



# CHEMISTRY

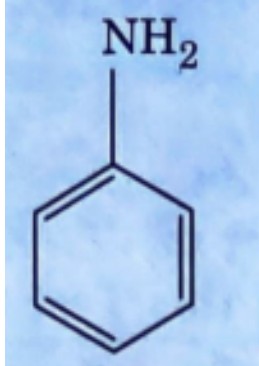
## BOOKS - NEET PREVIOUS YEAR (YEARWISE + CHAPTERWISE)

### NEET 2020

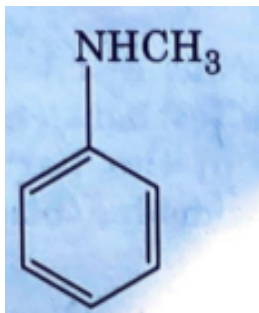
#### Others

1. Which of the following amine will give the carbylamine test ?

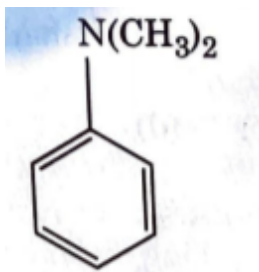
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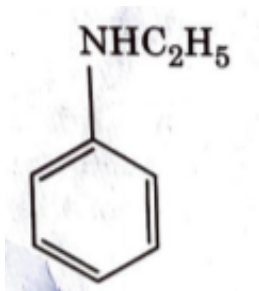
B.



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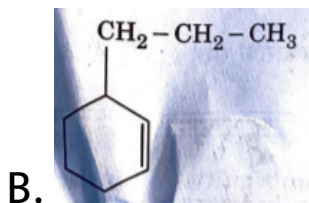
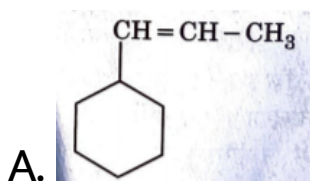


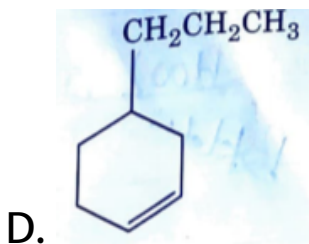
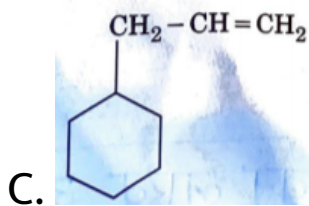
**Answer: A**



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2. An alkene on ozonolysis gives methanal as one of the product. Its structure is :





**Answer: C**



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3. Match the following and identify the correct

- |   |   |
|---|---|
| (a) $\text{CO(g)} + \text{H}_2\text{(g)}$ | (i) $\text{Mg(HCO}_3)_2 + \text{Ca(HCO}_3)_2$ |
| (b) Temporary hardness of water           | (ii) An electron deficient hydride            |
| (c) $\text{B}_2\text{H}_6$                | (iii) Synthesis gas                           |
| (d) $\text{H}_2\text{O}_2$                | (iv) Non-planar structure                     |

option.

A. a-iii, b-i, c-ii, d-iv

B. a-iii, b-ii, c-i, d-iv

C. a-iii, b-iv, c-ii, d-i

D. a-i, b-iii, c-ii, d-iv

**Answer: A**



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4. The freezing point depression constant of benzene is  $5.12 \text{ K kg mol}^{-1}$ . The freezing point depression for the solution of molality  $0.078\text{m}$  containing a non-electrolyte solute in benzene is

A.  $0.20\text{K}$

B.  $0.80\text{K}$

C.  $0.40\text{K}$

D. 0.60K

**Answer: C**



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5. During the electrolysis of a dilute solution of sulphuric acid, what substance is produced at the anode?

