







Benha University Engineering Mathematics and Physics Department 1st semester 2011-2012		Faculty of Engineering (Shoubra) Electrical Engineering 2nd year (Power) Mid term exam
Student Name in Arabic:		Section: B.N.
<p>1- Given $f(x,y) = cxy$ is P.d.f. , such that $x = 1,2,3$ & $y = 2,3,4$, $x < y$. Find: a) Marginal of x and y, b) $P(X \geq 2, Y > 3)$, c) Variance of X and Standard deviation of Y.</p> <p>2- A fair coin is tossed 12 times and the prob. of head is 0.7. What is the probability of getting exactly 7 Heads, find expected value and the variance?</p>		
Good Luck		Dr. Khaled El Naggar @

Benha University Engineering Mathematics and Physics Department 1st semester 2011-2012		Faculty of Engineering (Shoubra) Electrical Engineering 2nd year (Power) Mid term exam
Student Name in Arabic:		Section: B.N.
<p>1- Given $f(x,y) = cx^2y$ is P.d.f. , such that $x = 2,4,6$ & $y = 1,3,5$, $x > y$. Find: a) Marginal of x and y, b) $P(X+Y=7)$, c) Variance of Y and Standard deviation of X.</p> <p>2- An expert typist makes, on average, 2 typing errors every 5 pages. What is the probability that the typist will make at most 5 errors on the next fifteen pages, find expected value and the variance?</p>		
Good Luck		Dr. Khaled El Naggar #

Benha University Engineering Mathematics and Physics Department 1st semester 2011-2012		Faculty of Engineering (Shoubra) Electrical Engineering 2nd year (Power) Mid term exam
Student Name in Arabic:		Section: B.N.
<p>1- Given $f(x,y) = cxy$ is P.d.f. , such that $0 < x + y < 1$, $0 < x, y < 1$. Find: a) Marginal of x and y, b) $P(X > Y)$, c) Variance of Y and Standard deviation of X.</p> <p>2-Suppose we randomly select 10 cards from an ordinary deck of 52 playing cards. Let the random variable is the number of red cards, what is the probability of selecting exactly 3 red cards find expected value and the variance?</p>		
Good Luck		Dr. Khaled El Naggar \$

Benha University Engineering Mathematics and Physics Department 1st semester 2011-2012		Faculty of Engineering (Shoubra) Electrical Engineering 2nd year (Power) Mid term exam
Student Name in Arabic:		Section: B.N.
<p>1- Given $f(x,y) = cxy$ is P.d.f. , such that $0 < y < x < 1$. Find: a) Marginal of x and y, b) $P(0 < X+Y < 1)$, c) Variance of Y and Standard deviation of X. 2- Vehicles pass through a junction on a busy road at an average rate of 300 per hour. Find the probability that none passes in a given minute. What is the expected number passing in two minutes? Find the probability that this expected number actually pass through in a given two-minute period.</p>		
Good Luck		Dr. Khaled El Naggar %

Benha University Engineering Mathematics and Physics Department 1st semester 2011-2012		Faculty of Engineering (Shoubra) Electrical Engineering 2nd year (Power) Mid term exam
Student Name in Arabic:		Section: B.N.
<p>1- Given $f(x,y) = cxy$ is P.d.f. , such that $0 < x < y < 1$. Find: a) Marginal of x and y, b) $P(0 < X+Y < 1)$, c) Variance of X and Standard deviation of Y. 2- Six different colored dice are rolled, the random variable is the number of dice that show a “1”, find the probability that at least 3 dice show a “1.” Find expected value and standard deviation</p>		
Good Luck		Dr. Khaled El Naggar &

Benha University Engineering Mathematics and Physics Department 1st semester 2011-2012		Faculty of Engineering (Shoubra) Electrical Engineering 2nd year (Power) Mid term exam
Student Name in Arabic:		Section: B.N.
<p>1- Given $f(x,y) = cxy$ is P.d.f. , such that $1/4 < x + y < 3/4, 0 < x, y < 1$. Find: a) Marginal of x and y, b) $P(X > Y)$, c) Variance of Y and Standard deviation of X. 2- Suppose that in one year the number of industrial accidents follows a Poisson distribution with mean 3. What is the probability that in a given year there will be at least 1 accident?</p>		
Good Luck		Dr. Khaled El Naggar *