



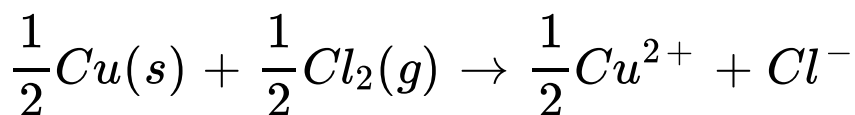
# CHEMISTRY

## BOOKS - NTA MOCK TESTS

### NTA NEET SET 38

#### Chemistry

1. The standard EMF of the cell reaction



is 0.2 V. The value of  $\Delta G^0$  will be

A.  $-98430J$

B.  $98430J$

C.  $96500J$

D.  $-96500J$

**Answer: A**



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2. In order to prepare one litre normal solution of  $KMnO_4$ , how many grams of

$KMnO_4$  are required if the solution is used in acidic medium for oxidation

A. 158 g

B. 31.6 g

C. 79 g

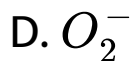
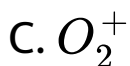
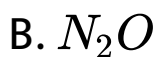
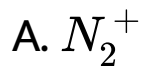
D. 52.6 g

**Answer: B**



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3. Which of the given ion below is isoelectronic with  $CO_2$  ?



**Answer: B**



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4. The relationship between standard reduction potential of a cell and equilibrium constant is shown by

A.  $E_{\text{Cell}}^0 = 0.059n \log K_c$

B.  $E_{\text{Cell}}^0 = \frac{0.059}{n} \log K_c$

C.  $E_{\text{Cell}}^0 = \frac{n}{0.059} \log K_c$

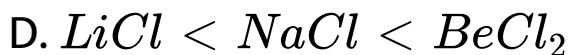
D.  $E_{\text{Cell}}^0 = \frac{\log K_c}{n}$

**Answer: B**



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5. The correct sequence of increasing covalent character is represented by



**Answer: C**



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6. Calculate the mass of anhydrous  $Na_2CO_3$  required to prepare 250 ml 0.25 M solution .

A. 6.225 g

B. 66.25 g

C. 6.0 g

D. 6.625 g

**Answer: D**



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7. Which is the correct statement in the following ?

A. The coordination number of  $Na^+$  ion in NaCl is 4

B. The unit cell having crystal parameters,  $a = b \neq c, \alpha = \beta = 90^\circ, \gamma = 120^\circ$  is hexagonal

C. The ionic crystal of AgBr has only Schottky defect



D. In ionic compounds having Frenkel

defect the ratio  $\frac{\gamma_+}{\gamma_-}$  is high

**Answer: B**



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**8.** A transition element  $X$  has a configuration

$[Ar]3d^4$  in its  $+3$  oxidation state. Its atomic

number is

A. 25

B. 24

C. 22

D. 21

**Answer: A**



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9. Two separate bulbs contain ideal gas  $A$  and  $B$ . The density of a gas  $A$  is twice that of a gas  $B$ . The molecular mass of  $A$  is half that of gas  $B$ . The two gases are at the same

temperature. The ratio of the pressure of  $A$  to that gas  $B$  is

A.  $1/4$

B. 4

C. 2

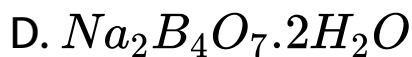
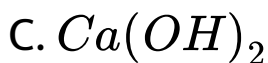
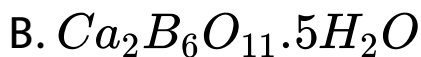
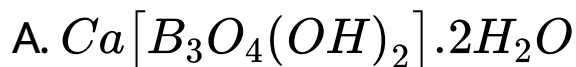
D.  $1/2$

**Answer: B**



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10. Colemanite is



**Answer: B**



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11. Which of the given radiations is having high penetrating power and not affected by electrical and magnetic field ?

A. Alpha rays

B. Beta rays

C. Gamma rays

D. Neutrons

**Answer: C**



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12. According to law of mass action rate of a chemical reaction is proportional to

A. Concentration of reactants

B. Concentration of products

C. Product of activemasses of reactant raised to a power equal to their stoichiometry coefficient

D. Molar concentration of products

**Answer: C**



**13.** A litre of solution is saturated with  $\text{AgCl}$ . To this solution if  $1.0 \times 10^{-4}$  Mole of solid  $\text{NaCl}$  is added , what will be the  $[\text{Ag}^+]$  , assuming no volume change

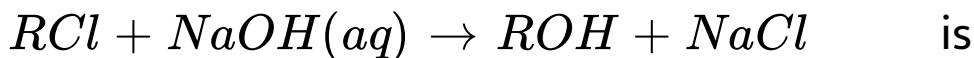
- A. increases
- B. decreases
- C. does not change
- D. zero

