

**STATDISK CH 4 Answer sheet**

**Name** \_\_\_\_\_

**(Total pts: 42) Note:** Because a random number generator is used, all student answers will be different.

Can be started after completion of probability fundamentals (4.2); 6 pts for 4-7, 4-8, 4-20, 4-21.

Any time you are asked to indicate a probability which has been simulated from STATDISK, give the **FRACTION FIRST, then the decimal value.** (Ex:  $121/800 = 0.151$ ; give **at least 3 significant digits**)

4-1 (See p. 45, coins generator)

a. count= \_\_\_\_\_

b. p= \_\_\_\_\_

Ques #1 \_\_\_\_\_

Ques #2 \_\_\_\_\_

4-2 a. \_\_\_\_\_

b. \_\_\_\_\_

Ques. \_\_\_\_\_

4-7 and 4-8 (see p. 45, coins generator): A large number of trials should be run. Use  $n=1000$ . The number of trials will be your denominator. Count the number of trials that have the characteristic desired. For 4-7, count how many 55's, 56's, 57's, etc you get in 100 "births" (100 coins)

4-7 \_\_\_\_\_

Procedure: see above \_\_\_\_\_

Effectiveness of treatment?

\_\_\_\_\_

4-8 \_\_\_\_\_

Procedure: \_\_\_\_\_

Effectiveness of treatment?

\_\_\_\_\_

4-13 (uniform generator; no decimals)

\_\_\_\_\_

\_\_\_\_\_

4-14 \_\_\_\_\_

\_\_\_\_\_

Y/N

4-15 \_\_\_\_\_

P= \_\_\_\_\_

4-18 (normal generator; one decimal)

\_\_\_\_\_

4-20 (Normal generator, no decimals)

a. \_\_\_\_\_ b. \_\_\_\_\_ c. \_\_\_\_\_

d. (repeat part (c), not part (a))

\_\_\_\_\_

e. \_\_\_\_\_

4-21 a. There is a typo in the question. It should read “Count the number of ONES that occurred....”.

P(1)= \_\_\_\_\_

b. \_\_\_\_\_

c. \_\_\_\_\_

d. \_\_\_\_\_

e. \_\_\_\_\_

f. \_\_\_\_\_

\_\_\_\_\_

**STATDISK CH 5 Answer sheet (Total pts: 32)**

Can be started after completion of study of binomial distributions (5.3); 5pts for #8.

(Give **at least 3 significant digits**.)

5-4 a.

x	P(x) from STATDISK	P(x) from Table A-1
0		
1		
2		
3		
4		

b. \_\_\_\_\_

5-5 a.

x	P(x)
0	
1	
2	
3	
4	

5-6 a. \_\_\_\_\_ b. \_\_\_\_\_ c. \_\_\_\_\_

5-7 Use  $P(\text{girl})=.4879$ ; ignore the  $p(\text{boy})$ .

a. \_\_\_\_\_ b. \_\_\_\_\_ c. \_\_\_\_\_

Compare results to 5-6 \_\_\_\_\_

5-8 a. \_\_\_\_\_

b. \_\_\_\_\_

c. \_\_\_\_\_

d. \_\_\_\_\_

e. \_\_\_\_\_

5-9 \_\_\_\_\_

5-13 \_\_\_\_\_

5-18 a.  $p(x \geq 9) =$  \_\_\_\_\_

b.  $p(x \leq 7) =$  \_\_\_\_\_ Unusual? \_\_\_\_\_ Why? \_\_\_\_\_

5-19  $P(2 \text{ or fewer women}) = p(x \leq 2) =$  \_\_\_\_\_

Charge supported? \_\_\_\_\_

5-20  $p(9 \text{ girls}) = p(x \geq 9) =$  \_\_\_\_\_

Gender selection technique effective? \_\_\_\_\_

Why or why not? \_\_\_\_\_