STAT-319-Term 163-Sec.04
Quiz #2

Name: **ID**

Q 1: Consider the following outcome for an experiment, where X is a random variable with PMF:

Outcome (x)	-1	2	4	7	15
Probability p(x)	0.2	0.25	a	0.10	0.30

a. Find the value of a

b. Find the expected value of the outcome of the experiment.

c. Find the cumulative distribution function of the random variable X

Q 2: Mohammad is applying for 8 jobs and believes that he has in each case the same probability 0.42 of getting an offer. What is the probability of getting at most one offers?

Q 3: The number of failures of a testing instrument from contamination particles on the product is a Poisson random variable with a mean of 0.05 failures per hour. What is the probability that the instrument does not fail in an 8 – hour shift?

Q 4: Printed circuit cards are placed in a functional test after being populated with semiconductor chips. A lot contains 50 cards, and 10 selected at random for functional testing. If 20 cards are defective, what is the probability that at least one defective card appears in the sample?