CHEMISTRY

NCERT - NCERT CHEMISTRY(TELUGU)

P-BLOCK ELEMENTS

Questions A Choose The Best Answer

1. The elements of group 13 to 18 of the periodic table are known as

A. s - block elements

B. p - block elements

C. d - block elements

D. f - block elements

Answer:

Watch Video Solution

2. The general electronic configuration of group 18 elements is

A. ns^2

B. ns^2np^1

C. ns^2np^{1-5}

D. ns^2np^6

Answer:

Watch Video Solution

3. The basic oxide among the following is

A. Bi_2O_3

B. SnO_2

C. HNO_3

D. SO_3

Answer:

Watch Video Solution

4. Thermally most stable hydride among the following is

A. NH_3

B. PH_3

C. ASH_3

D. BiH_3

Answer:

Watch Video Solution

5. The formula of borax is

A. $NaBO_2$

B. $Na_2B_4O_7$

C. H_3BO_3

D. None of the above

Answer:

Watch Video Solution

6. The general electronic configuration of carbon group elements is

A. ns^2np^6

B. ns^2

C. ns^2np^1

D. ns^2np^2

Answer:

Watch Video Solution

7. The process used for the manufacture of ammonia is

A. Contact process

B. Ostwald process

C. Haber's process

D. Linde's process

Answer:

Watch Video Solution

8. The oxides of non-metals are usually

A. ionic

B. coordinate

C. covalent

D. none of the above

Answer:

Watch Video Solution

9. Metallic oxides are generally

A. acidic

B. basic

C. amphoteric

D. neutral

Answer:

Watch Video Solution

10. Fixation of nitrogen is a source for

A. Various oxygen compounds

B. Various phosphorus compounds

C. Various nitrogen compounds

D. Various sulphur compounds

Answer:

Watch Video Solution

11. The oxyacid of nitrogen which is used in the manufacture of azo dyes.

A. Nitrous acid

B. Nitric acid

C. Hyponitrous acid

D. Pernitric acid

Answer:

Watch Video Solution

12. The hydride of V group element which is used in the manufacture of artificial silk

A. ammonia

B. stibine

C. phosphine

D. bismuthine

Answer:

Watch Video Solution

13. Anaesthetic used for minor operation dentistry

A. nitrous oxide

B. nitric oxide

C. nitrous oxide + oxygen

D. nitrogen dioxide

Answer:

Watch Video Solution

14. An allotrope of carbon discovered by Richard Smalley et al.

A. graphite

B. diamond

C. fullerene

D. carbon black

Answer:

Watch Video Solution

Questions B Fill In The Blanks

1. The general electronic configuration of group III elements

Watch Video Solution

2. Boron combines with nitrogen to form_____ .

Watch Video Solution

3. _____is used to identify the metallic radicals in the qualitative analysis.

Watch Video Solution

4. _____is known as `inorganic benzene'.

Watch Video Solution

5. In diamond, every carbon atom is bonded with the other by_____bond.

Watch Video Solution

6. C_{60} Buckminister fullerene was nicknamed as_____ .

Watch Video Solution

7. Carbon tetrachloride_____hydrolysis.

Watch Video Solution

8. Neutron was discovered by

Watch Video Solution

9. Nitric acid means_____ .

Watch Video Solution

10. Oxidising power of nitric acid_____with dilution.

Watch Video Solution

11. Dioxygen is also called as_____ .

Watch Video Solution

12. Atomic oxygen combines with molecular oxygen to give_____

Watch Video Solution

13. The ozoniser commonly used in the preparation of ozone are and _____.

Watch Video Solution

14. Ozone can liberate a_____oxygen easily.

Watch Video Solution

15. _____is used in the manufacture of synthetic camphor.

Watch Video Solution

Questions C Match The Following

1.

1.	Borax	a.	Allotrope of carbon
2.	Graphite	b.	$Na_2B_4O_7$
3.	ZnO	c.	Ozone
4.	CFCs	d.	Neutral oxide
5.	NH_3	e.	Fertilizer
		f.	Fixation of nitrogen

Watch Video Solution

2.

