

9.	Oxygen is a gas whereas sulphur is solid. Why?
10.	What is the half life of polonium?
11.	What are general oxidation states of gp-16?
12.	Stability of +6 oxidation state decreases from top to bottom. Why?
13.	Oxygen show anomalous properties in its group. Why?
14.	Write increasing order of acidic property for following $H_2O, H_2S, H_2Te, H_2Se, H_2Po$
15.	Which hydride of gp-16 doesn't show reducing property?
16.	Write order of reducing property for following hydrides- $H_2S, H_2Se, H_2Te, H_2Po$
17.	Write general formula of oxides of gp-16.
18.	Write order of reducing property for following oxides- SO_2, SeO_2, TeO_2
19.	What is the shape of SF_6 ?

20.	Write geometry, hybridization, shape of SF ₄ molecule.
21.	Write formula of dihalides of gp-16 elements. Which element doesn't form dihalide?
22.	Write disproportionation reaction of SeCl ₂
23.	Why H ₂ S is less acidic than H ₂ Te?
24.	Write the order of thermal stability of hydride of gp-16 element.
25.	H ₂ O is liquid whereas H ₂ S is gas. Why?
26.	What happens when potassium chlorate is heated?
27.	Complete following reactions- $\text{KClO}_3 \xrightarrow{\text{heat/MnO}_2} \longrightarrow$ $\text{Ag}_2\text{O} \xrightarrow{\text{heat}} \longrightarrow$ $\text{HgO} \xrightarrow{\text{heat}} \longrightarrow$



28. Electrolysis of water gives _____ at anode and _____ at cathode.

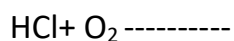
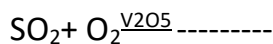
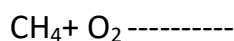
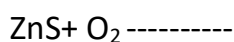
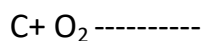
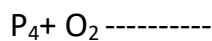
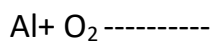
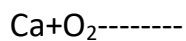
29. How industrially oxygen is obtained?

.....

30. Write isotopes of oxygen.

.....

31. Complete the following reactions



32. Which of the following does not react with oxygen directly?

Zn, Ti, Pt, Fe

.....

33. What are oxides?

.....

34. What are acidic and basic and amphoteric oxides?

	<p>.....</p> <p>.....</p>
35.	<p>Classify following as acidic and basic and amphoteric oxides</p> <p>SO₂, CO₂, Cl₂O₇, N₂O₅, Na₂O, CaO, BaO</p> <p>.....</p> <p>.....</p>
36.	<p>Metals generally form basic oxides but sometimes they can form acidic oxides. Can u clear those conditions in which metals forms acidic oxides?</p> <p>.....</p> <p>.....</p>
37.	<p>Write formula of any three metallic acidic oxides.</p> <p>.....</p> <p>.....</p>
38.	<p>Complete the following reactions</p> <p>SO₂+H₂O-----</p> <p>CaO+ H₂O-----</p> <p>Al₂O₃+H₂O+HCl-----</p> <p>Al₂O₃+H₂O+NaOH-----</p>
39.	<p>Give example of any two neutral oxides.</p> <p>.....</p>
40.	<p>What is the function of ozone layer?</p> <p>.....</p>
41.	<p>What is ozonized oxygen?</p> <p>.....</p>
42.	<p>We use silent electric discharge for preparation of ozone . why?</p>

	<p>.....</p> <p>.....</p>
43.	<p>What are physical properties of ozone?</p> <p>.....</p>
44.	<p>High concentration of Ozone is dangerously explosive. Explain why?</p> <p>.....</p> <p>.....</p> <p>.....</p>
45.	<p>Ozone is used as a powerful oxidizing agent. Give reason.</p> <p>.....</p> <p>.....</p>
46.	<p>Complete the following reactions</p> <p>$PbS + O_3 \rightarrow$-----</p> <p>$I^- + H_2O + O_3 \rightarrow$-----</p>
47.	<p>How can be oxygen estimated quantitatively?</p> <p>.....</p> <p>.....</p> <p>.....</p>
48.	<p>Supersonic jet planes may be a reason for depletion of ozone layer. Explain.</p> <p>.....</p> <p>.....</p> <p>.....</p>
49.	<p>Draw resonance structure of ozone.</p>

50.	Name two allotropic forms of sulphur.
51.	What is transition temperature of sulphur?
52.	Draw structure of S ₈ and S ₆ molecule.
53.	Which form of sulphur shows paramagnetic behaviour ?
54.	Complete following equations S+O ₂ ----- SO ₃ ²⁻ +H ⁺ ----- FeS+O ₂ ----- NaOH+SO ₂ ----- X+Y+SO ₂ -----
55.	What happens when SO ₂ reacts with Cl ₂ in presence of charcoal?
56.	How SO ₂ is detected in lab?

																				
57.	In above question which type of property is shown by SO ₂ ?																				
58.	Draw two canonical forms of SO ₂ ?																				
59.	What happens when sulphur dioxide is passed through an aqueous solution of Fe(III) salt?																				
60.	Comment on the nature of two S–O bonds formed in SO ₂ molecule. Are the two S–O bonds in this molecule equal ?																				
61.	Complete the following table <table border="1" data-bbox="263 1312 1474 1829"> <thead> <tr> <th>Name</th> <th>formula</th> <th>Oxidation state of sulphur</th> <th>Structure</th> <th>Basicity</th> </tr> </thead> <tbody> <tr> <td>Sulphurous acid</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Sulphuric acid</td> <td></td> <td></td> <td></td> <td></td> </tr> <tr> <td>Peroxodisulphuric acid</td> <td></td> <td></td> <td></td> <td></td> </tr> </tbody> </table>	Name	formula	Oxidation state of sulphur	Structure	Basicity	Sulphurous acid					Sulphuric acid					Peroxodisulphuric acid				
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	Pyrosulphuric acid				
62.	Which oxoacid of S is called as oleum?				
63.	Explain the contact process with the help of flow chart diagram.				
64.	Which catalyst is used in contact process?				
65.	What are the favourable conditions of contact process?				
66.	Mention three areas in which H_2SO_4 plays an important role.				
67.	Why is K_{a1} is greater than K_{a2} for H_2SO_4 ?				

68.	What are normal and acidic sulphates?
69.	What happens when sugar is dissolved in Sulphuric acid?
70.	Complete the following equations $\text{Cu} + \text{H}_2\text{SO}_4$ ----- $\text{S} + \text{H}_2\text{SO}_4$ ----- $\text{C} + \text{H}_2\text{SO}_4$ ----- $\text{MX} + \text{H}_2\text{SO}_4$ -----