



CHEMISTRY

AAKASH INSTITUTE ENGLISH

MOCK TEST 24

Example

1. The correct decreasing order of 1^{st} ionization energy of 13-group elements is

A. $B > Al > Ga > In > Tl$

B. BgtTlgtGagtAlgtIn

C. BgtGagtAlgtTlgtIn

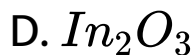
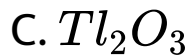
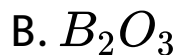
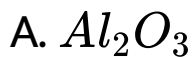
D. AlgtBgtGagtIngtTl

Answer: B



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2. Which of the following oxides is amphoteric in nature?



Answer: A



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3. Which of the following is a false statement about boric acid, H_3BO_3 ?

A. It is a weak monobasic acid

B. It is not a protonic acid

C. It acts as a lewis acid by accepting
electrons

D. It is a tribasic acid

Answer: D



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4. Laboratory method for the preparation of diborane involves the oxidation of

- A. Sodium borohydride with iodine
- B. Sodium borohydride with fluorine
- C. Sodium borohydride with chlorine
- D. Sodium borohydride with ' KMnO_4 '

Answer: A



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5. When borax bead containing a small amount of metal salt is heated in reducing flame of bunsen burner, the colour of the bead after heating was blue . The metal present in the salt would be

A. Manganese

B. Nickel

C. Cobalt

D. Chromium

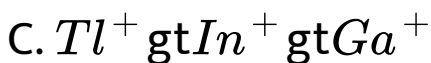
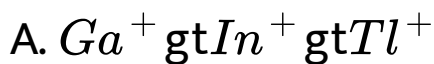
Answer: C





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6. The stability of +1 oxidation state among Al , Ga , In and Tl increases in the sequence



Answer: C



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7. which of the following is not a use of graphite?

A. It is layered structure

B. Layers are held by van der Waal force of attraction

C. It is used as a dry lubricant

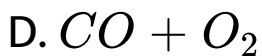
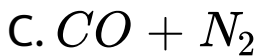
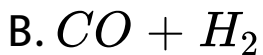
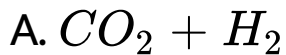
D. Each carbon in hexagonal ring is 'sp³' hybridised

Answer: D



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8. Producer gas is a mixture of



Answer: C



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9. Select the incorrect statement

- A. Zeolites are used in petrochemical industries for cracking of hydrocarbons
- B. Zeolites has two dimensional structure
- C. Hydrated zeolites are used as ion exchangers in softening of hard water
- D. ZSM-5 is used to convert alcohols directly into gasoline

Answer: B



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10. Which of the following statements is incorrect?

A. Silica gel is used a drying agent

B. Silicon is extensively used as a
semiconductor

C. SiO_2 is an acidic oxide

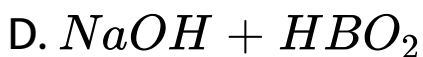
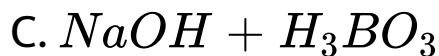
D. Silicon exist in free state in nature

Answer: D



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11. Borax dissolves to give

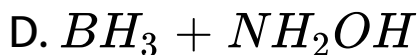
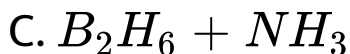
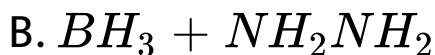
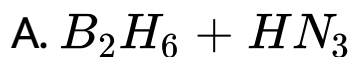


Answer: C



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12. Starting materials for the preparation of inorganic benzene is



Answer: C



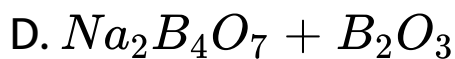
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13. A compound of boron, *A* on heating swells up which on further heating forms glassy transparent mass *B*. The chemical constituent *B* is/are

A. $Na_2B_4O_7$ only

B. $NaBO_2$ only

C. $NaBO_2 + B_2O_3$



Answer: C



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14. Choose the correct answer

A. Both $(CH_3)_3N$ and $(SiH_3)_3N$ are

pyramidal

B. Both $(CH_3)_3N$ and $(SiH_3)_3N$ are

triangular planar

C. $(CH_3)_3N$ is pyramidal and $(SiH_3)_3N$ is
triangular planar

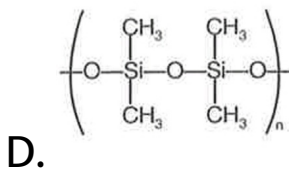
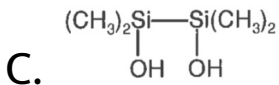
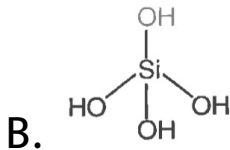
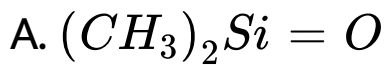
D. $(CH_3)_3N$ is triangular and $(SiH_3)_3N$ is
pyramidal

Answer: C



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15. Hydrolysis of $(CH_2)_2SiCl_4$ and CH_3SiCl_3
leads to .



Answer: D



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