

Gather and Edited By

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*Chemistry Mcq for DIFFERENT
COPITATIVE EXAMS
(PPSC, FPSC, NTS etc)*

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Isotopes differs in

- | | |
|--|----------------------------------|
| A)arrangement of electrons in orbitals | B)position in the periodic table |
| C)properties depend upon mass | D)chemical properties |

Answer & Explanation

Answer: Option D

Explanation:

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2. The mass of one mole of electron is

- | | |
|----------|----------|
| A. 1.008 | B. 0.55 |
| C. 0.184 | D. 1.637 |

Answer & Explanation

Answer: Option B

Explanation:

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3. The volume occupied by 1.4g CO at S.T.P is

- | | |
|-------------------------|-------------------------|
| A. 22.4 dm ³ | B. 2.24 dm ³ |
| C. 1.12 cm ³ | D. 1.12 dm ³ |

Answer & Explanation

Answer: Option D

Explanation:

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-
4. The number of atoms in a molecule determines
- A. macromolecule B. macromolecule
C. molecularity D. atomicity

Answer & Explanation

Answer: Option D

Explanation:

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-
5. Which of the following set has all species isoelectronic
- A. F - Cl - Br B. Li⁺¹ - Na⁺¹ - K⁺¹
C. F - Ne - Na⁺ D. H⁺ - H⁻ - H

Answer & Explanation

Answer: Option C

Explanation:

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-
6. Which element has same isotopes like palladium
- A. Nickel B. Calcium
C. Cadmium D. Tin

Answer & Explanation

Answer: Option B

Explanation:[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

7. Water absorber used in combustion analysis is

- | | |
|----------------------|---------------------------------------|
| A. 50% KOH | B. Lime water |
| C. CaCl ₂ | D. Mg(ClO ₄) ₂ |

Answer & Explanation**Answer:** Option D**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

8. A limiting reactant is one which

- | | |
|--|---|
| A. is taken in lesser quantity in grams as compared to other reactants | B. is taken in lesser quantity in volume as compared to other reactants |
| C. gives the maximum amount of the product which is required | D. gives the minimum amount of the product under consideration |

Answer & Explanation**Answer:** Option D**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

9. The type of filtering media used for filtration depending upon

- | | |
|------------------------|-----------------------|
| A. Nature of reactants | B. Nature of crucible |
|------------------------|-----------------------|

C. Nature of product

D. Nature of precipitate

Answer & Explanation

Answer: Option D

Explanation:

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10. A safe and more reliable method for drying the crystal is

A. Hot air currents

B. folds of filter paper

C. oven

D. Vacuum desiccator

11. A method of separation of components from its solution using Distribution law is

A. Sublimation

B. Crystallisation

C. Solvent extraction

D. Distillation

Answer & Explanation

Answer: Option C

Explanation:

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12. A real gas obeying vander waals equation will resemble the ideal gas if

A. Both a and b are small

B. Both a and b are large

C. a is small and b is large

D. a is large and b is small

Answer & Explanation

Answer: Option A

Explanation:

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Equal masses of methane and oxygen are mixed in empty container at 250?(C) The fraction of total pressure exerted by oxygen is

- A. one / seventeen
- B. sixteen / seventeen
- C. one / three
- D. two / three

Answer & Explanation

Answer: Option C

Explanation:

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14. Plasma is used in

- A. Fluorescent bulb
- B. Neon signs
- C. Lasers
- D. All of these

Answer & Explanation

Answer: Option D

Explanation:

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15. The molecules of CO₂ in dry ice form

- A. Ionic crystal
- B. Covalent crystal

C. Molecular crystal

D. Any type of crystal

Answer & Explanation

Answer: Option C

Explanation:

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16. Which of the following is pseudo solid

A. CaF₂

B. NaCl

C. Glass

D. Diamond

Answer & Explanation

Answer: Option C

Explanation:

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17. Only London dispersion forces are present among the

Molecules of water in liquid state

Atoms of helium in gaseous state at high temperature

Molecules of hydrogen chloride gas

Molecules of solid iodine

Answer & Explanation

Answer: Option D

Explanation:

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18. Bohrs model is contradicted by

- | | |
|--------------------------------------|--------------------------|
| A. Plancks theory | B. Dual nature of matter |
| C. Heisenbergs uncertainty principle | D. All of these |

Answer & Explanation

Answer: Option C

Explanation:

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19. Quantum number values for 3p orbitals are

- | | |
|----------------|----------------|
| A. $n=3$ $l=2$ | B. $n=3$ $l=0$ |
| C. $n=3$ $l=1$ | D. $n=3$ $l=3$ |

Answer & Explanation

Answer: Option C

Explanation:

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20. When fast neutron strike the nucleus of nitrogen the particles ejected are

- | | |
|-------------------------|------------------------|
| A. γ - particles | B. β - particles |
| C. γ - rays | D. X - rays |

Answer & Explanation

Answer: Option A

Explanation:

21. Which specie has unpaired electrons in antibonding molecular orbitals

- A. O₂+2 B. N₂-2
C. B₂ D. O₂-2

Answer & Explanation

Answer: Option B

Explanation:

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22. Atomic radius can be determined by

- A. X - ray diffraction B. Spectrophotometer
C. Optical microscope D. Electron microscope

Answer & Explanation

Answer: Option A

Explanation:

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For a given process the heat changes at constant pressure (q_p) and at constant volume (q_v) are related to each other as

- A. $q_p = q_v$ B. $q_p < q_v$
C. $q_p > q_v$ D. $q_p = q_v / 2$

Answer & Explanation

Answer: Option C

Explanation:

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For which system does the equilibrium constant K_c has unit of (concentration) $^{-1}$

- A. $N_2 + 3H_2 \rightleftharpoons 2NH_3$ B. $H_2 + I_2 \rightleftharpoons 2HI$
C. $2NO_2 \rightleftharpoons N_2H_4$ D. $PCl_5 \rightleftharpoons PCl_3 + Cl_2$

Answer & Explanation

Answer: Option C

Explanation:

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Solubility product of $AgCl$ is $2.0 \times 10^{-10} \text{ mol}^2 \text{ dm}^{-6}$. Maximum Concentration of Ag^+ ions in the solution is

- A. $2.0 \times 10^{-10} \text{ mol dm}^{-3}$ B. $1.414 \times 10^{-5} \text{ mol dm}^{-3}$
C. $1.0 \times 10^{-10} \text{ mol dm}^{-3}$ D. $1.0 \times 10^{-5} \text{ mol dm}^{-3}$

Answer & Explanation

Answer: Option B

Explanation:

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18g glucose is dissolved in 90g water the relative lowering in vapour pressure is equal to

- A. ? B. 5.1
C. 6 D. one/fifty one

Answer & Explanation

Answer: Option D

Explanation:

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27. Which of the following solution has the highest boiling point?

- A. 5.85% NaCl Solution 18.0 % glucose solution B.
- C. 6.0 % urea solution
- D. All have same boiling point

Answer & Explanation

Answer: Option A

Explanation:

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28. Stronger is the oxidizing agent greater is the

- A. Oxidation potential
- B. Redox potential
- C. e.m.f of cell
- D. standard reduction potential

Answer & Explanation

Answer: Option D

Explanation:

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29. Which of the following can be used in laptops?

- A. Silver oxide battery
- B. Fuel cell
- C. Nickel cadmium cell
- D. Lead accumulator

Answer & Explanation

Answer: Option C

Explanation:

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30. Which is true about Zn-Cu galvanic cell?

K⁺ ion transfer from salt

Reduction occurs at anode **B.** bridge to left beaker of ZnSO₄

- C.** Oxidation occurs at cathode **D.** Anode is negatively charged

Answer & Explanation

Answer: Option D

Explanation:

31. Which is the unit of (K) rate constant for zero order reaction?

A. s⁻¹ mol dm⁻³ s⁻¹ **B.**

C. mol⁻¹ dm³ s⁻¹

D. mol⁻² dm⁶ s⁻¹

Answer & Explanation

Answer: Option B

Explanation:

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32. Nitrates of which pair gives different products on thermal decomposition

A. Na K

B. Mg Ca

C. Li Na

D. Li Ca

Answer & Explanation

Answer: Option C

Explanation:

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33. Which is carnalite

A. KCl

B. NaCl

C. KCl MgCl₂ 6H₂O

D. Na₂CO₃. 10H₂O

Answer & Explanation

Answer: Option C

Explanation:

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34. Keeping in view the size of atom which is in correct order

A. Mg > Sr

B. Ba > Mg

C. Lu > Ce

D. Cl > I

Answer & Explanation

Answer: Option B

Explanation:

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35. Which one does not give borax bead test

- A. Copper sulphate
- B. Barium sulphate
- C. Cobalt sulphate
- D. Nickel sulphate

Answer & Explanation

Answer: Option B

Explanation:

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36. Which one is not the use of silicones

- A. Lubricant
- B. Water repellent film
- C. Rubber sheet
- D. Medicine

Answer & Explanation

Answer: Option D

Explanation:

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37. The most reactive allotropic form of phosphorus is

- A. White
- B. Redox potential
- C. Black
- D. Violet

Answer & Explanation

Answer: Option A

Explanation:

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38. Chemical composition of cinnabar is

- A. FeS₂ B. HgS
C. PbS D. ZnS

Answer & Explanation

Answer: Option B

Explanation:

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39. Which molecule has the highest bond energy among the halogens

- A. Fluorine B. Chlorine
C. Iodine D. Bromine

Answer & Explanation

Answer: Option B

Explanation:

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When chlorine is passed through hot solution of caustic soda the reaction is said as

- A. Displacement B. Reduction
Disproportionation reaction D. Double displacement reaction

Answer & Explanation

Answer: Option C

Explanation:

41. The most paramagnetic element is

- A. Iron
- B. Cobalt
- C. Chromium
- D. Manganese

Answer & Explanation

Answer: Option A

Explanation:

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42. In the complex $[\text{Cr}(\text{OH})_3(\text{H}_2\text{O})_3]$ the coordination number is

- A. 2
- B. 3
- C. 4
- D. 6

Answer & Explanation

Answer: Option D

Explanation:

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43. Which one of the following looks odd

- A. H_2SO_4
- B. KMnO_4
- C. H_2S
- D. K_2CrO_4

Answer & Explanation

Answer: Option C

Explanation:

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44. A great variety of the organic compounds is due to its property of carbon

- A. Show tetravalency
- B. Exhibit catenation
- C. Show isomerism
- D. Can form multiple bonds

Answer & Explanation

Answer: Option B

Explanation:

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45. In 1 - pentene -4- yne the carbon exhibit hybridization

- A. sp³ - sp²
- B. sp² - sp
- C. sp² - sp
- D. sp³ - sp² - sp

Answer & Explanation

Answer: Option D

Explanation:

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46. Vinyl acetylene combines with hydrochloric acid produces

- A. Divinyl acetylene
- B. Ethyldine dichloride
- C. Chloroprene
- D. 1 - 3 - 3 - trichloro butane

Answer & Explanation

Answer: Option C

Explanation:

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47. When benzene is heated in air with V₂O₅ at 450°C yields

- | | |
|------------|---------------------|
| A. Phenol | B. Maleic anhydride |
| C. Glyoxal | D. Benzoic acid |

Answer & Explanation

Answer: Option B

Explanation:

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48. When toluene reacts with chlorine in sunlight the first major product is

- | | |
|--------------------|--|
| A. Benzyl chloride | B. Benzal dichloride |
| C. O-chlorotoluene | D. O-chlorotoluene and P-chlorotoluene |

Answer & Explanation

Answer: Option A

Explanation:

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49. Which one of the following will be sulphonated readily?

- | | |
|-----------------------------|------------|
| A. Chlorobenzene Toluene B. | D. Benzene |
| C. Nitrobenzene | |

Answer & Explanation

Answer: Option B

Explanation:[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

50. Which one of the following is not a good leaving group ?

- A. HSO_4^- B. Cl^-
C. OH^- D. Br^-

Answer & Explanation**Answer:** Option C**Explanation:**

When CO_2 is made to react with ethyl magnesium iodide in dry ether followed by acid hydrolysis yields

- A. Carboxylic acid B. Ethanoic acid
C. Propanoic acid D. Butanoic acid

Answer & Explanation**Answer:** Option C**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

52. The process of fermentation involves all the enzymes except

- A. Diastase B. Invertase
C. Zymase D. Sucrase

Answer & Explanation**Answer:** Option D

Explanation:[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

53. Ethyl chloride on reduction in the presence of Zn/HCl produces

- | | |
|--------------|------------------|
| A. n. butane | B. Ethanol |
| C. Ethane | D. Diethyl ether |

Answer & Explanation**Answer:** Option C**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

54. Which one does not exhibit aldol condensation

- | | |
|-----------------|-------------|
| A. Ethanal | B. Acetone |
| C. Benzaldehyde | D. Butanone |

Answer & Explanation**Answer:** Option C**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

55. For industrial preparation of CH₃CHO catalytic promoter is

- | | |
|----------------------|------------------------------------|
| A. PdCl ₂ | B. Cu ₂ Cl ₂ |
| C. CuCl ₂ | D. PbCl ₂ |

Answer & Explanation

Answer: Option B

Explanation:

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56. The common name of propane -1 3-dioic acid is

- | | |
|-----------------|------------------|
| A. Oxalic acid | B. Succinic acid |
| C. Malonic acid | D. Fumaric acid |

Answer & Explanation

Answer: Option C

Explanation:

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57. Which of the following is not a fatty acid?

- | | |
|-------------------|------------------|
| A. Propanoic acid | B. Acetic acid |
| C. Phthalic acid | D. Butanoic acid |

Answer & Explanation

Answer: Option C

Explanation:

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58. Industrial materials thermal power stations are coated with

- | | |
|---------------------|-----------------------|
| A. Polyester resins | B. Epoxy paints |
| C. polyamide resins | D. Polyvinyl chloride |

Answer & Explanation

Answer: Option B

Explanation:

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Which one of the following fertilizers provides the nitrogen and phosphorus to the plant?

- A. Urea
- B. Calcium superphosphate
- C. Diammonium phosphate
- D. Potassium nitrate

Answer & Explanation

Answer: Option A

Explanation:

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60. Chlorination of water may be harmful if the water contains

- A. Ammonia
- B. Dissolved oxygen
- C. Carbon dioxide
- D. All

Answer & Explanation

Answer: Option C

Explanation:

1. What is the relative rate of effusion of CO and CO₂?

- A. CO is 1.25 times faster than CO₂
- B. CO is 3.75 times faster than CO₂

- c. CO is 1.25 times faster than
CO
- d. Both diffuse at the same rate

Answer & Explanation

Answer: Option A

Explanation:

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2. Which of these gases diffuse more quickly than oxygen?

- A. H₂S NO B.
- C. Cl₂ D. N₂O

Answer & Explanation

Answer: Option B

Explanation:

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Which of the following is not considered as an intermolecular force between molecules?

- A. Coordinate covalent bonds B. Hydrogen bonds
- C. Debye forces D. London dispersion forces

Answer & Explanation

Answer: Option A

Explanation:

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4. The weakest (in strength) of the following intermolecular forces is
- A. Hydrogen bonding B. Vander Waals force
C. Forces among the polar
D. Ionic bond molecules

Answer & Explanation

Answer: Option B

Explanation:

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-
5. Ideal gasses have all the following characteristics except.

Absence of intermolecular forces	Collisions among the molecules of an ideal gas are perfectly elastic
The molecules occupy no space	All of the above are correct

Answer & Explanation

Answer: Option C

Explanation:

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-
6. Which of the following statements is true about plasma

It may be the first state of matter	It is not a phase transition
It is a conductor of electricity	All of the above

Answer & Explanation

Answer: Option D

Explanation:

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7. Which statement is correct

- | | |
|-----------------------|------------------------|
| A. $PV = nRT$ | B. $P = \frac{nRT}{V}$ |
| C. $P = \frac{RT}{V}$ | D. all above |

Answer & Explanation

Answer: Option D

Explanation:

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8. Under what conditions the gases deviate from the ideal behavior?

- | | |
|-------------------------------------|------------|
| A. High temperature Low temperature | B. |
| C. High pressure | D. b and c |

Answer & Explanation

Answer: Option D

Explanation:

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9. Which one has the lowest density at room temperature?

- | | |
|-----------|----------|
| A. Ne | B. N_2 |
| C. NH_3 | D. CO |

Answer & Explanation

Answer: Option C

Explanation:

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10. The introduction of Kelvin scale in thermometry is according to

- | | |
|----------------|----------------|
| A. Boyles law | B. Charles law |
| C. Daltons law | D. Grahams law |

Answer & Explanation

Answer: Option B

Explanation:

0.5 mole of nitrogen gas and 0.5 mole of carbon monoxide gas at STP have same

- | | |
|---------------|-----------------|
| A. Value of a | B. Mass |
| C. Atoms | D. Both b and C |

Answer & Explanation

Answer: Option D

Explanation:

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At constant temperature the pressure of an ideal gas is doubled its density becomes

- | | |
|---------|-----------|
| A. Half | B. Double |
|---------|-----------|

C. Same

D. None

Answer & Explanation

Answer: Option B

Explanation:

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13. The diffusion of gases at absolute zero will be

A. Unchanged

B. Slightly decreased

C. Slightly increased

D. Zero

Answer & Explanation

Answer: Option D

Explanation:

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14. Which of the following option is incorrect about gases?

All molecules move with
same speed

All molecules behave
independently

$PV / RT = n$

All gases cannot be liquefied
through Linds Method

Answer & Explanation

Answer: Option A

Explanation:

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15. Critical temperature for different gases is different and depends upon

- A. Size of molecule
- B. Shape of molecule
- C. Intermolecular attractions
- D. All of the above

Answer & Explanation

Answer: Option D

Explanation:

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16. In how many forms do matter exists?

- A. Three
- B. Four
- C. Five
- D. Two

Answer & Explanation

Answer: Option B

Explanation:

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17. What is the simplest form of matter?

- A. Gas
- B. Liquid
- C. Solid
- D. Semi solid

Answer & Explanation

Answer: Option A

Explanation:

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18. What is the abundant form of matter on earth?

- | | |
|----------|-----------|
| A. Gas | B. Liquid |
| C. Solid | D. Plasma |

Answer & Explanation

Answer: Option C

Explanation:

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19. Which state of matter has the lowest density?

- | | |
|----------|-----------|
| A. Gas | B. Liquid |
| C. Solid | D. Plasma |

Answer & Explanation

Answer: Option A

Explanation:

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20. What do we call to sudden expansion of plasma?

- | | |
|--------------------------|------------------------------------|
| A. Avogadros law | B. Grahams law of diffusion |
| C. Joule Thompson effect | D. Daltons law of partial pressure |

Answer & Explanation

Answer: Option C

Explanation:

21. The solid particles only posses

- A. Translational motion
- B. Vibrational motion
- C. Rotational motion
- D. All of above motions

Answer & Explanation

Answer: Option B

Explanation:

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For a gas where volume and pressures are 1dm^3 and 2 atm respectively what should be its new volume when pressure is increased to 6 atm at constant temperature?

- A. $1/2\text{dm}^3$
- B. $1/3\text{dm}^3$
- C. $1/4\text{dm}^3$
- D. $2/3\text{dm}^3$

Answer & Explanation

Answer: Option B

Explanation:

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If $1/V$ is plotted on X-axis and pressure on Y-axis at constant temperature what should appear

- A. Straight line parallel to x-axis
- B. Straight line parallel to y-axis
- C. Straight line
- D. Curve

Answer & Explanation

Answer: Option C

Explanation:

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-
24. Which one is the right value for
R? 0.0821 atm dm³k⁻¹mol⁻¹.
- A. 0.0821 atm m³k⁻¹mol⁻¹
B. 0.0821 atm m³k⁻¹mol⁻¹
C. 2 cal k⁻¹ mol⁻¹
D. 8.314 Nm²k⁻¹mol⁻¹

Answer & Explanation

Answer: Option A

Explanation:

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-
25. One mole of an ideal gas at 546.5 K under 2 atm pressure has a volume of
- A. 22.414 m³
B. 44.828 dm³
C. 22.414 dm³
D. 11.212 cm³

Answer & Explanation

Answer: Option C

Explanation:

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-
26. The partial pressure exerted by the water vapours is called
- A. Surface tension
B. Aqueous tension
C. Vapour pressure
D. Hydraulic pressure

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

27. Which one is not the partial pressure of oxygen in the lungs?

- A. 0.1526 atm 116 mm of Hg B.
- C. 116 torr
- D. 1 atm

Answer & Explanation

Answer: Option D

Explanation:

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28. The spreading of fragrance or scent in air is due to

- A. Diffusion
- B. Effusion
- C. Attraction with air
- D. Low density

Answer & Explanation

Answer: Option A

Explanation:

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29. The kinetic molecular theory of gases was put forward in 1738 by

- A. Boltzman
- B. Maxell

C. Clausius

D. Bernoulli

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

30. The highest temperature at which a substance can exist as a liquid is called its

A. Critical temperature

B. Standard temperature

C. Absolute temperature

D. Upper consulate temperature

Answer & Explanation

Answer: Option A

Explanation:

Hydrogen effuses four times more rapidly than volume of an unknown gas molar mass of unknown gas should be

A. 16 gmol⁻¹

B. 32 gmol⁻¹

C. 48 gmol⁻¹

D. 64 gmol⁻¹

Answer & Explanation

Answer: Option B

Explanation:

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What will be the pressure of 1 mole of an ideal gas maintained at 300 K and 250cm³ volume?

A. 98.5 atm

B. 96.7 atm

C. 95.8 atm

D. 97.1 atm

Answer & Explanation

Answer: Option A

Explanation:

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33. The processes of effusion and diffusion are best understand by

A. Daltons law

B. Avogadros law

C. Grahams law

D. Charles law

Answer & Explanation

Answer: Option C

Explanation:

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Who made volume and pressure correction to explain deviation of gases from ideal behaviour?

A. Clausius

B. Boltzman

C. Charles

D. Vander waal

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

35. The non-ideal behaviour results chiefly from

- | | |
|--|---|
| <p>A. Intermolecular attraction and infinite volume</p> <p>C. Intermolecular attractions and finite volume</p> | <p>B. Elastic collisions and finite volume</p> <p>D. Intermolecular attraction only</p> |
|--|---|

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

36. The gases become non-ideal at

- | | |
|--|--|
| <p>A. High temperature and high pressure</p> <p>C. High temperature and low pressure</p> | <p>B. Low temperature and low pressure</p> <p>D. Low temperature and high pressure</p> |
|--|--|

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

37. Linds method is employed for

- | | |
|--|--|
| <p>A. Separation of gases</p> <p>C. Compression of gases</p> | <p>B. Expansion of gases</p> <p>D. Liquefaction of gases</p> |
|--|--|

Answer & Explanation

Answer: Option D

Explanation:

The relative attraction of the nucleus for the electrons in a chemical bond is called

- A. Ionization energy
- B. Electron affinity
- C. Electro negativity
- D. None of the above

Answer & Explanation

Answer: Option C

Explanation:

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The ionization energy

Generally increases from left to right in a period

Does not change in a period

Increase from top to bottom in a group

Does not change in a group

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

3. Which of the following will have highest value of electron affinity

- A. F
- B. Cl

C. Br

D. I

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

-
4. Which type of bond is formed by overlap of p orbitals

A. Pi (?)

B. Sigma(?)

C. Both

D. Neither

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

-
5. The octet rule does not always hold for which of the following elements

A. C

B. O

C. F

D. P

Answer & Explanation

Answer: Option D

Explanation:

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-
6. Which of the solid does not contain covalent bond

A. Copper

B. Ice

C. Diamond

D. Graphite

Answer & Explanation

Answer: Option A

Explanation:

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7. Which of the following is the best explanation that CO₂ is non polar molecule

A. Linear geometry

B. Dipole moment is zero

C. Sp hybridization

D. None

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

8. Shielding effect across the period

A. Increases

B. Decreases

C. Constant

D. None

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

9. Which one is not the absolute term of the element?
- A. Ionization energy Electron affinity B.
C. Electro negativity D. Atomic size

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

-
10. Which one has maximum number of unpaired electrons?
- A. 6X B. 7Y
C. 9Z D. 13W

Answer & Explanation

Answer: Option B

Explanation:

11. The molecule having π -bond
- A. H₂O B. C₂H₆
C. O₂ D. NH₃

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

-
12. When 2 lone pair and 2 bond pair are around the central atom reduction in the

bond angle is up to.

- A. 109.5?
- B. 104.5?
- C. 107.5?
- D. 102?

Answer & Explanation

Answer: Option B

Explanation:

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13. In O₂ each oxygen atom is hybridized

- A. sp³
- B. sp²
- C. sp
- D. All

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

14. Molecular orbitals are filled according to

- A. Aufbau principle
- B. Hund's rule
- C. Pauli's Exclusion principle
- D. All these

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

15. Measurement of the degree of polarity is

- A. Electron affinity
- B. Ionic character
- C. Ionization energy
- D. Dipole moment

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

16. Which one shows high %age of the ionic character?

- A. H₂O HF B.
- C. HCl
- D. HBr

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

17. A specie with maximum number of unpaired electrons.

- A. F H₂O B.
- C. HF
- D. NH-2

Answer & Explanation

Answer: Option D

Explanation:

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18. Which of the following have their outer most shell complete in atomic form?

- | | |
|-------------------|------------------|
| A. Noble gases | B. Alkali metals |
| C. Coinage metals | D. Gun metals |

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

19. Force responsible to hold atoms together in a compound is called

- | | |
|-------------|------------------------------------|
| A. Bond | B. Attractive force |
| Interaction | All of above represent same entity |

Answer & Explanation

Answer: Option A

Explanation:

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20. Energy of atom in compound is

- | | |
|---------------------------|---------------------------|
| A. Higher than individual | B. Lesser than individual |
| C. No change | D. Impossible to predict |

Answer & Explanation

Answer: Option B

Explanation:

21. In a period the atomic radii

- A. Increases
- B. Decreases
- C. Remain same
- D. First decreases then increases

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

22. An atom loses or gains electrons to

- A. Gain stability
- B. Form a bond
- C. Complete its outermost shell
- D. all are accurate justifications

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

23. In a group ionic radii

- A. Increases
- B. Decreases
- C. No change
- D. Variable trend

Answer & Explanation

Answer: Option A

Explanation:[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

24. Energy required to remove electron from an atom

- | | |
|-------------------------|----------------------|
| A. Ionization potential | B. Electronegativity |
| C. Electron affinity | D. Activation energy |

Answer & Explanation**Answer:** Option A**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

25. Ionization energy in a period generally

- | | |
|--------------|-------------------|
| A. Increases | B. Decreases |
| C. No change | D. Variable trend |

Answer & Explanation**Answer:** Option A**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

26. Greater shielding effect corresponds to ionization energy value

- | | |
|----------------|--------------|
| A. Greater | B. Lesser |
| C. Remain same | D. No effect |

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

27. Elements having high I.P values are

- | | |
|------------|---------------|
| A. Metals | B. Non metals |
| C. Liquids | D. Solids |

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

28. Energy released or absorbed when electrons are added in atom is

- | | |
|-------------------------|----------------------|
| A. Ionization potential | B. Electronegativity |
| C. Electron affinity | D. Activation energy |

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

29. In a period electronegativity from left to right

- | | |
|--------------------|-------------------|
| A. Increases | B. Decreases |
| C. Remain constant | D. Variable trend |

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

30. Ionic bond is produced after complete transfer of

- | | |
|--------------|-------------|
| A. Nucleus | B. Neutrons |
| C. Electrons | D. Protons |

Answer & Explanation

Answer: Option C

Explanation:

31. Elements of group IA IIA are

- | | |
|--------------------|--|
| A. Electronegative | B. Electropositive |
| C. Neutral | D. IA is electropositive while
IIA is electronegative |

Answer & Explanation

Answer: Option B

Explanation:

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32. Bond will be ionic when E.N difference of bonded atom is

- | | |
|------------------|--------------------------|
| A. Equal to 1.7 | B. Greater than 1.7 |
| C. Less than 1.7 | D. No specificity exists |

Answer & Explanation

Answer: Option **B**

Explanation:

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33. Mostly ionic compound are produced in between elements of

- | | |
|-----------------|--------------------|
| A. IA and VIA | B. IA IIA and VIIA |
| C. IB and VIIIB | D. IA and IB |

Answer & Explanation

Answer: Option **B**

Explanation:

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34. Which one of the following has polar covalent bond?