**Answer: B**



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**14.** The rate law for the reaction



given by

Rate =  $k[RCl]$ . The rate of the reaction will

be

A. Decreased      on      increasing      the

temperature of the reaction



B. Halved on reducing the concentration of alkyl halide to one half

C. Doubled on doubling the concentration of sodium hydroxide

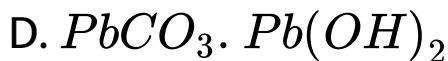
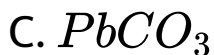
D. Unaffected by increasing the temperature of the reaction

**Answer: B**



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15. Sugar of lead is



**Answer: B**



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16. The number of electrons involve in the equation  $CrO_4^{2-} \rightarrow Cr_2O_7^{2-}$  Then value of x is equal to

A. 0

B. 1

C. 3

D. 5

**Answer: A**



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17. An example of halide ore is

A. Cinnabar

B. Bauxite

C. Galena

D. Cryolite

**Answer: D**



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**18.** The dual nature of radiation was proposed by .....

A. Lowry

B. Heisenberg

C. de - Broglie

D. Schrodinger

**Answer: C**



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19. The lanthanide contraction is responsible for the fact that

A. Zn and Y have about the same radii

B. Zr and Nb have similar oxidation state

C. Zr and Hf have almost the same radii

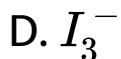
D. Zr and Zn have the same oxidation state

**Answer: C**



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20. Which one of the following is a pseudohalide ?

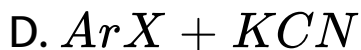
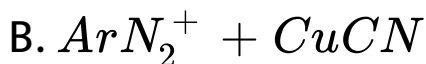


**Answer: A**



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21. Which of the given reaction cannot be used to prepare aromatic nitriles (ArCN) ?



**Answer: D**



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22. A liquid mixture which boils without changes in the composition is called a/an

- A. Zeotropic liquid mixture
- B. Binary liquid mixture
- C. Azeotropic liquid mixture
- D. Stable structure complex

**Answer: C**



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23. Which of the given below is a natural biodegradable polymer ?

A. Nylon - 2 Nylon - 6

B. Polythene

C. Cellulose

D. Polyvinyl chloride

**Answer: A,C**



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24. Which statement is incorrect for chemisorption?

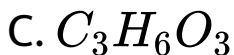
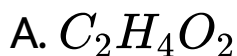
- A. Involves multilayer formation of adsorbent on adsorbent
- B. It is irreversible in nature
- C. Decreases with increase of temperature
- D. Involves the weak attractive interactions between adsorbent and adsorbent

**Answer: B**



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25. An organic compound with C =40 % and H= 6.7% will have the empirical formula



**Answer: B**



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26. Benzene diazonium chloride on reaction with phenol in weakly basic medium gives

A. Diphenyl ether

B. p - hydroxyazobenzene

C. Chlorobenzene

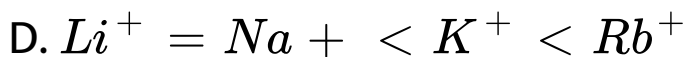
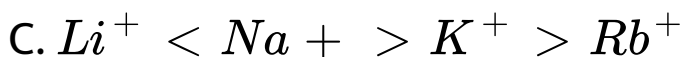
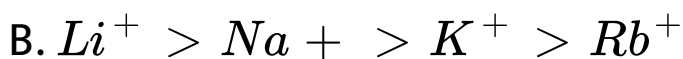
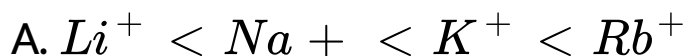
D. Benzene chloride

**Answer: B**



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27. The ionic conductance of the following cations in a given concentration is in the order

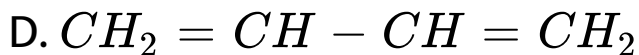
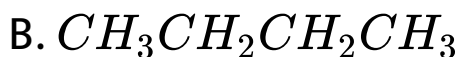


**Answer: A**



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28. Which is acidic in the given hydrocarbons ?



**Answer: C**



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29. According to Werner's theory of coordination compounds ,

A. Primary valency can be ionized

B. Secondary valency can be ionized

C. Primary and secondary valencies both cannot be ionized

D. Only primary valency cannot be ionized

**Answer: A**



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30. Which of the following is a conjugated acid - base pair?

