Consider the simple example of electric car ownership. The associated contingency table is the following for questions 1 to 3:

|  |  |  |  |  |
| --- | --- | --- | --- | --- |
|  | Age | | |  |
|  | 20-39 | 40-64 | 65+ | Total |
| Electric | 65 | 55 | 5 | 125 |
| Not electric | 835 | 1045 | 495 | 2375 |
| Total | 900 | 1100 | 500 | 2500 |

1. The joint probability of electric car ownership and individual aged 40-64 is most closely:
   1. 0.52
   2. **0.022**
   3. 0.44 (Pr(40-64|electric))
   4. 0.05 (Pr(electric|40-64))
2. The marginal probability of electric car ownership is most closely:
   1. 0.52
   2. 0.022
   3. 0.44
   4. **0.05**
3. The probability Pr(20-39|electric) is most closely:
   1. **0.52**
   2. 0.022
   3. 0.44
   4. 0.05
4. An experiment is conducted that results in a p-value of 0.04 for a related hypothesis test. The test statistic is 0.05. The interpretation of this result is most closely described by:
   1. We fail to reject the null hypothesis that the true effect differs from the hypothesized effect.
   2. We accept the null hypothesis that the true effect differs from the hypothesized effect.
   3. **We reject the null hypothesis that the true effect differs from the hypothesized effect.**
   4. We can conclude that the true effect differs from the hypothesized effect.