



CHEMISTRY

BOOKS - USHA CHEMISTRY (ODIA ENGLISH)

P-BLOCK ELEMENTS(GR- 15,GR16,GR17,GR18)

Exercise

1. The first noble gas compound was prepared by

A. Lockyer

B. Ramsay

C. Bartlett

D. Cavendish

Answer:



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2. Which noble gas is called as stranger gas?

A. Ne

B. Ar

C. Kr

D. Xe

Answer:



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3. Which among the following sentences is correct about noble gases?

A. All noble gases have octet in their valency shell

B. Kr is used in radiotherapy

C. The lifting power of 'He' is less than 'H₂'

D. None of these

Answer:



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4. The hybridization involved in $XeFe_2$ structure is-

A. sp

B. dsp^3

C. sp^3d^2

D. sp^3d

Answer:



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5. XeF_6 on complete hydrolysis gives-

A. Xe

B. $XeOF_2$

C. XeO_3

D. XeO_2

Answer:



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6. Which of the following halogen acids is a liquid at room temperature?

A. HF

B. HCl

C. *HBr*

D. HI

Answer:



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7. Fluorine reacts with water giving

A. HF and O_2

B. HF and OF_2

C. HF and O_3

D. HF , O_2 and O_3

Answer:



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8. Ozone can act as _____

- A. Disinfectant
- B. Oxidant
- C. Reductant
- D. All are correct

Answer:



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9. Which of the following hydrides of oxygen family shows the lowest boiling point?

A. H_2O

B. H_2S

C. H_2Se

D. H_2Te

Answer:



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10. Number of atoms in one molecule of sulphur is

A. 3

B. 4

C. 6

D. 8

Answer:



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11. Sulphuric acid anhydride is

A. SO_2

B. H_2S

C. H_2SO_4

D. SO_3

Answer:



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12. When SO_2 is passed through a solution of H_2S in water

A. H_2SO_5 is produced

B. H_2SO_3 is produced

C. Sulphur colloid is produced

D. None of these

Answer:



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13. Unlike other halogens, fluorine does not show higher oxidation states, because

A. It is highly electronegative

B. It has no vacant d-orbitals in the valency shell

C. Its atomic size is very small

D. Its ionisation energy is very high

Answer:



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14. Which of the following is not true for interhalogen compounds?

A. These are more reactive than halogens.

B. These are covalent in nature

C. They have low boiling point and are highly volatile

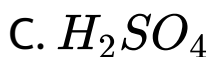
D. They are quite unstable but none of them are explosive

Answer:



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15. Which of the following is known as king of chemicals?



Answer:



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16. Which of the following is formed when hot NaOH reacts with chlorine?

A. NaClO

B. NaClO_2

C. NaClO_3

D. NaClO_4

Answer:



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17. Chlorine is produced by the

A. Electrolysis of aqueous NaCl

B. Action of cone H_2SO_4 on NaCl in presence of MnO_2

C. Action of HCl and MnO_2

D. All of these

Answer:



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18. When SO_2 is passed through acidified $KMnO_4$ solution

- A. $KMnO_4$ is reduced
- B. SO_2 is reduced
- C. $KMnO_4$ solution changes to green
- D. $KMnO_4$ is oxidized

Answer:



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19. Which of the following shows maximum catenation property?

A. Oxygen

B. Chlorine

C. Sulphur

D. Fluorine

Answer:



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20. In deep sea diving, the divers use a mixture of-

A. O_2 and Ar

B. O_2 and He

C. O_2 and N_2

D. O_2 and H_2

Answer:



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21. Which compound is formed in the following reaction? $Xe + F_2 \xrightarrow[Ni-vessel]{673K, atm}$ (1:5 volume ratio)

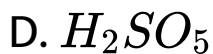
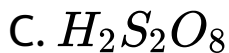
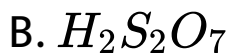


Answer:



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22. The composition of oleum is



Answer:



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23. Bleaching action of SO_2 is due to its

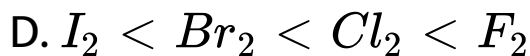
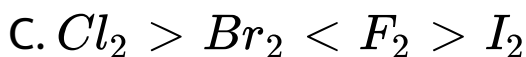
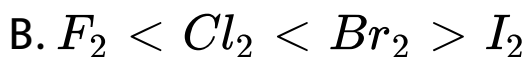
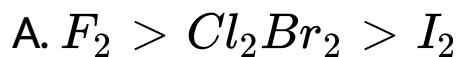
- A. Acidic property
- B. Reducing property
- C. Basic property
- D. Oxidising property