A. Hydrogen gas

B. Oxygen gas

C.  $H_2S$  gas

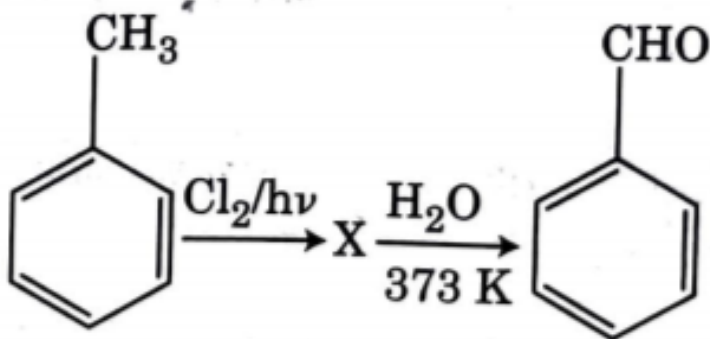
D.  $SO_2$  gas

**Answer: B**



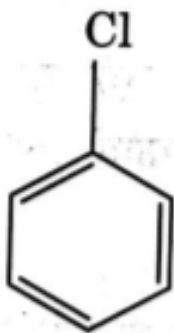
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6. Identify compound X in the following sequence reactions:

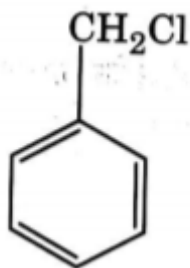




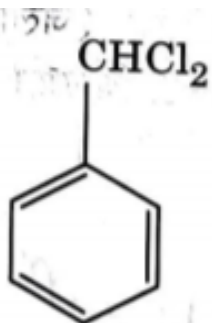
A.



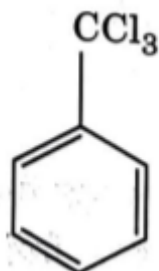
B.



C.



D.



**Answer: C**



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7. Which one of the following has maximum number of atoms?

A. 1g of Ag(s) [Atomic mass of Ag =108]

B. 1g of Mg(s) [Atomic mass of Mg =24]

C. 1g of  $O_2$ (s) [Atomic mass of O =16]

D. 1g of Li(s) [Atomic mass of Li =7]

**Answer: D**



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**8.** Identify the correct statement from the following:

A. Wrought iron is impure iron with 4% carbon

B. Blister copper has blistered appearance due to evolution of  $CO_2$

- C. Vapour phase refining is carried out for Nickel by Van Arkel method
- D. Pig iron can be moulded into a variety of shapes.

**Answer: D**



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9. A tertiary butyl carbocation is more stable than a secondary butyl carbocation because of which of the following ?

- A. -I effect of  $-CH_3$  groups
- B. +R effect of  $-CH_3$  groups
- C. -R effect of  $-CH_3$  groups
- D. Hyperconjugation

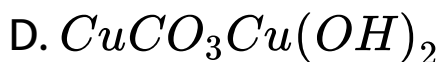
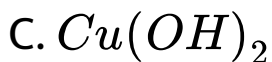
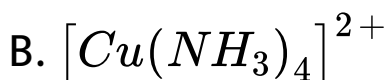
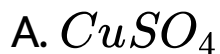
**Answer: D**



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**10.** Urea reacts with water to form A which will decompose to form B. B when passed through  $Cu^{2+}$  (aq), deep blue color solution C is

formed. What is the formula of C from the following?



**Answer: B**



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11. A mixture of  $N_2$  and Ar gases in a cylinder contains 7g of  $N_2$  & 8 g of Ar. If the total pressure of the mixture of the gases in the cylinder is 27bar, the partial pressure of  $N_2$  is:

A. 9bar

B. 12bar

C. 15bar

D. 18bar

**Answer: C**



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12. An element has a body centered cubic (bcc) structure with a cell edge of 288pm. The atomic radius is:

A.  $\frac{\sqrt{3}}{4} \times 288 \pm$

B.  $\frac{\sqrt{2}}{4} \times 288 \pm$

C.  $\frac{4}{\sqrt{3}} \times 288 \pm$

D.  $\frac{4}{\sqrt{2}} \times 288 \pm$

**Answer: A**





**13.** The rate constant for a first order reaction is  $4.606 \times 10^{-3} \text{ s}^{-1}$ . The time required to reduce 2.0g of the reactant to 0.2g is:

