

CHEMISTRY

BOOKS - CENGAGE CHEMISTRY (HINGLISH)

P-BLOCK GROUP 18 ELEMENTS - THE INERT GASES

Illustration

1. (a) Why are the elements of group 18 known as noble gases?
(b) Noble gases have very high boiling points why?
(c) Does the hydrogen of XeF_2 lend in a redox reaction?



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2. (a) What prompted Rayleigh and Ramsay in the discovery of noble gas compounds?

(b) The majority of noble gas compounds are those of xenon. Give reason.

(c) No chemical compound of He is known. Why?

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Example

1. XeF_2 has linear structure and not a bent structure. Give reason.

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Exercises Linked Comprehension

1. Noble gases have completely filled valence shells i.e. $m^2 sp^2$ except He (i.e.). Noble gases are monatomic under normal conditions. Low boiling points of the lighter noble gases are due to weak van der Waals forces between the atoms and absence of any intermolecular interactions. Xe reacts with F_2 to give a series of fluorides namely XeF_2 , XeF_4 , XeF_6 , XeF_3 on complete hydrolysis gives XeF_3 ,

Structure of XeF_4 is

- A. Linear
- B. Square planar
- C. Tetrahedral
- D. Pyramidal

Answer: b

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2. Noble gases have completely filled valence shell i.e. m^2sp^2 except He (i.e). Noble gases are monatomic under normal conditions. The boiling point of the lighter noble gases are due to weak van der Waals forces between the atoms and absence of any intermolecular interactions. Xe reacts with F_2 to give a series of fluorides namely XeF_2 , XeF_4 , XeF_6 , XeF_3 on complete hydrolysis gives XeF_3 ,
Oxidation state of Xe in XeF_2 is

A. +2

B. +4

C. +6

D. + 8

Answer: a

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3. Noble gases have completely filled valence shells i.e. $m^2 sp^2$ except He (i.e). Noble gases are monatomic under normal conditions. The boiling point of the lighter noble gases are due to weak van der Waals forces between the atoms and absence of any intermolecular interactions. Xe reacts with F_2 to give a series of fluorides namely XeF_2 , XeF_4 , XeF_6 , XeF_3 on complete hydrolysis gives XeF_3 ,
Argon is used in arc welding due to its

A. Flammability

B. zero

C. Law reactivity with metal

D. Lower the melting with metal

Answer: c



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4. Noble gases have completely filled valence shell i.e. $m^2 sp^2$ except He (i.e). Noble gases are monatomic under normal conditions. The boiling point of the lighter noble gases are due to weak van der Waals forces between the atoms and absence of any intermolecular interactions. Xe reacts with F_2 to give a series of fluorides namely XeF_2 , XeF_4 , XeF_6 , XeF_3 on complete hydrolysis gives XeF_3 , XeF_4 and XeF_6 are expected to be

A. Reducting

B. Oxidising

C. Inert

D. Basic

Answer: b



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Exercises Multiple Correct

1. The noble gases which do not form any clatherate

A. He

B. Ne

C. As

D. Kr

Answer: a,b



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2. Which of the following noble gases do not react with function

A. Kr

B. Xe

C. He

D. Ne

Answer: a,d



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3. The noble gases found dissolved in spring water are

A. He

B. Ne

C. Kr

D. Ar

Answer: a,d



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4. XeF_4 are reaction with H_2 gives

A. Xe

B. HF

C. XeF_2

D. XeF_6

Answer: a,b



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5. Which of the following compound cannot be prepared by direct between the constituent element?

A. XeF

B. XeO_3

C. XeF_4

D. XeO_2F_2

Answer: b,d

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6. Which of the following groups are used for the group 18 elements?

A. Zero group elements

B. Aerogens

C. Noble gases

D. Chalcogens

Answer: a,b,c

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7. Which amongs the following statement are correct?

- A. XeF_4 and SbF_3 combine to form salt
- B. He and Na do not form clabrances
- C. He has highest bolling poin in the group
- D. He diffuses through rubber

Answer: a,b,d



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Exercises Single Correct

1. Which of the following does not react with fluorine?

A. Kr

B. Ar

C. Xe

D. All of these

Answer: B



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2. Which species is not known?

