Department of Mathematics and Statistics KFUPM

STAT 319 quiz 2   **Time: 40 min**

Name: --ID: ---------------------------------

Q.No.1: - (4 points)

The number of calls coming per minute into a hotels reservation center is random variable with mean 3.

a). Find the probability of having NO CALL in 1 minute period.

b). Find the probability of having a call in more than 1 minute period.

Q.No.2: - (2 points). A warehouse contains ten printing machines, four of which are defective. A company selects five of the machines at random, thinking all are in working condition. What is the probability that all five of the machines are nondefective?

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Q.No.3: - (6 points) A building contractor has an urgent electrical wiring job to complete on one of his sites. He usually subcontracts electrical work to one of two small firms. The probability subcontractor Hamza will be available to perform the job at such short notice is equal to 0.65, while for subcontractor Bilal the probability is 0.7 (that he will be available). The probability that neither subcontractor is available from this job is equal to 0.2.

(a) Calculate the probability that both subcontractors are available for this job.

(b) Calculate the probability that only one of the two (subcontractors) is available for this job.

(b) Calculate the probability that Subcontractor Bilal is available given that the other subcontractor is unavailable for this job.