Answer:



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24. The correct of increasing oxidasing power is-

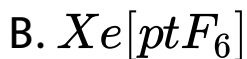


Answer:



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25. The first noble gas compound prepared by Bartlett is



Answer:



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26. Ozone readily dissolves in

A. H_2O

B. NH_3

C. CS_2

D. Turpentine oil

Answer:



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27. Which of the following metals sticks to glass tube on treatment with Ozone?

A. Silver

B. Gold

C. Mercury

D. Nickel

Answer:



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28. The bleaching action of Cl_2 is due to its

- A. Oxidising property
- B. Reducing property
- C. Dehydrating property
- D. Acidic property

Answer:



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29. Number of atoms in one molecule of sulphur is

A. 2

B. 16

C. 8

D. 32

Answer:



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30. Which of the following is used in cryogenics.

A. He

B. Ne

C. Ar

D. Rn

Answer:



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31. The false statement about sulphuric acid is

- A. It acts as an oxidant
- B. It acts as a dehydrating agent
- C. It forms two series of salts
- D. It absorbs SO_2 to form oleum

Answer:



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32. Which halogen shows only one oxidation number in its compounds ?

A. Fluorine

B. Chlorine

C. Bromine

D. Iodine

Answer:



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33. The element which never acts as reducing agent in a chemical reaction is _____

A. Lithium

B. Carbon

C. Oxygen

D. Fluorine

Answer:



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34. Chlorine gas is dried over _____

A. CaO

B. NaOH

C. KOH

D. Conc. H_2SO_4

Answer:



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35. Which of the following is most volatile?

A. HI

B. HBr

C. HCl

D. HF

Answer:



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36. Which of the following is the strongest reducing agent?

A. HF

B. H_2S

C. HBr

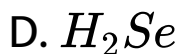
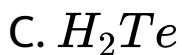
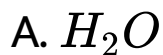
D. HI

Answer:



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37. Bond angle is minimum for



Answer:



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38. The acid used in lead storage battery is

A. HCl

B. $HClO_3$

C. H_2SO_4

D. H_3PO_4

Answer:



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39. Which of the following is the strongest acid?

A. $HClO_4$

B. In making fertilize

C. $HClO_2$

D. $HClO$

Answer:



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40. Sulphuric acid as used

A. In lead storage batteries

B. Gr-17

C. As a dehydrating agent

D. In all of these

Answer:



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41. Aerogen is the name given to the elements
of-

A. Gr-16

B. Chalcogen

C. Gr-18

D. None of these

Answer:



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42. The collective name given to the elements of Gr-16 is-

A. Halogen

B. chalcogens

C. Pnicogen

D. Aerogen

Answer:



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43. Oxygen and ozone are

A. Isomers

B. allotropes

C. Isotopes

D. Isosters

Answer:



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44. Tailing of mercury is due to formation of

_____.

A. Mercurous oxide

B. Molybdenum

C. Mercuric hydroxide

D. Mercurous chloride

Answer:



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45. Which catalyst is used in contact process for manufacture of H_2SO_4 ?

A. Nickel

B. Reductant

C. V_2O_5

D. Finely divided iron

Answer:



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46. In the reaction $HCOOH + (H_2SO_4)$ gives $H_2O + CO$ sulphuric acid acts as _____

A. Oxidant

B. HNO_3

C. Dehydrating agent

D. None of these

Answer:



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47. The acid used for etching of glass is

A. H_2SO_4

B. $PbS + 4O_3 \rightarrow PbSO_4 + 4O_2$

C. HF

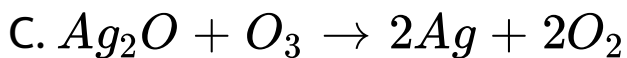
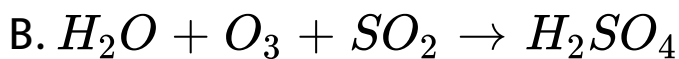
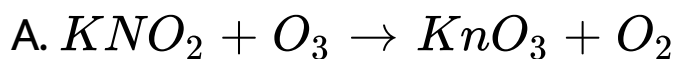
D. HCl

Answer:

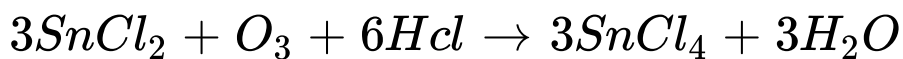


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48. In which case Ozone acts as reductant?



