

DEPARTMENT OF INDUSTRIAL AND PRODUCTION ENGINEERING

IPE 207 (PROBABILITY AND STATISTICS)

Class Test 2 (Oct 13, 2020), Time: 25 minutes, Total Marks: 20

1. On average a certain intersection results in 3 traffic incidents per month. What is the probability that for any given month at this intersection **12**
 - a) exactly 5 accidents will occur?
 - b) less than 3 accidents will occur?
 - c) at least 2 accidents will occur?

2. Gauges are used to reject all components where a certain dimension is not within the specification $1.50 \pm d$. It is known that this measurement is normally distributed with mean 1.50 and standard deviation 0.2. Determine the value d such that the specifications "Cover" 95% of the measurements. **08**