- | | |
|-----------------------|-------------------|
| A. HF CH ₄ | B. |
| C. H ₂ | D. N ₂ |

Answer & Explanation

Answer: Option **A**

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

35. The Lewis acids are

- | | |
|-----------------------|------------------|
| A. Electron deficient | B. Electron rich |
|-----------------------|------------------|

- C. Octet is complete D. No such acids exist

Answer & Explanation

Answer: Option A

Explanation:

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36. Sharing of 1 electron pair by one specie forms

- A. Single covalent bond B. Hydrogen bond
C. Double covalent bond D. Coordinate covalent bond

Answer & Explanation

Answer: Option D

Explanation:

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37. Angle in water molecule is

- A. 104.9? B. 104.5?
C. 109.5? D. 120?

Answer & Explanation

Answer: Option B

Explanation:

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38. The geometry of ammonia is

- A. Tetrahedral B. Square planer
- C. Trigonal bipyramidal D. Trigonal Pyramidal

Answer & Explanation

Answer: Option D

Explanation:

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Orbitals of same energy produced after mixing of orbitals of different energy are called

- A. Degenerate orbitals B. Generate orbitals
- C. Hybrid orbitals D. Zeeman orbitals

Answer & Explanation

Answer: Option A

Explanation:

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40. By combining n atomic orbitals no. of hybrid orbitals will be

- A. $2n$ B. n
- C. $3n$ D. impossible to predict

Answer & Explanation

Answer: Option B

Explanation:

41. on sp^3 hybridization

All p-orbitals are involved

One s and 3 p-orbitals are involved

one p-orbital is involved

four p-orbitals are involved

Answer & Explanation

Answer: Option B

Explanation:

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42. Geometry of simple molecule having sp³ hybrid orbital is

- A. Triangular
- B. Tetrahedral
- C. Square planner
- D. Linear

Answer & Explanation

Answer: Option B

Explanation:

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Geometry of molecule will be pyramidal if the outer post shell of the central atom has

- A. 3 bond pair one lone pair
- B. 2 bond pair 2 lone pair
- C. 1 bond pair 3 lone pair
- D. 3 lone pair 1 bond pair

Answer & Explanation

Answer: Option A

Explanation:

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44. Pi bonds are produced by overlapping of

- A. Un-hybrid orbitals
- B. Hybrid orbitals
- C. Hybrid and un hybrid orbitals
- D. atomic orbital and hybrid orbital

Answer & Explanation

Answer: Option A

Explanation:

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According to VESPR Model the geometry of molecule having 5 bond pair in outer most shell will be

- A. Triangular
- B. Square planner
- C. Trigonal bipyramidal
- D. Octahedral

Answer & Explanation

Answer: Option C

Explanation:

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46. Molecular orbital which have higher energy than atomic orbitals is called

- A. Bonding molecular orbital
- B. Antibonding molecular orbital
- C. Hybrid orbital
- D.

Answer & Explanation

Answer: Option B

Explanation:

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47. Unpaired electron in a molecule gives _____ character.

- A. Ferromagnetic Paramagnetic B.
- C. Diamagnetism
- D. Both a & b

Answer & Explanation

Answer: Option B

Explanation:

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48. Bond order for N₂ molecule is

- A. 2
- B. 1
- C. 3
- D. 4

Answer & Explanation

Answer: Option C

Explanation:

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49. Product of charge and distance is called

- A. Pressure
- B. Bond length
- C. Work
- D. Dipole moment

Answer & Explanation

Answer: Option D

Explanation:

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50. Unit of dipole moment is

- | | |
|-----------|-----------|
| A. Debye | B. Poise |
| C. Pascal | D. Newton |

Answer & Explanation

Answer: Option A

Explanation:

1. Which of the following solutions of H₂SO₄ is more concentrated?

- | | |
|----------------------|--------------------------------|
| A. 1 Molar solution | B. 1 molal solution |
| C. 1 normal solution | D. all have same concentration |

Answer & Explanation

Answer: Option A

Explanation:

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2. Which of the following unit of concentration is independent of temperature?

- | | |
|------------------|-------------|
| A. Molarity | B. Molality |
| C. Mole fraction | D. all |

Answer & Explanation

Answer: Option B

Explanation:

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3. Which of the following is an example of liquid in gas solution.

- A. Opals Dust particles in smoke B.
- C. Paints
- D. Fog

Answer & Explanation

Answer: Option D

Explanation:

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The molal boiling point constant is the ratio of the elevation of boiling point to

- A. Molarity
- B. Molality
- C. More fraction of solvent
- D. Mole fraction of solute

Answer & Explanation

Answer: Option B

Explanation:

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5. Which of the following are the conditions of colligative properties

- A. Non-electrolyte solute
- B. Non-volatile solute

- C. Dilute solution D. All of the above

Answer & Explanation

Answer: Option D

Explanation:

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-
6. Which has the minimum freezing point?

- A. One Molal NaCl B. One molal KCl solution
C. One molal CaCl₂ D. One molal urea solution

Answer & Explanation

Answer: Option C

Explanation:

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-
7. Which of the following is not a colligative property?

- A. Lowering of vapour pressure B. Freezing point
C. Osmotic pressure D. Elevation of boiling point

Answer & Explanation

Answer: Option B

Explanation:

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-
8. Which of the following substance do not show continuous solubility curve?

- A. KClO_4 B. $\text{Na}_2\text{SO}_4 \cdot 10\text{H}_2\text{O}$
C. $\text{K}_2\text{Cr}_2\text{O}_7$ D. PbCl_2

Answer & Explanation

Answer: Option B

Explanation:

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9. When common salt is dissolved in water?

- | | |
|---|------------------------------------|
| Boiling point of
A. water decrease | Boiling point of water
increase |
| Boiling point of water
remains same | None of the above |

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

10. Every sample of matter with uniform properties and fixed composition is called

- A. solute B. solvent
C. solution D. phase

Answer & Explanation

Answer: Option D

Explanation:

11. Homogeneous mixture of two or more than two compounds is called

- A. solution
- B. compound
- C. radical
- D. ion

Answer & Explanation

Answer: Option A

Explanation:

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12. The component of solution which is in smaller amount is called

- A. solvent
- B. solute
- C. phase
- D. ion

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

13. Solution with maximum concentration of solute at given temperature is called

- A. Super saturated solution
- B. unsaturated solution
- C. saturated solution
- D. dilute solution

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

14. 10ml of alcohol dissolve in 90ml of water unit of concentration used is

- | | |
|----------|----------|
| A. % w/w | B. % w/v |
| C. % v/v | D. % v/w |

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

15. Number of moles in 1 kg of solvent is called

- | | |
|--------------|------------------|
| A. normality | B. molarity |
| C. molality | D. mole fraction |

Answer & Explanation

Answer: Option C

Explanation:

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58.5g of NaCl per 1 dm³ of solution of NaCl in water the concentration of solution will be

- | | |
|----------|----------|
| A. 0.1 M | B. 1 m |
| C. 1 M | D. 0.1 N |

Answer & Explanation

Answer: Option C

Explanation:

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17. In partially miscible liquids the two layers are

- A. saturated solutions of each liquid
- B. unsaturated solutions of each liquid
- C. normal solution of each liquid
- D. no layer formation takes place

Answer & Explanation

Answer: Option A

Explanation:

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If the volume of solution is equal to sum of volumes of its all components then the solution

- A. will be an ideal solution
- B. will be non-ideal solution
- C. will show deviations from Raoult's law
- D. both b & c

Answer & Explanation

Answer: Option A

Explanation:

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19. The relative lowering of vapour pressure is

- equal to the mole fraction of solvent
- equal to the mole fraction of solute
- directly proportional to the mole fraction of solute
- both b & c

Answer & Explanation

Answer: Option D

Explanation:

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20. The solution which distils over with change in composition

- A. ideal solution
- B. zeotropic solution
- C. azeotropic solution
- D. non-ideal solution

Answer & Explanation

Answer: Option B

Explanation:

21. Mixtures which distill over without change in composition called

- A. zeotropic mixture
- B. azeotropic mixture
- C. amphoteric mixture
- D. ideal solution

Answer & Explanation

Answer: Option B

Explanation:

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Concentration of solute molecule when they are in equilibrium with solid substance at particular temperature is called

- A. saturated solution
- B. solubility
- C. unsaturated solution
- D. super saturated solution

Answer & Explanation

Answer: Option B

Explanation:

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23. Solubility of $KClO_3$ gives

- | | | | |
|----|--|----|---|
| A. | continuous and falling
solubility curve | B. | discontinuous and falling
solubility curve |
| C. | continuous and rising
solubility curve | D. | discontinuous and rising
solubility curve |

Answer & Explanation

Answer: Option C

Explanation:

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The determination of correct molecular weight from Raoult's law is applicable to

- | | |
|--|--|
| a volatile solute in dilute
solution | a non-electrolyte & non
volatile solute in
concentrated solution |
| a non-electrolyte & non
volatile solute in
concentrated solution | non volatile solute in a dilute
solution |

Answer & Explanation

Answer: Option D

Explanation:

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25. Boiling point elevations can be measured by

- A. Beckmanns method
- B. Landsbergers method
- C. Linds method
- D. none of the above

Answer & Explanation

Answer: Option B

Explanation:

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26. Beckmanns apparatus is used to measure

- A. boiling point elevation
- B. depression in freezing point
- C. lowering of vapour pressure
- D. lowering of osmotic pressure

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

27. Water molecules surrounds more around

- A. ve ion
- B. complex ion
- C. ?ve ion
- D. neutral atom

Answer & Explanation

Answer: Option A

Explanation:[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

28. The compounds in which water molecules are added are called

- | | |
|------------------|-----------------|
| A. Hydrated ions | B. double salts |
| C. hydrates | D. complexes |

Answer & Explanation**Answer:** Option C**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

29. Hydration is a process in which

- | | |
|--|--|
| A. Molecules are surrounded by solvent molecules | B. Ions are surrounded by solvent molecules |
| C. Both ions and molecules are surrounded by solvent molecules | D. Both ions and molecules are surrounded by water molecules |

Answer & Explanation**Answer:** Option D**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

30. Solution of Na₂SO₄ will be

- | | |
|------------|--------------------------------|
| A. basic | B. acidic |
| C. neutral | D. cannot be predicted without |

data

Answer & Explanation

Answer: Option C

Explanation:

31. ppm means

parts of solute in 1000 parts
of solvent

parts of solute in one million
parts of solution

parts of solvent in 1000 parts
of solute

parts of solvent in one million
parts of solute

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

32. 1 molar solution of glucose in water contains weight of glucose

A. 180g/dm³

B. 170g/dm³

C. 190g/dm³

D. 195g/dm³

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

33. Water of crystallization can be removed by

- A. drying
- B. heating
- C. evaporation
- D. All of the above

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

The relative lowering of vapour pressure is directly proportional to molality if the solution is

- A. concentrated
- B. dilute
- C. saturated solution
- D. all of the above

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

35. Which one of the following salt does not hydrolyzed

- A. Na_2SO_4
- B. AlCl_3
- C. CuSO_4
- D. NH_4Cl

Answer & Explanation

Answer: Option A

Explanation:

1. Elements in the same vertical group of the periodic table have same

- A. Number of valence electrons B. Atomic number
C. Atomic mass D. Atomic volume

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

An element having low value of ionization energy and low value of electron affinity is likely to belong to

- A. Group IA B. Group IB
C. Group VIIA D. Group VIII

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

3. Which set of elements is listed in order of increasing ionization energy?

- A. Sb < As < S < P < Cl B. Cl < Sb < P < As < S
C. As < Cl < P < S < Sb D. Sb < As < Cl < S < P

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

Which of the following always increases on going from top to bottom in a group?

- A. Metallic character
- B. Electronegativity
- C. Oxidizing power
- D. Tendency to get reduced

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

5. Which of the p-block elements are not representative elements?

- A. Alkali metals (I-A)
- B. Group-14 elements (IV-A)
- C. Group-18 elements (VIII-A)
- D. Halogens (VII-A)

Answer & Explanation

Answer: Option C

Explanation:

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6. Among halogens the highest boiling point is of

- A. Fluorine
- B. Chlorine
- C. Bromine
- D. Iodine

Answer & Explanation

Answer: Option D

Explanation:

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Which of the following will not form crystalline structure with oppositely charged ions

- | | |
|---------------------|---------------------|
| A. H+ | B. H- |
| C. Mg ²⁺ | D. Ca ²⁺ |

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

8. Which statement is incorrect?

- | | |
|---|---|
| All the metals are good conductor of electricity. | All the metals are good conductor of heat |
| All the metals form C. positive ions | All the metals form acidic oxides |

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

Periodic table provides a basic framework to study elements with respect to their

- | | |
|----------------------------------|------------------------|
| A. Physical properties | B. Chemical properties |
| C. Properties of their compounds | |
| D. All Answer | |

& Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

10. The scientist who did not contribute in the construction of periodic table?

- A. Al-Razi Moseley B.
- C. Dobereiner
- D. Democritus

Answer & Explanation

Answer: Option D

Explanation:

11. Concept of Triads was introduced by

- A. Dobereiner
- B. Newland
- C. Mendeleev
- D. Al-Razi

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

12. Which element was not known when Mendeleev proposed his classification?

- A. Hydrogen Sodium B.
- C. Copper
- D. Germanium

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

13. Elements with similar chemical properties appear in the

- | | |
|---------------------|-----------------------|
| A. Same family | B. Same period |
| C. p block elements | D. Right upper corner |

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

14. Noble gases are named so because they are

- | | |
|---|------------------------|
| A. less reactive | B. Zero group elements |
| | D. All |
| C. Having completely filled valence shell | |

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

15. In modern periodic table all the elements are arranged in ascending order of

- A. Valency
- B. Atomic mass

C. Atomic number

D. Valence electrons

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

16. The longest period in the modern periodic table is

A. 6th

B. 7th

C. 2nd and 3rd both

D. 5th

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

17. Inner transition elements are called

A. Lanthanides

B. Actinides

C. Rare earth metals

D. All

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

18. Seventh period contains _____ normal elements

A. 2

B. 4

C. 6

D. 8

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

19. Modern periodic table has been divided in _____ blocks

A. 2

B. 4

C. 8

D. 7

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

20. Non-metals usually form _____ oxides

A. Acidic

B. Amphoteric

C. Neutral

D. All of the above

Answer & Explanation

Answer: Option A

Explanation:

21. Amphoteric exides are those which possess _____ properties

A. Acidic

B. Basic

C. Acidic and basic

D. Neutral and acidic

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

Best position of hydrogen in the periodic table is above I.A Group which is mainly due to

A. Both are electropositive

B. Similar outer most shell electronic configuration

C. Both form ionic compounds

D. All

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

23. Hydrogen resembles with carbon because of having

Same number of electrons in
the valence shell

Similar physical state

Remarkable reducing
properties

Homovalent (show same
valency)

Answer & Explanation

Answer: Option C

Explanation:[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

24. Which one of the following sets consists of all coinage metals?

- A. Cu Hg Au Cu Ag Au **B.**
C. Ag Au Hg **D.** Cu Fe Au

Answer & Explanation**Answer:** Option **B****Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

25. In which of the following pairs are elements belonging to the same group?

- A. Boron & Beryllium Nitrogen & Phosphorous **B.**
C. Magnesium & Aluminium **D.** Gallium & Helium

Answer & Explanation**Answer:** Option **B****Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

Many properties of an element and its compounds can be predicted from the position of the element in the periodic table. What property could not be predicted in this way?

- A. The nature of its oxides **B.** The charge on its ions
C. The formula of its oxide **D.** Its number of isotopes

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

27. Which one of the following is not a periodic property?

- A. Melting point of elements Boiling point of elements B.
- C. Ionization energy of elements D. Coordination number of ions

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

28. The atomic radii decreases by increasing atomic number in

- A. Alkali metal B. Alkaline earth metal
- C. Elements from Li to Ne D. Halogens

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

29. Which discovery caused a revision in the periodic law as stated by Mendeleev?

- A. Location of nucleus by Rutherford
- B. Atomic number by Moseley

C. X-rays by Roentgen

D. Natural radioactivity by Henry Bacquerel.

Answer & Explanation

Answer: Option B

Explanation:

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30. An element has electronic configuration 1s₂ 2s₂ 2p₂. It belongs to

A. Group II-A

B. Group IV-A

C. Group VII-A

D. Group VI-A

Answer & Explanation

Answer: Option B

Explanation:

31. The property which increases upto group IV-A then decreases onwards

A. Ionization energy

B. Atomic radii

C. Melting & boiling points

D. Atomic volume

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

32. Which of the following ion is stable in aqueous solution?

A. H⁺

B. H⁻

C. Cl^-

D. All are stable

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

The atoms of same element having same atomic number but different mass number are called

A. Isobars

B. Isomers

C. Isotopes

D. Isotropes

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

34. Deuterium reacts with oxygen to form

A. Hard water

B. Heavy water

C. Soft water

D. Water gas

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

35. Which order of ionization energy is correct

A. Mg < Al

B. Si > P

C. Mg > Al

D. both b & c

Answer & Explanation

Answer: Option C

Explanation:

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Ionization energy depends

upon A. Nuclear charge

Atomic size

Shielding effect

I.E depends upon all of the
above and nature of orbital

Answer & Explanation

Answer: Option D

Explanation:

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37. Shielding effect across the period

A. Increases

B. Decreases

C. Can not be predicted

D. Remains constant

Answer & Explanation

Answer: Option D

Explanation:

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38. Addition of 2nd electron to a uninegative ion is always

- A. Exothermic
- B. Endothermic
- C. Data is insufficient
- D. Unpredictable

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

39. Higher value of electron affinity means

- A. Atom will lose electron easily
- B. Atom will gain electron easily
- C. Atom may form di-positive ion
- D. The reason is unknown

Answer & Explanation

Answer: Option B

Explanation:

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40. Metallic characters of alkali metals

- A. Increase down the group
- B. Decrease down the group
- C. No regular trend
- D. Remain same

Answer & Explanation

Answer: Option A

Explanation:

41. Melting points of VII-A group elements down the group

- | | |
|--------------------|---------------------|
| A. Increase | B. Decrease |
| C. Remain constant | D. No regular trend |

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

Oxidation state of an atom represents

- | | |
|-------------------------------|--------------------------|
| A. Number of electrons gained | Number of electrons lost |
| Apparent charge in compound | Its vacancies |

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

43. Which of the following possesses maximum hydration energy?

- | | |
|---------------------|---------------------|
| A. Na^+ | B. K^+ |
| C. Mg^{+2} | D. Ca^{+2} |

Answer & Explanation

Answer: Option C

Explanation:[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

Halides in which halogen atoms act as a bridge between two atoms of the other element are called

- | | |
|----------------------|----------------------------|
| A. Covalent halides | B. Electronegative halides |
| C. Polymeric halides | D. Polymeric hydrides |

Answer & Explanation**Answer:** Option C**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

45. Less electronegative elements such as Be Ga Al etc form

- | | |
|---------------------|--------------------|
| A. Polymeric halide | B. Covalent halide |
| C. Ionic halide | D. All |

Answer & Explanation**Answer:** Option A**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

46. Iodine is solid due to

- | | |
|-------------------------|---------------------------------|
| A. Strong covalent bond | B. Large value of dipole moment |
| C. High polarizability | D. Strong hydrogen bonding |

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

47. True increasing order of acidity of the oxides of Mn is

- | | |
|--|--|
| A. $\text{MnO} < \text{MnO}_2 < \text{Mn}_2\text{O}_7$ | B. $\text{Mn}_2\text{O}_7 > \text{MnO}_2 > \text{MnO}$ |
| C. $\text{MnO}_2 > \text{MnO} > \text{Mn}_2\text{O}_7$ | D. $\text{MnO}_2 > \text{Mn}_2\text{O}_7 > \text{MnO}$ |

Answer & Explanation

Answer: Option A

Explanation:

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48. Keeping in view the size of atom which order is correct one?

- | | |
|---|---------------------------|
| A. $\text{Mg} > \text{Sr Ba} > \text{Mg}$ | B. |
| C. $\text{Lu} > \text{Ce}$ | D. $\text{Cl} > \text{I}$ |

Answer & Explanation

Answer: Option B

Explanation:

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Which one of the following element has highest exidation state in its compounds?

- | | |
|-------|-------|
| A. Cr | B. Mn |
|-------|-------|

C. Sn

D. O

Answer & Explanation

Answer: Option B

Explanation:

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50. Which of the following cannot exist in solution

A. O₂

B. H⁺

C. Cl⁻

D. Na⁺

Answer & Explanation

Answer: Option A

Explanation:

1. Which of the following is different with respect to physical appearance?

A. Arsenic Phosphorus B.

C. Antimony

D. Bismuth

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

2. Which one of the followings possesses melting point below 0°C?

A. Nitrogen

B. Phosphorus

C. Carbon

D. Bismuth

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

3. Compounds of nitrogen and phosphorus are mostly

A. ionic

B. covalent

C. polar

D. all varieties are possible

Answer & Explanation

Answer: Option B

Explanation:

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4. The most electronegative element among the following is

A. Sb

B. N

C. As

D. P

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

5. SO₃ is not absorbed in water directly because

- A. Reaction is exothermic B. It is insoluble in water
- C. Dilute acid is produced D. All of above

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

-
6. Phosphene gas will be produced if phosphorous acid is subjected to
- A. Oxidation B. Reduction
- C. Decomposition D. Both b & c

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

-
7. Which of the following will give phosphoric acid one reaction with water
- A. PCI₅ B. P₂O₃
- C. P₂O₅ D. All of the above

Answer & Explanation

Answer: Option D

Explanation:

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8. Which one of following is not a property of pure quartz?

- | | |
|-------------------|-----------------|
| A. Coloured solid | B. Brittle |
| C. Hard | D. All of above |

Answer & Explanation

Answer: Option A

Explanation:

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9. Phosphorus is a Greek word and it means

- | | |
|------------------|----------------|
| A. Light bearing | B. Fire |
| C. Impure | D. Tetrahedral |

Answer & Explanation

Answer: Option A

Explanation:

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10. Which of the following does not contain phosphorus?

- | | |
|----------------|----------|
| A. Yolk of egg | B. Bone |
| C. Nerves | D. Steel |

Answer & Explanation

Answer: Option D

Explanation

11. Allotropic form of phosphorus that is poisonous is

A. White

B. Red

C. Black

D. Violet

Answer & Explanation

Answer: Option A

Explanation:

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12. Which one of the following is not the use of graphite?

A. Lead pencils Abrasive B.

C. Lubricant

D. Electrode of electrolytic cell

Answer & Explanation

Answer: Option B

Explanation:

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13. Acetic anhydride can be obtained by treating ethyl alcohol with

A. P₂O₅

B. H₂SO₄

C. Both a and b

D. PCI₅

Answer & Explanation

Answer: Option C

Explanation:

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14. The composition of brown ring in nitrate test is

- | | |
|--------------------------------------|---|
| A. $\text{FeSO}_4 \cdot \text{No}$ | B. $\text{FeSO}_4 \cdot \text{No}_2$ |
| C. $\text{FeSO}_4 \cdot \text{No}_3$ | D. $\text{FeSO}_4 \cdot \text{N}_2\text{o}$ |

Answer & Explanation

Answer: Option A

Explanation:

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15. Phosphorous acid upon thermal decomposition yields phosphoric acid and

- | | |
|--------------|-------------------------|
| A. Phosphine | B. Phosphorus |
| C. Water | D. Phosphorus pentoxide |

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

16. Which one of the following compounds usually smells like garlic?

- | | |
|--|------------------------|
| A. P_2O_3 P_2O_5 | B. |
| C. H_3PO_3 | D. All have same smell |

Answer & Explanation

Answer: Option A

Explanation:

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17. P₂O₅ is a hygroscopic powder which sublimes at

- | | |
|----------|----------|
| A. 260°C | B. 360°C |
| C. 630°C | D. 620°C |

Answer & Explanation

Answer: Option B

Explanation:

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18. The element of group VIA which is a non-metal is

- | | |
|-------|-------|
| A. S | B. Se |
| C. Te | D. Po |

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19. Phosphoric acid is a weak acid and its basicity is

- | | |
|---------|------|
| A. 1 | B. 3 |
| C. zero | D. 2 |

Answer & Explanation

Answer: Option B

Explanation:

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20. All the elements in group VIA are _____ in nature.

- | | |
|----------------|-----------|
| A. hygroscopic | B. metals |
|----------------|-----------|

C. polymeric

D. all of above

Answer & Explanation

Answer: Option C

Explanation:

21. Which of the elements show passivity when treated with conc. HNO₃.

A. Fe

B. A?

C. Cr

D. All of the above

Answer & Explanation

Answer: Option D

Explanation:

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22. Which allotropic form of phosphorous is the most stable?

