

**Writing Center**  
**Writing Lab 108**

14. Write the two-dimensional distribution function.

f<sub>2</sub>(x,y) = \_\_\_\_\_

f<sub>2</sub>(x,y) = \_\_\_\_\_

15. Write the density function for the normal joint and explain the derivation of mean  $\mu$ .

16. Write the joint density function for the bivariate normal distribution.

f<sub>2</sub>(x,y) = \_\_\_\_\_

f<sub>2</sub>(x,y) = \_\_\_\_\_

**Generalized Binomial**

17																				
18																				
19																				
20																				
21																				
22																				

17. Is this a valid joint density?
18. What is the marginal density of x? Is it a valid PDF?
19. What is the marginal density of y? Is it a valid PDF?
20. What is the joint density of x and y? Is it a valid PDF?
21. What is the joint density of x and y? Is it a valid PDF?
22. Is this a valid joint density? Explain why or why not.