

question of interest here is whether the pattern non-therapeutic drug use (as indicated by the test results) differs between men and women.

- (i) Using the facilities available in SSC if you wish, calculate the expected frequencies for each entry in the contingency table, on the assumption that there is no association between gender and drug test result. Display the expected frequencies E_i and the deviations $(O_i - E_i)$ in two separate tables. [3]
- (ii) Perform a chi-squared test for zero association, and state clearly your conclusions from the test. [3]
- (iii) Suppose that, instead of the whole pattern of drug use, interest had been solely in the question of whether the probability that a person had a positive test of any kind differed between men and women. Carry out an appropriate test to investigate this question, and report your conclusions clearly. [4]