A. White black B.

C. red

D. Violet

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

23. The gas which cannot be dried by conc. H₂SO₄

A. SO₂

B. H₂S

C. CO₂

D. C₂H₄

Answer & Explanation

Answer: Option B

Explanation:

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24. The chemical composition of cinnabar is

A. ZnS

B. PbS

C. HgS

D. FeS

Answer & Explanation

Answer: Option C

Explanation:

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25. FeSO₄ forms brown ring with

A. N₂O₃

B. NO₂

C. NO

D. N₂O

Answer & Explanation

Answer: Option C

Explanation:

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26. Oxygen and sulphur resemble in all except

- A. Electronic configuration of
B. Show allotropy valence shell electrons

C. Polymeric

D. Show same oxidation state

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

27. Oxygen does not react with all except

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

28. Arsenic oxides are removed by passing through

- A. Ferric hydroxide B. Sodium hydroxide
C. Calcium hydroxide D. Aluminium hydroxide

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

29. In which compound nitrogen has maximum oxidation state

- | | |
|---------------------|---------------------|
| A. N ₂ O | B. NO ₂ |
| C. HNO ₂ | D. HNO ₃ |

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

30. When sulphuric acid is treated with ethanol sulphuric acid behaves like

- | | |
|-----------------------|--------------------------|
| A. an acid | B. a dehydrating agent |
| C. an oxidizing agent | D. as sulphonating agent |

Answer & Explanation

Answer: Option B

Explanation:

1. Main source of organic compounds is

- | | |
|-----------|-----------|
| A. Animal | B. Fossil |
| C. Coal | D. Plants |

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

2. Octane number can be improved by
- A. Isomerization B. Adding (C₂H₅)₄ Pb
- C. Adding (CH₃)₄ Pb D. All

Answer & Explanation

Answer: Option D

Explanation:

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-
3. Hydro carbons which burn with smoky flame are called
- A. Aliphatic B. Alicyclic
- C. Aromatic D. Aldehyde

Answer & Explanation

Answer: Option C

Explanation:

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-
4. Octane number of 2,2,4-trimethyl pentane is
- A. 100 B. 90
- C. 80 D. 70

Answer & Explanation

Answer: Option A

Explanation:

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-
5. Propene can exhibit
- A. cis-trans isomerism B. geometric isomerism
C. both a & b D. none of the above

Answer & Explanation

Answer: Option D

Explanation:

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-
6. Geometric isomerism is usually found in
- A. Alkanes B. Alkenes
C. Alkynes D. Esters

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

-
7. Pentane and 2-methyl butane have the same
- A. Boiling point B. Melting point
C. Percentage composition D. Structural formula

Answer & Explanation

Answer: Option C

Explanation:

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Organic compounds that are essentially nonpolar and exhibit weak intermolecular forces have

- A. Low melting points
- B. Low vapour pressure
- C. High boiling points
- D. High electrical conductivity

Answer & Explanation

Answer: Option A

Explanation:

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9. The first organic compound was synthesized in laboratory by

- A. Wohler
- B. Kolbe
- C. Berzilius
- D. Berthelot

Answer & Explanation

Answer: Option A

Explanation:

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10. According to vital force theory

- | | | | |
|----|---|----|--|
| A. | Organic compounds can be synthesized from inorganic compounds | B. | organic compounds cannot be synthesized from inorganic compounds |
| C. | organic compounds can be synthesized by animals | D. | organic compounds can be synthesized by plants |

Answer & Explanation

Answer: Option B

Explanation:

11. First organic compound synthesized in laboratory was

- A. tartaric acid
- B. ethyl alcohol
- C. methanol
- D. urea

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

12. A double bond consists of

- A. Two sigma bonds
- B. Two Pi bonds
- C. One sigma and one Pi bonds
- D. One sigma and two Pi bonds

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

13. The property of carbon chain formation is called

- A. catenation
- B. hybridization
- C. polymerization
- D. solvation

Answer & Explanation

Answer: Option A

Explanation:

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Chemical properties of first member of homologous series with respect to other members are

A. same

depends upon number of C atoms

B. different

depends upon number of H atoms

Answer & Explanation

Answer: Option A

Explanation:

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15. The organic compounds having very high molecular weight are called

A. carboxylic acids

B. ketones

C. aldehydes

D. polymers

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

Compounds having same molecular formula but differ in structural formula are called

- A. polymer B. monomer
C. isomer D. allotropes

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

17. Rate of reactions of most organic compounds are

- A. very slow B. very fast
C. slow D. no regular character present

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

18. Organic compounds are soluble in

- A. polar solvent B. non-polar solvent
C. alkalies D. water

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

19. Coal is produced after a long time decay of

- A. animals
- B. fossils
- C. wood
- D. all of the above

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

20. Methane is used in power generation in chemical industries being a

- A. natural gas
- B. good calorific value
- C. cheaper
- D. All

Answer & Explanation

Answer: Option C

Explanation:

Crude oil is blackish coloured liquid produced after the decay of organic matter present between

- A. earth layer
- B. mountains
- C. sedimentary rocks
- D. rocks

Answer & Explanation

Answer: Option C

Explanation:

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The process in which larger molecule with higher molecular weight breaks down into smaller molecules with lower molecular weight

- A. polymerization
- B. pyrolysis
- C. isomerism
- D. no such process occurs

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

23. At low temperature and pressure cracking can be done in presence of catalyst

- A. Al₂O₃
- B. Fe₂O₃
- C. Al₂O₃ and SiO₂
- D. Fe₂O₃ and SiO₂

Answer & Explanation

Answer: Option C

Explanation:

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24. The metallic sound produced by engine due to the pre-ignition of fuel is called

- A. knocking
- B. reforming
- C. cracking
- D. a and c

Answer & Explanation

Answer: Option A

Explanation:

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25. Which one of the following compounds shows intense knocking?

- A. n-pentane iso-heptane **B.**
- C. iso-octane **D.** n-heptane

Answer & Explanation

Answer: Option **D**

Explanation:

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26. Which of the following can be used as anti-knocking agent.

- A. PbCl₂ (C₂H₅)₄ Pb **B.**
- C. (C₂H₅)₂ Pb **D.** all of the above

Answer & Explanation

Answer: Option **B**

Explanation:

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27. Ether functional group can be represented as

- A. ?OH
- B. R-CO-R
- C. R-O-R
- D. R-COOH

Answer & Explanation

Answer: Option **C**

Explanation:[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

28. Isomerism which is present only in alkene is

- | | |
|-------------------------|-----------------|
| A. structural isomerism | B. metamerism |
| C. cis-trans isomerism | D. both b and c |

Answer & Explanation**Answer:** Option C**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

A single atom or group of atoms which gives characteristic properties to a compound is called

- | | |
|---------------------|----------------|
| A. radical | B. hydrocarbon |
| C. functional group | D. ion |

Answer & Explanation**Answer:** Option C**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

30. Compound containing benzene ring in their structure are

- | | |
|--------------------|------------------|
| A. aliphatic | B. aromatic |
| C. carboxylic acid | D. carbohydrates |

Answer & Explanation

Answer: Option B

Explanation:

31. 2-propanol and 1-propanol show the isomerism

- A. metamerism
- B. functional group isomerism
- C. geometric isomerism
- D. position isomerism

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

32. Which of the following is an amide

- A. R-NH₂
- B. RCONH₂
- C. R - NH - R
- D. C₆H₅NH₂

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

33. In sp³ hybridization the expected geometry of molecules will be

- A. square planar
- B. trigonal pyramidal
- C. tetrahedral
- D. linear

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

34. Only sigma bonds are present in

- | | |
|------------|------------------|
| A. propene | B. butanoic acid |
| C. butanal | D. ethoxy ethane |

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

35. In cyano group the carbon atom shows which kind of hybridization

- | | |
|--------------------|----------------------|
| A. sp ² | B. sp |
| C. sp ³ | D. none of the above |

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

36. The structure of ethyne is

- | | |
|------------|--------------------|
| A. angular | B. trigonal |
| C. linear | D. trigonal planar |

Answer & Explanation

Answer: Option C

Explanation:

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37. the fractional distillation of petroleum produces gasoline up to

- | | |
|--------|--------|
| A. 10% | B. 15% |
| C. 20% | D. 30% |

Answer & Explanation

Answer: Option C

Explanation:

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38. The general formula of cycloalkene is

- | | |
|------------------|------------------|
| A. C_nH_{2n} | B. C_nH_{2n+2} |
| C. C_nH_{2n-1} | D. C_nH_{2n-2} |

Answer & Explanation

Answer: Option D

Explanation:

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39. Which is not heterocyclic compound

- | | |
|----------|--------------|
| A. Furan | B. Thiophene |
|----------|--------------|

C. Aniline

D. Pyridine

Answer & Explanation

Answer: Option C

Explanation:

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40. C₅H₁₂ has the number of isomers

A. one

B. two

C. three

D. four

Answer & Explanation

Answer: Option C

Explanation:

What will be the products when reactants are alcohol & thionyl chloride in the presence of pyridine?

A. RC?+S+HC?

B. RC?+SO₂+HC?

C. RC?+SO₂+H₂O

D. RC?+S+H₂O

Answer & Explanation

Answer: Option B

Explanation:

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2. Which C-X bond has the highest bond energy per mole?

A. C-F

B. C-C?

C. C-Br

D. C-I

Answer & Explanation

Answer: Option A

Explanation:

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3. Which alkyl halide has the highest reactivity for a particular alkyl group?

A. R-F

B. R-C?

C. R-Br

D. R-I

Answer & Explanation

Answer: Option D

Explanation:

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4. Ethyl chloride with nascent hydrogen produces

A. methane

B. ethane

C. propane

D. butane

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

5. Which one is not a nucleophile?

A. C₂H₅O-

B. SCN-

C. NH₃

D. H₃C+

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

6. The number of molecules taking part in the rate determining step is called

A. Order of reaction

B. Rate of reaction

C. Mole of a reaction

D. Extent of a reaction

Answer & Explanation

Answer: Option A

Explanation:

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7. During SN₂ mechanism carbon atom changes its state of hybridization as

A. sp?sp₂

B. sp₂?sp₃

C. sp₃?sp

D. sp₃?sp₂

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

What will be the order of reaction of a reaction whose rate can be expressed as $R = K [A] [B]$?

- A. Zero
- B. One
- C. Two
- D. Three

Answer & Explanation

Answer: Option C

Explanation:

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9. Which one among the following is not a good leaving group?

- A. HSO_4^-
- B.
- C. OH^-
- D. Br^-

Answer & Explanation

Answer: Option C

Explanation:

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10. What is the order of kinetics in the SN1 mechanism?

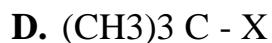
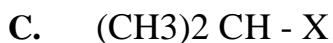
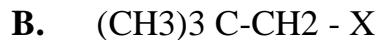
- A. Zero First B.
- B.
- C. Second
- D. Third

Answer & Explanation

Answer: Option B

Explanation:

Which alkyl halide out of the following may follow both SN1 and SN2 mechanism?



Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

In elimination reactions of alkyl halide which site is more susceptible for the attack of base

A. ? - carbon

B. ? - carbon

C. ? - hydrogen

D. ? - hydrogen

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

When two moles of ethyl chloride react with two moles of sodium in the presence of ether what will be formed?

A. 2 moles of ethane

B. 1 mole of ethane

C. 2 moles of butane

D. 1 mole of butane

Answer & Explanation

Answer: Option D

Explanation:[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

14. The ether used in Wurtz synthesis is

- | | |
|------------|----------|
| A. acidic | B. basic |
| C. aqueous | D. dry |

Answer & Explanation**Answer:** Option D**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

When CO₂ is made to react with ethyl magnesium iodide followed by acid hydrolysis the product formed is

- | | |
|-------------|-------------------|
| A. propane | B. propanoic acid |
| C. propanal | D. propanol |

Answer & Explanation**Answer:** Option B**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

16. Grignard reagent is reactive due to

- | | |
|---------------------------------|-----------------------------------|
| A. the presence of halogen atom | B. the presence of magnesium atom |
| C. the polarity of C-Mg bond | D. all |

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

17. SN₂ reaction can be best carried out with

- A. primary alkyl halide
- B. secondary alkyl halide
- C. tertiary alkyl halide
- D. all

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

18. Elimination bimolecular reactions involve

- A. first order kinetics
- B. second order kinetics
- C. third order kinetics
- D. zero order kinetics

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

19. For which mechanisms the first step involved is the same?

- A. E1 + E2 E2 + SN2 **B.**
- C. E1 and SN1 D. SN1 and SN2

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

The rate of E1 reaction depends upon

- | | |
|---|--|
| A. the concentration of substrate | the concentration of nucleophile |
| the concentration of substrate as well as nucleophile | base the concentration of substrate as well as nucleophile |

Answer & Explanation

Answer: Option A

Explanation

11. Which alkyl halide out of the following may follow both SN1 and SN2 mechanism?

- | | |
|---|---|
| A. CH ₃ -X | B. (CH ₃) ₃ C-CH ₂ -X |
| C. (CH ₃) ₂ CH-X | D. (CH ₃) ₃ C-X |

Answer & Explanation

Answer: Option C

Explanation:

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In elimination reactions of alkyl halide which site is more susceptible for the attack of base

- | | |
|-----------------|-----------------|
| A. ? - carbon | B. ? - carbon |
| C. ? - hydrogen | D. ? - hydrogen |

Answer & Explanation

Answer: Option D

Explanation:

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When two moles of ethyl chloride react with two moles of sodium in the presence of ether what will be formed?

- A. 2 moles of ethane
- B. 1 mole of ethane
- C. 2 moles of butane
- D. 1 mole of butane

Answer & Explanation

Answer: Option D

Explanation:

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14. The ether used in Wurtz synthesis is

- A. acidic
- B. basic
- C. aqueous
- D. dry

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

When CO₂ is made to react with ethyl magnesium iodide followed by acid hydrolysis the product formed is

Answer & Explanation

Answer: Option B

Explanation:

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[in Forum](#)

16. Grignard reagent is reactive due to **B.**
A. the presence of halogen atom atom
C. the polarity of C-Mg bond D. all

Answer & Explanation

Answer: Option C

Explanation:

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17. SN₂ reaction can be best carried out
with A. primary alkyl halide B. secondary alkyl
C. tertiary alkyl halide D. all

Answer & Explanation

Answer: Option A

Explanation:

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18. Elimination bimolecular reactions involve

- A. first order kinetics
- B. second order kinetics
- C. third order kinetics
- D. zero order kinetics

Answer & Explanation

Answer: Option B

Explanation:

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19. For which mechanisms the first step involved is the same?

- A. E1 + E2 E2 + SN2 B.
- C. E1 and SN1
- D. SN1 and SN2

Answer & Explanation

Answer: Option C

Explanation:

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20. The rate of E1 reaction depends upon

- A. the concentration of substrate
- B. the concentration of nucleophile

C. the concentration of substrate
as well as nucleophile

D. base the concentration of
substrate as well as
nucleophile

Answer & Explanation

Answer: Option A

Explanation

Alkyl halides are considered to be very reactive compounds towards nucleophile because

- A. they have an electrophilic carbon
- B. they have an electrophilic carbon & a good leaving group
- C. they have an electrophilic carbon & a bad leaving group
- D. they have a nucleophilic carbon & a good leaving group

Answer & Explanation

Answer: Option B

Explanation:

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22. Which one of the following species is not an electrophile?

- A. NH₃
- B. Br⁺
- C. H⁺
- D. BF₃

Answer & Explanation

Answer: Option A

Explanation:

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Which one of the following reactants will be required to form straight chain alcohol by using Grignard reagent

- A. formaldehyde B. ketone
C. ethylene epoxide D. both a & c

Answer & Explanation

Answer: Option D

Explanation:

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Which one of the following alcohols will be formed when ethyl magnesium bromide reacts with acetone?

- A. primary alcohol B. secondary alcohol
C. tertiary alcohol D. dihydric alcohol

Answer & Explanation

Answer: Option C

Explanation:

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Which one of the following molecules does not form alcohol when reacts with Grignard reagent?

- A. formaldehyde B. acetaldehyde
C. propanone D. carbondioxide

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In primary alkyl halides the halogen atom is attached to a carbon which is further attached to how many carbon atoms

- A. two
 - B. three
 - C. one
 - D. four

Answer & Explanation

Answer: Option C

Explanation:

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Ethylene epoxide treated with Grignards reagent followed by acid hydrolysis yield

- A. primary alcohol B. secondary alcohol
C. tertiary alcohol D. dihydric alcohol

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

28. The best method of preparation of alkyl halides is a reaction of alcohol with

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

29. Alkyl halides undergo a type of reaction

- A. Nucleophilic substitution
- B. Nucleophilic addition
- C. Elimination
- D. both a & c

Answer & Explanation

Answer: Option D

Explanation:

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30. 50% inversion of configuration of molecules take place in a

- A. E1 - reaction
- B. E2 - reaction
- C. SN1 - reaction
- D. SN2 - reaction

Answer & Explanation

Answer: Option C

Explanation:

1. When - COOH is attached directly to the benzene ring the acid is called

- A. Aliphatic
- B. Alicyclic
- C. Carboxylic
- D. Aromatic

Answer & Explanation

Answer: Option D

Explanation:

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2. The common name of propane 1,3-dioic is
- A. Oxalic acid B. Aromatic acid
C. Malonic acid D. Fumaric acid

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

-
3. The common thing in phthalic acid and oxalic acid is that both are
- A. Aromatic B. Dicarboxylic
C. Hydrocarbons D. Strong acids

Answer & Explanation

Answer: Option B

Explanation:

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-
4. The irritation caused by red ants bite is due to
- B. Formic acid
- A. Lactic acid D. Acetic acid
C. Uric acid

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

5. The acid which is used as ink remover is

- | | |
|----------------|------------------|
| A. Oxalic acid | B. Succinic acid |
| C. Adipic acid | D. Acetic acid |

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

6. Which of the following is the strongest acid?

- | | |
|----------------|-------------------|
| A. Water | B. Formic acid |
| C. Acetic acid | D. Propanoic acid |

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

7. Which acid is the manufacture of synthetic rubber?

- | | |
|------------------|-----------------|
| A. Acetic acid | B. Formic acid |
| C. Carbonic acid | D. Benzoic acid |

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

8. Acidic amino acids have

- | | |
|---------------------------------------|---------------------------------|
| 2 amino groups and 1 carboxylic group | 1 amino and 1 carboxylic groups |
| 2 carboxylic groups and 1 amino group | 2 amino and 2 carboxylic groups |

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

9. In the formation of Zwitter ions proton goes from

- | | |
|----------------------------|----------------------------|
| A. Carboxyl to amino group | B. Amino to carboxyl group |
| C. Amino group only | D. Carboxyl group only |

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

10. The term internal salt refers to

- | | |
|-------------------------------------|---------------------------------------|
| A. Acidic character of amino acids | B. Basic character of amino acids |
| C. Dipolar character of amino acids | D. Non-polar structure of amino acids |

Answer & Explanation

Answer: Option C

Explanation:

11. The organic acid that does not has COOH group is

A. phthalic acid

B. carbolic acid

C. Maleic acid

D. Succinic acid

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

12. Which one of the following acids is present in lemon juice?

A. Citric acid Benzoic acid B.

C. Tartaric acid

D. Oxalic acid

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

13. The test which is used for the identification of amino-acids is

A. Ninhydrin test

B. Molisch test

C. Biuretic test

D. Benedict test

Answer & Explanation

Answer: Option A

Explanation:[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

14. Which one of following amino acid is neither acidic nor a basic in nature?

- A. Lysine Histidine B.
C. Proline D. Glutamic acid

Answer & Explanation**Answer:** Option C**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

Carboxylic acid reacts with ammonia to form ammonium salts which on heating produces

- A. CO₂ B. Alkane
C. Ester D. Acidamide

Answer & Explanation**Answer:** Option D**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

16. Glycine is the name of an amino acid because

- A. Sweet taste B. Bitter taste
C. Shining appearance D. Green colour

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

17. The complete reduction carboxylic acid results in the formation of

- | | |
|-----------|------------|
| A. Alkyne | B. Alkene |
| C. Alkane | D. Alcohol |

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

18. The organic acid that can be made from ethanol is

- | | |
|------------------|----------------|
| A. Acetic acid | B. Formic acid |
| C. Butanoic acid | D. Citric acid |

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

19. Picric acid is

- | | |
|-----------------------------|----------------------|
| A. monocarboxylic acid | B. dicarboxylic acid |
| C. aromatic carboxylic acid | D. none of these |

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

20. The formula of palmitic acid

- | | |
|---|---|
| A. C ₁₅ H ₃₁ COOH | B. C ₁₃ H ₂₇ COOH |
| C. C ₁₇ H ₃₃ COOH | D. C ₁₇ H ₃₅ COOH |

Answer & Explanation

Answer: Option A

Explanation:

21. Essential amino acids are

- | | |
|-------|-------|
| A. 5 | B. 10 |
| C. 15 | D. 20 |

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

22. The aliphatic monocarboxylic acids are obtained by the hydrolysis of

- | | |
|----------------------|----------------------|
| A. proteins and oild | B. fats and proteins |
| C. fats and oils | D. all above |

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

23. Which of the following is not a fatty acid?

- A. Propanoic acid
- B. Acetic acid
- C. Phthalic acid
- D. Butanoic acid

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

24. An acid with unpleasant smell

- A. formic acid
- B. acetic acid
- C. propionic acid
- D. butyric acid

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

25. The basic hydrolysis of ethyl acetate produces

- A. ethanol
- B. acetic acid
- C. ethanol and acetic acid
- D. ethanol and sodium acetate

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

26. Carboxylic acid on reduction with HI / phosphorous yields

- | | |
|--------------|-------------|
| A. alkane | B. alcohols |
| C. aldehydes | D. ketones |

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

27. Which of the following is not an ester

- | | |
|----------------------|--------------------|
| A. amyl acetate | B. sodium butyrate |
| C. isobutyle formate | D. octyl acetate |

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

The reaction of carboxylic acids with alcohols in presence of cone. H₂SO₄ is called

- | | |
|-------------------|-------------------|
| A. esterification | B. neutralization |
|-------------------|-------------------|

C. hydrolysis

D. saponification

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

29. Which of the following has orange flavour

A. isobutyl formate

B. octyl acetate

C. ethyl butyrate

D. amyl lactate

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

30. Which of the following is not an amino acids

A. glumatic acid

B. lactic acid

C. aspartic acids

D. glycine

Answer & Explanation

Answer: Option B

Explanation:

31. Amino acids present in cheese

A. lysine

B. alanine

C. tyrosine

D. proline

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

32. ? - amino succinic acid is also called

A. lysine

B. aspartic acid

C. alanine

D. glutamic acid

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

33. Which of the following is an unsaturated carboxylic acid

A. malonic acid

B. oxalic acid

C. succinic acid

D. maleic acid

Answer & Explanation

Answer: Option D

Explanation:

1. Which of the following is not a heavy industry?

A. iron

B. fertilizer

C. paper

D. none

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

2. Which of the following is a macronutrient?

A. boron

B. iron

C. copper

D. carbon

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

3. Requirement of macronutrient per acre of the land is

A. 5 to 200 kg

B. 20-200 kg

C. 200-400 kg

D. 30-400 kg

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

4. Three elements needed for the healthy growth of plants are

A. N P K

B. N K C

C. N S P

D. N Ca P

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

5. Which of the following is not a secondary pollutant

A. ozone

B. carbonic acid

C. sulphuric acid

D. carbon dioxide

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

6. Residence time of methane in the atmosphere is

A. 3 - 7 days

B. 2 - 3 days

C. 3 - 7 years

D. 2 - 3 years

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

7. Major cause of SO₂ on global scale is
- A. volcanoes B. electric sparks
C. combustion D. all

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

Hypochlorous acid is used for disinfecting the water it reacts with the dissolved ammonia producing

- A. NH₂Cl B. NHCl₂
C. NCl₂ D. all of the above

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

-
9. Acid present in acid rain may be
- A. H₂SO₄ B. HNO₃
C. both a and b D. none

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

10. The yellow colour in photochemical smog is due to presence of

- | | |
|---------------------|---------------------|
| A. dinitrogen oxide | B. nitrogen dioxide |
| C. chlorine gas | D. chlorine dioxide |

Answer & Explanation

Answer: Option B

Explanation:

11. Which of the following is not a condition for the formation of smog?

- | | |
|-------------------------|-------------|
| A. sufficient NO | B. sunlight |
| C. less movement of air | D. winds |

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

12. Incineration of municipal waste is carried out in the temperature range of

- | | |
|------------------|------------------|
| A. 250 to 500°C | B. 500 to 900°C |
| C. 950 to 1300°C | D. 900 to 1000°C |

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

In which of the following layer of atmosphere there is more thickness of ozone layer?

- A. troposphere
- B. stratosphere
- C. mesosphere
- D. photosphere

Answer & Explanation

Answer: Option B

Explanation:

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14. Which of the following is not primary pollutant

- A. SO₃
- B. CO
- C. NO
- D. H₂SO₄

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

15. Which of the following air pollutants is more dangerous for ozone layer?

- A. CFC CO₂ B.
- C. CO
- D. Oxides of nitrogen

Answer & Explanation

Answer: Option A

Explanation:[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

16. Which of the following gases is the main cause of acid rain?

- | | |
|---------------|----------------------|
| A. CO | B. NO ₂ |
| C. both a & b | D. none of the above |

Answer & Explanation**Answer:** Option B**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

17. Which statement is wrong?

- | | |
|---|---|
| the amount of ozone layer is greater in the region close to the equator | ozone acts as filter for UV radiations |
| in the equatorial region it acts as pollutant | CFCs play effective role in removing O ₃ in the stratosphere |

Answer & Explanation**Answer:** Option A**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

18. Which of the following factors help to measure quality of water?

- | | |
|-------|--------|
| A. DO | B. BOD |
|-------|--------|

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

19. In the purification of portable water the coagulant used is

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

20. Newspaper can be recycled again and again how many times?

- A. 2 B. 3
C. 4 D. 5

Answer & Explanation

Answer: Option D

Explanation:

21. The main pollutant of leather tanneries in the waste water is

C. chromium V

D. chromium VI

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

22. A single chlorine free radical can destroy how many ozone molecules?

A. 10

B. 100

C. 10000

D. 100000

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

23. Which substance can be used for disinfecting water?

A. KMnO₄ Alums B.

C. Ozone

D. All

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

24. Chlorination of water may be harmful if the water contains

- A. Ammonia
- B. Dissolved oxygen
- C. Carbon dioxide
- D. All

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

25. Which one of the following makes the bulk of hydrospheres content?

- A. oceans glaciers & icecaps **B.**
- C. fresh water lakes and ponds
- D. All have equal distribution

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

Which of the following is used as water disinfectant to avoid the formation of toxic compounds

- A. Cl₂
- B. O₃
- C. ClO₂
- D. both b & c

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

The percentage of suspended solid waste in raw water is removed by coagulation is

- A. 60
- B. 70
- C. 80
- D. 90

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

28. Ozone hole is substantial depletion of ozone in every year during

- A. Aug - Nov
- B. Sep - Nov
- C. Nov - Dec
- D. Dec - Jan

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

29. The main product of bacterial action is

- A. NOx
- B. NO₂
- C. N₂O₃
- D. NO

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

30. Pollutants have adverse effect over

- A. Biosphere
- B. Ecosystem
- C. Both a & b
- D. Hydrosphere

Answer & Explanation

Answer: Option B

Explanation:

1. Diameter of an atom is in the order of

- A. 0.2m
- B. 0.2mm
- C. 0.2nm
- D. 0.2pm

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

2. Which of the following are isoelectronic species?

- A. H+ H H- Li+ Na+ K+ B.
- C. Cl- Br- I
- D. F- Ne Na+

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

3. Mass spectrometer is used to determine Mass number of isotopes and
- | | |
|-----------------------------|-----------------------|
| A. Atomic number | B. Relative abundance |
| C. Electronic configuration | D. All of the above |

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

4. Molecular ions are formed by passing
- | | |
|------------------------------|-----------------------|
| A. High energy electron beam | B. β^- particle |
| C. X-rays | D. All of the above |

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

5. The number of peaks obtained in mass spectrometry shows
- | | |
|-----------------------|----------------------------|
| A. Relative abundance | B. Average mass of element |
| C. Number of isotopes | D. Relative isotopic mass |

Answer & Explanation

Answer: Option C

Explanation:[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

6. Empirical formula of chloroform is

- | | |
|------------------------------------|-----------------------------------|
| A. CH ₂ C ₁₂ | B. CH ₃ C ₁ |
| C. CC ₁₄ | D. CHC ₁₃ |

Answer & Explanation**Answer:** Option D**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

7. Which one is true about isotope?

- | | |
|-----------------------------|-----------------------------|
| A. Same number of neutrons | B. Same mass number |
| C. Same physical properties | D. Same chemical properties |

Answer & Explanation**Answer:** Option D**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

8. Molecular mass of water (18g) means

- | | |
|------------------------------|-----------------------------|
| A. 1-mole molecules of water | B. 1-gram molecule of water |
| C. 3-gram atoms | D. all |

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

9. Which of the following ion formation is always exothermic?

- | | |
|-----------------|-----------------|
| A. Uni-negative | B. Uni-positive |
| C. Di-negative | D. Di-positive |

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

10. Which of the following statements about isotopes is correct?

- | | |
|---|---|
| A. Isotopes with odd atomic number are abundant | Isotopes with odd atomic number and even mass number are abundant |
| C. Isotopes with even atomic number and even mass number are abundant | Isotopes with even atomic number and odd mass no are abundant |

Answer & Explanation

Answer: Option C

Explanation:

The sample of isotopes of an element which needs not to be vaporized in the vaporization chamber

A. Gas

B. Liquid

C. Volatile solid

D. All

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

12. One mole of CO₂ contains.

6.022 x 10²³ atoms of
oxygen

22-gram electrons

6.022 x 10²³ atoms of carbon

both b & c

Answer & Explanation

Answer: Option D

Explanation:

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13. Avogadro's number may represent

A. volume of particles

B. number of particles

C. mass of particles

D. All of the above

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

The number of isotopes of elements with even mass number and even atomic number are.

