Sul	me: pject: <u>Chemistry-7</u> – Teacher: <u>Mrs. Raj</u> te:	- Gr	ade/Group:
	Test 5: Periodic Table, Ion	ic, a	nd Molecular Compounds
	ections: Identify the letter of the choice thatestion.	t be	st completes the statement or answers the
1.	A positively charged ion is called a a. positron b. anion		polyanion cation
2.	When a metal is combined with a nonmetal a. a metal is formed b. a molecule is formed	C.	a covalent bond is formed an ionic bond is formed
3.	A neutral salt containsa. a cation and anionb. only neutral ions		a charge on the cation that must cancel with the charge on the anion both a and c
	In an ionic bond, electrons a. are shared b. are sometimes shared Consider the periodic table below.		are transferred implode
	v w		X Y Z
6.	Which group of elements is most likely to fa. V b. X In the symbol below, $X = \underline{}$.	C.	+1 ion? W Y
	a. N b. C	c. d.	Al K

 b. Sr d. S 8. Which of the following pairs of elements form ions with a +3 charge? a. Al and Ga b. Li and Na c. N and O d. F and Cl 9. Group 5A ions have a charge of a. +3 b. +2 d2 	7. Which of the following is most likely to lose electrons when forming an ion? a. F c. P					
a. Al and Ga b. Li and Na d. Fand Cl 9. Group 5A ions have a charge of a. +3 b. +2 d2 10. Element X reacts with sodium to form an ionic compound with the formula Na ₂ X, Element X is member of a group a. 1/1A b. 2/2A d. 16/6A 11. Which compound is molecular (covalent)? a. Na ₂ O b. CuSO ₄ c. Csl b. CuSO ₄ d. CS ₂ 12. Ionization energy refers to the energy required to a. Gain an electron b. Bounce an electron into a lower orbital d. Accept an electron neutralizing the charge 13. Predict the formula of the compound formed between Mg and O a. Mg ₂ O b. MgO d. MgO ₂ d. MgO ₂ d. MgO ₂ d. MgO ₂ 14. Of the following options, which selection is found in a molecular compound? a. nonmetal bonded to metal b. ionic bonds between atoms d. contains oppositely charged ions 15. How many electrons does P ⁻³ contain? a. 15 b. 18 d. 17						
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	16					
b. 24 d. 26		a.	23	C.	25	
		b.	24	d.	26	

17. If Ca(s) metal is combined with oxygen, ho a. one b. three	ow many electrons will calcium transfer to oxygen? c. two d. four			
 18. The correct electron configuration for Cl is a. 1s¹2s²2p⁶3s²3p⁴ b. 1s²2s²2p⁶3s²3p⁵ 	 c. 1s²2s²2p⁶3s²3p³ d. 1s²2s²2p⁶3s²3p¹ 			
19. An electron in n = 1, is ina. an s or d orbitalb. An s orbital	c. an p or d orbitald. an s or p orbital			
20. Which electron configuration represents a a. 1s ² 2s ² 2p ⁶ 3s ² b. 1s ² 2s ² 2p ⁶ 3s ² 3p ⁶ 4s ¹	transition metal? c. $1s^22s^22p^63s^23p^6$ d. $1s^22s^22p^63s^23p^64s^23d^3$			
21. The compound BrF3 is named asa. Tribromine fluorideb. Triboron trifluoride	c. Boron trifluorided. Bromine trifluoride			
22. Which electron configuration represents a $a.\ 1s^22s^22p^63s^2$ $b.\ 1s^22s^22p^63s^23p^64s^1$	noble gas? c. $1s^22s^22p^63s^23p^6$ d. $1s^22s^22p^63s^23p^64s^23d^3$			
23. Which of the following metal is classified aa. Magnesiumb. Potassium	s alkali metal? c. Argon d. Phosphorus			
24. Which of the following ions has the same r a. Ca^{2+} b. Sr^{2+}	number of electrons as Br ⁻ ? c. K ⁺ d. I ⁻			
25. Given the representation of a chlorine atom, which circle might represent an atom of bromine?				
$\begin{pmatrix} A \\ Chlorine \end{pmatrix}$ $\begin{pmatrix} B \\ \end{pmatrix}$ $\begin{pmatrix} C \\ \end{pmatrix}$ $\begin{pmatrix} D \\ \end{pmatrix}$				

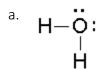
c. Circle C

d. Circle D

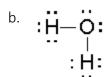
a. Circle Ab. Circle B

26. Of the following elements, which one wou	c. Nitrogen (N)
b. Oxygen (O)27. The least electronegative elements are the	
a. Halogensb. Noble gases	c. Metalloids d. Alkali metals
28. A magnesium atom that loses two electroa. Positive ion with smaller radiusb. Negative ion with smaller radius	ns becomes a c. Positive ion with larger radius d. Negative ion with larger radius
29. Of the elements below, which element ha a. Li b. Na	s the largest ionization energy? c. K d. Rb
30. An element that has valence electrons cora. Period 6; group 6Ab. Period 6; group 8A	nfiguration 6s ² 6p ⁶ belongs to c. Period 7; group 6A d. Period 7; group 8A
31. What is the formula of Iron (III) sulfate?a. FeSO₄b. Fe(SO₄)₃	c. Fe ₂ (SO ₄) ₃ d. FeSO ₃
32. What is the formula of Magnesium oxide? a. MgO b. Mg_2O_2	c. MgO ₂ d. MnO
33. What is the name of ScCl₃?a. Scandium chlorideb. Scandium (I) chloride	c. Scandium chlorined. Scandium (III) chloride
34. What is the name of Al(NO₃)₃?a. Aluminum nitrideb. Aluminum (III) nitrate	c. Aluminum nitrate d. Aluminum (III) nitride
35. The Lewis dot structure of NH₃ depictsa. There are no lone pairs of electronsb. There is one lone pair of electrons	number of lone pairs on the central atom c. There are two lone pairs of electrons d. There are three lone pairs of electrons



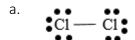








37. Which of the following is the correct Lewis structure for chlorine (Cl₂)?



a. N

c. S

b. Al

d. As

39. Which phrase describes an Aluminum (Al) atom?

- a. A negatively charged nucleus, surrounded by negatively charged electrons.
- b. A negatively charges nucleus, surrounded by positively charged electrons.
- c. A positively charged nucleus, surrounded by negatively charged electrons.
- d. A positively charged nucleus surrounded by positively charged electrons.

40. Which Lewis electron-dot diagram represents a fluorine atom?







