



CHEMISTRY

NCERT - FULL MARKS

CHEMISTRY(TAMIL)

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:



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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

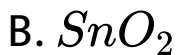
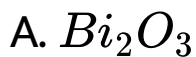
Answer:



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3. The most acidic among the following is

_____.



Answer:



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4. The most stable hydride of the following



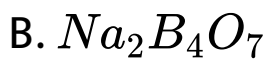
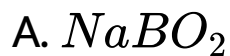


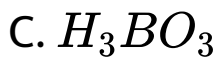
Answer:



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5. The formula of Borax is





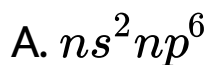
D. None of the above

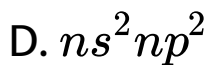
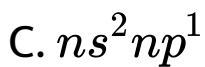
Answer:



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6. The general electronic configuration of carbon group elements is





Answer:



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

A. Contact process

B. Ostwald process

C. Haber's process

D. Linde's process

Answer:



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8. Non - metals are

A. ionic

B. coordinate

C. covalent

D. none of the above

Answer:



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9. Chemicals used in agriculture as fertilizer and pesticides are generally called as.....

A. acidic

B. acidic

C. amphoteric

D. neutral

Answer:



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10. Atomicity of nitrogen is

A. Various oxygen compounds

B. Various phosphorus compounds

C. Various nitrogen compounds

D. Various sulphur compounds

Answer:



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

- A. Nitrous acid
- B. Nitric acid
- C. Hyponitrous acid
- D. Pernitric acid

Answer:



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12. Which metal is used in manufacturing artificial joints?

A. ammonia

B. stibine

C. phosphine

D. bismuthine

Answer:



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13. Anaesthetic used for minor operation
dentistry

A. nitrous oxide

B. nitric oxide

C. nitrous oxide + oxygen

D. nitrogen dioxide

Answer:



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14. The process of transformation was discovered by

A. graphite

B. diamond

C. fullerene

D. carbon black

Answer:



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Questions B Fill In The Blanks

1. The general electronic configuration of Boron group elements is _____.



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2. I. The boron occurs mostly as borates.

II. Boron does not react directly with hydrogen.

III. The simplest borane is triborane.

IV. Boron combines with halogen to form boron trihalides.



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





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4. _____ is known as an ore of uranium.



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5. In diamond, every carbon atom is bonded with the other by _____ bond.



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6. C_{60} Buckminster fullerene was nicknamed as _____ .



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7. Carbon monoxide is _____.



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8. Nitrogen was discovered by _____ .



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9. Nitric acid means _____ .



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10. Oxidising power of nitric acid _____ with dilution.



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11. Dioxygen is also called as _____ .



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12. Atomic oxygen combines with molecular oxygen to give _____



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13. Alkali used for the preparation of soap is _____.



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14. Ozone consists of _____ oxygen atoms.



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15. _____ is used in the manufacture of synthetic camphor.



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Questions C Match The Following

Borax bead test

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



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Borax bead test

- | | | | |
|-------|-----------|----|-------------|
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Borax bead test

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Questions D Write In One Or Two Sentence

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



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2. What are the uses of boron trifluoride ?



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3. Give an example of Microalgae.



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4. Why diamond is hard compared with graphite?



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5. Why alkaline earth metals have higher tendency to form complexes than alkali metals?



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6. Boron does not form B^{3+} ion. Why?



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7. Why NH_3 has high boiling point than PH_3 ?



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8. Which is insoluble in water?



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



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10. Mention any 3 uses of ozone.



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11. What are SNPs? Mention its uses.



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12. What are compound oxides? Give an example.



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13. Mention the function of haemoglobin in natural process.



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14. What happens when

Chlorine reacts with slaked lime.



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Questions E Explain Briefly On The Following

1. What is inert pair effect ?



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



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3. How is boric acid extracted from borax ?



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4. What happens when boron reacts with

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



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5. How is borax prepared from colemanite?



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



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7. Discuss the structural difference between diamond and graphite.



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8. Write a short note on fixation of nitrogen.



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9. Explain the commercial method of preparation of nitric acid. (or) How nitric acid

is prepared by Ostwald's process.



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10. Why silicon carbide is used as an abrasive?



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



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12. How ozone reacts with the following (a)

PbS (b) K_2MnO_4



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Problem Solution

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

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



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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).



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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 forms 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.



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3. An element occupies group No.16 and period number 2. This element on passing through

silence 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).



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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).



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