- A. 280
- B. 300
- C. 154
- D. 54

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

15. Size of molecule depends upon

- A. Atomicity
- B. Shape of molecule
- C. Both a and b
- D. Difficult to predict

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

16. Which of the following terms is not used for ionic compound?

- A. formula unit empirical formula B.
- C. molecular formula
- D. formula mass

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

0.36 moles of each aluminium and oxygen react with each other to produce aluminium oxide. The amount of product formed is

- A. 0.18 mole
- B. 0.27 mole
- C. 0.24 mole
- D. 0.09 mole

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

18. Which of the following terms is used for the mass of chlorine 35.5?

- A. relative atomic mass mass number B.
- C. atomic weight
- D. relative isotopic mass

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

19. Which one of the following has the maximum number of isotopes?

- A. oxygen carbon B.
- C. tin
- D. chlorine

Answer & Explanation

Answer: Option C

Explanation:[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

20. Which one of the following is not the mono isotopic element?

- A. arsenic uranium B.
C. iodine D. nickel

Answer & Explanation**Answer:** Option B**Explanation:**

21. The volume occupied by 2.8 g of N₂ at STP

- A. 2.24 dm³ B. 22.4 dm³
C. 1.12 dm³ D. 112 dm³

Answer & Explanation**Answer:** Option A**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

22. The mass of decimole of electrons (N_A) is

- A. 1.008 mg B. 0.184 mg
C. 0.054 mg D. 5.4 mg

Answer & Explanation**Answer:** Option C

Explanation:[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

23. The number of moles of CO₂ which contains 16 g of oxygen is

- | | |
|---------|--------|
| A. 0.25 | B. 0.5 |
| C. 0.75 | D. 1 |

Answer & Explanation**Answer:** Option B**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

24. Which of the following statements is wrong about isotopes?

- | | |
|--|--|
| A. they possess different mass number | B. they possess different physical properties |
| C. they possess same chemical properties | D. they possess different position in the periodic table |

Answer & Explanation**Answer:** Option D**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

25. How many isotopes have odd atomic number?

- | | |
|--------|--------|
| A. 154 | B. 280 |
| C. 86 | D. 300 |

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

26. Qualitative analysis is carried out for

- | | |
|-------------------------------|--------------------------------------|
| A. identification of elements | B. estimation of amounts of elements |
| C. molar ration of elements | D. molar volume of elements |

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

27. Percentage of calcium in calcium carbonate is

- | | |
|--------|--------|
| A. 80% | B. 30% |
| C. 40% | D. 20% |

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

28. Combustion analysis is performed to determine

- | | |
|----------------------|-------------------|
| A. Empirical formula | B. Molecular mass |
|----------------------|-------------------|

C. Molecular formula

D. Formula mass

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

29. Mostly elements have fractional atomic masses because of

mass of an atom itself is in fraction

atomic masses are average masses of isobars

atmoic masses are average masses of isotopes proportional to their relative abundance

atmoic masses are average masses of isotopes

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

30. Isotopes differ in

properties which depend upon **A.** mass

chemical properties

arrangement of electrons in **B.** orbitals

all of the above

Answer & Explanation

Answer: Option A

Explanation:

31. Which of the following is not a macromolecule?

- | | |
|------------|----------------|
| A. sand | B. haemoglobin |
| C. diamond | D. maltose |

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

Which of the following methods is used to estimate hydrogen in an organic compound?

- | | |
|-------------------|---|
| Combustion method | Dumas method |
| Kjeldahls method | All of the above methods are for different purposes |

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

Isotopes of the same elements has

- | | |
|--------------------------------|-----------------------------------|
| A. different number of protons | same number of neutrons |
| different number of neutrons | same mass number (nucleon number) |

Answer & Explanation

Answer: Option C

Explanation:[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

34. The nucleus of an atom of every element will always contain

- | | |
|-------------|--------------------------|
| A. neutrons | B. protons and electrons |
| C. protons | D. protons and neutrons |

Answer & Explanation**Answer:** Option C**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

When cationic molecular ions are allowed to pass through strong magnetic field in mass spectrometer which of the following ions is fallen

- | | |
|------------|-------------------------------|
| A. lighter | B. intermediate |
| C. heavier | D. are collected at same time |

Answer & Explanation**Answer:** Option A**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

When 0.5 mole of phosphoric acid is dissolved in aqueous solution how many moles of -ve and +ve ions are collected altogether?

- | | |
|--------|------|
| A. 0.5 | B. 1 |
| C. 1.5 | D. 2 |

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

For which of the following compounds the term empirical formula cannot be applied?

NaCl

H₂O

CCl₄

It can be applied to all mentioned above

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

38. Dempsters mass spectrometer has number of zones / parts

A. 5

B. 4

C. 3

D. 2

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

The properties of an element mosly corresponds to that isotope which has greater

- A.** Mass number **B.** Atomic mass
- C.** Relative abundance **D.** all of the above

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

40. $1 \text{ a.m.u} =$

- A.** $1.6 \times 10^{-27} \text{ kg}$ **B.** $1.6 \times 10^{-24} \text{ kg}$
- C.** $1.6 \times 10^{-26} \text{ kg}$ **D.** $1.6 \times 10^{-28} \text{ kg}$

Answer & Explanation

Answer: Option A

Explanation:

1. Which of the following has strongest intermolecular forces of attraction?

- A.** Hydrogen (H_2) **B.** Chlorine (Cl_2)
- C.** Iodine (I_2) **D.** Methane (CH_4)

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

2. Which has strongest bonding in the solid state?

- A. Hydrogen Chloride (HCl) B. Chlorine (Cl₂)
C. Xenon(Xe) D. Sodium Chloride (NaCl)

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

When substance moves from a solid to a liquid state all of the following changes occur except

- A. Molecules become more disordered B. K.E of the molecules decreases
C. Intermolecular forces become weaker D. Molecule become further separated

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

When the atoms of third layer are arranged in such a way that they directly lie above the atoms of first layer then this arrangement is called

- A. ABAB (hexagonal) B. ABCABC (Cubic)
C. Orthorhombic D. Rhombohedral

Answer & Explanation

Answer: Option A

Explanation:[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

In order to mention the boiling point of water at 110°C the external pressure should be

- A. Between 760 torr and 1200
B. Between 200 torr and 760 torr torr
C. 765 torr D. any value of pressure

Answer & Explanation**Answer:** Option A**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

6. Which one is false for evaporation?

- A. Surface phenomenon B. Continuous
C. Exothermic D. Cause cooling

Answer & Explanation**Answer:** Option C**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

7. Vapour pressure of water at 100°C is

- A. 55 mm Hg B. 760 mm Hg
C. 355 mm Hg D. 1489 mm Hg

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

8. Which one of the following does not show hydrogen bonding ?

- A. Water Ethyl alcohol B.
- C. Phenol
- D. Diethyl ether

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

9. Liquid crystal is discovered by

- A. William Crooks
- B. Fredrack Reinitzer
- C. J.J Thomson
- D. Bravis

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

10. Which one is a conductor but is not malleable?

- A. Iron
- B. Graphite
- C. Silver
- D. Platinum

Answer & Explanation

Answer: Option B

Explanation:

11. Hydrogen bonding is involved in

- | | |
|-------------------------|-----------------------------------|
| A. Solubility | B. Cleansing action of detergents |
| C. Biological molecules | D. All |

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

12. Actually the vapour pressure on the surface of liquid in the flask is equal to

- | | |
|------------|-----------------|
| A. ? h | B. Pa - ?h |
| C. Pa + ?h | D. Pt = Pa - ?h |

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

Forces of attraction which may be present between all kinds of atoms and molecules are

- | | |
|-------------------|-------------------|
| A. intramolecular | B. intermolecular |
|-------------------|-------------------|

C. van der Waal

D. Dipole-induced dipole

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

14. The density of water may
be Equal to that of ice A.

B. Greater than that of ice

C. Less than that of ice

D. All are possible

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

The quantity of heat required to convert one mole of liquid into its vapours at its boiling point is called molar heat of

A. vaporization

B. evaporation

C. crystallization

D. sublimation

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

16. Steam causes more sever burn than the boiling water because it possesses.

- A. Latent heat of fusion B. Latent heat of vaporization
- C. Latent heat of sublimation D. All of the above

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

17. Water has maximum density at

- A. 0°C B. 2°C
- C. 4°C D. 100°C

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

18. The conversion of vapours back into their liquid state is called

- A. crystallization B. evaporation
- C. vaporization D. condensation

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

19. Formation of vapours from the surface of a liquid is called

- | | |
|------------------|----------------|
| A. vapourization | B. evaporation |
| C. condensation | D. cracking |

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

20. When water freezes at 0°C its density decreases due to

- | | |
|---|------------------------|
| Change of bond angles | Cubic structure of ice |
| Empty space present in the structure of ice | Change of bond length |

Answer & Explanation

Answer: Option C

Explanation:

The attractive forces between the partial positive end of one molecule and partial negative end of other molecule are called

- | | |
|-----------------------------|-----------------------------|
| A. Dipole-dipole forces | B. Ion dipole-dipole forces |
| C. London dispersion forces | D. Debye forces |

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

22. The boiling point increases down the zero group element due to

- | | |
|----------------------|-------------------------|
| A. Ion dipole forces | B. London forces |
| C. Hydrogen bonding | D. Dipole dipole forces |

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

23. Vapour pressure is not affected by

- | | |
|--------------------------|-------------------------|
| A. Surface area | B. temperature |
| C. intermolecular forces | D. atmospheric pressure |

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

24. Rising of a wetting liquid in a capillary tube is due to

- | | |
|--------------------|--------------------|
| A. Surface tension | B. Cohesive forces |
| C. Adhesive forces | D. viscosity |

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

25. Table salt crystallizes with a

- A. Face centered cubic lattice
- B. body centered cubic lattice
- C. simple cubic lattice
- D. othorhombic lattice

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

26. The number of formula units in 29.25g of common salt

- A. 6.022×10^{23}
- B. 3.01×10^{23}
- C. $2 \times NA$
- D. $4 \times 6.022 \times 10^{23}$

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

27. During which process empty spaces between particles become minimum?

- A. ionization condensation B.
- C. fusion
- D. evaporation

Answer & Explanation

Answer: Option B

Explanation:[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

Liquid gets the shape of the container when it is poured into it. Which one of the following reasons justifies it?

Liquid do not have definite shape

Liquid do not have definite volume

- C. Liquid is highly compressible D. Liquid molecules can slide over each other

Answer & Explanation**Answer:** Option D**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

29. Which one of the following has highest volatility

A. Diethyl ether

B. Ethyl alcohol

C. Water

D. Ethylene glycol

Answer & Explanation**Answer:** Option A**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

30. Molar heat of vaporization of water is

A. 40.7 KJ/mole

B. 40.7 J/mole

C. 40.7 cal/mole

D. 40.7 Kcal/mole

Answer & Explanation

Answer: Option A

Explanation:

31. If we provide very high amount of heat to a liquid its boiling point will

- | | |
|-------------|-----------------------------|
| A. increase | B. remains constant |
| C. decrease | D. there will be no boiling |

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

32. Crystallites are present in
crystalline solids **A.**

B. amorphous solids

- | | |
|--------------------|---------------------|
| C. liquid crystals | D. all of the above |
|--------------------|---------------------|

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

33. A solid may be made up of

- | | |
|--------------|--------------|
| A. Atoms | B. Ions |
| C. Molecules | D. a b and c |

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

34. A malleable solid is one which can be

- | | |
|-------------------------|-------------------------------|
| A. Converted into wires | B. Converted into thin sheets |
| C. Melted easily | D. All of the above |

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

35. Amorphous substances posses

- | | |
|----------------------------|-------------------------------|
| A. No definite geometry | B. No definite heat of fusion |
| C. No sharp melting points | D. All of the above |

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

36. Crystalline solids can be identified easily from their

- | | |
|---------------------------|----------------------|
| A. Sharp melting point | B. Definite geometry |
| C. Transition temperature | D. Colour |

Answer & Explanation

Answer: Option A

Explanation:

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Boiling points of hydrocarbons increase with the increase in number of carbon atoms. It is mainly due to

- A. More strength of H-bonding
- B. More strength of London forces
- C. Less polarizability
- D. All of the above

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

38. Ice is _____ crystal

- A. Metallic
- B. Molecular
- C. Covalent
- D. Ionic

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

39. Select a pair of compounds which are isomorphic in nature.

- A. NaCl and KNO₃
- B. MgO and NaF
- C. KNO₃ and MgO
- D. NaF and CaCO₃

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

The viscosity of solids is

- | | |
|--------------------|----------------------------------|
| A. Infinite | Negligible |
| B. Medium | No concept of viscosity in solid |

Answer & Explanation

Answer: Option A

Explanation:

41. $a\beta b\gamma c \alpha\beta\gamma\delta\#90^\circ$ is representation of crystal system

- | | |
|----------------------|---------------------|
| A. Monoclinic | B. Triclinic |
| C. Hexagonal | D. Trigonal |

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

The phenomenon in which a compound exists in two or more crystalline forms is called

- | | |
|-----------------------|------------------------|
| A. Isomorphism | B. Polymorphism |
| C. Anisotropy | D. Allotropy |

Answer & Explanation

Answer: Option **B**

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

43. Which solids are called true solids?

- | | |
|----------------|--------------|
| A. Metallic | B. Amorphous |
| C. Crystalline | D. Vitreous |

Answer & Explanation

Answer: Option **C**

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

44. Bucky balls is an allotropic form of

- | | |
|------------|-----------|
| A. Sulphur | B. Carbon |
| C. Silica | D. Tin |

Answer & Explanation

Answer: Option **B**

Explanation:

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45. The number amino acid units for each turn of helix on average are

- | | |
|-------|-------|
| A. 21 | B. 23 |
|-------|-------|

C. 25

D. 27

Answer & Explanation

Answer: Option D

Explanation:

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Isomorphic substances have

Same physical and chemical properties

Same physical and different chemical properties

Different physical and same chemical properties

Different physical and chemical properties

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

If a physical and chemical change takes place at a constant pressure then the heat change during the process is called

A. Heat of transition

B. Heat of fusion

C. Enthalpy change

D. All of above

Answer & Explanation

Answer: Option C

Explanation:

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48. The pressure during the molar heat of fusion is kept

- A. 0 atmosphere
- B. one atmosphere
- C. 2 atmosphere
- D. 10 atmosphere

Answer & Explanation

Answer: Option B

Explanation:

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The amount of heat absorbed when one mole of a liquid is changed into gas at its boiling point is

- A. Molar heat of sublimation
- B. Molar heat of fusion
- C. Molar heat of vapourization
- D. Latent heat of that liquid

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

50. All the enthalpy changes are

- A. Negative
- B. Positive
- C. May or may not be a or b
- D. none

Answer & Explanation

Answer: Option C

Explanation:

1. Which one is not state function

A. Internal energy

B. Enthalpy

C. Gibbs free energy

D. Work

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

2. If ΔH value is less than zero than reaction will be

Exothermic

Endothermic

May or may not be
Exothermic or Endothermic

None of these

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

3. If internal energy of the system is increased

Change in state of the system
is increased

Temperature of the system
may rise

Chemical reaction may take
place

All

Answer & Explanation

Answer: Option D

Explanation:[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

-
4. Which is true for a spontaneous endothermic process?
- A. $\Delta H < 0$ $\Delta G < 0$ **B.**
C. $\Delta S < 0$ **D.** $\Delta G > 0$

Answer & Explanation**Answer:** Option **B****Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

-
5. A reaction has values of ΔH and ΔS which are both positive. The reaction
- A. Is spontaneous
B. Spontaneity is temperature dependent
C. Has an increasing free energy
D. Is non-spontaneous

Answer & Explanation**Answer:** Option **D****Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

-
6. _____ is study about energy of a chemical system
- A. thermochemistry
B. thermodynamics
C. chemical kinetics
D. stoichiometry

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

7. The environment in which a system is studied is

- | | |
|-------------------|----------|
| A. State function | B. phase |
| C. surrounding | D. state |

Answer & Explanation

Answer: Option C

Explanation:

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8. Unit of heat in SI system is

- | | |
|--------|---------|
| A. J | B. KCaL |
| C. Cal | D. GJ |

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

9. Anything which depends upon initial and final state of a system is

- | | |
|-------------------|----------------|
| A. environment | B. surrounding |
| C. state function | D. enthalpy |

Answer & Explanation

Answer: Option C

Explanation:

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10. Total energy of a system is

- | | |
|----------------------|----------------------------|
| A. P.E + K.E | B. P.E + heat energy |
| C. K.E + heat energy | D. P.E + mechanical energy |

Answer & Explanation

Answer: Option A

Explanation:

11. Mathematical form of first law of thermodynamics is

- | | |
|----------------------------|-----------------------|
| A. $\Delta H = qp$ | B. $\Delta E = q + W$ |
| C. $\Delta E = q \times v$ | D. all of the above |

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

12. Reaction in which heat evolves is called

- | | |
|--------------------|----------------|
| A. endothermic | B. spontaneous |
| C. non-spontaneous | D. exothermic |

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

13. $\text{CuSO}_4 + \text{Zn} \rightarrow \text{ZnSO}_4 + \text{Cu}$ is

- A. Spontaneous reaction
- B. Non-spontaneous reaction
- C. Endothermic
- D. Exothermic

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

14. Pumping of water uphill is spontaneous process

- A. spontaneous process
- B. non-spontaneous process
- C. irreversible process
- D. reversible process

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

15. State function the macroscopic property of system depends upon

- A. path of reaction
- B. initial state
- C. final state
- D. initial and final state

Answer & Explanation

Answer: Option D

Explanation:

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16. Which one of the following is a state function?

- | | |
|-------------|---------------------|
| A. pressure | B. temperature |
| C. enthalpy | D. all of the above |

Answer & Explanation

Answer: Option D

Explanation:

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17. When enthalpy of reactants is higher than product then reaction will be

- | | |
|--------------------|----------------|
| A. endothermic | B. spontaneous |
| C. non-spontaneous | D. exothermic |

Answer & Explanation

Answer: Option D

Explanation:

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18. Enthalpy of a reaction can be measured by

- | | |
|----------------------|--------------|
| A. glass calorimeter | B. manometer |
|----------------------|--------------|

C. Barometer

D. thermometer

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

Enthalpy of combustion for food fuel and other compounds can be measured accurately by

A. glass calorimeter

B. bomb calorimeter

C. thermometer

D. manometer

Answer & Explanation

Answer: Option B

Explanation:

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20. The lattice energy of NaCl is

A. 7787 KJ/mole

B. 787 J/mole

C. 780 KJ/mole

D. 790 KJ/mole

Answer & Explanation

Answer: Option A

Explanation:

21. Most of thermodynamic parameters are

A. system

B. surrounding

C. phase

D. state functions

Answer & Explanation

Answer: Option D

Explanation:

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22. ΔH of a system can be calculated by which of following relationship

A. $q = m \times s \times \Delta T$

B. $q = \Delta E$

C. $q = m \times v \times \Delta T$

D. $q = pv$

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

23. Change in enthalpy (H) of a system can be calculated by following relationship

A. $\Delta H = \Delta E + P\Delta V$

B. $\Delta H = \Delta E - PV$

C. $\Delta H = \Delta E - q$

D. $\Delta H = \Delta E + q$

Answer & Explanation

Answer: Option A

Explanation:

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24. Which of the following is correct

- A. $qp > qv$ B. $\Delta E < \Delta H$
C. $\Delta E > \Delta H$ D. Both a & b

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

25. Two fundamental ways to transfer energy are

- A. pressure and temperature B. pressure and volume
C. heat and work D. heat and volume

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

26. Which of the following processes has always $\Delta H = -ve$

- A. formation of compound B. combustion
C. dissolution of ionic
D. dilution of a solution compound

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

27. Enthalpy change can be

- | | |
|---------------------------|-----------------------------------|
| A. calculated by Hess law | B. can be measured by calorimeter |
| C. both a and b | D. none |

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

28. If there is interconversion of solid and liquid states then

- | | |
|--------------------------|--------------------------|
| A. $\Delta V = 0$ | B. $\Delta H = \Delta E$ |
| C. $\Delta H > \Delta E$ | D. both a & b |

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

29. In order to determine Δh_{latt} of ionic compound which is correct relationship

- | | |
|--|--|
| A. $\Delta h_{latt} = \Delta H_f - \Delta H_x$ | B. $\Delta h_{latt} = \Delta H_f + \Delta H_x$ |
| C. $\Delta h_{latt} = \Delta H_a + \Delta H_v$ | D. $\Delta h_{latt} = \Delta H_f - \Delta h_{sol}$ |

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

30. Hess law can be applied to determine

- | | |
|-----------|---------------------|
| A. ?Hf | B. ?Hlatt |
| C. ?Hcomb | D. All of the above |

Answer & Explanation

Answer: Option D

Explanation:

1. Which of the following element act as inert electrode

- | | |
|-------|---------|
| A. Cu | B. Ag |
| C. Pt | D. None |

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

If electricity is passed through CuSO₄ solution by using Pt electrode then which of the following possible change occurs?

- | | |
|---|--|
| A. H ₂ is deposited at cathode | B. Colour of the solution becomes fade |
| C. Cu is deposited at anode | D. All are possible |

Answer & Explanation

Answer: Option B

Explanation:[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

-
3. Stronger the oxidizing agent greater is the
- A. Oxidation potential B. Reduction potential
C. Redox potential D. emf of cell

Answer & Explanation**Answer:** Option B**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

-
4. Which has maximum oxidation number?
- A. N B. Cr
C. S D. Mn

Answer & Explanation**Answer:** Option D**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

-
5. Which of the following cell is not rechargeable?
- A. Lead storage battery Silver oxide cell B.
C. Fuel cell D. Ni-Cd cell

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

In an electrolytic cell current flows ?

From cathode to anode in
outer circuit

From anode to cathode
outside the cell

From cathode to anode inside
the cell

both b & c

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

7. Which of the following is true in the case of Zn-Cu cell?

The flow of electrons takes
place from copper to zinc

E°_{red} of copper electrode is
less than that of zinc
electrode

Zinc acts as an anode and
copper as cathode

All are correct

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

8. In a galvanic cell

Chemical energy is converted
into electricity

Chemical energy is converted
into heat

Electrical energy is converted
into chemical energy

Electrical energy is converted into
heat

Answer & Explanation

Answer: Option A

Explanation:[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

9. The degree of dissociation of weak electrolyte increases as

- | | |
|-----------------------|-----------------------|
| A. Pressure increases | B. Dilution decreases |
| C. Dilution increases | D. None |

Answer & Explanation**Answer:** Option C**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

10. Molten NaCl conducts electricity due to the presence of

- | | |
|-------------------|-----------------------|
| A. Free electrons | B. Free molecules |
| C. Free ions | D. Atoms of Na and Cl |

Answer & Explanation**Answer:** Option C**Explanation:**

11. In which of the following reactions occur at cathode?

- | | |
|---|---|
| A. $\text{Cu}^{2+} + 2\text{e}^- \rightarrow \text{Cu}$ | B. $\text{Cu} + 2\text{e}^- \rightarrow \text{Cu}^{2+}$ |
| C. $\text{Hg} + \text{O}_2 \rightarrow \text{HgO}$ | D. $\text{Mg} + \text{O}_2 \rightarrow \text{MgO}$ |

Answer & Explanation**Answer:** Option A

Explanation:[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

12. Electricity in voltaic cell is produced due to

- | | |
|-------------------|---------------|
| A. neutralization | B. oxidation |
| C. reduction | D. both b & c |

Answer & Explanation**Answer:** Option D**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

13. In electrolytic solution conductance of electricity is due to

- | | |
|-------------------|---------------|
| A. free electrons | B. ions |
| C. metals | D. electrodes |

Answer & Explanation**Answer:** Option B**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

14. In electrolytic cell electricity carries spontaneous reaction A.

- | |
|-----------------------------|
| B. non-spontaneous reaction |
| C. neutralization |
| D. all of above |

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

15. Reaction at anode is called

- | | |
|--------------|------------------|
| A. oxidation | B. reduction |
| C. redox | D. decomposition |

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

16. In an electrolytic cell cathode provides electrons to

- | | |
|-----------------|----------------------------------|
| A. -ve ion | B. +ve ion |
| C. neutral atom | D. does not provide any electron |

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

17. In Galvanic cell electrons flow from anode to cathode through

- | | |
|------------------------------|---------------------|
| A. external electric circuit | B. salt bridge |
| C. movement of ions | D. all of the above |

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

18. Decrease in oxidation number is called

A. oxidation

B. reduction

oxidation-reduction

all of above represent same entity

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

19. For the measurement of standard electrode potential Zn is dipped in

A. 1 M ZnO solution

B. 1 M ZnSO₄ solution

C. 1.5 M ZnSO₄ solution

D. 0.1 M ZnSO₄ solution

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

20. Right half cell contains _____ electrode

A. A1

B. Zn

C. Cu

D. Fe

Answer & Explanation

Answer: Option C

Explanation:

21. $Zn(s)/Zn^{+2}(aq) \text{ 1M} || Cu^{+2}(aq) \text{ 1M}/Cu(s)$ is representation of reaction in

A. Daniel cell

B. Downs cell

C. Voltaic cell

D. Nelsons cell

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

22. Salt bridge transfers

A. electrons

B. anion

C. current

D. ions

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

23. Voltaic cell can be recharged by

A. by addition of fresh solution

B. by replacing external circuit with external source of

electricity

- C. by removal of solution D. by heating it

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

24. E_{0red} of an element can be calculated by comparing it with

- A. New electrode of same element B. SHE
- C. 1M solution of ions of respective element D. 2M solution of HCl

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

25. Temperature for the measurement of standard electrode potential is

- A. 298K B. 300K
- C. 30°C D. 310K

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

26. H₂ gas in SHE is filled at pressure of

- A. 760mm of Hg B. 750mm of Hg
C. 780mm of Hg D. 800mm of Hg

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

27. Potential of SHE is considered as

- A. zero B. unity
C. constant D. multiple of 1

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

28. Chemical used in salt bridge is

- A. KOH B. KCl
C. KNO₃ D. KBr

Answer & Explanation

Answer: Option B

Explanation:[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

Electrode potential of Zn is

- | | |
|---------------------|--|
| A. oxidation | reduction |
| oxidation-reduction | depends on the nature of the coupled electrode |

Answer & Explanation**Answer:** Option D**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

30. List of elements based on hydrogen scale is called

- | | |
|-------------------|---------------------------|
| A. periodic table | B. groups |
| C. periods | D. electrochemical series |

Answer & Explanation**Answer:** Option D**Explanation:**

The element that act as anode always have _____ position in electrochemical cell

- | | |
|--------------|--------------------------|
| A. higher | B. lower |
| C. in middle | D. no effect of position |

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

In galvanic cell Zn acts as an anode so its value of standard reduction potential in comparison to coupled electrode would be

sum of reduction and oxidation potentials none

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

33. Greater value of standard reduction potential greater will be tendency

- A. to get oxidized
 - B. to get reduced
 - C. to accept electrons
 - D. both b and c

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

34. Greater value of standard reduction potential smaller will be tendency

- A. to form positive ions B. to form negative ions

- C. gain electrons D. all are possible

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

35. Secondary cell is

- A. rechargeable B. non rechargeable
C. electrolytic cell D. Daniel cell

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

36. Lead accumulators are

- A. secondary cell B. primary cell
C. voltaic cell D. both a & c

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

37. Density of H₂SO₄ in lead accumulator is

A. 1.25g/cm³

B. 1.3g/cm³

C. 1.20g/cm³

D. 1.15g/cm³

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

38. Capacity of one lead accumulator cell is

A. 1.5 volts

B. 2 volts

C. 3 volts

D. 1 volts

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

39. In alkaline battery the anode is made up of

A. MnO₂

B. Zn

C. AgO₂

D. cadmium

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

The strength of solution of an element whose electrode potential is to be measured is

- A. 2M
- B. 1N
- C. 1m
- D. 1M

Answer & Explanation

Answer: Option D

Explanation:

41. Apparent charge on atom in molecule is

- A. valency
- B. coordination number
- C. oxidation number
- D. charge number

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

42. Voltaic cell is a irreversible cell A.

- B. reversible cell
- C. alkaline cell
- D. all of the above

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

43. In $K_2Cr_2O_7$ the oxidation number of chromium is

A. 7

B. 6

C. -7

D. -6

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

44. Percentage of sulphuric acid in lead accumulator is

A. 40%

B. 25%

C. 30%

D. 50%

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

45. The reduction potential Zn is

A. 0.76

B. -0.76

C. -0.55

D. 0.55

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

46. The half cells are interconnected through

- | | |
|---------------------|-------------------------|
| A. wire | B. salt bridge |
| C. electric circuit | D. no connection exists |

Answer & Explanation

Answer: Option B

Explanation:

1. I ? A elements are named as alkali metals because

- | | |
|---------------------------|--|
| A. Their oxides are basic | B. Their oxide and hydroxides
are water soluble |
| C. Both a & b | D. They are found in earth |

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

2. The word Alkali means

- | | |
|----------|---------------|
| A. Base | B. Basic salt |
| C. Ashes | D. Spirit |

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

3. Formula of Chile saltpetre is

- | | |
|-------------------------------|---------------------------|
| A. NaNO_3 | B. CaCO_3 |
| C. $\text{Ba}(\text{NO}_3)_2$ | D. NH_4Cl |

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

4. The elements which are very abundant in earth crust are

- | | |
|------------|------------|
| A. Si & Al | B. Ca & Mg |
| C. B & Al | D. All |

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

5. The oxides of beryllium BeO is

- | | |
|---------------|------------|
| A. Acidic | B. Basic |
| C. Amphoteric | D. Neutral |

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

6. Which element is necessary for normal leaf development?

- A. Si Ba
- B.
- C. Mg
- D. Ca

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

7. Li is different from its family members due to

- A. small size
- B. high charge density
- C. less electropositivity
- D. all of the above

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

8. Carbonates of lithium are not stable like that of sodium due to

- A.

