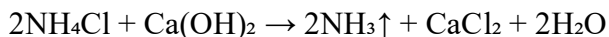
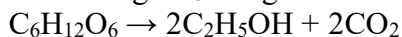
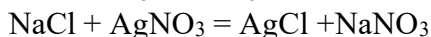
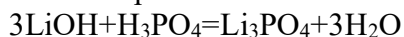


DEMO  
Entrance test  
Chemistry

1. Soaps are  
glycerin and higher carboxylic acids  
salts of higher carboxylic acids  
lipids  
inorganic salt
2. What is the mass in grams of 5 mol  $^{14}_7\text{N}$   
12 gm  
2.8 gm  
35 gm  
70 gm
3. What is the molar mass of  $\text{CH}_3\text{-CH}(\text{Cl})\text{COOH}$   
108,5 g/mol  
109,5 g/mol  
106 g/mol  
107,5 g/mol
4. The oxidation state of copper atom in  $[\text{Cu}(\text{NH}_3)](\text{OH})_2$  is  
+1  
- 2  
+2  
0
5. Which compound shows only oxidizing property  
 $\text{H}_2\text{O}_2$   
 $\text{Cl}_2$   
 $\text{KMnO}_4$   
 $\text{KI}$
6. Dissociation of copper (II) nitrate forms  
2 ions  
3 ions  
4 ions  
5 ions
7. Metallic properties of the elements decrease in  
B, N, C, O  
O, N, C, B  
B, C, N, O  
N, O, C, B
8. Potassium sulfate formula is  
 $\text{K}_2\text{SO}_4$   
 $\text{K}(\text{SO}_4)_2$   
 $\text{K}_2\text{S}$   
 $\text{K}_2\text{SO}_3$

9. An example of a salt metathesis reaction (double displacement reaction) is



10. Reaction  $\text{N}_2 + 3\text{H}_2 \rightleftharpoons 2\text{NH}_3 - Q$  goes

at the room temperature

at a fixed temperature

with allocation of heat

with absorption of heat

11. The general formula  $\text{C}_n\text{H}_{(2n+2)}$  corresponds to hydrocarbons

alkanes

alkenes

alkynes

dienes

12. Molecule of which substance has all atoms in  $\text{sp}^2$ -hybridization

glycerin

cyclohexane

acetylene

ethanol

13. Structural isomers are not

Butane and 2-methylpropane

Ethanol and dimethyl ether

Cyclobutane and methylcyclopropane

Ethane and ethyne

14. Which molecule contains a triple bond?

benzene

cyclohexane

cyclobutane

butyne

15. The electronic formula  $1s^2 2s^2 2p^2$  corresponds to the atom of

carbon

nitrogen

oxygen

sulfur

16. Point out qualitative reaction on phenol group

$\text{Cu}(\text{OH})_2$  solution without heating

bromine water

$\text{Cu}(\text{OH})_2$  solution with heating

$\text{FeCl}_3$

17. Compounds of a formula  $\text{R} - \text{OH}$  belong to the class of

ketones

alcohols

ethers

esters

18. Iron hydroxide interacts with each of the two substances in pair

Al and H<sub>2</sub>SO<sub>4</sub>

O<sub>2</sub> and NaOH

HCl and NaOH

H<sub>2</sub>O and NaCl

19. Acidic hydrolysis of fat forms

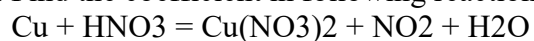
salts and higher carboxylic acids

glycerin and soaps

soaps

glycerin and higher carboxylic acids

20. Find the coefficient in following reaction :



21. Define all stages of electrolyte dissociation of NaHCO<sub>3</sub>

22. Give the names of following substances. What cases of organic compounds are they representatives?

|                                     |  |
|-------------------------------------|--|
| 1) CH <sub>2</sub> =CH <sub>2</sub> |  |
| 2) CH <sub>3</sub> OH               |  |
| 3) CH <sub>3</sub> NH <sub>2</sub>  |  |
| 4) HCOOH                            |  |