1.

New procedures have been instituted by the Graduate School recently for graduate study in the University. A survey has been conducted among the Masters and PhD students to solicit their opinion on the new procedures. The two-way classification on the responses is presented below.

Student	Opinion		
	In Favour	Against	No Opinion
Masters	105	40	25
Ph.D.	85	32	13

a) Test hypothesis that student level and their opinion are dependent at .01 level of significance.

    i.   State the appropriate null and alternative hypotheses
    ii.   Calculate the test statistic
    iii.   Determine critical value
    iv.   Make your decision and justify your answer
    v.   State your conclusion

b) Calculate an appropriate coefficient to measure relationship between student level and opinion.

c) Describe the nature of relationship between the two variables.

2. The vice president of a large supermarket chain wished to determine if her customers made a list before going grocery shopping. She surveyed 288 customers in three stores. The results are shown here. At a 0.10, test the claim that the proportions of the customers in the three stores who made a list before going shopping are equal.

	Store A	Store B	Store C
Made list	77	74	68
No list	19	22	28
Total	96	96	96