Low electronegativity

B. Low electropositivity

C. Low charge density

D. Not known yet

Answer & Explanation

Answer: Option **B**

Explanation:[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

Nitrates of which pair of elements give different products on thermal decomposition?

- A. Na K B. Mg Ca
- C. Li Na D. Li Ca

Answer & Explanation**Answer:** Option C**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

10. Which one of the following is not an alkali metal?

- A. Francium Caesium B.
- C. Rubidium D. Radium

Answer & Explanation**Answer:** Option D**Explanation**

11. Which of the following sulphates is not soluble in water?

- A. Sodium sulphate Potassium sulphate B.
- C. Zinc sulphate D. Barium sulphate

Answer & Explanation**Answer:** Option D

Explanation:[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

12. The element cesium bears resemblance with

- | | |
|----------------------|----------------------|
| A. Ca | B. Cr |
| C. Both of the above | D. None of the above |

Answer & Explanation**Answer:** Option D**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

13. The ore $\text{CaSO}_4 \cdot \text{H}_2\text{O}$ has the general name

- | | |
|------------|---------------------|
| A. Gypsum | B. Dolomite |
| C. Calcite | D. Plaster of Paris |

Answer & Explanation**Answer:** Option A**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

14. Downs cell is used to prepare

- | | |
|---------------------|-----------------------|
| A. Sodium carbonate | B. Sodium bicarbonate |
| C. Sodium metal | D. Sodium hydroxide |

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

Which element is produced at the cathode during the electrolysis of brine in Nelsons cell?

- A. H₂
- B. Na
- C. C?2
- D. O₂

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

16. Ammonia may be prepared by heating ammonium chloride with

- A. Water
- B. NaCl
- C. Aqueous sodium hydroxide
- D. H₂SO₄

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

17. Calcium carbide is prepared by heating lime with coke at

- A. 2500°C
- B. 2600°C

C. 2700°C

D. 2800°C

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

18. Crystals of $\text{Na}_2\text{CO}_3 \cdot 10\text{H}_2\text{O}$ when exposed to air

A. Lose water and remain solid Gain water and remain solid **B.**

C. Gain water and become liquid D. Remains unchanged

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

Which one of the following substances conducts electricity by the movement of ions?

A. Graphite **B.** Copper

C. Molten sodium chloride D. Mercury

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

20. Which one of the following gives white precipitate with aqueous solution of

BaC?2?

- | | |
|------------------------------------|-------------------------------------|
| A. NaHCO ₃ | B. NaNO ₃ |
| C. Na ₂ CO ₃ | D. Na ₂ CrO ₄ |

Answer & Explanation

Answer: Option C

Explanation:

21. Which one of the following carbonate is water insoluble?

- | | |
|--|-----------------------------------|
| A. Na ₂ CO ₃ | B. K ₂ CO ₃ |
| C. (NH ₄) ₂ CO ₃ | D. CaCO ₃ |

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

22. The deliquescence is a property in which a solid

- | | |
|------------------------------------|--|
| Absorbs moisture and remains solid | Absorbs moisture and turns to liquid form |
| Loses water of crystallization | Increases the number of water of crystallization |

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

23. In diaphragm cell hydrogen is discharged by the reduction of

- A. Water
- B. HCl
- C. Na⁺
- D. NaCl

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

In diaphragm cell level of brine in anode compartment is kept slightly higher which prevents

- A. Hydroxide ions to reach anode
- B. Chlorine gas to mix
- C. Cathode to decay
- D. All of the above

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

25. Gypsum is applied to the soil as a source of

- A. Ca and P
- B. S and P
- C. Ca and S
- D. we could not apply

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

Alkali and alkaline earth metals impart colours when heated over burner. It is due to

Smaller electronegativity of alkali metals

Smaller ionic radius of these metals

De-excitation of electrons from higher energy levels to low energy level

Excitation of electrons from low energy levels to higher energy levels

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

Which one of the following alkali metals forms only normal oxide when it reacts with O₂?

A. Lithium

B. Sodium

C. Potassium

D. Rubidium

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

First ionization potential of alkaline earth metal is greater than alkali metals because

- A. They are more reactive B. They have greater atomic radii
- C. They have smaller atomic sizes D. All

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

Which one of the following pairs shown diagonal relationship in the periodic table?

- A. Sodium and Lithium B. Lithium and magnesium
- C. Lithium and beryllium D. Boron and Beryllium

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

30. NaOH is named as caustic soda because

- A. It corrodes the organic tissues B. It is used in soda water
- C. It reacts with chlorine gas D. It reacts with fats to form soap

Answer & Explanation

Answer: Option A

Explanation:

31. Sodium is not observed in +2 oxidation state because of its

- A. high first ionization potential
- B. high second ionization potential
- C. high ionic radius
- D. high electronegativity

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

32. Carnalite has chemical formula

- A. KCl
- B. KCl.MgCl₂.6H₂O
- C. Na₂B₄O₇.10H₂O
- D. CaCO₃.MgCO₃

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

33. Magnesium metal does not burn in the vessel containing

- A. N₂
- B. O₂
- C. N₂ and O₂
- D. Ne

Answer & Explanation

Answer: Option D

Explanation:[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

34. Electrolysis of dilute solution of NaCl results at the anode

- | | |
|-------------|-------------|
| A. sodium | B. hydrogen |
| C. chlorine | D. oxygen |

Answer & Explanation**Answer:** Option D**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

35. Second ionization potential of alkali metals are very high due to

- | | |
|---|-----------------------------|
| A. being s-block elements | B. inert gas configurations |
| C. ns ₁ electronic configuration | D. being metals |

Answer & Explanation**Answer:** Option B**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

36. Which ion will have maximum value of heat of hydration?

- | | |
|---------------------|---------------------|
| A. Al ³⁺ | B. Cs ⁺ |
| C. Ba ⁺ | D. Mg ²⁺ |

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

37. Which one can form complex?

- | | |
|-------|-------|
| A. Na | B. Cr |
| C. Li | D. K |

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

38. Which one is natron?

- | | |
|--|--|
| A. Na_2CO_3 | B. $\text{Na}_2\text{CO}_3 \cdot 10\text{H}_2\text{O}$ |
| C. $\text{Na}_2\text{CO}_3 \cdot \text{H}_2\text{O}$ | D. NaHCO_3 |

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

39. Addition of 2% gypsum in cement

- | | |
|-----------------------------|------------------------|
| A. Triggers hydration | B. Triggers hydrolysis |
| C. Prevents rapid hardening | D. all of the above |

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

40. Which one is least ionic in nature and decompose on heating.

A. LiOH NaOH B.

C. KOH

D. CsOH

Answer & Explanation

Answer: Option A

Explanation:

1. Among the halogens the rare element is

A. Fluorine

B. Chlorine

C. Astatine

D. Iodine

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

2. The colour of chlorine gas is

A. pale yellow

B. greenish yellow

C. reddish brown

D. grayish black

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

3. Vander Waals forces are stronger in

- | | |
|--------------------|--------------------|
| A. F ₂ | B. Cl ₂ |
| C. Br ₂ | D. I ₂ |

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

4. The most powerful oxidizing agent among the halogens is

- | | |
|--------------------|--------------------|
| A. F ₂ | B. Cl ₂ |
| C. Br ₂ | D. I ₂ |

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

5. Which of the following statements is incorrect about fluorine

- | | |
|---|---|
| A. fluorine is restricted to -1 oxidation state | B. fluorine follows octet rule and as well as extended octet rule |
|---|---|

- fluorine has lowest
C. dissociation energy among D. both b and c the
halogens

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

-
6. The halogen which reacts spontaneously with gold (Au) to form Au+3 is
- A. F₂ B. Cl₂
C. Br₂ D. I₂

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

-
7. Which one of the following is the weakest acid in water
- A. HF B. HCl
C. HBr D. HI

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

Answer & Explanation

Answer: Option D

Explanation:

[View](#) [Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

Which of the following represents the correct electronic configuration of VII A group elements in the ground state?

- A.** ns₂p₂ **B.** ns₂p₄
C. ns₂p₅ **D.** ns₂p₆

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

10. The halogen having highest electron affinity is

- | | |
|-------------|-------------|
| A. Fluorine | B. Chlorine |
| C. Bromine | D. Iodine |

Answer & Explanation

Answer: Option B

Explanation:

11. Which is the strongest acid?

- A. HClO
- B. HClO₂
- C. HClO₃
- D. HClO₄

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

12. Bromine can be liberated from KBr solution by the action of

- A. Iodine solution
- B. Chlorine
- C. NaCl
- D. KI

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

13. Bleaching powder is an example of

- A. Normal salt
- B. Double salt
- C. Mixed salt
- D. Complex

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

Consider the following reaction- $2\text{KClO}_3 + \text{H}_2\text{C}_2\text{O}_4 + \text{H}_2\text{SO}_4 \rightarrow \text{K}_2\text{SO}_4 + 2\text{H}_2\text{O} + 2\text{CO}_2 + \text{Oxide}$ Which oxide of chlorine is produced in the above reaction?

- A. Cl_2O
- B. ClO_2
- C. Cl_2O_6
- D. Cl_2O_7

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

Which of the following oxides of iodine is used for quantitative analysis of CO?

- A. I_2O_4
- B. I_4O_2
- C. I_2O_5
- D. All are equally useful

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

Consider the following reaction- $3\text{Cl}_2 + 6\text{NaOH} \rightarrow \text{NaClO}_3 + 5\text{NaCl} + 3\text{H}_2\text{O}$
This reaction is

- A. Displacement reaction
- B. Double displacement reaction
- C. Disproportionation reaction
- D. Reduction reaction

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

17. Which of the halogen has highest electronegativity?

- A. Fluorine Chlorine **B.**
- C. Bromine **D.** Iodine

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

18. Which of the halogen can displace other three elements?

- A. Flourine **B.** Chlorine
- C. Iodine **D.** Bromine

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

19. Which of the following statements is incorrect about halogens?

- A. All are non-metals
- B. All the halogens have electronic configuration ns²p⁵

They have high electron attinity and ionization energy

All the halogens react with noble gases to form their halides

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

20. The chemical formula of sodium hypochlorite is

A. NaClO

B. NaClO₂

C. NaClO₃

D. NaClO₄

Answer & Explanation

Answer: Option A

Explanation:

21. Fluorine can react with

A. Xe

B. Kr

C. Rn

D. All of the above

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

22. Bleaching powder is not used for bleaching

- A. Cotton B. Costly fabrics
C. Linen D. Paper pulp

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

23. Which of the following is the weakest reducing agent?

- A. HF HBr B.
C. HC?
D. HI

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

24. Which of the following is not use of compounds of Fluorine

- A. SbF₃ is used for manufacture of pottery B. Sodium fluoroacetate is a rat poison
C. Cu F₂ is used in ceramic industry D. None of the above

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

25. In which compound of Xenon the oxidation state of Xenon is + 6.

- A. XeF₄ XeOF₄ B.
C. XeOF₂ D. Na₄XeO₆

Answer & Explanation

Answer: Option B

Explanation:

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26. Photographic plates are coated with a thin film of :

- A. AgNO₃ AgI B.
C. AgCl D. AgBr

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

27. The anhydride of HClO₄ is:

- A. Cl₂O B. Cl₂O₆
C. ClO₂ D. Cl₂O₇

Answer & Explanation

Answer: Option D

Explanation:[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

28. Indicate the correct statement:

A. Cl₂ is the strongest oxidizing agent

B. I₂ is a volatile solid

C. Br₂ is more reactive than Cl₂

D. Cl₂ is insoluble in water

Answer & Explanation**Answer:** Option B**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

29. Which one of the following halogens is present in Teflon:

A. I₂

B. Br₂

C. Cl₂

D. F₂

Answer & Explanation**Answer:** Option D**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

30. Which is the paramagnetic oxide of chlorine:

A. Cl₂O₇

B. Cl₂O₆

C. ClO₂

D. all

Answer & Explanation

Answer: Option C

Explanation:

1. Alkanes containing a methyl group on main chain at 2nd carbon are called
 - A. iso-alkane
 - B. normal-alkane
 - C. neo-alkane
 - D. branched-alkane

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

-
2. When one hydrogen atom of alkane is removed then it is called
 - A. alkene
 - B. alkyl
 - C. aldehyde
 - D. saturated hydrocarbon

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

-
3. Alkanes are also known as
saturated hydrocarbon A.
 - B. unsaturated hydrocarbon
 - C. paraffins
 - D. both a & c

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

-
4. Sabatier Senderns reaction involve _____ in presence of Ni
- A. Aalkene & H₂ B. alkene & O₂
C. alkene & N₂ D. alkyne & Cl₂

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

-
5. Hydrogenolysis results in the formation of
- A. alkane B. alkene
C. alkyne D. aldehydes

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

-
6. Clemmensen reduction infoloves the reduction of
- A. ketone B. aldehyde
C. alkane D. all of the above

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

7. Removal of CO₂ is called

- | | |
|-------------------|--------------------|
| A. carboxylation | B. decarboxylation |
| C. esterification | D. hydroxylation |

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

8. Soda lime is a mixture of

- | | |
|-------------------------------|------------------------------|
| A. CaO and KOH | B. CaO and NaOH |
| C. NaOH and Na ₂ O | D. Na ₂ O and KOH |

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

9. Molozonide is unstable and changes into ozonide on

- | | |
|--------------|--------------|
| A. reduction | B. oxidation |
|--------------|--------------|

C. hydrolysis

D. rearrangement

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

10. Dehalogenation of ethyl tetrahalide will give

A. ethene

B. ethyne

C. ethyl halide

D. all of the above are possible

Answer & Explanation

Answer: Option B

Explanation:

11. R-Mg-Br is called

A. Grignard reagent

B. Metallic alkyl halide

C. Both a & b

D. Alkyl

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

12. Upto _____ C atoms alkanes are gases

A. 2

B. 3

C. 4

D. 6

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

13. Which of the following is the most reactive

A. ethane

B. ethyne

C. ethene

D. benzene

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

14. Incomplete oxidation of methane in the limited supply of air forms.

A. CO₂ and H₂O CH₃OH B.

C. CO + H₂ + C

D. CO + H₂O + C

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

15. Introduction of nitro group in a molecule is called

- A. nitration B. halogenation
C. sulphonation D. amination

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

16. Order of ease of halogenation in alkane is

- A. $I_2 > Cl_2 > Br_2 > F_2$ B. $F_2 > Cl_2 > I_2 > Br_2$
C. $F_2 > Cl_2 > Br_2 > I_2$ D. $Cl_2 > F_2 > Br_2 > I_2$

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

17. The gas used in manufacturing of urea fertilizer

- A. C_2H_6 B. C_2H_4
C. C_2H_2 D. CH_4

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

18. General formula of alkyne is

- A. C_nH_{2n+2}
- B. C_nH_{2n-2}
- C. C_nH_{2n}
- D. C_nH_{2n+2}

Answer & Explanation

Answer: Option B

Explanation:

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19. Which of the following will be acidic

- A. propyne
- B. 1-butyne
- C. ethyne
- D. all of the above

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

20. Removal of halogen and hydrogen atom is

- A. halogenation
- B. dehalogenation
- C. dehydrohalogenation
- D. hydrohalogenation

Answer & Explanation

Answer: Option C

Explanation:

21. Alkenes are produced from dehalogenation of

- A. dihalo alkane B. trihalo alkane
- C. vicinal dihalo alkane D. vicinal trihalo alkane

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

22. Reactivity due to pi-electrons is present in

- A. alkane B. alkene
- C. alkyne D. both b & c

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

23. In unsaturated hydro carbons ?-electrons favour

- A. less reactivity B. addition reactions
- C. substitution reactions D. none

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

24. Raney nickel is prepared from _____ by treating with caustic soda

- A. Ni-Cu alloy
- B. Ni-Fe alloy
- C. Ni-Al alloy
- D. Ni-Mg alloy

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

25. Which one is Chloroform

- A. CH_2Cl_2
- B. CH_3Cl
- C. CHCl_3
- D. CCl_4

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

26. Vinylacetylene
combines with HCl to
form

B. benzene

- A. polyacetylene
- B. benzene
- C. chloroprene
- D. divinyl acetylene

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

27. ? ? -dichloroethyl sulphide is commonly known as

- | | |
|-----------------|-----------------|
| A. laughing gas | B. bio-gas |
| C. mustard gas | D. phosgene gas |

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

28. Which is used for artificial ripening of fruit?

- | | |
|-----------|------------|
| A. ethane | B. ethene |
| C. ethyne | D. methane |

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

29. Preparation of vegetable ghee involves

- | | |
|------------------|------------------|
| A. halogenation | B. hydroxylation |
| C. hydrogenation | D. hydration |

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

30. Which is methyl cyanide

- A. CH_3NH_2 B. CH_3NO_2
C. CH_3CN D. $\text{CH}_2 = \text{CH} - \text{CN}$

Answer & Explanation

Answer: Option C

Explanation:

1. Which one of the following is termed as benzyl alcohol?

- A. $\text{C}_6\text{H}_5\text{OH}$ C6H5CH(OH)2 B.
C. $\text{C}_6\text{H}_5\text{CH}_2\text{OH}$ D. $\text{C}_6\text{H}_5\text{COOH}$

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

2. Which one of the following is also known as lactic acid?

- A. 3-Hydroxy propanoic acid 2-Hydroxy propanoic acid B.
C. 2-hydroxy butanoic acid D. 3-hydroxy butanoic acid

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

3. Which one of the following is also known as tartaric acid?

- A. 2,3-dihydroxybutane-1,4-dioic acid B. 2,3-dihydroxybutanedioic acid
C. 2,3-dihydroxybutanoic acid D. 2,2-dihydroxybutanoic acid

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

Water gas heated at 450°C and 200 atm pressure in the presence of ZnO+Cr₂O₃ will produce

- A. methanal B. methanol
C. carbonic acid D. methane

Answer & Explanation

Answer: Option B

Explanation:

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The residue obtained after the crystallization of sugar from concentrated sugar cane juice is called

- A. Mother liquor B. Filterate
C. Extract D. Molasses

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

6. The formula of starch is

- | | |
|--|--|
| A. C ₁₂ H ₂₂ O ₁₁ | B. C ₆ H ₁₀ O ₅ |
| C. (C ₆ H ₁₀ O ₅) _n | D. C ₆ H ₁₂ O ₆ |

Answer & Explanation

Answer: Option C

Explanation:

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The process of fermentation of starch involve many enzymes the sequence of enzymes used are

- | | |
|----------------------------|----------------------------|
| A. Diastase-maltase-zymase | B. Zymase-maltase-diastase |
| C. Maltase-diastase-zymase | D. Diastase-zymase-maltase |

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

8. The rectified spirit contains

- | | |
|----------------|----------------|
| A. 12% alcohol | B. 90% alcohol |
|----------------|----------------|

C. 95% alcohol

D. 100% alcohol

Answer & Explanation

Answer: Option C

Explanation:

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9. K₂Cr₂O₇/H₂SO₄ generate

A. Oxygen

B. Hydrogen

C. Nascent oxygen[O]

D. Nascent hydrogen[H]

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

10. The oxidation of isopropyl alcohol will yield

A. propane

B. Propanol

C. Propanone

D. Propanoic acid

Answer & Explanation

Answer: Option C

Explanation:

Which alcohol will undergo elimination reaction to give alkene in the presence of acidic potassium dichromate?

- A. Primary alcohol
- B. Secondary alcohol
- C. Tertiary alcohol
- D. All of above

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

The distinction test for primary secondary and tertiary alcohol required to react each of them is

Cone. HCl and anhydrous
SOCl₂

Cone. HCl and anhydrous
CaCl₂

Cone. HCl and
anhydrous C. PCl₂

Cone. HCl and anhydrous
ZnCl₂

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

13. Which compound is also known by the name of carbolic acid?

- A. C₂H₂OH
- B. H₂CO₃

C. C₆H₅OH

D. H₃PO₃

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

14. The given dissociation constant (K_a) value 1.3x10⁻¹⁰ is of

A. Alcohol

B. Acetic acid

C. Water

D. Phenol

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

15. Heating phenol with Zn will yield

A. Benzene

B. Benzoic acid

C. Phenoxide

D. Cyclohexane

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

16. When phenol is heated with concentrated nitric acid the product is

- A.** Picric acid **B.** o-nitrophenol
C. 1 3 5 -trinitro benzene **D.** p-nitrophenol

Answer & Explanation

Answer: Option A

Explanation:

[View](#) [Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

Treating phenol with formaldehyde in the presence of dilute base forms Bakelite. The process involved is

- A.** oxidation **B.** elimination
C. condensation polymerization **D.** additional polymerization

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

18. Which compound shows hydrogen bonding?

- | | |
|-------------------------------------|-------------------------------------|
| A. C ₂ H ₆ | B. C ₂ H ₅ Cl |
| C. CH ₃ OCH ₃ | D. C ₂ H ₅ OH |

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

19. Ethanol can be converted into ethanoic acid by

- A. Hydrogenation
- B. Hydration
- C. Oxidation
- D. Fermentation

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

20. Methyl alcohol is not used

- A. As a solvent
- B. As an antifreezing agent
- C. As a substitute for petrol
- D. For denaturing of ethyl alcohol

Answer & Explanation

Answer: Option C

Explanation:

21. Methanol can be obtained from

- A. water gas
- B. destructive distillation of wood
- C. methane
- D. all

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

22. An alcohol which can be prepared by fermentation is

- | | |
|---|-------------------------------------|
| A. CH ₃ OH | B. C ₃ H ₇ OH |
| C. CH ₃ - CH ₂ - OH | D. C ₆ H ₅ OH |

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

23. Absolute alcohol is obtained when rectified spirit is treated with

- | | |
|------------------------|----------------------|
| A. Ca(OH) ₂ | B. CaCO ₃ |
| C. CaCl ₂ | D. CaO |

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

24. When alcohol reacts with phosphorous halides it give

- | | |
|------------------|----------------|
| A. alkyl halides | B. alkyl amine |
| C. alkanes | D. alkynes |

Answer & Explanation

Answer: Option A

Explanation:[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

25. Phenol was isolated by Runge from

- | | |
|------------------|------------------|
| A. vegetable oil | B. coaltar |
| C. wood | D. none of these |

Answer & Explanation**Answer:** Option B**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

26. Which one of the following compound does not have - OH group

- | | |
|--------------------|------------------|
| A. ethylene glycol | B. glycerol |
| C. picric acid | D. ethyl acetate |

Answer & Explanation**Answer:** Option D**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

27. The hydrogenation of phenol in the presence of Ni and heat gives

- | | |
|----------------|-----------------|
| A. cyclohexane | B. n - hexane |
| C. 1 - hexanol | D. cyclohexanol |

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

28. Ethers show functional group isomerism with

- | | |
|--------------|--------------------|
| A. aldehydes | B. ketones |
| C. alcohols | D. carboxylic acid |

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

29. Ethanol and methanol can be distinguished by a

- | | |
|--------------------|-----------------|
| A. Iodoform test | B. Lucas test |
| C. Benedict's test | D. Tollens test |

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

30. Which one of the following alcohol has greater boiling point

- | | |
|-------------|--------------------|
| A. ethanol | B. ethylene glycol |
| C. glycerol | D. methanol |

Answer & Explanation

Answer: Option C

Explanation:

Polymers described as large molecules built up from small repeating units called

- A. Biopolymers
- B. Dimers
- C. Monomers
- D. metamers

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

2. A polymer in which three different monomers combine called.

- A. Copolymer Terpolymer B.
- C. Homopolymer
- D. Biopolymer

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

3. The important monomers of acrylic resins is

- A. Vinyl chloride
- B. Styrene
- C. Methylmethacrylate
- D. Hexamethylenediamine

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

4. Polyester resins are the product of the reaction of

- | | |
|---|---|
| A. Dihydric alcohol and dicarboxylic aromatic acids | B. Polyamines with aliphatic dicarboxylic acids |
| Styrene in the presence of catalyst | Epichlorohydrin with diphenylol propane |

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

5. Industrial materials and thermal power stations are coated with

- | | |
|---------------------|-----------------------|
| A. Polyester resins | B. Epoxy paints |
| C. Polyamide resins | D. Polyvinyl chloride |

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

6. Carbohydrates are polyhydroxy compounds of

- A. Glucose
- B. Glyceraldehydes
- C. Oligosaccharides
- D. Aldehydes and ketones

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

7. Common example of carbohydrates are

- A. Cellulose glycogen galactose
- B. Glyceraldehydes glucose peptone
- C. Glycerol phospho lipids collagen
- D. Legumin amylopectin albumin

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

8. Nylon is obtained by heating

- A. Acrylic acid
- B. Epichlorohydrin
- C. Vinyl chloride
- D. Adipic acid with hexamethylene diamine

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

9. Hydrolysis of an oligosaccharide in the presence of acid yields
- A. one monosaccharide unit
 - B. No monosaccharide unit
 - C. 2-9 monosaccharide unit
 - D. many monosaccharide

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

10. Amylose is
- A. Soluble in water
 - B. Insoluble in water
 - C. Soluble in alcohol
 - D. Partially soluble in alcohol

Answer & Explanation

Answer: Option A

Explanation:

11. The process of polymerization was classified by
- A. Strecker
 - B. Sabatier
 - C. Runge
 - D. W. H. Carothers

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

12. All proteins yield _____ upon complete hydrolysis.

- A. Nitrogen Amino acids **B.**
- C. Carbon and hydrogen
- D. Sulphur

Answer & Explanation

Answer: Option **B**

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

13. Protein attached to some non protein group is called

- A. Derived protein
- B. Sample protein
- C. Proteoses
- D. Conjugated protein**

Answer & Explanation

Answer: Option **D**

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

14. Regular coiling or zigzagging of polypeptide through hydrogen bonding is its.

- A. Quantum structure Secondary structure **B.**
- C. Tertiary structure
- D. Primary structure

Answer & Explanation

Answer: Option **B**

Explanation:[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

15. Orgosterol is

- | | |
|-------------------|---------------------|
| A. Orgocalciferol | B. Vitamin D2 |
| C. Sterol | D. all of the above |

Answer & Explanation**Answer:** Option C**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

Lipids are soluble in A.

