

Quiz 9A

Name: **Answer Key**

UAlbany Email:

Closed book/notes.

Questions 1-4 give a claim about a population or sample characteristic. Determine whether the claim is a valid statistical hypothesis. Circle your answer.

1. (1 pt.) $\bar{x} = 3$

Valid

Invalid

2. (1 pt.) $p > 0.6$

Valid

Invalid

3. (1 pt.) $\mu < 87$

Valid

Invalid

4. (1 pt.) $\hat{p} \neq 0.3$

Valid

Invalid

For Questions 5-7, determine whether the decision is correct or if it leads to a Type 1 error.

5. (1 pt.) A hypothesis test fails to reject H_0 when it is true.

Correct Decision

Type 1 Error

6. (1 pt.) A hypothesis test rejects H_0 when it is true.

Correct Decision

Type 1 Error

7. (1 pt.) A hypothesis test rejects H_0 when it is false.

Correct Decision

Type 1 Error

Question 8 below gives a statistical study being performed. Circle the correct set of hypotheses.

8. (3 pts.) In the Town of Colonie Golfers' Loop, it is advantageous for a team of four players to return two or more individual scores of better than (below) 80. It is a widely-held belief that 79% of such teams go on to win the week's competition. To test this, a random sample of 426 teams that have two or more individual scores better than 80 is selected. Of these teams, it is found that 354 won the week's competition. The Executive Committee wishes to determine whether there is enough evidence to conclude that the widely-held belief is incorrect.

$$H_0: p = 0.79$$

vs.

$$H_1: p < 0.79$$

$$H_0: p = 0.79$$

vs.

$$H_1: p > 0.79$$

$$H_0: p = 0.79$$

vs.

$$H_1: p \neq 0.79$$

Grade: /10