- A. 100s
- B. 200 s
- C. 500 s
- D. 1000 s

**Answer: C**



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14. Reaction between acetone and methyl magnesium chloride followed by hydrolysis will give:

- A. Isopropyl alcohol
- B. sec. butyl alcohol
- C. Tert. butyl alcohol
- D. Isobutyl alcohol

**Answer: C**



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15. Which of the following set of molecules will have zero dipole moment?

A. Ammonia, beryllium difluoride, water, 1,4-dichlorobenzene

B. Boron trifluoride, hydrogen fluoride, carbon dioxide, 1,3-dichlorobenzene

C. Nitrogen trifluoride, beryllium difluoride, water, 1,3-dichlorobenzene

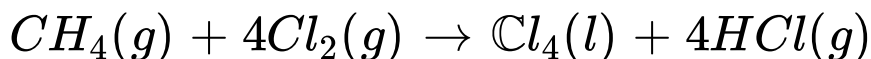
D. Boron trifluoride, beryllium difluoride,  
carbon dioxide, 1,4-dichlorobenzene

**Answer: D**



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**16.** What is the change in oxidation number of carbon in the following reaction?



A. 4 to 4

B. 0 to 4

C. -4 to +4

D. 0 to -4

**Answer: C**



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**17. Match the following :**

Oxide		Nature	
(a)	CO	(i)	Basic
(b)	BaO	(ii)	Neutral
(c)	Al <sub>2</sub> O <sub>3</sub>	(iii)	Acidic
(d)	Cl <sub>2</sub> O <sub>7</sub>	(iv)	Amphoteric

Which of the following is correct option ?

A. a-i, b-ii, c-iii, d-iv

B. a-ii, b-i, c-iv, d-iii

C. a-iii, b-iv, c-i, d-ii

D. a-iv, b-iii, c-ii. d-i

**Answer: B**



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**18.** Which of the following is not correct about carbon monoxide?

A. It forms carboxyhaemoglobin

B. It reduces oxygen carrying ability of blood

C. The carboxyhaemoglobin (haemoglobin bound to CO) is less stable than oxyhaemoglobin

D. It is produced due to incomplete combustion

**Answer: C**



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**19.** Measuring Zeta potential is useful in determining which property of colloidal solution?

A. Viscosity



B. Solubility

C. Stability of the colloidal particles

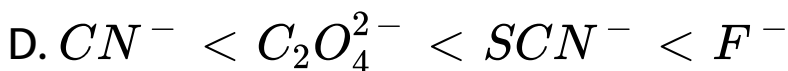
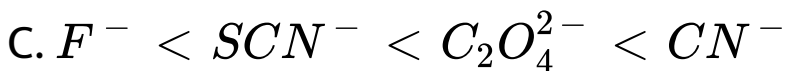
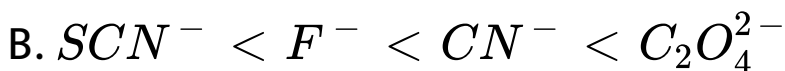
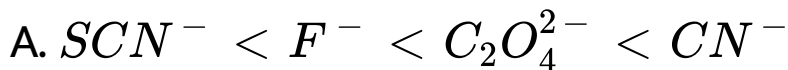
D. Size of the colloidal particles

**Answer: C**



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**20.** Which of the following is the correct order of increasing field strength of ligands to form coordination compounds?



**Answer: A**



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**21.** Elimination reaction of 2-Bromopentane to form pent-2-ene is:

a)  $\beta$ - Elimination reaction

b) Follows Zaitsev rule

c) Dehydrohalogenation reaction

d) Dehydration reaction

A. a),b),c)

B. a),c),d)

C. b),c),d)

D. a),b),d)

**Answer: A**



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22. Which of the following is the correct option for the free expansion of an ideal gas under adiabatic condition?

