

Single Correct Answer Type

- $\text{Na}_2\text{S}_2\text{O}_3$ is oxidised by I_2 to :

(A) Na_2S (B) Na_2SO_4 (C) Na_2HSO_3 (D) $\text{Na}_2\text{S}_4\text{O}_6$
- S-S bond is not present in

(A) $\text{H}_2\text{S}_2\text{O}_4$ (B) $\text{H}_2\text{S}_2\text{O}_5$ (C) $\text{H}_2\text{S}_2\text{O}_7$ (D) $\text{H}_2\text{S}_2\text{O}_3$
- Identify the correct statement of the following

(a) Hypo forms super saturated solutions
 (b) on thermal decomposition hypo gives H_2S , SO_2 and S.
 (c) Dilute sodium thio sulphate, on reaction with AgNO_3 finally gives black ppt. of Ag_2S
 (d) AgBr can be used in making photo graphic films.

(A) A, B, C (B) B, C, D (C) A, C, D (D) A, B, C, D
- Which of the following compounds does not give Nitrogen on heating?

(A) NaN_3 (B) $(\text{NH}_4)_2\text{SO}_4$ (C) NH_4NO_2 (D) $(\text{NH}_4)_2\text{Cr}_2\text{O}_7$
- Sulphur exists as S_8 , S_6 , S_4 and S_2 under different conditions. Which of the following statements is correct?

(A) Mass of one mole of each of them is same
 (B) Number of molecules in one mole of each of them is same
 (C) Number of atoms in one mole of each them is same
 (D) All are correct statements
- A yellow metallic powder when burnt in a stream of fluorine gives a colourless gas 'X'. Another colourless gas Y with same constituent atoms as that of X is obtained by heating sulphur with cobalt fluoride . The hybridization of sulphur in gas X and Y are

(A) sp^3d and sp^3 (B) sp^3d^2 and sp^3d (C) sp^3d^2 and sp^3 (D) sp^3d and sp^3d^2
- Which of the following diagrams is correct for the change of sulphur compounds ?

(A)

(B)

(C)

(D)
- Ozone is -

(A) An isobar of oxygen (B) An isotope of oxygen
 (C) A polymer of oxygen (D) An allotrope of oxygen
- Hydrogen sulphide reacts with lead acetate forming a black compound which reacts with H_2O_2 to form another compound. The colour of the compound is -

(A) Black (B) Yellow (C) White (D) Pink
- One gas bleaches the colour of the flowers by reduction while the other by oxidation. The gases are-

(A) CO and CO_2 (B) H_2S and Br_2 (C) SO_2 and Cl_2 (D) NH_3 and SO_3
- Low volatile nature of H_2SO_4 is due to -

(A) Hydrogen bonding (B) Vander Waals' forces
 (C) Strong bonds (D) None of these

12. There is O—O bond in
 (A) $S_2O_8^{2-}$ (B) $S_4O_6^{2-}$ (C) $S_2O_7^{2-}$ (D) $S_2O_3^{2-}$
13. Concentrated H_2SO_4 is not used to prepare HBr from KBr because it -
 (A) Oxidizes HBr (B) Reduces HBr
 (C) Causes disproportionation of HBr (D) Reacts too slowly with KBr
14. H_2S cannot be dried by passing over conc. H_2SO_4 because -
 (A) The acid oxidises it (B) The acid combines with H_2S to form a salt
 (C) Both form complex (D) It dissolves in the acid
15. Which of the following oxiacids of sulphur contains a sulphur-sulphur single bond -
 (A) $H_2S_2O_6$ (B) $H_2S_2O_7$ (C) $H_2S_2O_8$ (D) $H_2S_2O_3$
16. The structure of oleum is
 (A) $HO-\overset{\overset{O}{\parallel}}{S}-OH$ (B) $HO-\overset{\overset{O}{\parallel}}{S}-O-\overset{\overset{O}{\parallel}}{S}-OH$ (C) $HO-\overset{\overset{O}{\parallel}}{S}-\overset{\overset{O}{\parallel}}{S}-O-OH$ (D) $HO-\overset{\overset{O}{\parallel}}{S}-O-O-\overset{\overset{O}{\parallel}}{S}-OH$
17. Identify the incorrect statement from the following?
 (A) SF_6 is known, but not SCl_6 (B) There are two “ $d\pi - p\pi$ ” bonds in SO_2
 (C) In $\gamma - SO_3$, there are six “S – O” and six “S = O” bonds.
 (D) SO_2 is more powerful reducing agent in alkaline medium than in acidic medium.
18. Hypo is used in photography to:
 (A) reduce the silver bromide grains to metallic silver
 (B) convert the metallic silver to silver salt
 (C) remove undecomposed AgBr as soluble silver thiosulphate complex
 (D) remove reduced silver
19. Which of the following hydrides has lowest boiling point ?
 (A) H_2O (B) H_2S (C) H_2Se (D) H_2Te
20. Which one of the following is the strongest acid ?
 (A) $SO(OH)_2$ (B) $SO_2(OH)_2$ (C) $ClO_2(OH)$ (D) $ClO_3(OH)$

Numerical based

21. At $25^\circ C$ and 1 atm, the atomicity of sulphur is
22. The number of S – O – S linkages in cyclic trimer of SO_3 is
23. Consider the following acids:
 $H_2S_2O_5$, $H_2S_2O_4$, $H_2S_2O_3$, $H_2S_2O_7$, H_2SO_5 , $H_2S_2O_8$
 How many acid molecules do not contain S-S linkage?
24. Oxidation state of sulphur in tetrathionic acid is ;
25. If Volume of ozone is X. On heating ozone, its volume increases to _____X

KEY

1.	D	2.	C	3.	D	4.	B	5.	B
6.	B	7.	C	8.	D	9.	C	10.	C
11.	A	12.	A	13.	A	14.	A	15.	A
16.	B	17.	B	18.	C	19.	B	20.	D
21.	8	22.	3	23.	4	24.	5	25.	1.5

→ Wish You all the Best →