A. XeF_6

B. XeF_4

C. XeO_3

D. KrF_6

Answer: d



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3. Xenon directly combines with

A. oxygen

B. rubidium

C. fluorine

D. chlorine

Answer: c



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4. Xenon best react with

- A. the most electropositive element
- B. the most electrogative element
- C. the hydrogen halides
- D. non-metals

Answer: b



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5. Radon was discovered by

- A. Dorn
- B. Ramsay

C. Rayleigh

D. none of these

Answer: a



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6. The noble gas used in the preparation of first noble gas compound was?

A. Xe

B. He

C. Cr

D. Rn

Answer: a



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7. Electron affinity for a noble gas is approximately equal to

- A. that of halogens
- B. zero
- C. that of oxygen family
- D. that of nitrogen family

Answer: b



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8. First stable compound of inert gas was prepared by

A. Rayleigh and Ramsay

B. Bartlett

C. Frankland and Lockyer

D. Cavendish

Answer: b

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9. The gaseous mixture used by deep sea divers for respiration is

A. $N_2 + O_2$ mixture

B. $He + O_2$ mixture

C. $Ar + O_2$ mixture

D. neon + O_2 mixture

Answer: b

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10. Xenon difluoride is

A. Linear

B. angular

C. trigonal

D. pyramidal

Answer: a

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11. The rare gases are

A. monoatomic

B. diatomic

C. triatomic

D. polyatomic

Answer: a



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12. The noble gases which do not form any clathrate

A. Xe

B. Kr

C. He

D. Ar

Answer: c



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13. The forces of cohesion in liquid helium are

A. covalent

B. ionic

C. van der waals

D. metallic

Answer: c



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14. The lightest, non-inflammable gas is

A. H_2

B. He

C. N_2

D. Ar

Answer: d



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15. The inert gas present in atmosphere are

A. He and Ne

B. He, Ne and Ar

C. He, Ne ,Ar and KR

D. He, Ne, Ar, Kr and Xe

Answer: d



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16. percentage of argon in air is about

A. 10 per cent

B. 0.1 per cent

C. much less then 0.1 per cent

D. 1 per cent

Answer: d



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17. Inert gases such as helium behave like ideal gases over a wide range of temperature. However, they condense into the solid state at very low temperatures. It indicates that at very low temperature there is a

- A. weak attractive force between the atoms
- B. weak repulsive force between the atoms
- C. strong attractive force between the atoms
- D. strong repulsive attractive between the atoms

Answer: b



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18. The gas used for inflating the tyres of aeroplanes is

A. H_2

B. He

C. N_2

D. Ar

Answer: b



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19. Major credit for the discovery of noble gases is given to

A. Cavendish

B. Ramsay

C. Rayleigh

D. None of these

Answer: b



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20. Helium was discovered by

A. Frank land and Lockyer

B. Rayleigh

C. Ramsay

D. None of these

Answer: a



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21. Argon was discovered by

A. Cavendish

B. Lavoisier

C. Rayleigh

D. Thomson

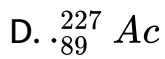
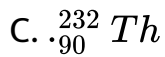
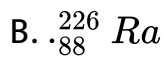
Answer: b



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22. A radioactive element X decays to give two inert gases X is

A. ${}_{92}^{238}U$



Answer: b



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23. Which gas is filled in element bulbs/tubes?



Answer: c



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24. In colour discharge tubes, which is used?

A. Ne

B. Ar

C. Kr

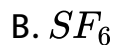
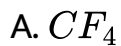
D. He

Answer: b



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25. The fluoride which does not exist is



Answer: c



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26. Which shows the least chemical reactivity?

A. Ammonia

B. Methane

C. Argon

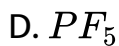
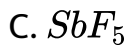
D. Hydrogen sulphide

Answer: c



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27. The none-existent species is



Answer: a



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28. The ease of liquefaction of noble gases decreases in the order



Answer: b



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29. Compounds formed when the noble gases get entrapped in the cavities of crystal lattices of certain organic and inorganic compounds are known as

A. interstitial compounds

B. Clathrates

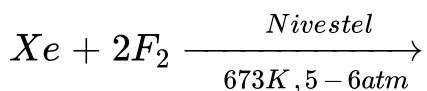
C. Hydrates

D. Picrates

Answer: b

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30. Which compound is prepared by the following reaction



(1:5 volumeratio)

A. XeF_2

B. XeF_6

C. XeF_4

D. $XeOF_2$

Answer: c

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31. The two electrons in helium atom

A. occupy different shells

B. have different spins

C. have the same spins

D. occupy different subshells of the same subshell

Answer: d

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32. Which is called stranger gas ?

