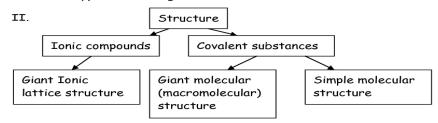
Answers to Worksheet 5 - Chemical Bonding Science(Chemistry) Theory Workbook Pg 36 to 45

Check It (37 to 39)

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- 10a) calcium oxide and potassium chloride
 - b) carbon dioxide and methane
 - c) calcium oxide or potassium chloride (any one, an ionic one)
 - d) carbon dioxide or methane (any one, a covalent one)
 - e) helium (a noble gas, is monatomic, as single atoms)
- 11a) C:(2,4); O:(2,6); Na:(2,8,1); Si:(2,8,4); Cl:(2,8,7)
- b)(i) No. of neutrons = Nucleon no no of protons = 9 4 = 5
- (ii) No. of neutrons = 28 14 = 14
- c) Beryllium and sodium (are metals, but, diamond does not conduct)
- d)(i) NaCl, sodium chloride
 - (ii) Na₂O, sodium oxide
 - (iii) CO2, carbon dioxide or CO, carbon monoxide
 - (iv) Na_2CO_3 , sodium carbonate (C and O forms the radical ion CO_3^{2-})
- e) Carbon dioxide is a covalent compound with a <u>simple</u> molecular structure. It is made up of small molecules with weak intermolecular forces of attraction between molecules. <u>Little amount of heat energy</u> is needed to overcome these weak forces. Thus, it has a <u>low boiling</u> point and is a gas at r.t.p.

Notes: I. Type of Bonding - Ionic & Covalent



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