



CHEMISTRY

BOOKS - EVERGREEN CHEMISTRY (ENGLISH)

SPECIMEN QUESTION PAPER

Questions

1. The trend in metallic nature of metals as we go from top to bottom in a group :

A. Increases

B. Decreases

C. Neither increases nor decreases

D. None of the above

Answer: A



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2. The colour change observed when the solution of magnesium hydroxide is tested with the following indicators :

- A. Phenolphthalein turns colourless to pink
- B. Methyl orange remains orange
- C. Phenolphthalein remains colourless
- D. Blue litmus solution turns red

Answer: A



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3. The compound which is a non-electrolyte :

A. $KCl(aq)$

B. H_2SO_4 (dil)

C. CCl_4 (l)

D. CH_3COOH (aq)

Answer: C



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4. Twice the vapour density gives :

A. Actual vapour density

B. Relative vapour density

C. Molecular mass

D. Molar volume

Answer: C



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5. The number of lone pair of electrons in the nitrogen atom in ammonia molecule :

A. One

B. Two

C. Three

D. Four

Answer: A



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6. Elements with similar valence shell configuration in a periodic table are placed in :

A. Different group

B. Same period

C. Different period

D. Same period

Answer: D



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7. The gas liberated when sodium sulphite reacts with dilute sulphuric acid :

A. Carbon dioxide

B. Hydrogen

C. Hydrogen sulphide

D. Sulphur dioxide

Answer: D



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8. Thickness of metal coating during electroplating depends on :

A. Duration of current passage

B. A low current

C. Nature of cathode

D. Purity of anode

Answer: B



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9. Ionic bonding is seen in :

A. Methane

B. Hydrogen

C. Ammonia

D. Sodium oxide

Answer: D



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10. The molecular formula of an organic compound is $C_6H_{12}O_6$ and the empirical formula is CH_2O , the value of n is :

A. 2

B. 6

C. 1

D. 12

Answer: B



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11. When an electron is added in the valence shell :

A. Energy is released

B. Energy is absorbed

C. Energy remains same

D. None of the above

Answer: A



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12. The most electronegative element is :

A. Sodium

B. Aluminium

C. Bromine

D. Fluorine

Answer: D



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13. The bond in carbon tetrachloride is :

A. Single covalent bond

B. Double covalent bond

C. Ionic bond

D. Triple covalent bond

Answer: A



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14. The type of bonding present in the nitrogen molecule :

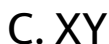
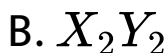
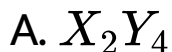
- A. Single covalent bond
- B. Double covalent bond
- C. Polar covalent bond
- D. Triple covalent bond

Answer: D



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15. A compound with empirical formula XY_2 has the vapour equal to the empirical formula weight, its molecular formula is :



Answer: A



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16. Identify one statement that does not hold true for electrofining of copper :

- A. Electrolyte is acidified $CuSO_4$ solution
- B. Cathode is a thin strip of impure copper
- C. Anode dissolves in the electrolyte
- D. Anode gets thicker .

Answer: D



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17. The observation when ammonium chloride reacts with potassium hydroxide :

A. A reddish brown gas

B. A colourless gas which turns moist red litmus blue .

C. A green coloured gas which turns moist blue litmus paper red .

D. A colourless gas which turns lime water milky .

Answer: B



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18. The colour of the precipitate formed when ferrous ions react with ammonium hydroxide solution :

A. Blue

B. Reddish brown

C. Dirty green

D. White

Answer: C



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19. During ionisation ,metals lose electrons
this change can be called :

A. Oxidation

B. Reduction

C. Redox

D. Displacement

Answer: A



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20. The oxide of a metal that reacts both with acid and alkali to form salt and water :

- A. Sodium oxide
- B. Magnesium oxide
- C. Aluminium oxide
- D. Ferrous oxide

Answer: C



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21. The property which decreases from left to right across the periodic table :

- A. Electron affinity
- B. Electronegativity
- C. Ionisation energy
- D. Metallic character

Answer: D



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22. On the basis of electronic configuration the period and group of B_5^9 is :

A. 2 and IIIA

B. 3 and IIA

C. 4 and VIA

D. 5 and VIIA

Answer: A



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23. Select the ion that would get selectively discharged from the aqueous mixture of the ions listed below :



Answer: C



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24. Hydronium ion is formed when a molecule of water combines with :

A. Hydrogen atom

B. Proton

C. Hydrogen molecule

D. Oxygen atom

Answer: B



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25. The condition that is most appropriate for electroplating with nickel :

A. Electrolyte is molte copper sulphate

B. Anode should be made of impure nickel
plate

C. Alternating current is used

D. Periodic replacement of cathode is
needed .

Answer: B



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26. The hydroxide which is soluble in excess ammonium hydroxide :

- A. Lead hydroxide
- B. Ferrous hydroxide
- C. Zinc hydroxide
- D. Ferric hydroxide

Answer: C



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27. Which statement is not true for electrolysis ?

