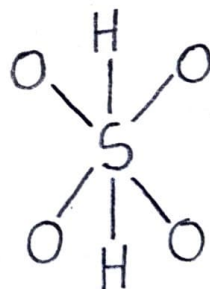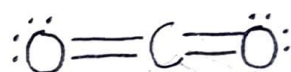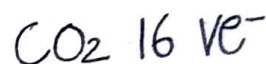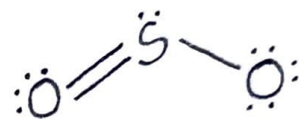Name Sayyed Faisal

Period ___ Date ___/___/___

13 • IMF's, Liquids, & Solids

IMF'S IN SOLIDS

Indicate the **strongest** IMF holding together crystals of the following:

		Molecular Crystal		
		London forces	Dipole-dipole attractions	Hydrogen Bonds
1.	NH_3	✓	✓	✓
2.	Kr	✓		
3.	HCl	✓	✓	
4.	F_2	✓		
5.	$KMnO_4$	✓	✓	
6.	NaCl	✓	✓	
7.	SO_2	✓	✓	
8.	CO_2	✓		
9.	C_3H_8	✓	✓	
10.	CH_4	✓		
11.	CH_3Cl	✓	✓	
12.	HF	✓	✓	✓
13.	C_6H_6	✓		
14.	NO	✓	✓	
15.	H_2SO_4	✓	✓	
16.	WC	✓	✓	
17.	Si	✓		
18.	SiO_2	✓		
19.	$C_{(graphite)}$	✓		
20.	N_2	✓		
21.	CH_3OH	✓	✓	✓
22.	Ag	✓		
23.	$(C_2H_5)_2NH$	✓	✓	✓
24.	NaOH	✓	✓	
25.	Al	✓		
26.	PCl_3	✓		

SO_2 18 VE⁻

CO_2 16 VE⁻

NO 11 VE⁻

H_2SO_4 32 VE⁻

SiO_2 16 VE⁻

NaOH

		Molecular Crystal			Metal	Ionic Crystal	Network Solid
		London forces	Dipole-dipole attractions	Hydrogen Bonds	Metallic Bonds	Ionic Bonds	Covalent Bonds
27.	XeF_4	✓					✓
28.	He	✓					✓
29.	Na	✓			✓		
30.	CO	✓					✓
31.	Ar	✓					✓
32.	$Ba(OH)_2$	✓				✓	
33.	O_2	✓					✓
34.	H_2O	✓					✓
35.	NH_4Cl	✓					✓
36.	Hg	✓			✓		
37.	P_4	✓					✓
38.	HCN	✓					✓
39.	CaO	✓					✓
40.	N_2H_2	✓					✓
41.	H_2	✓					✓
42.	Pb	✓			✓		
43.	XeF_2	✓					✓
44.	SF_4	✓					✓
45.	SiC	✓				✓	
46.	Si_4H_{10}	✓				✓	
47.	PH_3	✓					✓
48.	SiH_4	✓				✓	
49.	H_2Se	✓				✓	
50.	C_2H_2	✓					✓
51.	I_2	✓					✓
52.	Cu	✓			✓		
53.	AsH_3	✓					✓
54.	K_2S	✓				✓	