



CHEMISTRY

AAKASH INSTITUTE ENGLISH

MOCK TEST 22

Example

1. Hydrogen has three isotopes. The number of possible diatomic molecules will be

A. 3

B. 6

C. 8

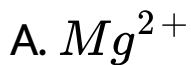
D. 9

Answer: B



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2. Hydrogen gas reduces which metal ion in its aqueous solution?



Answer: C



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3. Hydrogen acts as a reducing agent and thus resembles

A. Hydrogen

B. alkali metals

C. Nobel gas

D. both 1 and 2

Answer: B



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4. In which of the compounds, the oxidation state of hydrogen is -1

A. H_2O

B. CaH_2

C. HBr

D. H_2S

Answer: B



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5. An element reacts with hydrogen to form a compound X which on treatment with water liberates hydrogen gas. The element can be

A. Fluorine

B. Nitrogen

C. Sodium

D. Oxygen

Answer: C



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6. High purity dihydrogen is obtained by electrolysing

A. *dil* H_2SO_4 solutions

B. dil NaOH solutions

C. Aquash $Ba(OH)_2$ solutions

D. Aquash KOH solutions

Answer: C



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7. Only temporary hardness of water is removed by

A. calgon's method

B. clark's method

C. Ion-exchange method

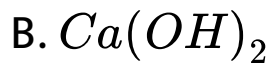
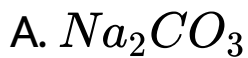
D. synthetic resins method

Answer: B



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8. In Clark's method the chemical used to remove hardness of water is

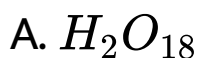


Answer: B



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9. Heavy water is



B. Water containing Mg^{2+} & Ca^{2+} ions

C. D_2O

D. Water at 4deg C

Answer: C



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10. The incorrect statement about the structure of H_2O_2 is

A. It is non-linear and non-planar molecule

B. It has an open book type structure

C. Dihedral angle in both gas phase and solid phase is 111.5deg

D. Dihedral angle in gas phase is 111.5deg and in solid phase is 90.2deg

Answer: C



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11. The strength of "20 volume" H_2O_2 is equal to

A. 0.03 %

B. 6 %

C. 0.2 %

D. 0.15

Answer: B



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12. Which of the following elements combines directly with nitrogen to form its nitride ?

A. Na

B. K

C. Cs

D. Li

Answer: D



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13. The correct order of hydration enthalpies of alkali metal ions is:



Answer: C



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14. The colour given to the flame by sodium salt is

A. Violet

B. Green

C. Blue

D. Golden yellow

Answer: D



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15. The following pair that cannot exist in solution is

A. NaOH and KOH

B. NaCl and KCl

C. NaHCO_3 and NaOH

D. Na_2CO_3 and NaOH

Answer: C



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16. When NaOH is prepared in Castner-Kellner cell, the gas evolved at the anode is

A. O_2

B. O_3

C. Cl_2

D. HCl

Answer: C



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17. which of the following statements is/are incorrect?

A. Melting point : $Li > Na > K > Rb$

B. *Density*: $Rb > Na > K > Li$

C. Metallic radius: $Rb > K > Na > Li$

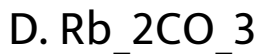
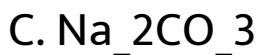
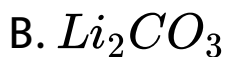
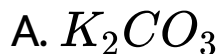
D. Ionization enthalpy : $Li > K > Na > Rb$

Answer: D



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18. Which of the following are thermodynamically stable?



Answer: B



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19. Which is incorrect statement about lithium and magnesium?

A. Lithium and magnesium do not form superoxide

B. LiCl and MgCl, are soluble in ethanol

C. Li and Mg salts do not respond to flame test

D. Carbonates of Li and Mg decompose easily on heating

Answer: C



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20. Solvay's process is used for the manufacture of

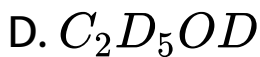
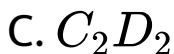
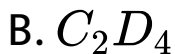
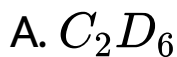


Answer: D



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21. What is formed when calcium carbide reacts with heavy water?



Answer: C



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