- | | |
|--------------------|--|
| Organic solvents | Organic and inorganic solvents |
| Inorganic solvents | Solubility has nothing to do with lipids |

Answer & Explanation**Answer:** Option A**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

17. Animal fats are located particularly in

- | | |
|-----------------------|--------------------|
| A. Skeleton tissues | B. Cardiac tissues |
| C. Connective tissues | D. Adipose tissues |

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

18. Animal and vegetable fats are

- | | |
|---|---|
| A. Glycerols | B. Fatty acids |
| C. Triesters formed from glycerol and fatty acids | D. Tetraesters formed from glycerol and fatty acids |

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

19. Lipopolysaccharides are examples of

- | | |
|--------------------|-------------------------|
| A. Derived lipids | B. Simple lipids |
| C. Compound lipids | D. Not a type of lipids |

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

20. Triglycerides are easily hydrolyzed by enzymes called

- | | |
|-----------|------------|
| A. Lyases | B. Ligases |
|-----------|------------|

C. Lipases

D. Hydrolases

Answer & Explanation

Answer: Option C

Explanation:

21. Saponification is the hydrolysis of fat or oil with an

A. Acid

B. Alkali

C. Enzyme and alkali

D. Enzyme and acid

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

22. Enzymes that catalyze the transfer of groups within molecule are called

A. Isomerases

B. Lyases

C. Transferases

D. Ligases

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

Enzymes from the same organism which catalyze same reaction but are chemically and physically distinct from each other are called

A. Oxidoreductases

B. Hydrolases

C. Isoenzymes

D. Isomerases

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

24. Rate of enzymatic reaction is directly proportional to the concentration of

A. Enzyme

B. Substrate

C. Enzyme and substrate

D. Enzyme and product

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

25. Enzyme proved useful in cancer treatment is

A. Lactic dehydrogenase

B. Alkaline phosphatase

C. L-asparaginase

D. Cellulase

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

26. Purines and pyrimidines are

- A. Enzymes B. Nitrogenous bases
C. Carbohydrates D. Lipids

Answer & Explanation

Answer: Option B

Explanation:

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27. Nucleic acids were first demonstrated in

- A. Pus cells B. Sperm heads
C. 1872 D. all of the above

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

28. Nucleic acids direct the synthesis of

- A. Glucose B. Triglycerides
C. Proteins D. All

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

29. The mechanism by which the genetic information can be duplicated is called

- | | |
|----------------|------------------|
| A. Duplication | B. Transcription |
| C. Replication | D. Mutation |

Answer & Explanation

Answer: Option C

Explanation:

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30. The nitrogenous base different in RNA as compared to DNA is

- | | |
|-------------|------------|
| A. Cytosine | B. Thymine |
| C. Adenine | D. Guanine |

Answer & Explanation

Answer: Option B

Explanation:

1. All the following variables are used to describe gases except

- | | |
|-------------|------------|
| A. pressure | B. volume |
| C. moles | D. density |

Answer & Explanation

Answer: Option D

Explanation:

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2. In the van der Waals equation $(P + n^2a / v^2)(v - nb) = nRT$ which of the

following statement is not true?

n₂a/v correct for the intermolecular forces.

at high densities the equation reduces to the ideal gas law

nb correct for the volume occupied by gas molecules.

all of the above statements are correct.

Answer & Explanation

Answer: Option C

Explanation:

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3. Methyl alcohol is not used as

A. a solvent

B. an anti freezing agent

C. a substitute for petrol

D. for denaturing of ethyl alcohol

Answer & Explanation

Answer: Option C

Explanation:

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The inhaled breath of diabetics patient contain acetone. A medical student wishes to test for diabetes by asking patient to bubble their breath through a reagent.

A. alkaline aqueous iodine

B. aqueous bromine

C. Fehling solution

D. aqueous NaOH

Answer & Explanation

Answer: Option A

Explanation:

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Oxygen (molecular weight = 32) diffuses at a rate of 10cm³/min under the same conditions of temperature and pressure how fast will hydrogen (molecular weight = 2) diffuse?

- A. 20cm³/min
- B. 40cm³/min
- C. 160cm³/min
- D. 2.5cm³/min

Answer & Explanation

Answer: Option B

Explanation:

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When aqueous bromine is added to aqueous phenol a creamy white ppt is obtained. What does this reaction show?

phenol is unsaturated

2-bromophenol is insoluble in water

a hydroxy group makes the benzene ring more susceptible to electrophilic attack

acid-base reaction

Answer & Explanation

Answer: Option C

Explanation:

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As a substance moves from a solid to a liquid all of the following changes occur except:

- | | |
|--|--|
| <p>A. molecules become more disordered.</p> <p>C. intermolecular forces become weaker.</p> | <p>B. K.E of the molecules decreases</p> <p>D. molecules move more frequently.</p> |
|--|--|

Answer & Explanation

Answer: Option **B**

Explanation:

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If a graph is plotted between temperature on x-axis and volume on y-axis for 1 mole of gas then we get straight line which cuts the temperature axis at

- | | |
|-----------------------------------|---------------------------------------|
| <p>A. 0°C</p> <p>C. -273.16 K</p> | <p>B. 273.16K</p> <p>D. -273.16°C</p> |
|-----------------------------------|---------------------------------------|

Answer & Explanation

Answer: Option **D**

Explanation:

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9. The rectified spirit is

- | | |
|---|--|
| <p>A. 12% alcohol</p> <p>C. 95% alcohol</p> | <p>B. 90% alcohol</p> <p>D. 100% alcohol</p> |
|---|--|

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

10. Benzene is a good solvent for

- | | |
|-----------|------------------|
| A. fats | B. resins |
| C. iodine | D. all the above |

Answer & Explanation

Answer: Option D

Explanation:

11. Which of the following solids show anisotropy

- | | |
|------------|----------------------|
| A. Plastic | B. Glass |
| C. Rubber | D. None of the above |

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

12. Which of the following element doesnot show allotropy

- | | |
|-------------|------------|
| A. Carbon | B. Arsenic |
| C. Nitrogen | D. Sulphur |

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

13. Butyl chloride gives possible isomers.

A. 2

B. 3

C. 4

D. 5

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

14. Purines and pyrimidines are

A. Enzymes

B. Nitrogenous bases

C. Carbohydrates

D. Lipids

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

15. Metallic crystals are soluble in

A. Polar solvent

B. Non polar solvent

C. Fused metal

D. None

Answer & Explanation

Answer: Option C

Explanation:

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16. All the transition elements show

- A. Similar physical properties
- B. Similar chemical properties
- C. Both a and b
- D. None

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

17. Paramagnetic behaviour of substance is measured by a balance called

- A. Analytical balance
- B. Guoys balance
- C. Electrical balance
- D. Single beam balance

Answer & Explanation

Answer: Option B

Explanation:

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18. In solids the temperature is the measure of

- A. Average kinetic energy of molecules
- B. Vibrational kinetic energy

- C. Translational kinetic energy D. None of the above

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

Which of the following properties prove that cathode rays are material in nature

- A. they cast shadow B. they possess momentum
C. they are negatively charged D. all of the above

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

Fruit juices and fizzy drinks such as lemonade are often sold in aluminium cans. What is the most important reason aluminium is a suitable metal?

aluminium can be recycled

aluminium has very low density

aluminium is the most abundant metal in the earth crust

aluminium is resistant to corrosion by organic acids.

Answer & Explanation

Answer: Option D

Explanation:

31. The hardest of the following solids is

- | | |
|-------------|--------------|
| A. sodium | B. diamond |
| C. graphite | D. magnesium |

Answer & Explanation

Answer: Option B

Explanation:

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32. Which of the following elements has greater 1st ionization energy

- | | |
|------|------|
| A. B | B. C |
| C. N | D. O |

Answer & Explanation

Answer: Option C

Explanation:

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33. Which of the solid does not contain covalent bond

- | | |
|------------|-------------|
| A. copper | B. ice |
| C. diamond | D. graphite |

Answer & Explanation

Answer: Option A

Explanation:

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34. Which of the following molecule is polar

- A. CCl₄ B. CO₂
C. BF₃ D. none of the above

Answer & Explanation

Answer: Option D

Explanation:

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The balanced chemical equation for the reaction which occurs when Be is added to water is

- A. Be+2H₂O?Be(OH)₂+H₂ B. Be+H₂O?Be(OH)₂+H₂
C. Be+H₂O?[Be(OH)₄]⁻+2+H₂ D. no reaction

Answer & Explanation

Answer: Option D

Explanation:

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36. The number of bonds in nitrogen molecule is

- A. one ? one ? bond B. two ? one ? bond
C. one ? and two ? bond D. three ? bonds only

Answer & Explanation

Answer: Option C

Explanation:

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37. Which of the following theories is superior to others

- | | |
|----------|----------------------|
| A. VSEPR | B. VBT |
| C. MOT | D. none of the above |

Answer & Explanation

Answer: Option C

Explanation:

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38. Which of the following relation is not possible

- | | |
|------------------------------|------------------------------|
| A. $?H = ?H_1 + ?H_2 = ?H_3$ | B. $?E = E_1 + E_2 = E_3$ |
| C. $q = q_1 + q_2 = q_3$ | D. $??H \text{ (cycle)} = 0$ |

Answer & Explanation

Answer: Option B

Explanation:

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39. Which of the following is not characteristics of reversible reaction

- | | |
|--|--|
| A. whole amount of reactant does not change into product | B. chemical equilibrium is established |
| | rate of forward reaction |
| C. a catalyst changes the direction of reaction | D. decreases as reaction proceeds |

Answer & Explanation

Answer: Option C

Explanation:

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Which of the following points are important in connection with equilibrium constant.

K_c is constant at given temperature

K_c is unaffected by change in concentration of reactants or products

K_c indicates the extent of reaction but not about the rate of reaction.

All of the above

Answer & Explanation

Answer: Option D

Explanation:

41. A solution has pH = 0 its H⁺ ion concentration is

A. 1 x 10⁻¹

B. 1 x 10⁻¹⁴

C. 1 x 10⁻⁷

D. 1

Answer & Explanation

Answer: Option D

Explanation:

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42. Solubility of CaF₂ is 2.0x10⁻⁴ gdm⁻³ then K_{sp} of CaF₂ is

A. 4.0×10^{-8}

B. 3.2×10^{-11}

C. 2.0×10^{-8}

D. 4.0×10^{-12}

Answer & Explanation

Answer: Option B

Explanation:

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43. 1 mole of electron has mass in microgram

A. 1.008×10^{-3}

B. 5.5×10^{-4}

C. 1.84×10^{-4}

D. 1.673×10^{-3}

Answer & Explanation

Answer: Option B

Explanation:

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44. The unit of molality is

A. moles dm⁻³

B. moles kg⁻¹

C. gram dm⁻³

D. none

Answer & Explanation

Answer: Option B

Explanation:

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45. The use of antifreeze in the automobile radiator is an important application of

- | | |
|--------------------------|-----------------------|
| A. constitutive property | B. additive property |
| C. colligative property | D. intrinsic property |

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

46. A solution can be both

- | | |
|---|-------------------------|
| A. dilute and concentrated | B. dilute and saturated |
| saturated and unsaturated | |
| D. saturated and super saturated | |

Answer & Explanation

Answer: Option A

Explanation:

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47. At which electrode the reduction of the solution is occurring in Al-Ag cell

- | | |
|---------|------------|
| A. A? | B. Ag |
| C. Both | D. Neither |

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

Consider the following redox reaction. Zn+dil HNO₃? Zn (NO₃)₂ + N₂O + H₂O The coefficient number of HNO₃ in the equation is

A. 6

B. 8

C. 10

D. 4

Answer & Explanation

Answer: Option C

Explanation:

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In which of the following type of reactions energy of reactant is greater than energy of product

A. endothermic

B. exothermic

C. unpredictable

D. same

Answer & Explanation

Answer: Option B

Explanation:

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50. Which of the following elements react with steam to produce H₂ gas.

A. Pd

B. Ni

C. Sn

D. All of the above

Answer & Explanation

Answer: Option D

Explanation:

Which of following metals can be displaced by all other metals from its solution

A. Ag

B. A?

C. Au

D. Cu

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

52. The unit of the rate constant (k) is same as that of rate of reaction

A. First order reaction

B. Second order reaction

C. Zero order reaction

D. Third order reaction

Answer & Explanation

Answer: Option C

Explanation:

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53. Which of the elements do not fall in stair case of the modern periodic table

A. Si

B. As

C. Te

D. None of the above

Answer & Explanation

Answer: Option D

Explanation:[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

54. Acid present in acid rain may be

- | | |
|-----------------------------------|----------------------|
| A. H ₂ SO ₄ | B. HNO ₃ |
| C. both a and b | D. none of the above |

Answer & Explanation**Answer:** Option C**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

55. Across short period the melting and boiling point increase upto

- | | |
|---------------|--------------|
| A. IIIA group | B. IVA group |
| C. VA group | D. VIA group |

Answer & Explanation**Answer:** Option B**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

Which of the following elements conduct electricity and also melts below 100°C

- | | |
|--------------|------------|
| A. Aluminium | B. Sodium |
| C. Carbon | D. Sulphur |

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

57. Which of the following is the formula of chrome red.

- A. $\text{Pb}_3\text{O}_4 \cdot 2\text{Pb CO}_3 - \text{Pb}(\text{OH})_2$ B.
- C. $\text{Pb Cr O}_4 - \text{Pb}(\text{OH})_2$ D. Pb_2O

Answer & Explanation

Answer: Option A

Explanation:

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The compound which is added to leaded gasoline to save engine from lead oxide and lead sulphate deposits is

- A. Ethylene iodide B. Ethylene bromide
- C. Ethylene chloride D. Ethylene fluoride

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

59. Regular coiling or zigzagging of polypeptide through hydrogen bonding is its

- A. Quantum structure B. Secondary structure

C. Tertiary structure

D. Primary structure

Answer & Explanation

Answer: Option B

Explanation:

Which of the following technique is used for the separation of insoluble particles from liquids?

A. Filtration

B. Crystallization

C. Solvent extraction

D. Chromatography

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

2. Which of the following way in used for classification of chromatography?

A. Shape Phase B.

C. Mechanism

D. All

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

3. Fluted filter paper is used to

A. Filter hot solution

B. Avoid premature

crystallization

- C. Increase the rate of filtration D. Decrease the area

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

-
4. Safe and the most reliable method of drying crystals is through
- | | |
|-----------------|-----------------------|
| A. Filter paper | B. Vacuum desiccators |
| C. Oven | D. None of these |

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

A substance having very high vapour pressure at its melting point on heating will show

- | | |
|------------------|-----------------|
| A. Melting | B. Sublimation |
| C. Decomposition | D. Condensation |

Answer & Explanation

Answer: Option B

Explanation:

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6. A process controlled by Distributive law is

- A. Crystallization
- B. Sublimation
- C. Solvent extraction
- D. Filtration

Answer & Explanation

Answer: Option C

Explanation:

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A technique of partition chromatography in which the solvent is in a pool at the bottom of container

- A. Adsorption chromatography
- B. Ascending chromatography
- C. Radial chromatography
- D. Descending chromatography

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

8. Different components of a mixture have different Rf values due to

- A. Polar solvent used
- B. Combination of solvents used
- C. Their different distribution
- D. Distributive law coefficients in the solvent

Answer & Explanation

Answer: Option C

Explanation:[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

Branch of chemistry that deals with the complete qualitative and quantitative analysis of a substance is

- | | |
|-------------------------|-----------------------|
| A. Stoichio chemistry | B. Physical chemistry |
| C. Analytical chemistry | D. Quantum chemistry |

Answer & Explanation**Answer:** Option C**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

10. Identification of the components of a sample is

- | | |
|--------------------------|-------------------------|
| A. Quantitative analysis | B. Qualitative analysis |
| C. Stoichiometry | D. Physical chemistry |

Answer & Explanation**Answer:** Option B**Explanation:**

11. Estimation of amounts of different components in a sample is

- | | |
|--------------------------|-------------------------|
| A. Quantitative analysis | B. Qualitative analysis |
| C. Stochiometry | D. Physical chemistry |

Answer & Explanation**Answer:** Option A

Explanation:[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

12. The technique used to separate components of mixture in solid phase.

- A. Crystallization Filtration **B.**
- C. Sublimation
- D. Solvent extraction

Answer & Explanation**Answer:** Option C**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

13. The solid which is left over the filter paper as a result of filtration

- A. Insoluble particles
- B.** residue
- C. crystals
- D. mud

Answer & Explanation**Answer:** Option B**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

14. Size of filter paper is selected according to the amount of

- A. solution
- B.** amount of insoluble solute
- C. amount of soluble solute
- D. Amount of solvent

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

15. Gooch Crucibles are made up of

- | | |
|--------------|----------|
| A. plastic | B. fibre |
| C. porcelain | D. steel |

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

16. Rate of filtration can be increased by applying gentle suction

- | | |
|----------------------|---------------------|
| A. Gooch crucible | B. Filter paper |
| C. Sintered crucible | D. All of the above |

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

17. Sintered crucible is made up of

- | | |
|--------------|----------|
| A. Plastic | B. glass |
| C. porcetain | D. fiber |

Answer & Explanation

Answer: Option **B**

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

18. The tip of funnel should touch the wall of the breaker in order to avoid

- A. Inconsistent flow of filtration
- B. splashing
- C. premature crystallization
- D. all of above

Answer & Explanation

Answer: Option **B**

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

19. Separation of a solid from its hot saturated solution by cooling is called

- A. vapourization
- B. solvent extraction
- C. filtration
- D. crystallization

Answer & Explanation

Answer: Option **D**

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

20. In crystallization if the solvent is inflammable then direct heating is

- A. needed
- B. avoided

C. depends on temperature

D. crystallization does not involve heating

Answer & Explanation

Answer: Option B

Explanation:

21. Which of the following technique is simple and efficient to purify a substance

A. Filtration

B. Sublimation

C. Crystallization

D. Solvent extraction

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

In solvent extraction ether is used to separate products of organic synthesis from

A. water

B. iodine

C. hydrochloric acid

D. gases

Answer & Explanation

Answer: Option A

Explanation:

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23. 95% ethanol is called

- A. methylated spirit B. wood spirit
C. rectified spirit D. absolute alcohol

Answer & Explanation

Answer: Option C

Explanation:

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24. The use of CaCl_2 and PCl_5 in the process of crystallization is as a

- A. oxidizing agent B. reducing agent
C. drying agent D. colouring agent

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

25. Ratio of the amount of solute in organic and aqueous solvent is

- A. Retardation factor B. Distribution co-efficient
C. Distribution in aqueous
D. All statements are wrong

Answer & Explanation

Answer: Option B

Explanation:

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26. Without suction pump filtration is

- | | |
|------------------|---------------------|
| A. Fast process | B. Slow process |
| C. Rapid process | D. All are possible |

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

27. Animal charcoal adsorbs the coloured

- | | |
|---------------|---------------|
| A. impurities | B. crystals |
| C. solvents | D. both a & b |

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

28. Direct conversion of solids into vapours is called

- | | |
|-----------------------|-----------------|
| A. Solvent extraction | B. sublimation |
| C. crystallization | D. vaporization |

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

29. Crystallization does not involve

- A. heating
- B. sublimation
- C. cooling
- D. vaporization

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

30. In CCl₄ I₂ shows

- A. Red colour
- B. Purple colour
- C. Blue colour
- D. Yellow colour

Answer & Explanation

Answer: Option B

Explanation:

31. Repeated extraction using small portions of solvents is more

- A. Reliable
- B. Efficient
- C. Rapid
- D. slow

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

32. Silica gel and alumina are used as

- A. Mobile phase
- B. Stationary phase
- C. Mixed phase
- D. Single phase

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

33. Shaking two immiscible liquids increases

- A. Length of contact
- B. Volume of contact
- C. Area of contact
- D. all of above

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

34. The solvent or mixture of solvents used for separation of compounds is called

- A. Stationary phase
- B. Mobile phase
- C. Dynamic phase
- D. Static phase

Answer & Explanation

Answer: Option B

Explanation:[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

35. Which is not a sublime material

- | | |
|----------------------|-----------------|
| A. Iodine | B. Benzoic acid |
| C. Ammonium chloride | D. Potash alum |

Answer & Explanation**Answer:** Option D**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

36. Sintered glass is a porous material used for

- | | |
|---------------|----------------|
| A. absorption | B. adsorption |
| C. filtration | D. sublimation |

Answer & Explanation**Answer:** Option C**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

37. Selection of filter paper depends on size of particles to be

- | | |
|----------------|-------------|
| A. filtered | B. dried |
| C. decolorized | D. decanted |

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

38. The solution remaining after the formation of crystals is called

- | | |
|------------------|--------------------|
| A. Mother liquor | B. Dilute solution |
| C. Residue | D. both a & b |

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

39. Which is not related pair of term used in analytical techniques

- | | |
|----------------------|------------------------------------|
| A. Filtrate residue | B. Sublimate sublimation |
| C. Drying desiccator | D. Separating funnel mother liquor |

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

40. The major steps involved in complete quantitative analysis are

- | | |
|------|------|
| A. 2 | B. 3 |
|------|------|

C. 4

D. 5

Answer & Explanation

Answer: Option C

Explanation:

All of the following were theorized by Bohr in his description of the atom except

Angular momentum of electrons in multiples of $h/2\pi$

Electrons revolve in discrete circular orbits

Energy of each electron is directly proportional to n^2

Electrons radiate energy continuously in a given orbit.

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

-
2. The letters s p d and f are used to represent which quantum numbers

A. Principal

B. Azimuthal

C. Magnetic

D. Spin

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

-
3. The magnetic quantum number (QN) has its values determined directly by the

value of

- A. Principal (QN)
- B. Azimuthal (QN)
- C. Spin (QN)
- D. Both a & b

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

The atomic number of an element having maximum number of unpaired electrons in p-subshell is

- A. 7
- B. 10
- C. 12
- D. 16

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

5. The maximum number of electron in a sub shell with $n = 3$ is

- A. 6
- B. 10
- C. 14
- D. 18

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

-
6. Radius of the third shell of H-atom is
- A. 5.761 Å? B. 4.761 Å?
- C. 6.671 Å? D. 3.716 Å?

