Model Question Paper

p - Block Elements - -Part III

12th Standard

Chemistry

Reg.No. : | | | | | | |

I.Answer all the questions.

II.Use Blue pen only.

Time : 01:15:00 Hrs

Total Marks : 60

Section-A

5 x 1 = 5

1) Potash alum is manufactured from

(a) alunite (b) aluminon (c) ferric aium (d) chorome alum

2) Which is employed to arrest bleeding?

(a) caustic soda (b) caustic potash (c) ferric alum (d) potash alum

3) Second most abundant element in earth's crust is

(a) Ge (b) C (c) Si (d) Pb

4) Freon is

(a) Trichloro nitro methane (b) chloropicrin (c) dichlorodifluoro methane (d) trifluoromethane

5) Electronic configuration of 14^{th} group element(carbon family) is

(a) ns^2np^2 (b) ns^1np^1 (c) ns^1np^2d (d) ns^2np^1

Section-B

5 x 3 = 15

6) What is inert pair effect?

7) What is burnt alum?

8) What is potash alum? How is it prepared?

9) What are the uses of potash alum?

10) What are silicones?

Section-C

3 x 5 = 15

11) An element A belongs to 14^{th} group and occupies period number 6. A reacts with con. HCl to give B an acid. A is used to prepare C which is used as an antiknock in automobiles. Identify the element A and the compounds B and C. Write the reactions.

12) An element 'A' occupies group number 15 and period number 3 reacts with chlorine to give B which further reacts with chlorine to give C at 273 K. Both B and C are chlorinating agent for organic compounds. C is a better chlorinating agent because it hlorinates metals also. B reacts with SO_3 and reduces it to SO_2.B has a pyramidal shape. C has trigonal bipyramidal shape by sp3d hybridisation. Identify the element A and the compounds B and C. Write the reactions.

13) An element A belongs to 14th group is a metal, which can be cut with a knife. It is not a good conductor of heat and electricity. A in pure state does not react with water but air dissolved water forms hydroxide. Identify A.

Section-D

2 x 10 = 20

14) a) An element A occupies group number 17 and period number 2, shows anomalous behaviour. A reacts with water forms a mixture of B, C and acid D. B andCare allotropes. A also reacts with hydrogen violently even in dark to give an acid D. Identify A,B,C and D. write the reactions.

b) An element A occupies group number 15 and period number 3, exhibits allotropy and it is tetra atomic. A reacts with caustic soda a to give B which is having rotten fish odour. A reacts with chlorine to give C which has a smell of garlic. Identity A, B and C. Write the reactions.

15) a) An element A occupies group number 15 and period number 3, reacts with chlorine to give compound B. The compound B on hydrolysis gives a dibasic acidC. The compound C on heating undergoes auto oxidation and reduction to give a tribasic acid D. Identify the element A, compound B,C and D. Write the reactions.

b) An element A occupies group number 17 and period number 2, is the most electronegative element. Element A reacts with another element B, Which occupies group number 17 and period number 4, to give a compound C. 98 CompoundC undergoes sp^3d^2 hybridisation and has octahedral structure. Identify the elements A and B and the compound C. Write the reactions

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