

## Question #201

**Key: C**

The expected counts are  $300(0.035) = 10.5$ ,  $300(0.095) = 28.5$ ,  $300(0.5) = 150$ ,  $300(0.2) = 60$ , and  $300(0.17) = 51$  for the five groups. The test statistic is

$$\frac{(5 - 10.5)^2}{10.5} + \frac{(42 - 28.5)^2}{28.5} + \frac{(137 - 150)^2}{150} + \frac{(66 - 60)^2}{60} + \frac{(50 - 51)^2}{51} = 11.02.$$

There are  $5 - 1 = 4$  degrees of freedom. From the table, the critical value for a 5% test is 9.488 and for a 2.5% test is 11.143. The hypothesis is rejected at 5%, but not at 2.5%.