

INSPECTORATUL ȘCOLAR AL MUNICIPIULUI BUCUREȘTI

CONCURSUL DE CHIMIE

Etapa pe sector – 24.01.2004

– clasa a IX-a –

BAREM DE CORECTARE

I			
1.		6 p	30 p
1.1 atomi :	b), c), d)		
1.2 ioni :	a), b)		
2.	b)	3 p	
3.			
3.1 O	b)	3 p	
3.2 Cl	c)		
4.	b), d)	3 p	
5.	a)	3 p	
6.	c)	3 p	
7.	c)	3 p	
8.	a)	3 p	
9.	b)	3 p	
II.			
a)	$a = {}_3\text{Li}$ $b = {}_4\text{Be}$ $c = {}_5\text{B}$ $d = {}_6\text{C}$ $e = {}_7\text{N}$ $f = {}_8\text{O}$ $g = {}_9\text{F}$ $h = {}_{10}\text{Ne}$ $i = {}_{11}\text{Na}$ $j = {}_{12}\text{Mg}$	10 p	30 p
b)	$V = 3,9374 \cdot 10^{-23} \text{ cm}^3$	10 p	
c)	$ig (\text{NaF}) 20 e^-$ $jf (\text{MgO}) 20 e^-$	10 p	

III			
a)	Ecuatiile reacțiilor chimice	$2 \times 3\text{p} = 6\text{p}$	30 p
	$n_{\text{KOH}} = 8 \cdot 10^{-2}$ moli	2 p	
	$n_{\text{H}_2\text{SO}_4} = 10^{-2}$ moli	2 p	
	$n_{\text{H}_3\text{PO}_4} = 2 \cdot 10^{-2}$ moli	2 p	
	$C_{M_{\text{H}_2\text{SO}_4}} = 2\text{M}$	2 p	
	$C_{\text{H}_3\text{PO}_4} = 4\text{M}$	2 p	
b)	$C_{\text{K}_2\text{SO}_4} = 29\%$	7 p	
	$C_{\text{K}_3\text{PO}_4} = 71\%$		
c)	$C_{M_{\text{H}_2\text{SO}_4}} = 4\text{M}$	7 p	
	$C_{M_{\text{H}_3\text{PO}_4}} = 8\text{M}$		
		Din oficiu	10 p
		Total	100 p