Module 4E Questions:

1. A chi-squared test statistic in a test of a contingency table that is equal to zero means:
    a. The two nominal variables have values consistence with independence.
    b. The two nominal variables have values that are consistent with equality.
    c. The two nominal variables have the same proportions listed in Ho.
    d. All these choices.
2. When is it appropriate to use Chi-Squared tests?
    a. When you are determining if two categorical variables are associated.
    b. When you are directly comparing proportions
    c. When your number of independent data points is less than 5
    d. When you are looking for an exact P value.
3. ***What would a chi-square contingency test resulting in a significance value of P > 0.05 suggest?***
    a. We cannot reject the hypothesis of independence between the two variables
    b. We cannot reject the hypothesis of dependency between the two variables
    c. There is a significant relationship between the two variables
    d. We can reject the hypothesis of dependency between the two variables
4. Is hyperglycemia associated with diet (Chow vs HFD)?
   Here is the 2×2 contingency table (observed counts).

Diet	Yes (Hyperglycemic)	No (Not hyperglycemic)	Row total
Chow	0	6	6
HFD	4	2	6

5. Question from the lecture: Is there an influence of the following three SES on preterm delivery rates?

Socio-Economic status	Preterm Birth	Normal Birth
Upper/Upper-middle	25	85
Middle	33	64
Lower/Lower-middle	112	149

Conduct the test and choose the answer:

A. Yes, we reject the null hypothesis
B. No, we fail to reject the null hypothesis
C. Yes, we fail to reject the null hypothesis
D. No, we reject the null hypothesis