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

-
7. When an atom absorbs energy the lines in the spectrum will appear which are
- A. Brighter B. Darker
- C. Colourless D. Hard to locate

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

-
8. Colour of fluorescene produced by cathode rays depends upon
- A. Temperature B. Pressure
- C. Volume D. Composition of glass

Answer & Explanation

Answer: Option D

Explanation:[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

9. Which one is not true about cathode rays?

- | | |
|------------------------------|------------------|
| A. 9.11×10^{-31} Kg | B. Cast shadow |
| C. Heat up the platinum foil | D. Cannot ionize |

Answer & Explanation**Answer:** Option D**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

Positive rays are produced

- | | |
|---|---|
| A. By burning of gas | By cooling of the gas |
| By the bombardment of
cathode rays on
gas molecules | From anode like cathode rays
produced from cathode |

Answer & Explanation**Answer:** Option C**Explanation:**

11. A fast moving neutron can eject from nitrogen

- | | |
|-------------|--------------|
| A. ? = rays | B. ? = rays |
| C. ? = rays | D. electrons |

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

12. Rutherford's planet like structure was defective and unsatisfactory because

- A. Moving e- accelerate towards the nucleus
- B. Continuous spectrum
- C. behavior of electron remain unexplained
- D. all

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

The relationship between energy of a photon of light and its frequency is given by

- A. de-Broglie dual nature of
- B. Bohr's model
- C. Planck's Quantum theory
- D. Rutherford's atomic model

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

14. Splitting of spectral lines when atom is subjected to magnetic field is called

- A. Zeemans effect
- B. Starks effect
- C. Photo electric effect
- D. Compton effect

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

The velocity of the photon

- A. Is independent of wavelength Depends upon source
- Depends upon its frequency Equals to the square of amplitude

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

16. Which one of the following explain the shape of orbitals

- A. Principal quantum number
- B. Azimuthal quantum number
- C. Magnetic quantum number
- D. Spin quantum number

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

17. Atom cannot be divided into simple units theorized by

- | | |
|---------------|----------------|
| A. Rutherford | B. Dalton |
| C. Bohr | D. Schrodinger |

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

18. Pressure in gas discharge tube was kept

- | | |
|-------------|--------------|
| A. 10 torr | B. 1 torr |
| C. 0.1 torr | D. 0.01 torr |

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

The number of fundamental particles in an atom of the lightest isotope carbon are

- | | |
|-------|-------|
| A. 6 | B. 12 |
| C. 18 | D. 20 |

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

20. Angle of deflection was studied by

- A. Hitorff
- B. Stoney
- C. William Crookes
- D. J.Perrin

Answer & Explanation

Answer: Option D

Explanation:

21. Increase in atomic number is observed during

- A. Alpha emission
- B. Beta emission
- C. Both a & b
- D. Radioactivity

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

22. Positive rays give flash on

- A. AgNO₃ plate
- B. AgCl plate
- C. ZnO
- D. ZnS

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

23. Free neutron changes into proton with the emission of

- | | |
|---------------|-------------|
| A. Neutrino | B. Electron |
| C. Both a & b | D. Meson |

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

24. The value of e/m ratio of electron is

- | | |
|----------------------------------|---------------------------------|
| A. 6.02×10^{23} C/kg | B. 1.7588×10^{20} C/kg |
| C. 9.1095×10^{-31} C/kg | D. 1.7588×10^{11} C/kg |

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

25. Charge of electron was measured by

- | | |
|----------------|-------------|
| A. J.J Thomson | B. Millikan |
| C. Rutherford | D. Perrin |

Answer & Explanation

Answer: Option B

Explanation:[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

26. Rutherford bombarded _____ particles in discovery of nucleus

- | | |
|---------------|---------------|
| A. Gamma-rays | B. Alpha-rays |
| C. Beta-rays | D. X-rays |

Answer & Explanation**Answer:** Option B**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

27. Planks theory says energy is emitted

- | | |
|-------------------------|-------------------------|
| A. In continuous manner | B. Discontinuous manner |
| C. Simultaneously | D. In the form of heat |

Answer & Explanation**Answer:** Option B**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

28. Angular momentum of an electron

- | | |
|---------------|--------------|
| A. $n^2 h/2?$ | B. $nk^2/2?$ |
| C. $nh/4?$ | D. $nh/2?$ |

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

29. 2nd orbit is _____ away from nucleus of H-atom as compared to 1st orbit is

- | | |
|------------|------------|
| A. 2-times | B. 3-times |
| C. 4-times | D. 6 times |

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

The maximum number of orbitals present in a subshell that is represented by Azimuthal quantum number = 3 will be

- | | |
|------|------|
| A. 1 | B. 3 |
| C. 5 | D. 7 |

Answer & Explanation

Answer: Option D

Explanation:

31. The correct electronic configuration of Cu is

- | | |
|----------------|---------------|
| A. [Ar]4s1 | B. [Ar]4s2 |
| C. [Ar]3d104s1 | D. [Ar]3d94s2 |

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

32. Pfund series are produced in the spectrum of hydrogen atom

when electrons jump down to
2nd- orbit

when electrons jump down to 3rd-
orbit

when electrons jump down to
4th- orbit

when electrons jump down to 5th-
orbit

Answer & Explanation

Answer: Option D

Explanation:

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33. Atomic orbits having same energy are called

- A. Degenerate orbitals
- B. Bonding molecular orbitals
- C. Anti bonding molecular
- D. Half filled orbitals**

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

34. Sommerfeld's modification in Bohr's model is

- A. Orbit is cylindrical B. Orbit is elliptical
C. Orbit is longitudinal D. Orbit is asymmetrical

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

35. When electrons collide with heavy metals than _____ are produced.

- A. Beta-rays Alpha-rays B.
C. X-rays D. Gamma-rays

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

36. Plancks equation is

- A. $E = mc^2$ B. $mvr = nh/2\pi$
C. $E = h\nu$ D. $\nu = h/mv$

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

37. Atom with higher atomic number produces X-rays of

- A. Shorter wavelength
- B. Larger wavelength
- C. X-ray not produced
- D. All are possible

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

38. Wavelength of electron was verified by

- A. Moseley
- B. Davisson and Germer
- C. Einstein
- D. Roentgen

Answer & Explanation

Answer: Option B

Explanation:

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Space around nucleus where finding probability of electrons is maximum is called

- A. Orbital
- B. Orbit is elliptical
- C. subshell
- D. Electron cloud

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

40. Quantum number which tells the energy of electron is

- | | |
|------|------|
| A. n | B. l |
| C. m | D. s |

Answer & Explanation

Answer: Option A

Explanation:

41. Electronic configuration of K is

- | | |
|------------|------------|
| A. [Ar]4s2 | B. [Ar]4s1 |
| C. [Kr]5s1 | D. [He]2s1 |

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

42. _____ can expel protons from paraffins

- | | |
|-------------|-----------------------------------|
| A. Electron | B. Positron |
| Neutron | None of above has such capability |

Answer & Explanation

Answer: Option C

Explanation:

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43. Milikan used _____ in his atomizer

- | | |
|---------|----------|
| A. Milk | B. Honey |
| C. Oil | D. Water |

Answer & Explanation

Answer: Option C

Explanation:

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44. Centrifugal forces are balanced in atom by

- | | |
|----------------------|--------------------|
| A. Attractive forces | B. Repulsive force |
| C. Electrons | D. Neutrons |

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

45. Spectrum is produced due to

- | | |
|--------------------------|---------------------------------|
| A. Different wavelength | B. Different colours |
| C. Different intensities | D. all have little contribution |

Answer & Explanation

Answer: Option A

Explanation:[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

46. When 6d orbital is complete the entering electron goes into

- | | |
|-------|-------|
| A. 7f | B. 7s |
| C. 7p | D. 7d |

Answer & Explanation**Answer:** Option C**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

47. When electron jump into orbit 1 then series obtained is

- | | |
|----------|-------------|
| A. Lyman | B. Paschen |
| C. Pfund | D. Brackett |

Answer & Explanation**Answer:** Option A**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

48. Neutrons moving with an energy of 1.2 MeV are called

- | | |
|----------------------|---------------------|
| A. Fast neutrons | B. Slow neutrons |
| C. Moderate neutrons | D. All are possible |

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

Splitting of spectral lines when atoms are subjected to strong electric field is called

- A. Zeeman effect
- B. Stark effect
- C. Photoelectric effect
- D. Compton effect

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

50. Three quantum number have been derived from equation of

- A. de-Broglie
- B. Plancks
- C. Schrodinger
- D. Heisenberg

Answer & Explanation

Answer: Option C

Explanation:

1. The pH of 10⁻³ mol dm⁻³ of an aqueous solution of H₂SO₄ is

- A. 3
- B. 2.7
- C. 2
- D. 1.5

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

2. K_c value has

- | | |
|---------------|----------|
| A. No units | B. Units |
| C. Both a & b | D. None |

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

3. If a buffer solution of higher pH than seven is to be made we use

- | | |
|--------------------------------|--|
| A. Strong acid and strong base | B. Weak acid and strong base |
| Weak acid and strong base | Weak acid and its salt with
strong base |

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

Sodium benzoate and benzoic acid are mixed in equimolar ration to form buffer if pK_a is 2 what will be the pH?

- | | |
|------|------|
| A. 0 | B. 1 |
|------|------|

C. 2

D. any one

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

5. AgCl dissolved with conc (2×10^{-2}) K_{sp} will be

A. 3.6×10^{-6}

B. 3.6×10^{-5}

C. 7.2×10^{-6}

D. 4×10^{-4}

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

6. In which of the following equilibria will K_c and K_p have the same value?

A. $\text{PCl}_5 = \text{PCl}_3 + \text{Cl}_2$ N₂ + 3H₂ = 2NH B.

C. 2CO + O₂ = CO₂

D. N₂ + O₂ = 2NO

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

Which of the following will not change the concentration of ammonia at the equilibrium ?

- A. Increase of pressure B. Increase of volume
C. Addition of catalyst D. Decrease of temperature

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

pH of an aqueous solution is 5.5. The hydroxyl ion conc. In the solution would be

- A. ?5.5 B. ?8.5
C. 10-8.5 D. 10

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

For a reaction involving only gases at 25°C the equilibrium constant can be expressed in terms of molarity K_c or partial pressure K_p . Which is true about the numerical value of K_p ?

- K_c is generally greater than
A. K_p
- K_c is generally equal to K_p
- K_c is generally less than K_p
- K_c is equal to K_p if the total moles of reactants and products are equal

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

10. Which of following is not a base

- | | |
|--------------------|--------------------|
| A. KOH | B. NH ₃ |
| C. PH ₃ | D. BF ₃ |

Answer & Explanation

Answer: Option D

Explanation:

Which set of solutes will form a buffer when dissolved in water to make 1 litter of solution?

- | | |
|--|--|
| 0.0002M HCl | 0.2 mole of NaCl with 0.2 mole of HNO ₃ |
| 0.4 mole of CH ₃ COOH with 0.4 mole of NaOH | 0.4 mole of NH ₃ with 0.2 mole of HCl |

Answer & Explanation

Answer: Option D

Explanation:

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12. Which one of the following aqueous solutions will be basic?

- | | |
|---------|------------------------------------|
| A. NaCl | B. Na ₂ SO ₄ |
|---------|------------------------------------|

C. Na_2CO_3

D. FeCl_3

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

13. The value of K_w in an acidic aqueous solution at 298 K is

A. $>10^{-14}$

B. $<10^{-14}$

C. $10^{1?}$

D. $10^{-1?}$

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

14. Reaction which proceeds in both directions is called

A. reversible

B. irreversible

C. spontaneous

D. non-spontaneous

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

15. Chemical equilibrium state is

- A. dynamic state B. static state
C. free state D. unidirectional state

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

16. Conversion of reactant into product in unit time is called

- A. rate of forward reaction B. rate of backward reaction
C. rate constant D. rate co-efficient

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

17. At start of reaction the concentration of reactants is

- A. high B. low
C. according to K_c D. constant

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

18. Unit of Kc is

- | | |
|----------------------------|---------------------------------|
| A. moles ^{2dm+6} | B. moles ^{-2dm+6} |
| C. moles ^{+2dm-6} | D. Kc may or may not have units |

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

19. In case of gases Kc is replaced by

- | | |
|-------|-------|
| A. Ka | B. Kb |
| C. Kp | D. K |

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

20. Rate expression for ammonia synthesis is

- | | |
|---------------------------------|------------------------------------|
| A. $K_c = x^2 / (a-x)(b-x)$ | B. $K_c = x^2 / v(a-x)$ |
| C. $K_c = 4x^2 / (a-2x)^2(b-x)$ | D. $K_c = 4x^2v^2 / (a-x)(b-3x)^3$ |

Answer & Explanation

Answer: Option D

Explanation:

21. When the value of Kc is very small then

- A. reaction is at start B. product conc. Is maximum
C. reactant conc. Is minimum D. reaction is completed

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

22. Catalyst used to speed up the reaction of ammonia synthesis is

- A. V₂O₅ B. V₂O₅ and Pt

Pieces of Fe crystals are
Fe **D.** embedded in fused mixture of MgO Al₂O₃ and SiO₂

Answer & Explanation

Answer: Option D

Explanation:

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23. Temperature for preparation of SO₃ is

- A. 400-500°C B. 400°C
C. 600°C D. 200°C

Answer & Explanation

Answer: Option A

Explanation:

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24. By the addition of base in water pH will be

- A. more than 7
- B. less than 7
- C. equal to 7
- D. no effect

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

25. Idea of pH and pOH was put forward by

- A. Gibbs
- B. Einstein
- C. Sorenson
- D. Chadwick

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

26. Negative log of molar concentration of H⁺ ions is called

- A. pH
- B. pOH
- C. pKa
- D. pKw

Answer & Explanation

Answer: Option A

Explanation:[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

27. $K_a < 10^{-3}$ means

- | | |
|---------------------|---------------------|
| A. Very strong base | B. Very weak acid |
| C. Very strong acid | D. Very strong salt |

Answer & Explanation**Answer:** Option B**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

28. Any substance which accepts H^+ is base favours the concept

- | | |
|--------------|------------------|
| A. Lowrys | B. Lewis |
| C. Arrhenius | D. None of these |

Answer & Explanation**Answer:** Option A**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

29. Conjugated base of a weak acid is

- | | |
|--------------------|-------------|
| A. weak | B. strong |
| C. moderately weak | D. unstable |

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

When sparingly soluble salt is in equilibrium with molar concentration of its oppositely charged ion when the product is called

common ion effect

solubility product

dissociation constant

dissociation constant for an acid

Answer & Explanation

Answer: Option B

Explanation:

Solution having the property of a very little change in pH on adding a small amount of strong acid or base is called

A. buffer solution

B. normal solution

C. standard solution

D. neutral solution

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

32. Addition of CH₃COOH and CH₃COONa gives in water

A. Standard solution

B. buffer solution

C. acidic buffer solution

D. both b & c

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

33. Which one of the following is a buffer solution?

A. brine blood B.

C. glue

D. solution of CuSO₄

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

34. Solubility of any salt can be determined from

A. K_a

B. K_b

C. K_c

D. K_{sp}

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

35. The pH of human blood is

A. 7

B. 7.35

C. 7.5

D. 7.8

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

36. By decreasing the pressure the reaction will go to that direction where

A. volume is decreased

B. volume increased

heat absorbed

no. of moles of specie
decreased

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

37. Equilibrium state is achieved quickly by the addition of.

A. reactants

B. acid

C. base

D. catalyst

Answer & Explanation

Answer: Option D

Explanation:

1. The rate of reaction

Increases as the reaction proceeds	Decreases as the reaction proceeds
Remains the same as the reaction proceeds	May decrease or increase as the reaction proceeds

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

-
2. The addition of a catalyst to the reaction system

- | | | | |
|----|---|----|--|
| A. | Increases the rate of forward reaction only | B. | Increases the rate of reverse reaction |
| C. | Increases the rate of forward but decreases the rate of backward reaction | D. | Increases the rate of forward as well as backward reaction equally |

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

-
3. The specific rate constant of a first order reaction depends on the

- | | | | |
|----|-------------|----|-------------------------------|
| A. | Time | B. | Concentration of the reactant |
| C. | Temperature | D. | Concentration of the product |

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

-
4. On increasing the temperature the rate of reaction increases mainly because
- A. The activation energy of the reaction increases B. Concentration of the reacting molecules increases
C. Collision frequency increases D. None of these

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

-
5. $\frac{d[N_2O_5]}{dt}$ represents
- A. Rate of formation of N_2O_5 B. Rate of decomposition of N_2O_5
C. order of the reaction D. none

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

-
6. The value of activation energy is primarily determined by
- A. Temperature B. Effective collision

- C. Concentration of reactants D. Chemical nature of reactants and products

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

-
7. Sum of exponents of molar concentration is called
- A. Order of reaction B. Molecularity
C. Rate of reaction D. Average of reaction

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

-
8. Spontaneous reactions are
- A. Moderate B. Slow
C. Fast D. not natural

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

-
9. In rate expression the concentration of reactants is negative. It shows

- A. Concentration of reactant does not change B. Concentration of product increases
- C. Concentration of reactant decreases D. Concentration of reactant increases

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

10. Unit of rate of reaction is

- A. Moles dm⁻³ sec⁻¹ B. Moles dm⁻³
- C. Moles sec⁻¹ D. Mol⁻¹ dm³ sec⁻¹

Answer & Explanation

Answer: Option A

Explanation:

When a graph is plotted between $1/T$ on X-axis and $\log k$ on y-axis a straight line is obtained with a negative slope which has two end in

- A. I and II quadrant B. II and III quadrant
- C. III and IV quadrant D. II and IV quadrant

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

-
12. Rate of disappearance of reactant is equal to
- A. Rate of reaction B. Rate of formation of product
C. Energy released during reaction D. a and b

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

-
13. Rate of reaction when concentration of reactants are taken as unity is called
- A. Arrhenius constant B. Molecularity
C. Specific rate constant D. Ideal rate constant

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

-
14. Order of reaction of $2\text{N}_2\text{O}_5 \rightarrow 2\text{N}_2\text{O}_4 + \text{O}_2$ is
- A. First order B. Second order
C. Third order D. zero order

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

For 3rd order reaction the half life is inversely proportional to initial concentration of reactants

- A. Single
- B. Square
- C. Cube
- D. Raise to power four

Answer & Explanation

Answer: Option B

Explanation:

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16. Which order of reaction obeys the relation $t_{1/2} = 1/K_a$

- A. First order
- B. Second order
- C. Third order
- D. Zero order

Answer & Explanation

Answer: Option B

Explanation:

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17. Radiations are absorbed in

- A. Spectrophotometer method
- B. Dilatometric method
- C. Optical relation method
- D. Refractometric method

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

18. Activated complex is formed due to

- | | |
|---------------------------|------------------------|
| A. Pressure | B. Effective collision |
| C. Ineffective collisions | D. Temperature |

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

19. Energy of reactant higher than energy of product favours

- | | |
|----------------------|----------------|
| A. Endothermic | B. Exothermic |
| C. Moderate reaction | D. No reaction |

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

20. Energy required to form transition state is called

- | | |
|-------|--------|
| A. Ea | B. P.E |
| C. V | D. K.E |

Answer & Explanation

Answer: Option A

Explanation:

21. Which of the following will have very high rate of reaction?

- A. Double decomposition reaction Neutralization reaction

B. all of above

C. Ionic reactions D.

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

22. Greater the conc. Of reactant

- A.** Greater will be dx/dt

B. Lesser will be dx/dt

C. dx/dt will be moderate

D. any of above

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

Anything which increases rate of reaction without being involved in the reaction

A. Promoter

B. Catalyst

C. Inhibitor

D. All of the above

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

24. The substances that reduces the effectiveness of a catalyst are called

- | | |
|---------------|------------------------|
| A. Promoters | B. Poisoning catalysts |
| C. Inhibitors | D. pro-catalysts |

Answer & Explanation

Answer: Option B

Explanation:

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25. When catalysts and reactants are in more than one phase it is

- | | |
|--------------------------|----------------------------|
| A. Homogeneous catalysis | B. Heterogeneous catalysis |
| C. Catalysis | D. Ea |

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

26. Each catalyst has

- | | |
|----------------|----------------------|
| A. Specificity | B. Special structure |
|----------------|----------------------|

C. Its own Ea

D. all of above

Answer & Explanation

Answer: Option D

Explanation:

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27. Biocatalytical proteins are

A. Enzymes

B. Substrate

C. Lipids

D. any of above

Answer & Explanation

Answer: Option A

Explanation:

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28. A catalyst can not effect

A. Products

B. Chemical equilibrium

C. Reactants

D. both a & b

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

29. An enzyme has its specificity due to

- A. Substrate
- C. Temperature

- B. Structure
- D. Pressure

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

30. Co-enzymes are

- A. Non proteineous
- C. sugars
- B. Proteineous
- D. lipids

Answer & Explanation

Answer: Option A

Explanation:

31. A substance which increases the reactivity of enzyme is called

- A. Promoters
- C. Stimulators
- B. Inhibitors
- D. Non-activators

Answer & Explanation

Answer: Option A

Explanation:

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32. Addition of tetraethyl lead in petrol is example of

A. ve catalysis

B. ?ve catalysis

C. auto catalysis

D. anti catalysis

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

33. When a product acts as catalyst then it is called

B. ?ve catalysis

A. Autocatalysis

C. ve catalysis

D. self catalysis

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#)

[Report](#) [Discuss](#) [in Forum](#)

34. End name of enzyme is

B. ase

A. yl

C. one

D. al

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

When the reaction completes in more than one steps rate of reaction will be determined by

- A. Fast step
- B. Slowest step
- C. All steps
- D. Molecularity of the reaction

Answer & Explanation

Answer: Option B

Explanation:

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36. For determining the order of reaction we use

- A. Refractometric method
- B. Dilatometric method
- C. Optical activity method
- D. Half life method

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

Energy of activation for backward reaction is less than forward reaction for _____ reaction

- A. Endothermic
- B. Exothermic
- C. Moderate
- D. Fast

Answer & Explanation

Answer: Option A

Explanation:

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38. The unit of slope in Arrhenius plot to calculate the energy of activation is

- | | |
|--------|-------|
| A. K-1 | B. ?F |
| C. K | D. ?C |

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

39. Which statement is incorrect about catalyst

- | | |
|---------------------------------|--------------------------------------|
| A. it is used in smaller amount | B. decrease activation |
| C. specific in action | D. it affects specific rate constant |

Answer & Explanation

Answer: Option D

Explanation:

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40. Which of the following type of reaction is 3rd order reaction

- | | |
|---|--|
| A. $2\text{N}_2\text{O}_5 = 2\text{N}_2\text{O}_4 + \text{O}_3$ | B. $\text{NO} + \text{O}_3 \rightarrow \text{NO}_2 + \text{O}_2$ |
| C. $2\text{FeCl}_3 + 6\text{KI} \rightarrow 2\text{FeI}_2 + 6\text{KCl} + \text{I}_2$ | D. None of these |

Answer & Explanation

Answer: Option C

Explanation:

1. Boron is non-metal whereas Al is metal. It is due to
 - A. Small size
 - B. High nuclear charge
 - C. Both a and b
 - D. No authorized justification yet

Answer & Explanation

Answer: Option C

Explanation:

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-
2. Boron in soil has been considered micronutrient for
 - A. Soil porosity
 - B. Proper growth of plants
 - C. Alkalinity of soil
 - D. All

Answer & Explanation

Answer: Option B

Explanation:

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-
3. One of the outstanding features of boron is its ability to form
 - A. Molecular addition compounds
 - B. Molecular crystals
 - C. Semiconductors
 - D. Ionic compounds

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

4. Substance which is found in dried up lakes of Tibet and California is

- | | |
|----------------------|---------------|
| A. Tincal | B. Boric acid |
| C. Calcium carbonate | D. Colemanite |

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

5. Borax is a white crystalline solid and it is

- | | |
|-------------------------------|-------------------------------------|
| A. More soluble in cold water | B. More soluble in hot water |
| C. Insoluble in water | D. Soluble only in organic solvents |

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

6. Which of the following does not give Borax bead test?

- | | |
|-------|-------|
| A. Cu | B. Cr |
|-------|-------|

C. Ni

D. Al

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

7. Special features of borate glass is that it is

A. Heat resistant

B. Low melting

C. Used to prepare chemical garden

D. Green in colour

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

8. The metal which is used in thermite process because of its activity is

A. iron

B. copper

C. aluminium

D. zinc

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

9. Aluminium oxide is

- A.** Acidic oxide **B.** Basic oxide
C. Amphoteric oxide **D.** It does not exist

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

10. Which of the following shows inert pair effect?

- A. boron
 - B. carbon
 - C. silicon
 - D. tin

Answer & Explanation

Answer: Option D

Explanation:

11. Which electronic configuration corresponds to an element of group IIIA?

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

12. Tincal is a mineral of

A. A1

B. Si

C. B

D. C

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

In network of silica (SiO_2) each silicon atom is surrounded by _____ atoms of oxygen

A. 4

B. 2

C. 1

D. 6

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

14. Which one of the following is not a semiconductor?

A. Si Ge B.

D. Sn

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

15. Orthoboric acid is 2.6% soluble in water at 40°C and _____ at 107°C.

- A. 26% B. 27%
C. 37% D. <2.6%

Answer & Explanation

Answer: Option C

Explanation:

[View](#) [Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

16. The process of aluminium extraction is called

- A.** Hall process **B.** Thermite process
C. Haber process **D.** Contact process

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

Because of its ability to combine with both oxygen and nitrogen aluminium metal is used

As nitrometer

To remove air bubbles from molten metal

To produce alloy

As insulator

Answer & Explanation

Answer: Option B

Explanation:[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

18. Aqueous solution of borax above 62°C gives crystals of

- | | |
|--|---|
| A. $\text{Na}_2\text{B}_4\text{O}_7 \cdot 4\text{H}_2\text{O}$ | B. $\text{Na}_2\text{B}_4\text{O}_7 \cdot 5\text{H}_2\text{O}$ |
| C. $\text{Na}_2\text{B}_4\text{O}_7 \cdot 2\text{H}_2\text{O}$ | D. $\text{Na}_2\text{B}_4\text{O}_7 \cdot 10\text{H}_2\text{O}$ |

Answer & Explanation**Answer:** Option B**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

19. Silicon differ from silica by a group of

- | | |
|-------------------|-----------------|
| A. CH_3 | B. OH |
| C. OCH_3 | D. O_2 |

Answer & Explanation**Answer:** Option A**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

20. Which of the following is not a use of silicon?

- | | |
|---------------|---------------------|
| A. Lubricants | B. Hydraulic brakes |
| C. Antifreeze | D. Water repellent |

Answer & Explanation

Answer: Option C

Explanation:

Boron is non metal while other elements of IIIA group are metals. This is because

- A. it has small size
- B. it has high nuclear charge
- C. it forms molecular addition
- D. all of the above compounds

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

22. CO₂ is gas while SiO₂ is solid at room temperature.

- | | |
|---|---|
| A. carbon is non-metal while silicon is semi-metal | B. CO ₂ is an independent molecule while SiO ₂ has network covalent structure |
| C. CO ₂ forms multiple bond while silicon does not form multiple bonds | |
| D. Silicon has all sigma bonds | |

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

23. The coloured glassy mass in borax bead test is due to the formation of

- A. metal borate B. metal meta borate
C. metal boride D. metal silicate

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

24. Identify the correct statement regarding CO

- it combines with H₂O to form carbonic acid it reacts with red blood cells of haemoglobin
B.
it is powerful oxidizing agent it is used to prepare aerated drinks

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

25. The chief ore of A? is:

- A. Na₃A?F₆ B. A?2O₃2H₂O
C. A?2O₃H₂O D. A?2O₃3H₂O

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

26. If temperature of gallium arsenide is increased then its conductivity will

- | | |
|---------------------|-----------------------------------|
| A. decrease | B. increase |
| C. remains constant | D. first decreases then increases |

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

27. Boric acid cannot be used

- | | |
|------------------------------|--------------------------|
| A. As antiseptic in medicine | B. For washing eyes |
| C. In soda bottles | D. For enamel and glazes |

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) in Forum

28. Which of the following will decompose to produce litharge

- | | |
|----------------------|-----------------------------------|
| A. Pb ₂ O | B. Pb ₃ O ₄ |
| C. PbO ₂ | D. All of the above |

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

29. Which element can form tripositive ion?

- | | |
|--------------|--------------|
| A. Beryllium | B. Carbon |
| C. Silicon | D. Aluminium |

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

30. Which of the following is metasilicic acid?

- | | |
|------------------------------------|------------------------------------|
| A. H ₂ SnO ₃ | B. H ₂ SiO ₃ |
| C. H ₃ AsO ₄ | D. H ₃ SbO ₄ |

1. Coordination number of the transition element in [Pt Cl NO₂ (NH₃)₄]²⁻ is

- | | |
|------|------|
| A. 2 | B. 6 |
| C. 4 | D. 8 |

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

K₂ (Cu(CN)₄) which one is correct

A. Potassium tetra cyano cupperate

Co-ordination number is 2

Ligand is positively charged

Central atom is present in avionic sphere

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

3. The oxidation number of central metal atom in [Ni(CO)₄] is

A. 0

B. 2

C. 4

D. 6

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

4. Group VIB of transition elements contains

A. Zn Cd Hg

B. Fe Ru Os

C. Cr Mo W

D. Mn Te Re

Answer & Explanation

Answer: Option C

Explanation:[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

-
5. The elements in which d or f orbitals are in the process of completion are
- | | |
|--------------------------------|------------------------------|
| A. outer transition elements | B. inner transition elements |
| C. typical transition elements | D. transition elements |

Answer & Explanation**Answer:** Option D**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

-
6. The location of transition elements is in between
- | | |
|----------------------------|---------------------------|
| A. lanthanides & actinides | B. s and p block elements |
| C. chalcogens and halogens | D. d and f block elements |

Answer & Explanation**Answer:** Option B**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

-
7. The melting points and boiling points upto middle of 3d-series
- | | |
|----------------|---------------------|
| A. increases | B. decreases |
| C. remain same | D. no regular trend |

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

8. Pure metal
- A. corrode slowly B. corrode rapidly
- C. does not corrode easily D. none of these

Answer & Explanation

Answer: Option C

Explanation:

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-
9. Compounds attracted by applied strong magnetic field are called
- A. diamagnetic B. paramagnetic
- C. good conductor D. ferromagnetic

Answer & Explanation

Answer: Option B

Explanation:

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-
10. The correct electronic configuration of Cr is
- A. [Ar]4s23d4 B. [Ar] 4s23d4
- C. [Ar]4s03d5 D. [Ar]4s13d5

Answer & Explanation

Answer: Option D

Explanation:

-
11. The oxidation state of transition elements is usually

- A. variable
- B. constant
- C. single
- D. infinite

Answer & Explanation

Answer: Option A

Explanation:

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When light is exposed to transition element then electrons jump from lower orbitals to higher orbitals in

- A. orbitals of f-subshell
- B. orbitals of d-subshell
- C. orbitals of p-subshell
- D. both a & b

Answer & Explanation

Answer: Option D

Explanation:

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13. Non-stoichiometric compounds of transition elements are called

- A. hydrates
- B. hydrides
- C. binary compounds
- D. interstitial compounds

Answer & Explanation

Answer: Option D

Explanation:

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When a compound of transition element is dissolved in a solution of salt then it produces

- A. simples ions
- B. complex ions
- C. double salts
- D. strong anions

Answer & Explanation

Answer: Option B

Explanation:

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The specie which donates electrons to central metal atom in coordination sphere is called

- A. anion
- B. cation
- C. Ligand is positively charged
- D. acid

Answer & Explanation

Answer: Option C

Explanation:

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The species which donate two electron pairs in a coordination compound is called

- A. ligand
- B. mono-dentate ligand
- C. poly-dentate ligand
- D. bi-dentate ligand

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17. Which of the following can form a chealate

- A. ammine B. oxalato
C. carbonyl D. cyano

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

18. The central atom along with ligands is called

- A. complex ion B. coordination sphere
C. ligand D. complex compound

Answer & Explanation

Answer: Option B

Explanation:

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19. The compound or complex ion which has a ring in its structure

- A. polydentate ligand B. chelate
C. monodentate ligand D. hydrate

Answer & Explanation

Answer: Option B

Explanation:

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20. In complex compounds the oxidation number is written in

- A. English B. Greek
C. Roman numeral D. Hebrew

Answer & Explanation

Answer: Option C

Explanation

21. Geometry of the complex compounds usually depends upon

type of ligands

types of hybridization in the elements of ligands

hybridization of central metal

All of above

Answer & Explanation

Answer: Option C

Explanation:

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When the central atom of coordination compound is sp³d² hybridization the expected geometry will be

A. tetrahedral

B. square planar

C. trigonal bipyramidal

D. octahedral

Answer & Explanation

Answer: Option D

Explanation:

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23. In pig iron the concentration of C-atom is

A. 0.12 --- 0.25%

B. 2.5 --- 4.5%

C. 2.0 --- 4.0%

D. 0.25 --- 2.5%

Answer & Explanation

Answer: Option B

Explanation:

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24. In the production of wrought iron Mg Si and P are removed in the form of

A. oxides

B. silicates

C. slag

D. carbonates

Answer & Explanation

Answer: Option C

Explanation:

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25. With impurities like P and S the open hearth furnace is lined with.