D.



Answer:



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49. In the reaction $\text{H}_2\text{S} + \text{O}_3 \rightarrow \dots$. The products are-

A. $\text{H}_2, \text{S}, \text{O}_2$

B. Br_2

C. H_2O , S

D. SO_2 , H_2O

Answer:



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50. Which of the following reacts with liquid NH_3 to form a mild explosive?

A. Cl_2

B. 120°

C. I_2

D. None of these

Answer:



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51. The bond angle in O_3 molecule is

A. 180°

B. Ne

C. 119.5°

D. 116.5°

Answer:



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52. Which of the noble gases is not present in the atmosphere?

A. He

B. S – S

C. Ar

D. Rn

Answer:



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53. Which of the following has the highest bond energy?

A. O – O

B. S – S

C. Se- Se

D. Te – Te

Answer:



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54. Which of the compounds give carbon with sulphuric acid?

A. Oxalic acid

B. CuS

C. Sugar

D. `Na

Answer:



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55. Identify the catalyst used in Decan process.

A. Cu

B. Increase in bp – bp repulsion

C. $CuCl_2$

D. Na_2CO_3

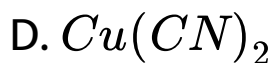
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56. The bond angle for the hydrides of Gr-15 elements decreases from $NH_3(107^\circ)$ to $SbH_3(91^\circ)$. This is due to

- A. Decreases in electronegativity of the central atoms
- B. 6
- C. Decrease in $lp - lp$ repulsion



Answer:



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57. The number of p - o - p bonds in phosphorous pentoxide (P_2O_5) are

A. 5

B. 6

C. 4

D. None of these

Answer:



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58. Which of the following is not a method of preparation of ammonia?

A. Heating of ammonium nitrite

B. $[Cu(NH_3)_4]SO_4$

C. Heating of magnesium nitrite with water

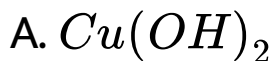
D. 10

Answer:



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59. When ammonia is passed through copper sulphate solution a deep blue solution is formed due to formation of





D. Heating of ammonium sulphide

Answer:



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60. P_4 molecule has tetrahedral structure. The

$\angle P-P-P$ bond angle is _____

A. $109^\circ 28'$

B. 120°

C. 60°

D. 90°

Answer:



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61. Identify the catalyst used in Ostwald's process.

A. V_2O_5

B. Mixture of conc. HCl and conc. HNO₃ in
the volume 3:1

C. Pt

D. 120°

Answer:



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62. Aqua regia is

A. Mixture dil. HCl and dil. HNO_3 in the volume ratio 1:1

B. Mixture of conc. HNO_3 and conc. HCl in the volume ratio 1:3

C. Mixture of conc. HNO_3 and conc. HCl in the volume ratio 3:1

D. Ni

Answer:



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63. Why halogens are highly reactive?



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64. What happens when SO_2 is passed through chlorine water ?



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65. What is the 1st noble gas element discovered in earth?



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66. Why does SO_2 act as bleaching agent only in presence of moisture?



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67. OF_2 is called as oxygen difluoride and not fluorine oxide. Why?



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68. Which noble gas has less than 8 electrons in its valency shell?



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69. The inert gas used in beacon lights is _____



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70. Randon was discovered by _____



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71. Which noble gas compound is highly explosive?



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72. Arrange as indicated -
 H_2O, H_2S, H_2Se, H_2Te (increasing bond angle)



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73. In SO_2 an oxidizing agent or reducing agent or both?



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74. Which oxide of oxygen family is amphoteric in nature?



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75. What is the highest oxidation state of oxygen family ?



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76. What is oil of vitriol ?



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77. Write two oxoacid of sulphur.



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78. The first noble gas compound was prepared by



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79. _____ noble gas can't be absorbed by coconut charcoal .



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80. Radon is formed by disintegration of _____.



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81. Which of the halogens forms hydrogen bond ?



