Model Question Paper

p - Block Elements - -Part V

12th Standard

Chemistry

Reg.No. :

I.Answer all the questions.
II.Use Blue pen only.
III.Question No 15,16 is compulsory.

Time : 01:00:00 Hrs

Total Marks : 60

Section-A

5 x 1 = 5

1) Alunite is

(a) $K_2SO_4.Al_2(SO_4)_3 \quad 24 \quad H_2O$ (b) $K_2SO_4.Al_2(SO_4)_3 \quad 4Al(OH)_3$ (c) $(NH_4)_2SO_4.Al_2(SO_4)_3 \quad 6H_2O$

(d) $Al(OH)_3. \quad Al_2(SO_4)_3. \quad 6H_2O$

2) The sulphide ore of lead is

(a) Galena (b) Cerrusite (c) Anglesite (d) Lead ochre

3) The nitrogen group element which occurs largely in the earth's crust is

(a) P (b) As (c) Sb (d) Bi

4) Which is true?

(a) lonisation energy of nitrogen group elements decreases from top to bottom of the group

(b) The percentage by volume of nitrogen in the earth's atmosphere is 58% (c) Phosphorus cannot exhibit -3 oxidation state (d) Petro Bismol is an alloy of arsenic

5) The shape of PCI_3 is

(a) tetrahedral (b) octahedral (c) triogonal pyramidal (d) square planar

Section-B

6 x 3 = 18

6) Give the uses of neon.

7) Write a note on plumbo-solvency.

8) Why thallium shows the oxidation state of +1, while the other elements of its group show an oxidation state of +3.

9) Fluorine is more electonegative than iodine. Yet HF has lower acid strength than HI explain.

10) What are inter halogen compounds? How are they named? Give an example.

11) Draw the electron dot formula of H_3PO_3

Section-C

5 x 5 = 15

12) Complete the following and balance

a) $Pb + O_2 \rightarrow$

b) $Pb + O_2 + \_\_\_\_\_ \rightarrow Pb(OH)_2$

c) $Pb + H_2SO_4 \rightarrow \_\_\_\_\_ + \_\_\_\_\_ + \_\_\_\_\_$

d) $PbCl_2 + HCl \rightarrow \_\_\_\_\_$

e) $Pb + HCl \rightarrow \_\_\_\_\_ + \_\_\_\_\_$

13) Convert the following.

a) $PCl_3 \rightarrow H_3PO_3$

b) $PCl_5 \rightarrow H_3PO_4$

c) $P_2O_3 \rightarrow PH_3$

d) $P_4O_{10} \rightarrow HPO_3$

e) $H_3PO_3 \rightarrow H_3PO_4$

14) Discuss any five anamalous behaviour of fluorine.

15) a) How does **PH_3** react with 1) **O_2** 2) **Cl_2** 3) **HI** 4) **$AgNO_3$**?

(OR)

b) Write the action of heat on the following

1) **PH_3** 2) **H_3PO_4** 3) **$H_4P_2O_7$** 4) **H_3PO_3** 5) **PCl_5**

16) a) Write short notes on hyrides of halogens.

(OR)

b) How does **PCl_3** react with 1) **H_2O** 2) **CH_3COOH** 3) **Cl_2** 4) **O_2** 5) **C_2H_5OH** ?

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