- A. Cations migrate towards cathode
- B. Anions discharge at anode
- C. Anions get reduced during electrolysis
- D. Cations get reduced during electrolysis

Answer: C



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28. $H_2 Y$ is the formula of a compound . What is the valency exhibited by Y ?

A. 1

B. 2

C. 3

D. none of the above

Answer: B



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29. The particles which attract one another to form electrovalent compounds are :

A. Electrons

B. Protons

C. Ions

D. Molecules

Answer: C



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30. Which one of the following statement is NOT correct ?

A. Pure water does not allow a current to flow through it

B. The electrolyte only conducts when in the molten state .

C. Electrodes that react with the electrolyte are said to be "active"

D. Ions must be present in the electrolyte in order that it conducts electricity .

Answer: B



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31. The salt formed by partial replacement of hydrogen ion of an acid by a basic radical .

A. Sodium sulphite

B. Magnesium hydroxide

C. Potassium sulphate

D. Zinc hydrogen sulphite

Answer: D



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32. Alkali which dissociates only partially in aqueous solution :

A. Lithium hydroxide

B. Calcium hydroxide

C. Potassium hydroxide

D. Sodium hydroxide

Answer: B



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33. The property that matches with elements of the halogen family are :

A. They are chemically highly reactive

B. They are mettalic in nature

C. They are monoatomic in their molecule form

D. They have one electron in the valence shell

Answer: A



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34. Cathode is a reducing electrode because :

A. It has less number of electrons

B. It has deficiency of electrons

C. Cations gain electrons from cathode

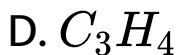
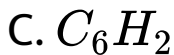
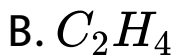
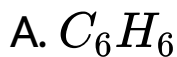
D. Anions lose electrons to cathode

Answer: C



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35. The simplest ratio of the atoms of carbon and hydrogen is 1:1. Identify the possible molecular formula



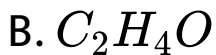
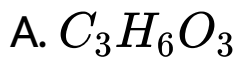
Answer: A



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36. The empirical formula of the compound is CH_2O , the possible molecular formula can be

:



Answer: A



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37. Observe the Periodic Table to answer the question :

Group No.	1-IA	2-IIA	13-III A	14-IVA	15-VA	16-VIA	17-VIIA	18-0
2nd period	Li		D			O	J	Ne
3rd period	A	Mg	E	Si		X	M	
4th period	R	T	G		Q	Y		Z

In the above table some elements are mentioned with their own symbol and position of the Periodic Table while others are shown with a letter . Answer the following questions pertaining to the same .

identify the most electronegative element .

A. Li

B. Ne

C. Z

D. J

Answer: A



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38. Observe the Periodic Table to answer the question :

Group No.	1-IA	2-IIA	13-IIIA	14-IVA	15-VA	16-VIA	17-VIIA	18-0
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3rd period	A	Mg	E	Si		X	M	
4th period	R	T	G		Q	Y		Z

In the above table some elements are mentioned with their own symbol and position of the Periodic Table while others are shown with a letter . Answer the following

questions pertaining to the same .

How many Valence electrons are present in Q ?

A. 3

B. 5

C. 15

D. 4

Answer: B



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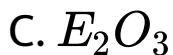
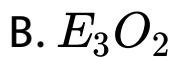
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In the above table some elements are mentioned with their own symbol and position of the Periodic Table while others are shown with a letter . Answer the following questions pertaining to the same .

The formula of the compound formed between E and O is :

A. EO



Answer: C



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40. Observe the Periodic Table to answer the question :

Group No.	1-IA	2-IIA	13-III A	14-IVA	15-VA	16-VIA	17-VIIA	18-0
2nd period	Li		D			O	J	Ne
3rd period	A	Mg	E	Si		X	M	
4th period	R	T	G		Q	Y		Z

In the above table some elements are mentioned with their own symbol and position of the Periodic Table while others are shown with a letter . Answer the following questions pertaining to the same .

The type of bond formed between A and X :

- A. Ionic bond
- B. Metallic bond
- C. Covalent bond
- D. Coordinate bond

Answer: D



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