# HIGHER SECONDARY SECOND YEAR CHEMISTRY

**Choose the correct answer:**

1. An aqueous solution of borax is

   a) neutral b) acidic c) basic d) amphoteric

2. Boric acid is an acid because its molecule (NEET)

   a) contains replaceable $H^+$ ion

   b) gives up a proton

   c) combines with proton to form water molecule

   d) accepts $OH^-$ from water ,releasing proton.

3. Which among the following is not a borane?

   a) $B_2H_6$ b) $B_3H_6$ c) $B_4H_{10}$ d) none of these

4. Which of the following metals has the largest abundance in the earth's crust?

   a) Aluminium b) calcium c) Magnesium d) sodium

5. In diborane, the number of electrons that accounts for banana bonds is

   a) six b) two c) four d) three

6. The element that does not show catenation among the following p-block elements is

   a) Carbon b) silicon c) Lead d) germanium

7. Carbon atoms in fullerene with formula $C_{60}$ have

   a) $sp^3$ hybridised b) sp hybridised

   c) $sp^2$ hybridised d) partially $sp^2$ and partially $sp^3$ hybridised

8. Oxidation state of carbon in its hydrides

   a) +4 b) -4 c) +3 d) +2

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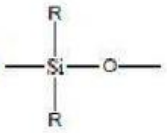
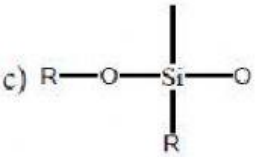
9. The basic structural unit of silicates is (NEET)

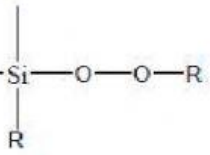
a) $(SiO_3)^{2-}$ b) $(SiO_4)^{2-}$ c) $(SiO)^{-}$ d) $(SiO_4)^{4-}$

10. The repeating unit in silicone is

a) $SiO_2$

b) 

c) 

d) 

11. Which of these is not a monomer for a high molecular mass silicone polymer?

a) $Me_3SiCl$ b) $PhSiCl_3$ c) $MeSiCl_3$ d) $Me_2SiCl_2$

12. Which of the following is not $sp^2$ hybridised?

a) Graphite b) graphene c) Fullerene d) dry ice

13. The geometry at which carbon atom in diamond are bonded to each other is

a) Tetrahedral b) hexagonal c) Octahedral d) none of these

14. Which of the following statements is not correct?

a) Beryl is a cyclic silicate

b) $Mg_2SiO_4$ is an orthosilicate

c) $SiO_4^{4-}$ is the basic structural unit of silicates

d) Feldspar is not aluminosilicate

15. Match items in column - I with the items of column – II and assign the correct code.

| Column-I | | Column-II | |
|---|---|---|---|
| A | Borazole | 1 | $B(OH)_3$ |
| B | Boric acid | 2 | $B_3N_3H_6$ |
| C | Quartz | 3 | $Na_2[B_4O_5(OH)_4]\,8H_2O$ |
| D | Borax | 4 | $SiO_2$ |

| | A | B | C | D |
|---|---|---|---|---|
| (a) | 2 | 1 | 4 | 3 |
| (b) | 1 | 2 | 4 | 3 |
| (c) | 1 | 2 | 4 | 3 |
| (d) | None of these | | | |

16. Duralumin is an alloy of

a) Cu,Mn b) Cu,Al,Mg c) Al,Mn d) Al,Cu,Mn,Mg

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17. The compound that is used in nuclear reactors as protective shields and control rods is

a) Metal borides b) metal oxides c) Metal carbonates d) metal carbide

18. The stability of +1 oxidation state increases in the sequence

a) Al < Ga < In < Tl

b) Tl < In < Ga < Al

c) In < Tl < Ga < Al

d) Ga< In < Al < Tl

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