A. Kr

B. Xe

C. He

D. Ne

Answer: b



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33. Helium gives a characteristic spectrum with

A. orange and red lines

B. orange lines

C. yellow line

D. green line

Answer: c



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34. Geometry and hybridisation of Xe in $XeOf_4$ molecule is

A. square planar sp^3d^2

B. square pyramidal sp^3d^2

C. tetrahedral sp^3

D. None of the above

Answer: b



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35. Who observed helium first on the earth?

A. Lothar meyer

B. Ramsay

C. Sheele

D. Rutherford

Answer: b



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36. The noble gas which behaves abnormally in liquid state is

A. Xe

B. Ne

C. He

D. Ar

Answer: c



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37. Noble gases do not occur in

A. nature

B. ores

C. atmosphere

D. sea water

Answer: d



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38. XeF_4 exists as Under ordinary atmospheric conditions

A. solid

B. liquid

C. gas

D. none of these

Answer: a



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39. In order to prevent the hot metal filament from getting burnt, when the electric current is switched on, the bulb is filled with



B. an inert gas



Answer: b



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40. Radon is a noble gas , its radioactivity is used in the treatment of

A. typhoid

B. cancer

C. caught and cold

D. thyroid

Answer: b



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41. The idea which prompted Bartlett to prepare first ever compound of noble gas was

A. high bond energy of $Xe - F$

B. low bond energy of $F - F$ in F_2

C. ionisation energies of O_2 and xenon were almost similar

D. none of the above

Answer: c



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42. Which of the following has zero valency?

A. Be

B. Se

C. Li

D. Ar

Answer: d



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43. Helium is used in gas balloons instead of hydrogen because

- A. it is higher than H_2
- B. it is none-combustible
- C. it is more abundant than H_2
- D. its linkage can be detected easily

Answer: b



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44. A helium atom on losing an electron becomes

- A. α – particle

- B. hydrogen atom
- C. positively charged helium ion
- D. negatively charged helium ion

Answer: c



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45. What are the products formed in the reaction of xenon hexafluoride with silicon dioxide?

- A. $XeSiO_4 + HF$
- B. $XeF_2 + SiF_4$
- C. $XeOF_4 + SiF_4$
- D. $XeO_3 + SiF_2$

Answer: c



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46. Liquid flow from a higher to a level .Which of the following liquids can climb up the wall of the glass vessel in which it is placed ?

A. Alcohol

B. Liquid He

C. Liquid N_2

D. water

Answer: b



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47. Remy was awarded Noble Prize for the discovery of rare gases in

A. 1900

B. 1902

C. 1904

D. 1910

Answer: c



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48. Neon is extensively used in

A. cold storage unit

B. organic compounds

C. medicines

D. coloured electric discharge lamps

Answer: d



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49. The discovery of isotopes began with the experiments with

A. Xe

B. Kr

C. Ar

D. Ne

Answer: d



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50. Which statement about noble gases is not correct ?

A. a. Xe forms XeF_6

B. b. Ar is used in electric bulbs

C. c. Kr is obtained during radioactive disintegration

D. d. He has the lowest boiling point among all the noble gases

Answer: c



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51. In solid argon , the atoms are held together by

- A. ionic bonds
- B. hydrogen bond
- C. van der waals forces
- D. hydrophobic forces

Answer: c



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52. The van der waals forces are the greater in

- A. neon
- B. argon
- C. krypton
- D. xenon

Answer: d



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53. Electronegativity of an inert gas is

A. high

B. low

C. negative

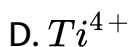
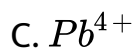
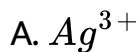
D. zero

Answer: d



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54. Which has the same electronic configuration as of inert gas ?



Answer: d



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55. Which of the following noble gas is not present in atmosphere ?



B. Kr

C. Ne

D. Ar

Answer: a



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56. Which noble gas is more soluble in water ?

