32}}$

Answer:

 [Watch Video Solution](#)

38. According to significant figure convention, the result obtained by adding 12.1, 18.0 and 1.012 is

A. 31.12

B. 31.1

C. 31

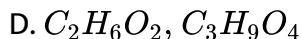
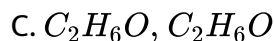
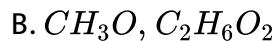
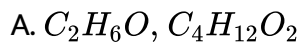
D. 31.122

Answer:



Watch Video Solution

39. An organic compound having C, H and O has 13.13% H, 52.14% C and 34.73% O. its molar mass is 46.068 g. What are its empirical and molecular formulae?



Answer:



Watch Video Solution

40. Which of the one following is not a state function ?

A. Internal energy

B. Work

C. Entropy

D. Free energy

Answer:



Watch Video Solution