To be turned in for credit:

V.1:
E9: “Let \( \{X(t); t \geq 0\} \) be a Poisson process having rate parameter \( \lambda = 2. \)” (3 pts)
P7: “Shocks occur to a system according to a Poisson process of rate \( \lambda \)...” (5 pts)
P9: “Arrivals of passengers at a bus stop form a Poisson process...” (5 pts)
P10 (*): “Customers arrive at a facility at random according to a Poisson process...” (5 pts)

V.2:
P4: “Suppose that \( N \) points are uniformly distributed over the interval \([0, N)\)...” (2 pts)
P5: “Suppose the \( N \) points are uniformly distributed over the surface of a...” (2 pts)

V.3:
E3: “Customers enter a store according to a Poisson process of rate \( \lambda = 6 \)...” (3 pts)
P6: “Customers arrive at a holding facility at random according to...” (5 pts)

* Note: You can interpret the “dispatch cost \( K \)” to be a fixed cost that must be paid at time \( T \) no matter how many people show up. Therefore the answer to part (a) is simply \( K \).

(30 total points)

Suggested exercises*:

V.1
P1: “Let \( \xi_1, \xi_2, \ldots \) be independent random variables, each having...”
P5: “For each value of \( h > 0 \), let \( X(h) \) have a Poisson distribution...”

V.3:
P1: “Let \( X(t) \) be a Poisson process of rate \( \lambda \). Validate the identity...”
P2: “The joint probability density function for the waiting times \( W_1 \) and \( W_2 \)...” (4 pts)

*These questions will not be graded but solutions will be provided.