ISE 2211 Test Five (Normal Distribution) Review Notes

Rules of the Game

For Test Five (Normal Distribution) you may use your own copy of the Course Notes, a Standard Normal Distribution (Z Table) either from your textbook or a printed copy or your calculators or an Internet accessible web site or simply use the appropriate Excel Normal Distribution functions.

For the test, you may use your OWN calculators, NO SHARING!
Cell phones are NOT permitted (even as a calculator) during the test.
Any written calculations must be accomplished on the sheets provided, no extraneous papers except for a printed copy of the Course Notes and a Standard Normal Distribution (Z Table) will be permitted.
You will be able to access MS Excel as well as appropriate Internet web sites from the laptop computers.

Specifics

Use Standard Normal Distribution Table or Excel Normal Distribution Functions (see below) to determine:

$P(Z_a < Z < Z_b)$
z given the probability of $P(Z < z)$ = probability p
z given the probability of $P(Z > z)$ = probability p

Given: Normal Distribution with Mean μ, Standard Deviation σ

Apply Z-Score equation $Z = \frac{X - \mu}{\sigma}$ as appropriate.

Find: $P(a < X < b)$
  Find: x given $P(X < x)$ = probability p
  Find: x given $P(X > x)$ = probability p

Solve engineering problems using the above techniques.
Answer concept questions related to Normal Probability Distributions.

Refer to the Homework Assignments and the Additional Normal Distribution Problems for an excellent preview of the types of problems that may be on the test.

Excel Normal Distribution Functions
   STANDARDIZE, Z.TEST, NORM.DIST, NORM.INV, NORM.S.DIST, NORM.S.INV
Note: From an Excel cell, click on the Formula Tab, then click on "*Help on this function.*" for an explanation and example utilizing a particular formula.

Standard Normal Distribution Table (Z Table)
   http://www.stat.ufl.edu/~athienit/Tables/Ztable.pdf