160) Which of the following compounds has its oxygen composition equal to 50.0%?

A) (NH4)2CO3

B) CH2O2

C) C2H3NO2

D) C10H20ONS

Answer: A

Section: Section 9.6

Learning Outcome: 9.5 Calculate % by mass elemental compositions from a molecular formula.

Global Obj: G4 Demonstrate the quantitative skills needed to succeed in chemistry.

161) Which of the following compounds has its nitrogen composition equal to 29.2%?

A) C2H3NO2

B) C10H20ONS

C) (NH4)2CO3

D) N2H4

Answer: C

Section: Section 9.6

Learning Outcome: 9.5 Calculate % by mass elemental compositions from a molecular formula.

Global Obj: G4 Demonstrate the quantitative skills needed to succeed in chemistry.

134) Which compound has the percent composition of 15.8% Al, 28.1% S and 56.1% O?

A) Al2(SO4)3

B) Al2(SO3)3

C) Al2S3

D) Al2(S2O3)3

Answer: A

Section: Section 9.5

Learning Outcome: 9.4 Calculate a compound's empirical and actual formula from % by mass elemental compositions.

Global Obj: G4 Demonstrate the quantitative skills needed to succeed in chemistry.

135) A chromium-silicon compound contains 73.52% chromium. The empirical formula is \_\_\_\_\_\_\_\_.

A) CrSi

B) CrSi2

C) Cr2Si

D) Cr3Si2

Answer: D

Section: Section 9.5

Learning Outcome: 9.4 Calculate a compound's empirical and actual formula from % by mass elemental compositions.

Global Obj: G4 Demonstrate the quantitative skills needed to succeed in chemistry.

133) A sample is composed of 2.78 g of iron and 1.19 g of oxygen. The empirical formula is \_\_\_\_\_\_\_\_.

A) FeO2

B) Fe2O5

C) Fe2O3

D) FeO

Answer: C

Section: Section 9.5

Learning Outcome: 9.4 Calculate a compound's empirical and actual formula from % by mass elemental compositions.

Global Obj: G4 Demonstrate the quantitative skills needed to succeed in chemistry.