

Exam 2a - Fall 2004 - ANSWERS

1. B
2. C
3. A
4. C
5. A
6. B
7. A
8. D
9. A
10. C
11. C
12. A
13. D
14. A
15. C
16. D
17. TRUE
18. FALSE
19. TRUE
20. TRUE
21. FALSE
22. $S = \{0, 1, 2, 3, 4\}$
23. A.) 0.10
B.) 0.04
C.) 0.30

D.) 0.70

24. BIAS VARIABILITY

A.) HIGH LOW

B.) LOW LOW

C.) LOW HIGH

D.) HIGH HIGH

NOTE: IF YOU HAVE THE ORIGINAL EXAM 2 (not the practice exam) FROM FALL 2004 THESE ARE THE CORRECT ANSWERS FOR QUESTION 24 (The pictures are different):

24. BIAS VARIABILITY

A.) HIGH LOW

B.) HIGH HIGH

C.) LOW HIGH

D.) LOW LOW

25. A.) $H_0: \mu = 140$ versus $H_a: \mu > 140$

B.) $z = (145 - 140)/(8/\sqrt{15}) = 2.42$

C.) $p\text{-value} = p(Z > 2.42) = 0.0078$

D.) Reject H_0 at $\alpha = 0.05$, because $p\text{-value} = 0.0078 < \alpha = 0.05$

E.) We have strong evidence to conclude that the true mean of
cellulose content of a variety of alfalfa hay is higher than 140 mg/g at $\alpha = 0.05$.