1.	Inert pair effect	a.	Nitric acid
2.	Oxyacid	b.	Cell fuel
3.	Liquid nitrogen	c.	Stabilisation of lower oxidation state
4.	Ostwald process	d.	Ozone
5.	Molecular oxygen	e.	Platinum gauze
		f.	Refrigerant

Watch Video Solution

3.

	Borax bead test		
1.	Copper	a.	Blue
2.	Iron	b.	Grey
3.	Manganese	c.	Red
4.	Cobalt	d.	Bottlegreen
5.	Chromium	e.	Colorless
		f.	Green

Watch Video Solution

Questions D Write In One Or Two Sentence

1. Mention the reasons for the stabilisation of lower oxidation state of p-block element.

Watch Video Solution

2. Show the electron accepting property of boron trifluoride by giving an example.

Watch Video Solution

3. Give an example of monovalent and trivalent element in group III.

Watch Video Solution

4. Why diamond is hard compared with graphite?

Watch Video Solution

5. Why Boron family has a tendency to form hydrides?

Watch Video Solution

6. Why boron cannot from B^{3+} ion ?

Watch Video Solution

7. NH_3 has a much higher boiling point than PH_3 because

Watch Video Solution

8. NH_3 is soluble in water whereas other hydrides of group 15 elements are insoluble in water. Why?

Watch Video Solution

9. Which is considered to be "earth's protective umbrella"?

Watch Video Solution

10. Mention any 3 uses of ozone.

Watch Video Solution

11. What are CFC's? Mention its environmental action.

Watch Video Solution

12. What are compound oxides? Give an example.

Watch Video Solution

13. Mention the metal ions present in haemoglobin and myoglobin and state its function.

Watch Video Solution

14. What happens when ozone reacts with

a) lead sulphide

b) potassium manganate

Watch Video Solution

Questions E Explain Briefly On The Following

1. Explain inert pair effect.

Watch Video Solution

2. Give an account of nature of hydrides of 15^{th} group elements.

Watch Video Solution

3. How is boron extracted from borax?

Watch Video Solution

4. What happens when boron reacts with

a) conc.H_2SO_4 b) conc.HNO_3 c) SiO_2

Watch Video Solution

5. How is borax prepared from colemanite?

Watch Video Solution

6. How borax bead test is helpful in identifying basic radicals in qualitative analysis?

Watch Video Solution

7. Discuss the structural difference between diamond and graphite.

Watch Video Solution

8. Write a short note on fixation of nitrogen.

Watch Video Solution

9. How is nitric acid manufactured by Ostwald's process ?

Watch Video Solution

10. Why silicon carbide is used as an abrasive?

Watch Video Solution

11. How molecular oxygen is important for all oxygenated animals?

Watch Video Solution

12. How ozone reacts with the following (a) PbS (b) $KmnO_4$

Watch Video Solution

Problem Solution

1. An element occupies group no.13 and period number 2 is an representative element of that group reacts with carbondioxide and forms an oxide (A). (A) reacts with $CuSO_4$ give blue beads

(B). Identify the element compound (A) and (B). Write the reaction.

Watch Video Solution

Problem For Practice

1. BF_3 reacts with LiH and forms a compound A. The compound A reacts with water to give the compound B. A reacts with ammonia at 390 K and form C. Identify (A), (B) and (C).

Watch Video Solution

2. An element occupies group number 15 and period number 2 reacts with hydrogen under high pressure and in the presence of a catalyst it terms a hydride (A). In presence of excess of air

and in the presence of platinum it forms an oxyacid (B). Identify the element, A and B.

Watch Video Solution

3. An element occupies group No.16 and period number 2. This element on passing through silent electric discharge forms (A). (A) also reacts with lead sulphide and forms (B). (A) also reacts with BaO_2 and forms (C). It reacts with H_2O_2 and forms (D). Identify the element (A), (B), (C) and (D).

Watch Video Solution

4. An element occupies group No.14 and period number 2 exists in different allotropic forms. One form of this element has lubricating property (A). Another form is the hardest substance

(B). New allotrope of this element is named as `Buckyball' (C) and it is superconducting. Identify the element, (A) (B) and (C).