A.  $\text{CH}_3\text{I}, \text{NaOH}$

B.  $\text{NH}_4\text{Cl}, \text{NH}_4\text{Br}$

C.  $\text{H}_2\text{SO}_4, \text{HSO}_4^-$

D.  $\text{KCN}, \text{KOH}$

**Answer: C**



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31. The compound formed on heating chlorobenzene with chloral in the presence of concentrated sulphuric acid, is:

A. Freon

B. Hexachloroethane

C. Gammexene

D. DDT

**Answer: D**



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**32.** Match list I with II and select the correct answer using the codes given below the lists



A. 1 - b , 2 - a , 3 - d , 4 - c

B. 1 - b , 2 - a , 3 - c , 4 - d

C. 1 - b , 2 - a , 3 - c , 4 - a

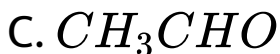
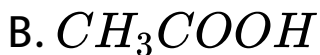
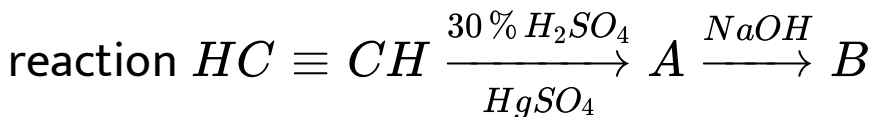
D. 1 - c , 2 - d , 3 - b , 4 - a

**Answer: A**



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33. Predict the product 'B' in the sequence of



**Answer: D**



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34. Which is correct for spontaneity of an electrochemical cell ?

A.  $\Delta G^0 = -ve, E^0 = 0$

B.  $\Delta G^0 = +ve, E^0 = +ve$

C.  $\Delta G^0 = 0, E^0 = 0$

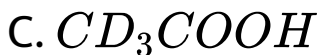
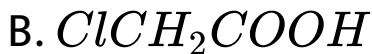
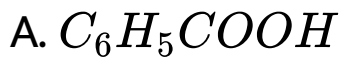
D.  $\Delta G^0 = -ve, E^0 = +ve$

**Answer: D**



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35. Which compound is the most acidic of the following ?

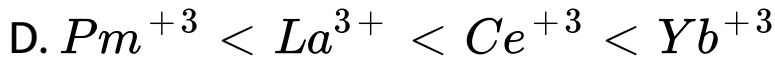
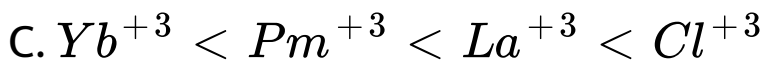
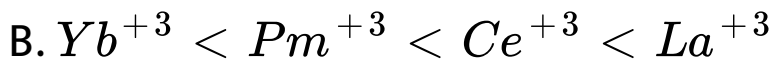
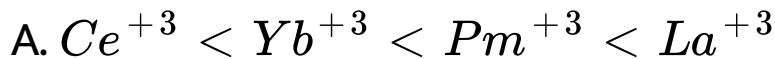


**Answer: B**



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36. Arrange  $Ce^{3+}$ ,  $La^{3+}$ ,  $Pm^{3+}$  and  $Yb^{3+}$  in increasing order of their size -



**Answer: B**



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37. Which factor affects the velocity constant  $k$  of a reaction ?

A. Change in the concentration of the reactant

B. change of temperature

C. change in the concentration of the product

D. None of the above

**Answer: B**





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**38.** Give composition of dettol.

A. Chloroxyleneol

B. Alcohol

C. Terpeneol

D. All of these

**Answer: D**



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39. The position of some metals in the electrochemical series in decreasing electropositive character is given as  $Mg > Al > Zn > Cu > Ag$ . What will happen if a copper spoon is used to stir a solution of aluminium nitrate ?

- A. The solution becomes blue
- B. The spoon will get coated with Al
- C. An alloy of Cu and Al is formed
- D. There is no reaction

**Answer: D**



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**40.** Which character makes fluorine the best oxidising agent?

A. Highest electron affinity

B. Lowest electron affinity

C. Highest  $E_{red}^0$

D. Highest  $E_{oxid}^0$

**Answer: C**



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**41.** A certain compound gives negative test with ninhydrin and positive test with Benedict's solution. The compound is

- A. An amino acid
- B. A monosaccharide
- C. A protein
- D. A lipid

**Answer: B**



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**42.** Refractory metals are used in construction of furnances because

- A. They can withstand high temperature
- B. They are chemically inert
- C. Their melting point is high
- D. None of these

**Answer: A**



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**43.** A mixture, on heating with conc.  $H_2SO_4$  and  $MnO_2$ , liberates brown vapour of



**Answer: A**



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**44.** Alcoholic solution of KOH is used for ,

- A. Dehalogenation
- B. Dehydrogenation
- C. Dehydrohalogenation
- D. Dehydration

**Answer: C**



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45. Wood spirit is known as

A. Methanol

B. Ethanol

C. Acetone

D. Benzene

**Answer: A**



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