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82. Which halogen is solid at the room temperature ?



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83. Write two uses of Ozone.



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84. Which of the following is used in cryogenics.



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85. Draw the resonating structure of O_3 molecule.



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86. For dilution of H_2SO_4 , H_2O should not be added to conc. H_2SO_4 . Give the reason .



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87. Oxygen was discovered by _____.



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88. Arrange the halogen hydrides in increasing order of their thermal stability.



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89. The hydride of which halogen exists in the dimeric form ?



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90. Arrange the halogens in increasing order of Vander Waal's force present in them.



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91. The $\frac{C_p}{C_v}$ value of the noble gases _____ .



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92. Which noble gas is used in radiotherapy ?



[Watch Video Solution](#)

93. Among the halogens which has highest bond dissociation energy ?



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94. Why is Helium monoatomic ?



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95. Between HI and HCl which is stronger acid?





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96. Why can't Cl_2 bleach dry flowers ?



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97. Which noble gas is most soluble in water ?



[Watch Video Solution](#)

98. Which noble gas is called as stranger gas?





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99. Iodine is more soluble in KI than in water, why?



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100. The most abundant noble gas present in the atmosphere is _____.



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101. The main source of Helium in earth is ____.



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102. Why can't SO_2 be collected over water?



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103. How is the presence of SO_2 detected?



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104. Arrange the oxoacids of chlorine in increasing order of their acidic strength.

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105. Between O_2 and O_3 which is paramagnetic?

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106. Oxygen gas can be absorbed by _____.

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107. Which group elements are called as chalcogens.



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108. What is the reason for the syrupy nature of conc. H_2SO_4 ?



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109. Write the allotropic forms of sulphur.



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110. Which allotropic form of sulphur is more stable at room temperature ?



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111. Write the allotropic forms of oxygen .



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112. Ozone is prepared by passing silent electric discharge through



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113. What does H_2SO_4 behave when it reacts with formic acid?



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114. The bleaching action of Cl_2 is due to its _____ property .



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115. The maximum covalency of chlorine is _____.



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116. Why is a compound of oxygen and fluorine is called as oxygen difluoride ?



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117. Name the substance used for drying of SO_2 gas.



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118. Name the hydride of Gr-VI elements which is liquid at room temperature ?



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119. Between HBr and HI which is more easily oxidised?



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120. What happens when MnO_2 is heated with hydrochloric acid ?



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121. Why is OF_6 not known?



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122. Explain that bleaching action of Cl_2 is permanent, while that of SO_2 is temporary.



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123. Which gas is produced when NaCl is heated with conc. H_2SO_4 ?



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124. Arrange the halogens in increasing order of their electron affinity.



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125. Name two chalcogens .



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126. Name the element of Gr. 16 which has highest catenation property ?



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127. What is Marshall's acid ?



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128. Which halogen will produce O_2 and O_3 on passing through water ?



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129. Draw the molecular structure of oleum.



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130. Write the anomalous properties of fluorine.



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131. Which halogen can not form +ve ion ?



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132. Which gas is responsible for absorbing U.V. radiations emitted by sun ?



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133. Write all the members of oxygen family.



[Watch Video Solution](#)

134. Which among the oxygen family is radioactive?



[Watch Video Solution](#)

135. Which halogen exists in liquid state at room temperature ?



Watch Video Solution

136. HI is an oxidising or reducing agent ?



Watch Video Solution

137. Which halogen is radioactive?



Watch Video Solution

138. Which noble gas is called as Lazy gas?



Watch Video Solution

139. Which element directly combines with xenon forming compounds?



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140. Between F_2 and Cl_2 which is more reactive?



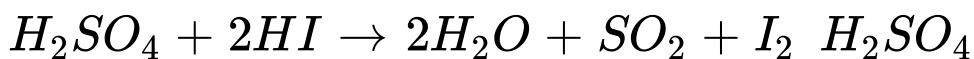
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141. Write one oxyacid of chlorine.



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142. In the reaction



acts as _____...



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143. Arrange the halogen acids in increasing order of their acidic strength.



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144. Which halogen will produce O_2 and O_3 on passing through water ?



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145. What is called fourth state of matter ?



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146. Arrange the noble gases in increasing order of the ease of liquefaction.



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147. Name two scientists associated with discovery of noble gasses.