A.  $q = 0$ ,  $\Delta T = 0$  and  $w = 0$

B.  $q = 0$ ,  $\Delta T < 0$  and  $w > 0$

C.  $q < 0$ ,  $\Delta T = 0$  and  $w = 0$

D.  $q > 0$ ,  $\Delta T > 0$  and  $w > 0$

**Answer: D**



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23. Identify the incorrect statement.

A.  $Cr^{2+} (d^4)$  is a stronger reducing agent than  $Fe^{2+} (d^6)$  in water

B. The transition metals and their compounds are known for their catalytic activity due to their ability to adopt multiple oxidation states and to form complexes.

C. Interstitial compounds are those that are formed when small atoms like H, C, or N are trapped inside the crystal lattices of metals.

D. The oxidation states of chromium in

$CrO_4^{2-}$  and  $Cr_2O_7^{2-}$  are not the same.

**Answer: D**



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24. Identify the incorrect match.

Name		IUPAC Official Name	
(a)	Unnilunium	(i)	Mendelevium
(b)	Unniltrium	(ii)	Lawrencium
(c)	Unnilhexium	(iii)	Seaborgium
(d)	Unununnium	(iv)	Darmstadtium

A. a-i

B. b-ii

C. c-iii

D. d-iv

**Answer: D**



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25. Reaction between benzaldehyde and acetophenone in presence of dilute NaOH is known as:

- A. Aldol condensation
- B. Cannizzaro's reaction
- C. Cross Cannizzaro's reaction
- D. Cross Aldol condensation

**Answer: D**







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26. Which of the following oxoacids of sulphur has -O-O- linkage ?

A.  $H_2SO_3$  Sulphurous acid

B.  $H_2SO_4$  Sulphuric acid

C.  $H_2S_2O_8$  peroxodisulphuric acid

D.  $H_2S_2O_7$  Pyrosulphuric acid

**Answer: C**



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27. HCl was passed through a solution of  $CaCl_2$ ,  $MgCl_2$  and  $NaCl$  Which of the following compound(s) crystallise(s) ?

A. Both  $MgCl_2$  and  $CaCl_2$

B. only NaCl

C. only  $MgCl_2$

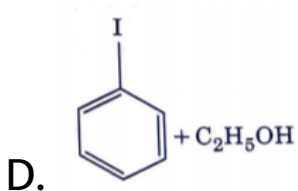
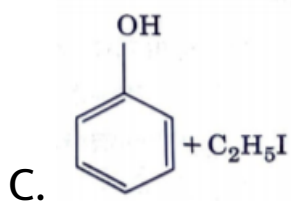
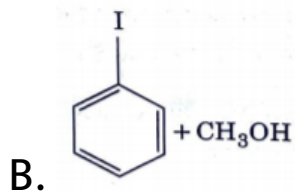
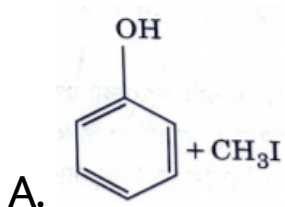
D. NaCl,  $MgCl_2$  and  $CaCl_2$

**Answer: B**



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28. Anisole on cleavage with HI gives:



**Answer: A**



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**29.** Identify the correct statements from the following :

a)  $CO_2(g)$  is used as refrigerant for ice-cream and frozen food.

b) The structure of  $C_{60}$  contains twelve six carbon rings and twenty five carbon rings.

c) ZSM-5, a type of zeolite, is used to convert

alcohols into gasoline.

d) CO is colorless and odourless gas.

A. a,b and c only

B. a and c only

C. b and c only

D. c and d only

**Answer: D**



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30. For the reaction,  $2Cl(g) \rightarrow Cl_2(g)$ , the correct option is:

A.  $\Delta_r H > 0$  and  $\Delta_r S > 0$

B.  $\Delta_r H > 0$  and  $\Delta_r S < 0$

C.  $\Delta_r H < 0$  and  $\Delta_r S > 0$

D.  $\Delta_r H < 0$  and  $\Delta_r S < 0$

**Answer: D**



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**31.** Paper chromatography is an example of:

A. adsorption chromatography

B. partition chromatography

C. Thin layer chromatography

D. Column chromatography

**Answer: B**



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**32.** Which of the following alkane cannot be made in good yield by Wurtz reaction?

