

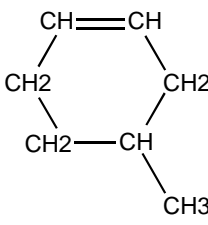
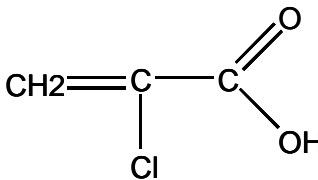
MOCK EXAM: "Chemical Bonding and Nomenclature" (Batx 1)	
Name:	Course:
<p>1. Examine the next molecules: SO₂, SO₃, BCl₃, CCl₄, NH₃, H₂O, CO₂ determining the following characteristics:</p> <ul style="list-style-type: none"> • the Lewis structure of the molecules • the shape of the molecules • the polarity of the molecules • the intermolecular forces <p>VALUES OF ELECTRONEGATIVITIES: H=2,1; O=3,5; N=3; B=2; F=4; C=2,5; S=2,5; Cl=3 (3 POINTS)</p>	
<p>2. Giving the following substances: NH₃, Na₂SO₄, Br₂, Fe and SiO₂ (quartz) determine:</p> <ul style="list-style-type: none"> • the type of substances: ionic, metallic, molecular substance or network solid • if their melting point is high or low • their mechanic properties: malleable, hard, soft, brittle • their electric behavior: conductive, insulator • their possible solubility into water <p>(2 POINTS)</p>	

3. Fill the blanks.

(5 points)

Izena	Formula	Egitura
perchloric acid		
calcium dihydrogenphosphate		
	Mg(OH)_2	
carbon monoxide		
hydrogen sulfide		
nitric acid		
sulfuric acid		
sodium silicate		
	KMnO_4	
	KNO_2	

ammonia		
water		
sodium hydrogencarbonate		
	CaSO₄	
sodium sulfite		
	CuS	
iron (III) hydroxide		
	Mg (ClO₃)₂	
	CaO	
	AlCl₃	

acetic acid	
	$\text{CH}_3\text{-CO-CH}_2\text{-CH}_2\text{-CH}_3$
3,3-dimethyl-1-butanol	
	
methanal	
	
benzene	
	$\text{HC}\equiv\text{C-CH}_3$
1,3-butadiene	
	$\text{CH}_2\text{OH-CHOH-CH}_3$