KFUPM | Term 111 | Date: 24/12/2011
Mathematics & Statistics | STAT 319 | Duration: 20 minutes
Quiz# 6
Name: ID #: Section 6 Serial #:

Q1 Twenty-five men between the ages of 25 and 30 were randomly selected to participate in a heart study. Of these, 11 were smokers and 14 were not. The following data refer to readings of their systolic blood pressure:

S	124	134	136	125	133	127	135	131	133	125	118			
N-s	130	122	128	129	118	122	116	127	135	120	122	120	115	123

Given that

	Smokers	**Non-smokers**
Group size	11	14
Group mean	129.18	123.36
Group variance	32.76	32.86

a. At 2% level of significance, find the maximum error in estimating the true difference between the average systolic blood pressure for the two groups.

b. Construct a 98% C.I. for the true difference between the average systolic blood pressure for the two groups.

P.T.O. →

c. Test the claim that smoking raises, on the average the systolic pressure readings, at 1% level of significance.

d. What are the assumptions of the test?

Q2 In a salary study, 8 companies were randomly selected and from each one a recently hired woman and a recently hired man were selected and their starting salaries (in $1000's) are shown in the table below:

Company	1	2	3	4	5	6	7	8
Woman	52	53.2	78	75	62.5	72	39	49
Man	54	55.5	78	81	64.5	70	42	51

Do the data support the claim that the starting salary for women, on the average, is less than that for men by $2,000?

With My Best Wishes