King Fahd University of Petroleum & Minerals Department of Mathematics & Statistics STAT-319-Term171-5/11/2017 Quiz #4-02

Name:	ID:	Serial:
$Q\ 1$: A recent study in Riyadh has concluded tha km with a standard deviation of 5.6 km. Assum population,		
1. What is the probability that a worker will	travel less than 20 km?	
2. What is the probability that a sample of 4	19 yields an average travel distance le	ess than 20 km?
What is the value of the sample mean su	ıch that 97% of the mean above this \	/alue?

$Q\ 2$: A manufacturer claims that the average life of its light bulb is 1,200 hours. Determine the probability the mean life time of a random sample of 49 bulbs will be at least 1,180 hours
Q 3: The life time in hours of a semiconductors laser has a lognormal distribution with $ heta=10~\&~\omega=1.5$.
1. What is the probability that the lifetime is more than 10000 hours?
2. What lifetime is exceeded by 99% of lasers?