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148. What is the bond angle in SO_2 molecule ?



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149. Why do the Gr-18 elements not form compounds under ordinary conditions ?



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150. Why has it been difficult to study chemistry of radon ?



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151. Acidified $K_2Cr_2O_7$ solution changes to when SO_2 gas is passed through it.



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152. What is the shape of ozone molecule ?



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153. Name two poisonous gases which can be prepared from Cl_2 .



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154. H_2O is a liquid while hydrogen sulphide is a gas at room temperature. Give reasons.





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155. Write all the members of halogen family.



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156. Which noble gas is used along with O_2 for respiration by sea divers ?



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157. Which noble gas is called as Hidden gas ?



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158. Presence of Helium in earth was Ist proved by _____.



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159. What is composition of Oleum ?



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160. What is the role of MnO_2 in the preparation of Cl_2 from HCl?



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161. Explain why the ionisation energy of nitrogen is more than that of oxygen.



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162. Write the equation for the reaction between Cl_2 and dil. NaOH solution.



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163. Name the process employed for manufacture of NH_3 from N_2 and H_2 .



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164. Magnesium nitride on boiling with water forms _____.



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165. Why is phosphoric acid syrupy in nature ?



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166. Write the product formed when ammonia reacts with excess of chlorine.



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167. Why is Iron passive with conc. HNO_3 ?



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168. What is the compound formed during brown ring test for nitrate.



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169. Which oxide of nitrogen is paramagnetic ?



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170. Write the structural formula of N_2O_5 .



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171. Write the allotropic form of phosphorus.



Watch Video Solution

172. Which gas is produced when white phosphorus is boiled with NaOH solution ?



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173. What is the role of MnO_2 in the preparation of O_2 from $KClO_3$?



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174. What is the covalency of 'N' in N_2O_5 ?



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175. Why NCl_5 is not formed?



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176. Is PCl_5 ionic or covalent in solid state?



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177. Between NH_3 and PH_3 which has higher bond angle?



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178. Why is red phosphorous is less than reactive white phosphorous ?



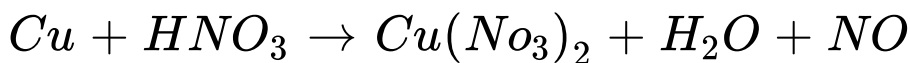
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179. Explain why nitrogen is inert as compared to phosphorus.



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180. Balance the following equation :



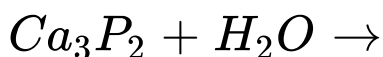
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181. Between NH_3 and PH_3 which is stronger reducing agent?



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182. Complete the equation :



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183. Write the increasing order of thermal stability of hydrides of Gr-16 elements.



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184. Why Cl_2 has both oxidising and bleaching property?



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185. Explain, why NH_3 is a complexing agent ?



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186. What is anhydride of nitric acid?



[Watch Video Solution](#)

187. What are the interhalogen compounds?

Give examples.



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188. Why is OF_6 not known?



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189. What happens when hydrogen iodide solution is added to lead acetate solution ?



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190. Acidified $K_2Cr_2O_7$ solution changes to when SO_2 gas is passed through it.



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191. What happens when hydrochloric acid is added to silver nitrate solution ?



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192. Why does only xenon form stable compounds among the noble gases?



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193. What was the first noble gas compound and who prepared it?



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194. Write four characteristic properties of noble gases.



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195. Why is neon used in beacon light ?





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196. Which noble gas is used along with O_2 for respiration by sea divers ?



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197. What happens when NaI is heated with conc. H_2SO_4 ?



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198. Oxygen exists as O_2 while sulphur exists as S_8 , although they belong to same family. Explain.



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199. What happens when Cl_2 gas is passed through dry slaked lime?



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200. Why HF cannot be stored in glass bottle ?



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201. Give one example of each in which SO_2 acts as reductant and oxidant respectively.



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202. Why is oxygen a gas sulphur a solid at while room temperature ?



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203. Explain why CIF_3 exists where as FCI_3 does not.



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204. What happens when Cl_2 gas is passed through a solution of NaI ?



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205. What is aqua regia? What is its use ?





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206. For dilution of H_2SO_4 , H_2O should not be added to conc. H_2SO_4 . Give the reason .



