

NEET CHEMICAL BONDING AND MOLECULAR STRUCTURE — DIPOLE MOMENT, POLARITY AND NON-POLAR MOLECULES — PYQS

Max. Marks: 32

Questions: 8

Section A (MCQ) — 8 questions

Q.1 Which of the following molecules has "NON ZERO" dipole moment value? [RE-NEET (UG) 2024]

- (1) CCl_4 (2) HI (3) CO_2 (4) BF_3

Scan or tap for the full solution



Q.2 Which of the following molecules is non-polar in nature? [NEET (UG) 2021]

- (1) NO_2 (2) POCl_3 (3) CH_2O (4) SbCl_5

Scan or tap for the full solution



Q.3 Which of the following set of molecules will have zero dipole moment? [NEET (UG) 2020]

- (1) Boron trifluoride, hydrogen fluoride, carbon dioxide, 1, 3-dichlorobenzene
 (2) Nitrogen trifluoride, beryllium difluoride, water, 1, 3-dichlorobenzene
 (3) Boron trifluoride, beryllium difluoride, carbon dioxide, 1, 4-dichlorobenzene
 (4) Ammonia, beryllium difluoride, water, 1, 4-dichlorobenzene

Scan or tap for the full solution



Q.4 Which of the following molecules has the maximum dipole moment? [AIPMT 2014]

- (1) CO_2 (2) CH_4 (3) NH_3 (4) NF_3

Scan or tap for the full solution



Q.5 Which of the following is a polar molecule?

[NEET 2013]

- (1) SiF_4 (2) XeF_4 (3) BF_3 (4) SF_4

Scan or tap for the full solution



Q.6 The electronegativity difference between N and F is greater than that between N and H yet the dipole moment of NH_3 (1.5 D) is larger than that of NF_3 (0.2 D). This is because [AIPMT 2006]

(1) in NH_3 the atomic dipole and bond dipole are in the opposite directions whereas in NF_3 these are in the same direction

(2) in NH_3 as well as in NF_3 the atomic dipole and bond dipole are in the same direction

(3) in NH_3 the atomic dipole and bond dipole are in the same direction whereas in NF_3 these are in opposite directions

(4) in NH_3 as well as in NF_3 the atomic dipole and bond dipole are in opposite directions.

Scan or tap for the full solution



Q.7 Which of the following would have a permanent dipole moment? [AIPMT 2005]

- (1) SiF_4 (2) SF_4 (3) XeF_4 (4) BF_3

Scan or tap for the full solution



Q.8 H_2O is dipolar, whereas BeF_2 is not. It is because [AIPMT 2004]

(1) the electronegativity of F is greater than that of O

(2) H_2O involves hydrogen bonding whereas BeF_2 is a discrete molecule

(3) H_2O is linear and BeF_2 is angular

(4) H_2O is angular and BeF_2 is linear.

Scan or tap for the full solution



ANSWER KEY

Ques.	1	2	3	4	5	6	7	8			
Ans.	2	4	3	3	4	3	2	4			