CHEMISTRY SECTION-A

		SEC.	HON-A		
51.	The compound wh	ich cannot be formed is			
	(1) He	(2) He+	(3) He_2	(4) He ⁺²	
52.	The hybrid state of S in SO ₃ is similar to that of				
	(1) C in C2H2	(2) C in C_2H_4	(3) C in CH_4	(4) C in CO_2	
53.	Assertion : BF ₃ molecule has zero dipole moment.				
	Reason : F is electronegative and B-F bonds are polar in nature.				
	(1) Assertion is correct, reason is correct; reason is a correct explanation for assertion.				
	(2) Assertion is correct, reason is correct; reason is not a correct explanation for assertion				
	(3) Assertion is correct, reason is incorrect				
	(4) Assertion is incorrect, reason is correct.				
54.	Assertion: CH ₂ Cl ₂ is non-polar and CCl ₄ is polar molecule.				
	Reason: Molecule with zero dipole moment is non-polar in nature.				
	(1) Assertion is correct, reason is correct; reason is a correct explanation for assertion.				
	(2) Assertion is correct, reason is correct; reason is not a correct explanation for assertion				
	(3) Assertion is correct, reason is incorrect(4) Assertion is incorrect, reason is correct.				
55.	The correct statement with regard to H_2^+ and H_2^- is				
	(1) both H_2^+ and H_2^- are equally stable		(2) both H_2^+ and H_2^-	(2) both H_2^+ and H_2^- do not exist	
	(3) H_2^- is more stable than H_2^+		(4) H_2^+ is more stable than H_2^-		
56.	Which of the following corresponds unstable molecule?				
	Here N_b is number of bonding electrons and N_a is number of antibonding electrons.				
	$(1) N_b > N_a$	(2) $N_b < N_a$	(3) $N_a = N_b$	(4) Both (2) and (3)	
57.	The given increasing	ng order of energies of va	arious molecular orbita	als is not true for which of the	
	following molecule?				
	$\sigma 1s < \sigma * 1s < \sigma 2s < \sigma * 2s < \left(\pi 2p_x = \pi 2p_y\right) < \sigma 2p_z < \left(\pi * 2p_x = \pi * 2p_y\right) < \sigma * 2p_z$				
	(1) B ₂	(2) C ₂	(3) N_2	(4) O ₂	
58.	The molecule which has zero dipole moment is				
	(1) CH ₃ Cl	(2) NF3	(3) BF ₃	(4) ClO ₂	
59.	Which of the following has dipole moment?				
	(1) CO ₂	(2) p-dichlorobenzene	(3) NH ₃	(4) CH ₄	
60.	In the formation of N_2^+ from N_2 , the electron is lost from:				
	(1) a σ-orbital	(2) a π -orbital	(3) a σ*-orbital	(4) a π*-orbital	