

PART A: MULTIPLE CHOICE (10 MARKS)

1	2	3	4	5	6	7	8	9	10
b	a	c	a	a	d	b	b	d	c

A B

PART B: MATCH (5 MARKS)

1	2	3	4	5
E	B	H	J	I

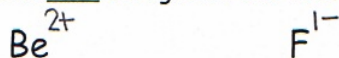
PART C: SHORT ANSWER (40 MARKS)

Answer the following questions in the space provided. If more space is needed, use the back of this sheet.

- {8} 1. (a) What is the symbol of the noble gas that has the closest atomic # to the element: (i) oxygen? Ne (ii) potassium? K
 (b) How many e's must the element lose or gain to have an electron arrangement like its' closest noble gas? (i) 2 (ii) 1
 (c) What charge (# and sign) of ion will result? (i) 2- (ii) 1+

2. Beryllium and fluorine react to form an ionic compound. (*lose & gain e's*)

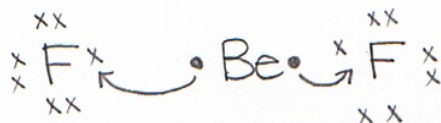
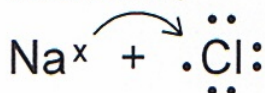
- {2} (a) Indicate the ionic charges on the ions.



- {2} (b) What is the ① chemical formula and ② name of the compound formed.

① BeF₂ ② beryllium fluoride

- {2} (c) Sketch Lewis dot diagrams to show how the ionic compound from (b) above forms by transferring electrons. More than one atom of each element may be necessary. (See the example for sodium chloride below!)



3. Phosphorus and hydrogen react to form a molecular compound (*share e's!*)

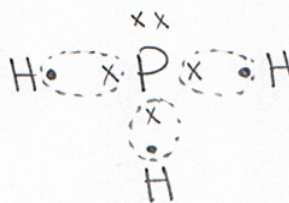
- {2} (a) Indicate the ionic charges on the ions.



- {2} (b) What is the ① chemical formula and ② name of the compound formed.

① PH₃ ② phosphorus trihydride

- {2} (c) Sketch Lewis dot diagrams to show how the molecular compound from (b) above forms by sharing electrons. More than one atom of each element may be necessary. (See the example for hydrochloric acid below!)



- {20} 4. Give the compound name or formula as required.

- (a) AlBr₃ aluminum bromide
 (b) ZnF₂ zinc fluoride
 (c) SnF₄ tin(IV) fluoride
 (d) Cu₂S copper(I) sulfide
 (e) Pb(ClO₃)₂ lead(II) chlorate
 (f) K₃PO₄ potassium phosphate
 (g) Sn(NO₃)₂ tin(II) nitrate
 (h) Al(HCO₃)₃ aluminum bicarbonate
 (i) CF₄ carbon tetrafluoride
 (j) CS₂ carbon disulfide

- (k) calcium nitride Ca₃N₂
 (l) potassium phosphide K₃P
 (m) tin(II) phosphide Sn₃P₂
 (n) lead(IV) oxide PbO₂
 (o) magnesium carbonate MgCO₃
 (p) iron(II) hydroxide Fe(OH)₂
 (q) calcium phosphate Ca₃(PO₄)₂
 (r) potassium sulfate K₂SO₄
 (s) nitrogen phosphide NP
 (t) dichlorine monoxide Cl₂O