Quiz 2

Q1 For the given pandas series, say, x, what would be 1) x+x, 2) x + x[::-1], 3) x[0::2] + x[1::2]

X

1. 3
2. 5
3. 7
4. 9

dtype: int64

The pandas data frame below shows how four people voted (1=yes, 2=no) for two ballot questions in a poll. Write the pandas code and the resulting solution for the following questions: The code should be generic so that they will work on any size of the data frame and with a different set of row index names as well. Assume *df* is the variable for this data.

Ballot1 Ballot2

A 1 1

B 1 1

C 0 1

D 1 0

Q2 How many people voted in favor of Ballot1? What would be the indices of the people who voted in favor of Ballot1?

Q3 How many people voted in favor of both Ballot1 and Ballot2? What would be the indices of the people who voted in favor of both Ballot1 and Ballot2?

Q4 Using loc, what code will show the first three rows of the above data frame? Using iloc, what code will show the last three rows of the above data frame?

Q5 Add a column Tally to the data frame that shows the count of Yes votes for each row of the data.

Q6 Add a column Campaign to the data frame that would be the value Call if the person voted in favor of both Ballot1 and Ballot2, Email otherwise. The code should use apply on the data frame with the lambda function over the axis columns.

Q7 For the data frame, say, df, shown below, what would be the result of df.reindex(range(5))?

A B

1 63 74

3 75 89

5 66 82

7 76 69

Q8 For the resulting data frame from Q7, say df2, what would be the result of df2.ffill().bfill()?

The multi-indexed data frame refers to the data in Q9 and Q10.

Q1 Q2

X Y

1 63 74

A 2 75 89

3 68 82

1 76 69

B 2 68 64

3 67 87

Q9 Using indexing only, show how you would access i) only the middle row data of A and B,

ii) all data from the middle row of A to the middle row of B

Q10 i) Using xs, show how you would access the middle row of data of A and B? ii Using unstack followed by xs, show how you would access the middle row data of A and B.