A. He

B. Ar

C. Ne

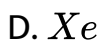
D. Xe

Answer: d



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57. XeF_6 on complete hydrolysis gives



Answer: a



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58. Xenon tetrafluoride has hybridisation and structure as

- A. sp^3 tetrahedral
- B. sp^3d^2 square planer
- C. sp^3d^2 pyramidal
- D. sp^3d^3 octahedral

Answer: b

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59. Which noble gas has higher and least polarisability respectively ?

- A. He,Xe
- B. Ne,Kr
- C. Kr,Ne

D. Xe,He

Answer: d



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60. Which is monoatomic?

A. Oxygen

B. Fluorine

C. Neon

D. Nitrogen

Answer: c



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61. In the clathrates of xenon with water , the nature of bonding between xenon and water molecule is _____.

- A. covalent
- B. hydrogen bonding
- C. coordinate
- D. dipole-induced dipole

Answer: d



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62. Asthma patients use a mixture offor respiration

- A. O_2 and H_2

B. O_2 and He

C. O_2 and Ar

D. O_2 and Ne

Answer: b



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63. The solubility of noble gases in water shown the order

A. $He > Ar > Kr > Na > Xe$

B. $He > Na > Ar > Kr > Xe$

C. $Xe > Kr > Ar > Na > He$

D. none of above

Answer: c



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64. Out of (i) XeO_3 (ii) $XeOF_4$ and (iii) XeF_6 the molecules having same number of lone pairs on Xe are

- A. (i) and (ii) only
- B. (i) and (iii) only
- C. (ii) and (iii) only
- D. (i),(ii) and (iii) only

Answer: d



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65. Which is planar molecule ?



Answer: b



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66. Which of the following cannot be formed ?



Answer: d



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67. Which statement regarding He is incorrect?

A. a.it is used in gas cooled nuclear reactor

B.it is used as a cryogenic agent for carrying out experiment at low temperature

C.b.it is used to produce and sustain powerful superconducting magnets

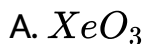
D.c.it is used to fill gas balloons instead of H_2 because it is lighter and non-combustible

Answer: d



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68. Which of the following is an explosive compound ?



Answer: a



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69. The idea which prompted bartlett to prepare first ever compound of noble gas was

- A. Low bond dissociation enthalpy of F-F in F_2 molecule
- B. High bond energy of $Xe - F$
- C. Ionisation enthalpies of O_2 and Xe are almost same
- D. none of the above

Answer: c

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70. Noble gases are also known as aerogens because

- A. They occur in air
- B. They are rarely found in atmosphere
- C. They are most rarely found in atmosphere
- D. none of the above

Answer: a

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71. The gaseous mixture used by deep sea divers for respiration is

- A. Nitrogens is much less soluble in blood than helium
- B. Helium is much less soluble in blood than nitrogen
- C. Nitrogen is highly soluble in water
- D. Due to high pressure deep under the sea nitrogen and oxygen react to give poisonous nitric oxide

Answer: b

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72. Percentage of argon in air is

- A. Nearly half as that of CO_2
- B. Nearly half as that of CO_2
- C. Nearly thirty times as that of CO_2
- D. none of these

Answer: c



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Exercises Assertion And Reason

1. Assertion :Solubility of noble gases in water decreases with increases in atomic size

Reason :Solubility of noble gases in water is due to instantaneous dipole induced dipole interaction

A. If both (A) and (R) are correct and (R) is the correct explanation of (A)

B. If both (A) and (R) are correct,but (R) is the correct explanation of (A)

C. If (A) is correct but (R) is incorrect

D. If (A) is incorrect but (R) is correct

Answer: d



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2. Assertion : Noble gases are chemically inert

Reason :All noble gases have ns^2np^6 valence shell electronic configuration

- A. If both (A) and (R) are correct and (R) is the correct explanation of (A)
- B. If both (A) and (R) are correct, but (R) is the correct explanation of (A)
- C. If (A) is correct but (R) is incorrect
- D. If (A) is incorrect but (R) is correct

Answer: c



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3. Assertion : He and Ne do not form any clathrates

