**CSCE 4013/5013 Cloud Computing and Security**

**Quiz #11 (20 points)**

**Name:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_, ID:\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_\_**

**Problem #1 (10 pts)**

1. Yes / No Do you participate in this quiz?

**Problem #2 (10 pts)**

Assume that (1) the elements in an RDD will be evenly distributed among multiple partitions; (2) the local aggregation results of partitions will be returned to the driver program in the same order as the order of partitions in the original RDD.

1. val sourcerdd = sc.parallelize(List((1,2),(1,3),(2,2),(3,5),(3,6), (2,6)),2)

val result = sourcerdd.reduceByKey((x,y)=>x+y)

What is the content of result?

(1, 5), (2, 8), (3, 11)

1. val sourcerdd = sc.parallelize(List((1,2),(1,3),(2,2),(3,5),(3,6), (2,6)),2)

val result = sourcerdd.reduceByKey((x,y)=>x+1)

What is the content of result?

(1, 3), (2, 3), (3, 6)

1. val sourcerdd = sc.parallelize(List((1,2),(1,3),(2,2),(3,5),(3,6), (2,6)),2)

val result = sourcerdd.foldByKey(0)((x,y)=>x+y)

What is the content of result?

(1, 5), (2, 8), (3, 11)

1. val sourcerdd = sc.parallelize(List((1,2),(1,3),(2,2),(3,5),(3,6), (2,6)),2)

val result = sourcerdd.foldByKey(1)((x,y)=>x+1)

What is the content of result?

(1, 3), (2, 3), (3, 3)

1. val sourcerdd = sc.parallelize(List((1,2),(1,3),(2,2),(3,5),(3,6), (2,6)),3)

val result = sourcerdd.foldByKey(1)((x,y)=>x+1)

What is the content of result?

(1, 3), (2, 3), (3, 3)