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207. Explain why bond angle in H_2S is lower than in H_2O ?



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208. A mixture of three gases A, B, C is passed first through acidified $K_2Cr_2O_7$ solution when A is absorbed turning the $K_2Cr_2O_7$ solution green. B gas is absorbed in lime water turning it milky and 'C' gas is absorbed in turpentine oil. Identify A,B,C .



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209. Why do noble gases have comparatively large atomic size in a particular period ?



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210. Why are halogens coloured ?



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211. Arrange H_2O , H_2S , H_2Se , H_2Te in order of increasing thermal stability.



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212. How does ozone react with silver metal ?



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213. What happens when PbS is treated with ozone ?



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214. The Halogen which has the highest electron affinity :



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215. Which of the halogens (excluding astatine) has highest electronegativity ?



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216. Which of the halogens (excluding astatine) is strongest oxidant ?



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217. Which of the halogens (excluding astatine) has lowest ionisation energy ?



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218. How is H_2S prepared in the laboratory ?



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219. How can you prepare HCl gas in the laboratory?



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220. Explain why F_2 does not form oxyacids.



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221. Explain why halogens are strong oxidising agents.



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222. Explain why HBr and HI can't be prepared by heating NaBr and NaI with conc. H_2SO_4 ?



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223. How does sulphuric acid react with sodium bromide ?



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224. What is charring of sugar ?



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225. HF is less volatile than HCl. Explain.



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226. Do as directed : F_2, Cl_2, Br_2, I_2

(increasing bond dissociation energy)



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227. Do as directed : H_2O, H_2S, H_2Se, H_2Te

(Increasing acidic strength)



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228. HF can form the salt KHF_2 while HCl does not form $KHCl_2$. Explain.



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229. Give the principle of manufacture of H_2SO_4 by contact process.



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230. What is the action of O_3 on acidified $FeSO_4$ solution ?



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231. How does xenon react with O_2F_2 at $-118^\circ C$?



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232. Why does xenon form compounds only with fluorine and oxygen ?



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233. What happens when H_2S gas is passed through chlorine water ?



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234. Why is H_2SO_4 called as king of the chemicals?



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235. Tailing of mercury is due to formation of

_____.



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236. What happens when copper turnings are heated with conc. H_2SO_4 ?



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237. Explain why SO_2 is more powerful reducing agent in alkaline medium than in acid medium.



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238. In contact process SO_3 is not directly dissolved in water, explain why ?



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239. How does hydrofluoric acid react with sand ?



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240. What happens when Zinc metal is treated with dilute H_2SO_4 ?



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241. Explain that bleaching action of Cl_2 is permanent, while that of SO_2 is temporary.



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242. Explain that bleaching action of Cl_2 is permanent, while that of SO_2 is temporary.



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243. What happens when SO_2 gas is passed through lime water first slowly and then in excess ?



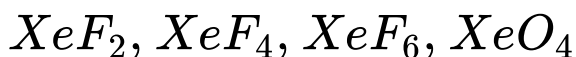
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244. How does Ozone react with KI solution ?



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245. Write the shapes and type of hybridisation of the following molecules :



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246. How does ozone react with $SnCl_2$



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247. How does Ozone react with KI solution ?



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248. What is the action of ozone on hydrogen peroxide ?



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249. What happens when XeF_6 is heated with water ?



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250. Write all the noble gases. Why don't they enter into chemical combination ?



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251. Give two reactions of fluorine, one with metal and other with nonmetal.



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252. How can you prepare xenon hexafluoride ?



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253. How does ozone react with moist iodine?



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254. What does H_2SO_4 behave when it reacts with formic acid?



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255. Explain why a blue litmus dipped into a solution of hypochlorous acid first turns red and then gets decolourised.



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256. What is etching of glass ?



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257. What is the action of hydrochloric acid on potassium permanganate ?



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258. What happens when ammonia is heated with cupric oxide ?





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259. What happens when ammonium hydroxide is added to sulphate solution first slowly and then in excess.



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260. Write the structural formula of H_3PO_3 and H_3PO_4 .



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261. Why NO_2 dimerise to N_2O_4 ?



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262. What are the favourable conditions for synthesis of NH_3 by Haber's process ?



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263. Why is PCl_5 , more covalent than PCl_3 ?