Reason : Both He and Ne are very small in size

A. If both (A) and (R) are correct and (R) is the correct explanation of (A)

B. If both (A) and (R) are correct, but (R) is the correct explanation of (A)

C. If (A) is correct but (R) is incorrect

D. If (A) is incorrect but (R) is correct

Answer: a



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4. Assertion : Deep sea divers use $He - O_2$ mixture for breathing

Reason : Unlike N_2 He is insoluble in blood even under high pressure

A. If both (A) and (R) are correct and (R) is the correct explanation of (A)

B. If both (A) and (R) are correct, but (R) is the correct explanation of (A)

C. If (A) is correct but (R) is incorrect

D. If (A) is incorrect but (R) is correct

Answer: a



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5. Assertion : Xenon from fluorides

Reason :Because $5d$ orbitals are available for valance shell expansion

- A. If both (A) and (R) are correct and (R) is the correct explanation of (A)
- B. If both (A) and (R) are correct, but (R) is the correct explanation of (A)
- C. If (A) is correct but (R) is incorrect
- D. If (A) is incorrect but (R) is correct

Answer: a



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6. Assertion : He and Be have similar valence shell electronic configuration ns^2

Reason :Both are chemically inert.

A. If both (A) and (R) are correct and (R) is the correct explanation of (A)

B. If both (A) and (R) are correct, but (R) is the correct explanation of (A)

C. If (A) is correct but (R) is incorrect

D. If (A) is incorrect but (R) is correct

Answer: c



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7. Assertion : XeF_2 is linear

Reason :Xe atom in XeF_2 is sp hybridised

A. If both (A) and (R) are correct and (R) is the correct explanation of (A)

B. If both (A) and (R) are correct,but (R) is the correct explanation of (A)

C. If (A) is correct but (R) is incorrect

D. If (A) is incorrect but (R) is correct

Answer: c



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8. Assertion : XeF_4 is square planar

Reason :Xe atom in XeF_4 is dsp^2 hybridised

A. If both (A) and (R) are correct and (R) is the correct explanation of (A)

B. If both (A) and (R) are correct, but (R) is the correct explanation of (A)

C. If (A) is correct but (R) is incorrect

D. If (A) is incorrect but (R) is correct

Answer: c



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9. Assertion :Ne and Ar do not form any chemical compound

Reason :They have ns^2sp^6 fully filled valence shell electronic configuration

- A. If both (A) and (R) are correct and (R) is the correct explanation of (A)
- B. If both (A) and (R) are correct, but (R) is the correct explanation of (A)
- C. If (A) is correct but (R) is incorrect
- D. If (A) is incorrect but (R) is correct

Answer: b



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10. Assertion : Ionisation enthalpy of noble gases is zero

Reason : Noble gases have fully filled valence shell

A. If both (A) and (R) are correct and (R) is the correct explanation of (A)

B. If both (A) and (R) are correct, but (R) is the correct explanation of (A)

C. If (A) is correct but (R) is incorrect

D. If (A) is incorrect but (R) is correct

Answer: d



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11. Assertion : Noble gases are diamagnetic atoms

Reason : The atomic numbers of noble gases are even and all the orbitals are doubly occupied by the electrons

- A. If both (A) and (R) are correct and (R) is the correct explanation of (A)
- B. If both (A) and (R) are correct, but (R) is the correct explanation of (A)
- C. If (A) is correct but (R) is incorrect
- D. If (A) is incorrect but (R) is correct

Answer: a



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12. Assertion : Ne_2 does not exist

Reason : Bond order of Ne_2 is 1

A. If both (A) and (R) are correct and (R) is the correct explanation of (A)

B. If both (A) and (R) are correct, but (R) is the correct explanation of (A)

C. If (A) is correct but (R) is incorrect

D. If (A) is incorrect but (R) is correct

Answer: b



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1. What is the oxidation number of Xe in $XeOF_2$?

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2. What is the total number of electron present in the last orbit of argon?

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3. What is the percentage of argon in air ?

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4. What is the total number of unpaired eletrons in inert gas ?

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5. What is the total number of lone pair of electron present in Xe in XeF_2 ?

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6. What is the oxidation state of XeF_6 ?

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7. How many dπ-pπ bonds are there in XeO_4 ?

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1. The word "Argon" means _____.

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2. The most abundant inert gas is _____.

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3. The principal source of helium is _____.