A. n-Hexane

B. 2,3- Dimethylbutane

C. n-Heptane

D. n-Butane

**Answer:**



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**33.** An increase in the concentration of the reactants of a reaction leads to change in:

- A. activation energy
- B. heat of reaction
- C. threshold energy
- D. collision frequency

**Answer: D**



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**34.** The number of Faradays(F) required to produce 20g of calcium from molten  $CaCl_2$  (Atomic mass of  $Ca = 40\text{g mol}^{-1}$ ) is:

A. 1

B. 2

C. 3

D. 4

**Answer: A**



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**35.** The mixture which shows positive deviation from Raoult's law is:

A. Ethanol+Acetone

B. Benzene+Toluene

C. Acetone+Chloroform

D. Chloroethane+Bromoethane

**Answer: A**



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36. Hydrolysis of sucrose is given by the following reaction.

$Sucrose + H_2O \rightarrow Glucose + Fructose$  If the equilibrium constant ( $K_c$ ) is  $2 \times 10^{13}$  at  $300K$  the value of  $\delta_r G^\theta$  at the same temperature will be:

- A.  $-8.314 \text{ J mol}^{-1} \text{ K}^{-1} \times 300K \times \ln(2 \times 10^{13})$
- B.  $8.314 \text{ J mol}^{-1} \text{ K}^{-1} \times 300K \times \ln(2 \times 10^{13})$
- C.  $-8.314 \text{ J mol}^{-1} \text{ K}^{-1} \times 300K \times \ln(3 \times 10^{13})$
- D.  $-8.314 \text{ J mol}^{-1} \text{ K}^{-1} \times 300K \times \ln(4 \times 10^{13})$

**Answer:**



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**37. Sucrose on hydrolysis gives:**



**Answer: C**



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**38.** The calculated spin only magnetic moment of  $Cr^{2+}$  ion is:

A.  $3.87BM$

B.  $4.90BM$

C.  $5.92BM$

D.  $2.84BM$

**Answer: B**



39. Which of the following is a natural polymer?

- A. *cis* – 1, 4 – polyisoprene
- B. poly (Butadiene-styrene)
- C. polybutadiene
- D. poly (Butadiene-acrylonitrile)

**Answer: A**



**40.** Which of the following is a basic amino acid?

A. Serine

B. Alanine

C. Tyrosine

D. Lysine

**Answer: D**



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**41.** Which of the following is a cationic detergent?

- A. Sodium lauryl sulphate
- B. Sodium stearate
- C. Cetyltrimethyl ammonium bromide
- D. Sodium dodecylbenzene sulphonate

**Answer: C**



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**42.** Find out the solubility of  $Ni(OH)_2$  in  $0.1M$  NaOH Given that the ionic product of  $Ni(OH)_2$  is  $2 \times 10^{-15}$ .

A.  $2 \times 10^{-13}M$

B.  $2 \times 10^{-8} M$

C.  $1 \times 10^{-13}M$

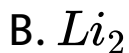
D.  $1 \times 10^8 M$

**Answer: A**



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43. Identify a molecule which does not exist.



**Answer: A**



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**44.** The following metal ion activates many enzymes, participates in the oxidation of glucose to produce ATP and with Na, is responsible for the transmission of nerve signals.

A. *Iron*

B. *Copper*

C. *Calcium*

D. *Potassium*

**Answer: D**



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**45.** The number of protons, neutrons and electrons in  $^{175}_{71}\text{Lu}$ , respectively, are:

A. 71, 104 and 71

B. 104, 71 and 71

C. 71, 71 and 104

D. 175, 104 and 71

**Answer:**





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