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264. Explain why the reducing power for the hydrides of Gr-15 increases down the group



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265. Why does Nitrogen exist as N_2 white phosphorus as P_4 ?



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266. Why does ozone act as a powerful oxidant?



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267. List the important sources of sulphur.



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268. Name two poisonous gases which can be prepared from Cl_2 .



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269. Write the anomalous properties of fluorine.



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270. Mention some important uses of sulphuric acid.



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271. Explain, that in SO_2 the two S-O bonds are equal in length.



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272. Why does NH_3 form hydrogen bond but PH_3 does not ?



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273. How copper metal gives different products with nitric acid ?



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274. Write three difference in properties of white phosphorus and red phosphorus



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275. Give example of compounds showing +3, +5 oxidation states for phosphorous



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276. What happens when NaCl is treated with sulphuric acid in presence of MnO_2 ?



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277. What happens when Cl_2 gas is passed through hot concentrated solution of NaOH ?



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278. Explain, why NH_3 is a complexing agent ?



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279. Bond angle in phosphonium ion is higher than phosphine. Explain.



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280. Why does PCI_3 , fumes in moist air ?



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281. Explain, why all the bonds In PCI_5 are not identical.



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282. Write basicity of H_3PO_2 , H_3PO_3 and H_3PO_4 .



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283. When iron reacts with HCl, ferrous chloride is formed not ferric chloride, why,?



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284. How can you prepare Cl_2 from HCl and HCl from Cl_2 ?



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285. Arrange as indicated - HF,HCL,HBr,HI
(increasing volatility order)



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286. Arrange as indicated -
 NH_3 , PH_3 , AsH_3 , SbH_3 (increasing basic strength)



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287. Arrange the halogen acids in increasing order of their acidic strength.



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288. Arrange as indicated -
 H_2O, H_2S, H_2Se, H_2Te (increasing bond angle)



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289. On the basis of VSEPR theory explain the shape of BrF_3 molecule .



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290. Describe the geometry of XeF_6 .



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291. Between F_2 and Cl_2 which has more oxidising power and why?



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292. Write three anomalous behaviour of Nitrogen.



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293. Write three properties of oxygen by which it differs from its family members.



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294. How do you account for the following :
Sulphur is paramagnetic in vapour state.



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295. How do you account for the following :
Enthalpy of dissociation of Cl_2 is higher than F_2 .



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296. On heating a compound A gives compound ' B ' which is a constituent of air. This gas when heated with hydrogen in presence of iron catalyst gives gas ' C ' which is basic in nature. Gas C on oxidation in moist condition gives compound ' D ' which is

constituent of acid rain. Identify A, B, C,D and give necessary equation.



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297. Fluorine has less -ve value of electron gain enthalpy than chlorine. Explain.



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298. Why are the Gr-18 elements called as inert gases ?



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299. Write two uses of Helium.



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300. Give the preparation of XeF_2 and XeF_4 .



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301. Discuss the trends in properties of hydrides of Gr-16 family (any three) ?



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302. How is SO_2 prepared in the laboratory?



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303. Describe the laboratory method of preparation of sulphur dioxide. How does it

react with acidified $KMnO_4$ solution and chlorine water ?



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304. How does SO_2 react with Mg metal



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305. How does SO_2 react with acidified $K_2Cr_2O_7$



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306. Write all the members of halogen family.



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307. What happens when Sulphur dioxide is passed through $FeCl_3$ solution ?



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308. What happens when O_3 is passed through acidified $SnCl_2$ solution ?



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309. What happens when SO_2 is passed thorough aqueous solution of H_2S ?



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310. What happens when SO_2 is passed through chlorine water ?



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311. Describe the Siemen's method of preparation of Ozone. How does it react with PbS .



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312. Describe the Siemen's method of preparation of Ozone. How does it react with Moist Iodine.



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313. What happens when NaI is heated with conc. H_2SO_4 ?



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314. What happens when H_2S gas is passed through conc. solution of ammonia ?



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315. Why is H_2SO_4 a syrupy liquid ?



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316. Write three anomalous behaviour of Nitrogen.



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317. Give the reaction of nitrogen with calcium carbide.



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318. Write the allotropic form of phosphorus.



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319. During laboratory method of preparation of ammonia, the drying agent used is



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320. How does nitric acid react with zinc ?



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321. Explain the tendency of NH_3 to form complex.



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