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4. Source of most of the noble gases is _____.

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5. The symbol Rn represents _____.

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6. The noble gas having the lowest atomic numbers is _____.

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7. In the clathrates of xenon with water , the nature of bonding between xenon and water molecule is _____.

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8. The value of ionisation potential for inert gases is _____.

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9. The lifting power of helium is _____ of hydrogen.

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10. The formula of sodium perxenate is _____.

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11. The noble gas He was discovered in the chromosphere of sun by _____.

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12. The noble gas which shown abnormal behaviour in liquid state and behaves as a super fluid is ____.

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13. _____ is used as anaesthetic due to the formation of aqueous clathrates in physiologically strategic sports

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14. C_p / C_v , ratio for noble gases is _____.

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15. The gas which is filed in tungstoen lamp is _____.

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Exercises True And False

1. Atmospheric air is free from noble gases.

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2. Xe is the most reactive noble gas

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3. He is an inert gas



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4. The most abundant inert gas found in atmosphere is helium



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5. Clathrates are also known as cage compounds



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6. Neon is obtained during radioactive disintegration



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7. He is an inert gas (T/F)

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8. Radon is obtained from the decay of radium.

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9. Helium is used to fill gas ballons instead of hydrogen because it is lighter and non-inflammable

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10. On moving along the period , the atomic radii decreases

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11. Clathrate compounds are used for transportation of noble gases.

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Exercises Archives Linked Comprehension

1. The noble gases have closed-shell electronic configuration and are monatomic gases under normal condition. The low boiling points of the lighter noble gases are due to the weak dispersion forces between the atoms and the absence of other intermolecular interactions.

The direct reaction of xenon with fluorine leads to a series of

compounds with water oxidation number

+2, -4 and +6, XeF_4 reacts violently with water to give XeO_2 . The compound of deduced exhibits its structure and their geometries can be deduced considering the total number of electron pairs in the valence shell.

Argon is used in arc welding because of its

- A. a. low reactivity with metals
- B. b. ability to lower the melting point of metals
- C. c. flammability
- D. d. high calorific value

Answer: a



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2. The noble gases have closed-shell electronic configuration and are monatomic gases under normal conditions. The low boiling points of the lighter noble gases are due to the weak dispersion forces between the atoms and the absence of other intermolecular interactions.

The direct reaction of xenon with fluorine leads to a series of compounds with water oxidation number +2, +4 and +6, XeF_4 reacts violently with water to give XeO_2 . The compounds of deduced exhibit inorganic chemistry and their geometries can be deduced considering the total number of electron pairs in the valence shell.

The structure of XeO_3 is

A. linear

B. planar

C. pyramidal

D. T-shaped

Answer: c

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3. Noble gases have completely filled valence shells i.e. m^2sp^2 except He (i.e.) .Noble gases are monatomic under normal conditions .Lattice bonding point of the lighter noble gases are due to weak van der Waals forces between the atoms and absence of any intermolecular interactions Xe reacts with F_2 so give a series of fluorides namely $XeF_2, XeF_4, XeF_4, XeF_3$ on complete hydrolysis gives $XeF_3,$
 XeF_4 and XeF_4 are expected to be

A. oxidising

B. reducing

C. unreactive

D. strongly basic

Answer: a



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Exercises Archives Single Correct

1. The shape of XaO_2F_2 molecule is

A. Trigonal bipyramidal

B. Square planar

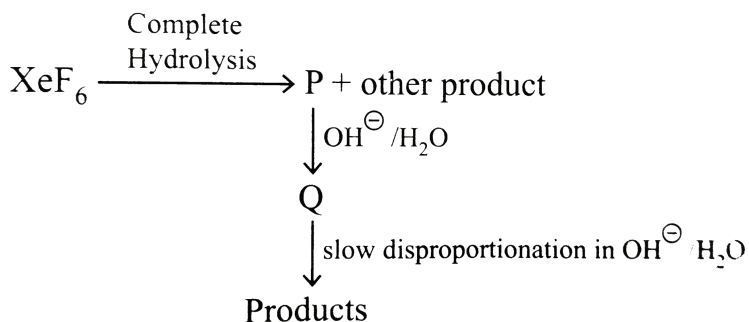
C. Tetrahedral

D. See-saw

Answer: d

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2. Under ambient condition , the total number of gases released products in the final step of the reaction scheme shown below is