A. $\text{SiO}_2 \text{ Fe}_2\text{O}_3$

B.

C. FeO

D. CaO MgO

Answer & Explanation

Answer: Option D

Explanation:

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26. The oxidation number in $[\text{MnO}_4]^-2$

A. 7

B. ?7

C. 6

D. ?6

Answer & Explanation

Answer: Option C

Explanation:

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27. Which is sold as fertilizer

A. CaSiO_3

B. Na_2SiO_3

C. $\text{Ca}_3(\text{PO}_4)_2$

D. MnSiO_3

Answer & Explanation

Answer: Option C

Explanation:

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Any process of chemical decay of metals due to the action of surrounding medium is called

A. activation

B. enameling

C. corrosion

D. coating

Answer & Explanation

Answer: Option C

Explanation:

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When an active metal like Al comes in contact with less active element like Cu then it produces

- A. dry cell
- B. galvanic cell
- C. electrolytic cell
- D. a and b

Answer & Explanation

Answer: Option B

Explanation:

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30. Which of the following is typical transition metal?

- A. Sc Y B.
- C. Cd
- D. Co

Answer & Explanation

Answer: Option D

Explanation:

1. The molecular formula of toluene is

- A. C₇H₇
- B. C₇H₈
- C. C₈H₈
- D. C₈H₇

Answer & Explanation

Answer: Option B

Explanation:

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In benzene sulphonic acid the sulphonic group is attached with benzene ring through

- A. Hydrogen
- B. Oxygen
- C. Sulphur
- D. ?OH

Answer & Explanation

Answer: Option C

Explanation:

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3. Phenanthrene is a fused polycyclic compound contains _____ benzene rings

- A. Two
- B. Three
- C. Four
- D. Five

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

4. Aniline is a derivative of benzene which contains

- A. Imino group
- B. Amino group
- C. Amide group
- D. Nitro group

Answer & Explanation

Answer: Option B

Explanation:

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5. How many ? electrons are there in benzene to form delocalized electronic cloud

A. 3

B. 4

C. 6

D. 8

Answer & Explanation

Answer: Option C

Explanation:

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6. Nitration of chlorobenzene gives

A. o - chloronitrobenzene

B. p - chloronitrobenzene

C. m - chloronitrobenzene

D. a & b

Answer & Explanation

Answer: Option D

Explanation:

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When two or more different substituents are attached with a benzene ring the number 1 position in the ring is given to a high priority group. Which one of the following groups has highest - priority?

A. ?NH₂

B. ?CHO

C. ?COOH

D. ?CN

Answer & Explanation

Answer: Option C

Explanation:

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When benzene is substituted by halogens only which one of the following halogens only which one of the following halogens is given the number one position in the ring while writing the name of compound?

- A. Bromine
- B. Chlorine
- C. Fluorine
- D. Iodine

Answer & Explanation

Answer: Option D

Explanation:

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9. Which one of the following is not a meta directing group?

- A. ?CN
- B. ?OH
- C. ?COOH
- D. ?CHO

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

10. Which pair of groups contains both ortho & para directing groups

- A. ?OH ?RCO
- B. ?NR₃ ?CN



Answer & Explanation

Answer: Option D

Explanation:

Michael Faraday discovered benzene in the gas which was produced by destructive distillation of vegetable oil that is done in

- A. The presence of Oxygen
- B. The presence of Hydrogen
- C. The absence of Oxygen
- D. The presence of excessive Oxygen

Answer & Explanation

Answer: Option C

Explanation:

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12. By which method the molecular mass of benzene was determined as 78.108?

- A. Specific gravity method
- B. Vapour density method
- C. X-ray diffraction method
- D. Distillation methos

Answer & Explanation

Answer: Option B

Explanation:

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How many moles of H₂ are added up when benzene is heated with hydrogen in the presence of platinum?

- A.** Two **B.** Three
C. Four **D.** Six

Answer & Explanation

Answer: Option B

Explanation:

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-
14. Chlorination of toluene in the presence of sublight produces
- A.** Benzyl chloride **B.** o - chlorotoluene
C. p - chlorotoluene **D.** benzoic acid

Answer & Explanation

Answer: Option A

Explanation:

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-
15. The heat of hydrogenation of cyclohexene is
- A.** ?239 kJ mol⁻¹ **B.** ?208 kJ mol⁻¹
C. ?119.5 kJ/mol **D.** ?119.5 kcal/mol

Answer & Explanation

Answer: Option C

Explanation:

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16. The resonance energy of benzene is

- A. 150.5 kJ/mol B. 250.5 kJ/mol
C. 150.5 Cal/mol D. 250.5 Cal/mol

Answer & Explanation

Answer: Option A

Explanation:

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17. What catalyst is employed when benzene is prepared from acetylene at 70°C?

- A. $\text{Cr}_2\text{O}_3 + \text{Al}_2\text{O}_3 + \text{SiO}_2$ Raney nickel B.
C. Organo-nickel D. Ni 250 - 300°C

Answer & Explanation

Answer: Option C

Explanation:

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Mixture of catalysts $\text{Cr}_2\text{O}_3 + \text{Al}_2\text{O}_3 + \text{SiO}_2$ at 500°C are used when benzene is prepared from

- A. acetylene B. N-hexane
C. Benzene sulphonic acid D. Sodium benzoate

Answer & Explanation

Answer: Option B

Explanation:

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19. Which one of the following methods will not give benzene?

Heating sod. Salt of Benzoic acid with soda lime

Distilling phenol with Zn dust

Chlorobenzene with NaOH at 360°C & 150atm.

Hydrolysis of benzene sulphonic acid with super heated steam.

Answer & Explanation

Answer: Option C

Explanation:

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20. Which is fused cyclic aromatic compound

A. diphenyl amine

B. diphenyl methane

C. naphthalene

D. biphenyl

Answer & Explanation

Answer: Option C

Explanation:

21. In Friedel Craft Alkylation A?C?3 is used to generate

A. Strong nucleophile

B. Weak nucleophile

C. Strong electrophile

D. Weak electrophile

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

22. Acetophenone is a

- | | |
|-------------|-----------|
| A. Ether | B. Ketone |
| C. Aldehyde | D. Ester |

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

23. Reacting bromine with benzene in the presence of sunlight will result in

- | | |
|----------------------------------|--------------------------|
| A. The rupturing of benzene ring | B. Substitution reaction |
| C. Addition reaction | D. No-reaction |

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

24. Benzene does not undergo

- | | |
|-----------------------------|------------------------|
| A. Substitution reaction | B. Addition reaction |
| C. Polymerization reactions | D. Oxidation reactions |

Answer & Explanation

Answer: Option C

Explanation:

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25. During sulphonation of benzene H₂SO₄ generates the electrophile

- | | |
|----------------------------------|--------------------|
| A. HSO ₄ ⁻ | B. SO ₂ |
| C. SO ₃ | D. H ⁺ |

Answer & Explanation

Answer: Option C

Explanation:

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26. Nitronium ion is

- | | |
|---------------------------------|---------------------------------|
| A. NO ₃ | B. NO |
| C. NO ₂ ⁻ | D. NO ₂ ⁺ |

Answer & Explanation

Answer: Option D

Explanation:

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27. Which compound will readily undergo sulphonation?

- | | |
|------------|------------------|
| A. Benzene | B. Nitro benzene |
|------------|------------------|

C. Toluene

D. Chlorobenzene

Answer & Explanation

Answer: Option C

Explanation:

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28. Benzene is heated in air with V₂O₅ at 450°C it undergoes

A. Substitution reaction

B. Addition reaction

C. Elimination reaction

D. Oxidation reaction

Answer & Explanation

Answer: Option D

Explanation:

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29. Which one of the following statement is not correct about benzene?

On hydrogenation 208
KJ/mole is liberated

C-H bond length in benzene
is 1.09 Å?

Molecular mass of benzene is
78.108

Resonance energy of benzene
is 150.5 K Cal/mole

Answer & Explanation

Answer: Option D

Explanation:

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30. The preparation of benzene from acetylene can also be said as

- | | |
|----------------|-------------------|
| A. Oxidation | B. Polymerization |
| C. Dehydration | D. Condensation |

Answer & Explanation

Answer: Option B

Explanation:

What is required other than anhydrous AlCl_3 when toluene is prepared by Friedel craft reaction?

- | | |
|---|--|
| A. C_6H_6 | B. $\text{C}_6\text{H}_6 + \text{CH}_3\text{C}_2\text{H}_5$ |
| C. $\text{C}_6\text{H}_5\text{C}_2\text{H}_5$ | D. $\text{C}_6\text{H}_5\text{C}_2\text{H}_5 + \text{CH}_3\text{Cl}$ |

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

Replacement of hydrogen of benzene by alkyl group in the presence of alkyl halide & aluminum chloride is known as

- | | |
|-------------------------------|------------------------------|
| A. Dows process | B. Friedel & Craft acylation |
| C. Friedel & Craft alkylation | D. Clemmenson reduction |

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

33. Which one of the following radical is called benzyl radical?

- A. $\text{C}_6\text{H}_5\cdot\text{C}_6\text{H}_5\text{C}$ B.
C. $\text{C}_6\text{H}_5\cdot\text{CH}-$ D. $\text{C}_6\text{H}_5\cdot\text{CH}_2-$

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

Which compound form benzoic acid on oxidation with acidified KMnO_4 or $\text{K}_2\text{Cr}_2\text{O}_7$

- A. Toluene B. Ethyl benzene
C. n-propyl benzene D. All

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

35. Ozonolysis of benzene produces

- A. Glycol B. Glyoxal
C. Vicinal diol D. Both b & c

Answer & Explanation

Answer: Option B

Explanation:

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36. Which one of the following is benzal chloride?

- A. C₆H₅ CH₂C? B. C₆H₅ CHC?2
C. C₆H₅ -CH = CHC? D. None of the above

Answer & Explanation

Answer: Option B

Explanation:

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37. What is the molecular formula of Benzenetriozone?

- A. C₆H₆O₉ B. C₆H₅O₈
C. C₆H₅O₉ D. C₆H₆O₆

Answer & Explanation

Answer: Option A

Explanation:

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38. The hydrolysis of Benzenetrizonide will yield three moles of

- A. Glyoxime B. Benzaldehyde
C. Glycol D. Glyoxal

Answer & Explanation

Answer: Option D

Explanation:

1. Which of the following substance produce acetaldehyde on dry distillation?
- A. $(CH_3COO)_2Ca$ (HCOO) $_2Ca$ B.
- C. both (a) and (b) D. none

Answer & Explanation

Answer: Option C

Explanation:

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-
2. Which of the following will have the highest boiling point?
- A. methanal ethanal B.
- C. propanal D. hexanone

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

-
3. Which of the following reaction is not shown by ketones?
- A. reaction with HCN B. reaction with NaHSO₃
- C. reaction with 2,4-D. reaction with Fehling solution dinitrophenyl hydrazine

Answer & Explanation

Answer: Option D

Explanation:[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

-
4. The carbon atom of carbonyl group is
- A. sp hybridized B. sp₂ hybridized
C. cp₃ hybridized D. dsp₂ hybridized

Answer & Explanation**Answer:** Option B**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

-
5. Which of the following substances does not give iodoform test?
- A. acetaldehyde ethyl alcohol B.
C. methyl alcohol D. acetone

Answer & Explanation**Answer:** Option C**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

-
6. Formalin is _____ % solution of formaldehyde in water
- A. 10% B. 20%
C. 40% D. 60%

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

Which of the following aldehydes shows rapid reaction with sodium nitroprusside?

- A. formaldehyde
- B. acetaldehyde
- C. benzaldehyde
- D. acetone

Answer & Explanation

Answer: Option D

Explanation:

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8. Acetone reacts with HCN to form a cyanohydrin. It is an example of

- A. electrophilic addition
- B. electrophilic substitution
- C. nucleophilic addition
- D. nucleophilic substitution

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

9. Which of the following compounds will react with Tollens reagent?

- A. CH₃-CHO
- B. CH₃-CH-CH₃

C. CH₃-COOH

D. CH₃-CO-CH₂-CH₃

Answer & Explanation

Answer: Option A

Explanation:

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10. Which of the following reactions may be associated with aldehyde and ketone?

A. nucleophile addition polymerization **B.**

C. oxidation

D. all of the above

Answer & Explanation

Answer: Option D

Explanation:

11. Cannizzaros reaction is not given by

A. formaldehyde

B. acetaldehyde

C. benzaldehyde

D. trimethyl acetaldehyde

Answer & Explanation

Answer: Option B

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

12. Which of the following reagents will react with both aldehydes and ketones?

A. Grignard reagent

B. Tollens reagent

C. Fehlings reagent

D. Benedict's reagent

Answer & Explanation

Answer: Option A

Explanation:

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13. Ketones are comparatively less reactive than aldehydes. It is due to

alkyl groups are electron

A. B. donating

steric hindrance

C. both (a) and (b)

D. none

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

14. Which of the following do not give aldol condensation reactions?

A. formaldehyde acetaldehyde B.

C. diethyl ketone

D. propionaldehyde

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

15. Which of the following is not a use of formaldehyde?

- A. in silvery mirror
- B. in making medicine urotropine
- C. in making throat lozenges
- D. in making acetic acid

Answer & Explanation

Answer: Option D

Explanation:

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16. Formaldehyde and lactose are combined to produce throat lozenges named as

- A. formamint
- B. lactomint
- C. aldomint
- D. formalactose

Answer & Explanation

Answer: Option A

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

17. Which of the following is not a use of acetaldehyde?

- A. formation of phenolic resins formation of mirror B.
- C. antiseptic inhalant
- D. formation of throat lozenges

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

18. Formula of haloform is

- | | |
|---------------------|----------------------|
| A. HCOX | B. CX ₄ |
| C. CHX ₃ | D. CH ₃ X |

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

19. Formaldehyde condenses with phenol in the presence of dilute H₂SO₄ to yield

- | | |
|---------------------------------|---------------|
| A. Nylon 66 | B. urotropine |
| C. Aniline formaldehyde plastic | D. Bakelite |

Answer & Explanation

Answer: Option D

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

Formalin consists of mixture of formaldehyde methyl alcohol and water.
Percentage of water in it is

- | | |
|--------|--------|
| A. 60% | B. 50% |
| C. 52% | D. 8% |

Answer & Explanation

Answer: Option C

Explanation:

21. Which of the following will not give addition reaction with NaHSO_3

- | | |
|---|----------------------------|
| A. HCHO | B. CH_3CHO |
| C. $\text{CH}_3\text{-CH}_2\text{-CHO}$ | D. None of the above |

Answer & Explanation

Answer: Option C

Explanation:

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On heating aldehydes with Fehlings solution we get a precipitate whose colour is

- | | |
|-----------|--------------|
| A. pink | B. black |
| C. yellow | D. brick red |

Answer & Explanation

Answer: Option D

Explanation:

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Which of the following compounds has the empirical formula CH_2O and reacts with sodium hydroxide?

- | | |
|------------------|-------------------|
| A. carbonic acid | B. ethanol |
| C. acetic acid | D. methanoic acid |

Answer & Explanation

Answer: Option C

Explanation:[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

24. Aldehyde and ketone have same general formula for homologous series

- | | |
|---|--|
| A. C _n H _{2n} O _{2n} | B. C _n H _{2n} |
| C. C _n H _{2n} O | D. C _n H _{2n} O _{n+1} |

Answer & Explanation**Answer:** Option C**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

25. Oxidation of primary alcohol gives

- | | |
|-----------------------|-------------|
| A. ketone | B. Aldehyde |
| C. Alkene then - COOH | D. Ester |

Answer & Explanation**Answer:** Option B**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

Ethanal is prepared industrially by air oxidation of ethylene using palladium chloride as catalyst and _____ as promoter

- | | |
|----------------------|------------------------------------|
| A. PdCl ₂ | B. Cu ₂ Cl ₂ |
| C. CuCl ₂ | D. PbCl ₂ |

Answer & Explanation

Answer: Option C

Explanation:

[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

27. Nucleophilic addition reactions are catalysed

- | | |
|-----------------|---------|
| A. Acid | B. Base |
| C. Both a and b | D. None |

Answer & Explanation

Answer: Option C

Explanation:

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28. Acetaldehyde cyanohydrin on acid hydrolysis yields

- | | |
|------------------|-------------------|
| A. Tartaric acid | B. Propanoic acid |
| C. Lactic acid | D. Valeric acid |

Answer & Explanation

Answer: Option C

Explanation:

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29. Acetal on acid hydrolysis generates

- | | |
|---------------|----------------------|
| A. Alcohol | B. Ketone |
| C. Both a & b | D. None of the above |

Answer & Explanation

Answer: Option C

Explanation:

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30. Which one exhibits aldol condensation

- | | |
|-------------------------|--------------------------------------|
| A. HCHO | B. C ₆ H ₅ CHO |
| C. Cl ₃ CCHO | D. CH ₃ COCH ₃ |

Answer & Explanation

Answer: Option D

Explanation:

31. For aldol condensation the conditions necessary

- | | |
|-----------------|--------|
| A. ?-C | B. ?-H |
| C. Basic medium | D. All |

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32. Aldehydes are reduced to

- | | |
|---------------|-----------------|
| A. P? alcohol | B. S? alcohol |
| C. T? alcohol | D. Not possible |

Answer & Explanation

Answer: Option A

Explanation:

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33. Tetrahydroborate ion is the source of

- | | |
|---------------|-------|
| A. proton | B. H+ |
| C. both a & b | D. H- |

Answer & Explanation

Answer: Option D

Explanation:

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34. Which of the following is a symmetrical ketone

- | | |
|-----------------|----------------|
| A. 3 - hexanone | B. acetone |
| C. butanone | D. 2-pentanone |

Answer & Explanation

Answer: Option B

Explanation:

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35. Dry distillation of calcium acetate results in the formation of

- | | |
|-----------------|-----------------|
| A. formaldehyde | B. acetaldehyde |
| C. methane | D. acetone |

Answer & Explanation

Answer: Option D

Explanation:[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

36. In base catalyzed reaction of carbonyl compound the catalyst

- | | |
|---|--|
| increases the nucleophilic character of reagent | A. increases electrophilic character of carbonyl compound |
| | C. acidic character of reagent |
| | D. both a and b |

Answer & Explanation**Answer:** Option A**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

Cannizaro reaction takes place through the transfer of _____ from complex anion.

- | | |
|------------------------|-------------------------|
| A. hydrogen ion | B. hydride ion |
| C. oxide ion | D. methoxide ion |

Answer & Explanation**Answer:** Option B**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss in Forum](#)

38. Iodoform test can be used to distinguish between

- | | |
|--------------------------------------|-------------------------------------|
| A. ethanol and methanol | B. acetaldehyde and methanal |
| C. acetone and diethyl ketone | D. all of the above |

Answer & Explanation

Answer: Option D

Explanation:

1. The fertility of the soil is improved by
 - A. Rotation of the crops
 - B. Adding lime to the acid salts
 - C. Adding manure and growing legumes
 - D. All

Answer & Explanation

Answer: Option D

Explanation:

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-
2. Which of the following is incorrect statement about nitrogen importance?

It enhances plant growth	It is involved in the synthesis of protein and nucleic acids
it accelerates fruits and flowers growth	It is involved in the chlorophyll synthesis

Answer & Explanation

Answer: Option C

Explanation:

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The fertilizers which provide single nutrient from NPK are called _____ fertilizer.

- A. straight
 - B. compound
 - C. both a and b
 - D. none of the above

Answer & Explanation

Answer: Option A

Explanation:

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Answer & Explanation

Answer: Option C

Explanation:

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5. Addition of urea to the soil is _____ reaction.

A. endothermic exothermic B.

C. both a and b D. no heat energy is involved

Answer & Explanation

Answer: Option B

Explanation:

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Answer & Explanation

Answer: Option C

Explanation:

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7. The cooling of molten urea by air in the tower is called

 - A. prilling
 - B. evaporation
 - C. condensation
 - D. crystallization

Answer & Explanation

Answer: Option A

Explanation:

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8. Which of the following fertilizers is not useful for paddy rice?

A. urea DAP B.

C. Ammonium sulphate D. Ammonium nitrate

Answer & Explanation

Answer: Option D

Explanation:

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9. DAP (Diammonium hydrogen phosphate) contains _____ plant nutrients.

- | | |
|--------|--------|
| A. 60% | B. 65% |
| C. 70% | D. 75% |

Answer & Explanation

Answer: Option D

Explanation:

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Which of the following potassium fertilizers are more useful for horticultural crops tobacco & potatoes?

- | | |
|-----------------------------------|----------------------|
| A. KCl | B. KNO ₃ |
| C. K ₂ SO ₄ | D. KMnO ₄ |

Answer & Explanation

Answer: Option B

Explanation:

11. Calcarious material includes

- | | |
|---------------|---------------------|
| A. lime stone | B. marble |
| C. chalk | D. all of the above |

Answer & Explanation

Answer: Option D

Explanation:

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12. Argillaceous material does not include

- | | |
|----------|-----------------------|
| A. vlay | B. marine shells |
| C. slate | D. blast furnace slag |

Answer & Explanation

Answer: Option B

Explanation:

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13. Which of the following processes is used for the synthesis of cement?

- | | |
|----------------|----------------|
| A. dry process | B. wet process |
| C. both | D. none |

Answer & Explanation

Answer: Option C

Explanation:

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14. Phosphorus helps in the growth of

- | | |
|---------|----------|
| A. root | B. leave |
| C. stem | D. seed |

Answer & Explanation

Answer: Option D

Explanation:[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

15. How many zones through which the charge passes in a rotary kiln?

A. 4

B. 3

C. 2

D. 5

Answer & Explanation**Answer:** Option A**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

The nutrients which are required in very small amount for the normal growth of plants are called

A. nitrogenous fertilizers

B. micronutrients

C. phosphorus fertilizer

D. all of the above

Answer & Explanation**Answer:** Option B**Explanation:**[View Answer](#) [Workspace](#) [Report](#) [Discuss](#) [in Forum](#)

Which one of the following set of raw material is most suitable for manufacture of urea?

A. CH₄ N₂ and CO₂

B. H₂ N₂ and CO

C. H₂ CO₂ and H₂O

D. H₂O N₂ and H₂

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18. Which one of the following statement is correct for urea?

- | | |
|--|---|
| <p>A. it is a synthetic fertilizer

it provides micronutrients to the plants</p> | <p>B. it is a natural fertilizer

it is an inorganic water soluble compound</p> |
|--|---|

Answer & Explanation

Answer: Option A

Explanation:

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19. The percentage of nitrogen in urea is

- | | |
|---------------|---------------|
| <p>A. 36%</p> | <p>B. 46%</p> |
| <p>C. 56%</p> | <p>D. 66%</p> |

Answer & Explanation

Answer: Option B

Explanation:

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20. Which one of the following is an inorganic fertilizer?

- | | |
|----------------------------|----------------|
| <p>A. manure</p> | <p>B. urea</p> |
| <p>C. ammonium nitrate</p> | <p>D. All</p> |

Answer & Explanation

Answer: Option C

Explanation:

Which one of the following fertilizers provides the nitrogen and phosphorus to the plant?

- A. urea
- B. calcium superphosphate
- C. diammonium phosphate
- D. potassium nitrate

Answer & Explanation

Answer: Option C

Explanation:

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22. The potassium present in plant help the plant to

- A. form starch sugar and fibrous material
- B. ripen the seeds and
- C. increase the resistance against disease
- D. all the above statements are correct

Answer & Explanation

Answer: Option D

Explanation:

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23. Cement is a mixture of clay and clinker A.

- B. clay lime stone and gypsum
- C. lime stone and gypsum
- D. lime stone and clay

Answer & Explanation

Answer: Option B

Explanation:

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24. What is clinker?

- A. roasted calcareous material
- B. roasted argillaceous material
- C. roasted calcareous and argillaceous material
- D. roasted gypsum

Answer & Explanation

Answer: Option C

Explanation:

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Cement is a mixture of so many compounds roasted in rotary kiln. Which substances has greater percentage?

- A. Lime (CaO)
- B. Silica (SiO_2)
- C. Alumina (Al_2O_3)
- D. Magnesia (MgO)

Answer & Explanation

Answer: Option A

Explanation:

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26. Which one of the following raw material is not present in the cement?

- A. lime stone
- B. gypsum

C. KNO₃

D. iron oxide

Answer & Explanation

Answer: Option D

Explanation:

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27. Which sequence of steps is correct for the manufacture of cement?

A. crushing heating mixing
grinding

B. crushing mixing heating
grinding and mixing

C. crushing grinding mixing
heating

D. mixing heating grinding
crushing

Answer & Explanation

Answer: Option C

Explanation:

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28. The sequence of zones in the rotary kiln are as

dry zone burning zone

A. decomposition zone cooling
zone

B. cooling zone burning zone
decomposition zone dry zone

C. burning zone cooling zone
decomposition zone

D. dry zone decomposition zone
burning zone cooling zone

Answer & Explanation

Answer: Option D

Explanation:

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The composition of mixture of clay and lime stone in the raw for cement material is

- A. 75% lime stone and 25% clay B. 25% lime stone and 75% clay
15% lime stone and 55% clay D. 55% lime stone and 15% clay

Answer & Explanation

Answer: Option A

Explanation:

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30. The important function of burning zone in the rotary kiln is

- to decompose lime stone to unslaked lime
to dry the moisture of slurry
combination of different oxides like CaO SiO₂ Fe₂O₃ and Al₂O₃ to reduce the impurities

Answer & Explanation

Answer: Option C

Explanation: