## Variant 3

Choose one correct answer and write a number in the answer form to the right of the number of the corresponding assignment. For corrections, use the following cell on the right

1. The number of elec	trons in an argon atom i	s equal to the number o	f electrons in the ion
1) $S^{2-}$	2) Al <sup>3+</sup>	3) Na <sup>+</sup>	4) F
2. In which series a	re simple substances a	rranged in order of st	trengthening their metallic
properties			
1) Be $\rightarrow$ B $\rightarrow$ C	2) Al→Si→H	3) $Ca \rightarrow Mg \rightarrow Be$	4) Na $\rightarrow$ K $\rightarrow$ Rb
3. The degree of oxi	dation of +5 phosphoru	s is manifested in the	compound, the formula of
which			
1) PCl <sub>3</sub>	2) Ca3P2	3) $P_2O_5$	4) P <sub>4</sub>
4. The compound with	h an ionic bond is		
1) KCl	2) H <sub>2</sub>	3) H <sub>2</sub> O	4) CS <sub>2</sub>
5. The substance Ca (	HCO) <sub>3</sub> belongs to the fol	llowing class of inorgani	c substances
1) acid salt		3) middle salt	
2) basic salt		4) hydroxide	
6. Copper reacts with	a dilute solution of each	of the two substances	
1) hydrochloric acid and nitric acid		3) sulfuric acid and hydrochloric acid	
2) nitric acid and silver nitrate		4) hydrochloric acid and silver nitrate	
7. Barium oxide can r	eact		
1) $P_2O_5$	2) FeO	$3) N_2O$	4) CO
8. The precipitate is for	ormed when the solution	s are drained off	
1) sodium carbonate and hydrochloric acid		3) sodium hydroxide and barium nitrate	
2) sodium bromide an	nd potassium hydroxide	4) strontium chloride and sulfuric acid	
9. The transformation	n of $Cu$ $(OH)_2 \rightarrow CuSO_3$	corresponds to the inter	raction of Cu(OH) <sub>2</sub> with
1) $H_2SO_3$	2) SO <sub>3</sub>	3) Na <sub>2</sub> SO <sub>3</sub>	4) K <sub>2</sub> SO <sub>3</sub>
10. In the reaction equ	uation $NO_2 + SO_2 \rightarrow SO_3$	$_3$ + NO, the oxidant is	
1) $NO_2$	2) SO <sub>2</sub>	3) SO <sub>3</sub>	4) NO
11. The reduced ionic	equation $Cu^{2+} + S^{2-} = CuS$	corresponds to the inter	action
1) copper sulphate an	nd ammonium sulphide	3) copper carbonate an	d ammonium sulphide
2) copper hydroxide and hydrogen sulphide		4) copper nitrate and hydrogen sulphide	
12. Alkines include a	substance of composition	1	
$1) C_6 H_6$	2) $C_6H_{12}$	3) $C_6H_{14}$	4) $C_6H_{10}$

1) n-butane and 2-methylbutane		3) 3-ethylpentane and 2,2-dimethylhexane	
2) 2,3-dimethylbutane and n-hexane		4) n-pentane and 2-methylpropane	
14. Propine can not rea	act with		
1) hydrobromic acid	2) chlorine	3) bromine	4) helium
15. Ethanol can interac	et with		
1) copper	2) sodium	3) hydrogen	4) ethane
16. In the transformati	on scheme " $C_2H_4 \rightarrow X$	$C \rightarrow CH_3CH_2OH''$ with t	the substance "X" is
1) acetylene	2) methanal	3) chloroethane	4) methanol
17. The reaction produ	ct of butyne-1 with 1 n	nole of chlorine is	
1) 2-chlorobutene-1		3) 1,1-dichlorobutane	
2) 1,2-dichlorobutane		4) 1,2-dichlorobutene-1	
18. The organic produc	ct of the reaction C <sub>2</sub> H <sub>5</sub>	$OH + HBr \rightarrow is$	
1) ethane	2) bromoethane	3) ethenes	4) diethyl ether
19. Type of chemical re	eaction of interaction o	f potassium hydroxide	with hydrochloric acid
1) compound reaction		3) substitution reaction	
2) decomposition reaction		4) exchange reaction	
20. To increase the rea	ction speed 3 $H_2 + N_2 =$	= 2 NH <sub>3</sub> is necessary	
1) reduce the concentration $H_2$		3) increase pressure	
2) reduce the concentration $N_2$		4) introduce an inhibitor	
21. Neutral medium ha	s an aqueous solution		
1) potassium chloride		3) ferric chloride (II)	
2) potassium carbonate		4) zinc sulfate	
22. The chemical equili	brium in the system C	$O_{2(r)} + C_{(TB)} \leftrightarrow 2CO_{(r)}$	$-\mathit{Q}$ will shift to the right if
1) lower temperatures		3) increase the concentration of CO	
2) increase the con	centration of CO <sub>2</sub>	4) introduce a catalyst	
23. In 180 g of 15% soc	lium hydroxide solutio	n, another 20 g of water	r was added. The mass
fraction of the dissolve	d substance in the resu	llting solution is	
1) 17,5%	2) 26,1%	3) 23,5%	4) 13,5%
24. According to the th	ermochemical equatio	n of glucose oxidation	
$C_6H_{12}O_{6(solid)} + 6O_{2(gas)}$	$_{\rm s)} = 6  {\rm CO}_{2  (gas)} + 6  {\rm H}_{2}$	O <sub>(liquid)</sub> + 2800 kJ upon	oxidation of 0,05 mole of
glucose			
1) absorbed 200 kJ of heat		3) 200 kJ of heat is released	
2) 140 kJ of heat is released		4) 280 kJ of heat is released	
25. What is the mass in	g of sodium carbonate	e required to interact w	ith 20.8 barium chloride?
1) 106	2) 53	3) 10,6	4) 0,106

13. Isomers are