A. 0

B. 1

C. 2

D. 3

Answer: c



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Exercises Archives Integer

1. A list of species having the formula XZ_4 is given below

XeF_4 , SF_4 , SiF_4 , BF_4^\ominus , $[Cu(NH_3)_4]^{2+}$, $[FeCl_4]^{2-}$, $[CoCl_4]^{2-}$

and $[PtCl_4]^{2-}$

Defining shape on the basis of the location of X and Z atoms ,

the total number of species having a square planar shape is



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Exercises Archives Subjective

1. Draw the molecule structures of XeF_2 , XeF_4 and XeO_2F_2 indicating the location of lone pairs of electrons

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Ex 5 1 Subjective

1. Why helium and neon do not form compounds with fluorine?

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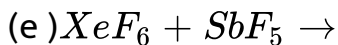
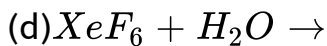
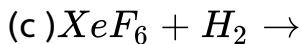
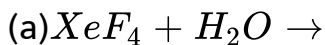
2. Why neon is used in warning signal illuminations?

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3. Why helium and neon do not form clathrates with quinol?

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4. Complete the following reactions





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5. Why zero group element do not form compound under ordinary conditions?



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6. Why Xe does not form fluorides such as XeF , XeF_3 or $x eF_5$?



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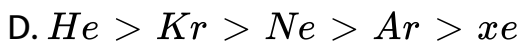
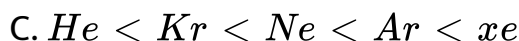
7. Does the hydrolysis of XeF_6 lead in a redox reaction?



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Ex 5 1 Objective

1. Boiling point and melting point of noble gases are in the order



Answer: a



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2. Which of the noble gases has its ionisation enthalpy close to that of molecular oxygen?

A. Ar

B. Xe

C. Kr

D. Rn

Answer: b



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3. Which of the possible following fluorides of xenon is impossible ?

A. XeF_2

B. XeF_4

C. XeF_6

D. XeF_3

Answer: d



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4. Xenon fluorides are colourless and at room temperature are

A. Solid

B. Liquid

C. Gases

D. Superfluid

Answer: a



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5. The following observations are shown by

- A. a. it is used for lifting airships and balloons for meteorological purposes because of its power equal to 92% that of H_2
- B. b. With O_2 it is used by deep sea divers for respiration and also used in the treatment of respiratory diseases like asthma.
- C. c. Providing inert atmosphere in the welding of metals or alloys that are easily oxidised
- D. Used in inflating the type of big aeroplanes because of lightness.

Answer: c



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6. Used in cryoscopic experiment

A. Ne

B. Ar

C. He

D. Kr

Answer: a



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7. *He* is added to the oxygen supply used by sea divers because

- A. it is less soluble in blood than N_2 a high pressure
- B. it is lighter than N_2
- C. it is readily miscible with O_2
- D. it is less poisonous than N_2

Answer: B

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8. Which one of the following statement is not correct?

- A. Ar is used in electric bulb
- B. Kr is obtained during radioactive decay
- C. Boiling point of helium to the lowest among all noble gases

D. Xe forms $XeOF_4$

Answer: B

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9. The coloured discharge tubes for advertisement mainly contains

A. Xe

B. Ne

C. He

D. Ar

Answer: B

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10. Xenon reacts with

- A. The most electropositive element
- B. The most EN element
- C. The hydrogen halide
- D. Non-metals

Answer: A



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11. Discovery of noble gas compounds were the basic of formation of an ionic solid , dioxygenyl hexafluoridoplatinate

(V) $O_2^{\oplus} [PtF_6]^{\ominus}$ when O_2 reacts with PtF_6 . This experiment was carried out by

A. Bartlett and Lohman

B. Ramsay

C. Dawar

D. Fischer -Ringe

Answer: c

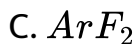


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12. Which one of the following does not exist?

A. XeF_2

B. XeF_4



Answer: c



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13. When deep red PtF_6 vapour was mixed with Xe at room temperature to produce a yellow inoic solid .The product is



C. Both (a) and (b)

D. None

Answer: c

